

Knowsley Council's Climate Change Strategy and Action Plan

2008/09

Prepared by: Environmental Sustainability Service
Directorate of Neighbourhood Delivery
Stretton Way
Huyton
Knowsley L36 6JF

Contact:
Climate Change and Sustainability Coordinator
dnd.sustainability@knowsley.gov.uk
0151 443 2486

Version 1.0



Knowsley Council

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FOREWORD

Climate change is an issue that has dramatically increased in profile over the last few years, as scientists become more certain about the human causes and potentially devastating effects. The Government have highlighted that local authorities are at the forefront of addressing climate change at a local level, and Knowsley Council are taking this responsibility seriously.

The Council has made formal commitments by signing the Northwest Climate Change Charter in January 2006 and Nottingham Declaration on Climate Change in October 2007. Knowsley's Local Strategic Partnership also recognise the importance of taking action, and the Government's National Indicator 'Per capita CO₂ reduction in the local area' has been included as a priority indicator in the Borough's Local Area Agreement, 2008-2011.

The Council is an estate manager and we have a duty to reduce carbon emissions from energy use in our own buildings, from staff travel and the waste we produce. We also influence carbon emissions in the local community through the services we provide, for example home energy efficiency initiatives and household waste recycling services. In addition we have a community leadership role and are working with the Local Strategic Partnership to ensure action is also taken by our partners across the Borough.

We need to ensure that Knowsley is able to cope with the effects of climate change that are predicted to occur, such as flooding and increased number of heat waves.

There are economic opportunities associated with climate change that we can assist businesses to take advantage of, for example, the development of new environmental technologies and services. We also need to ensure that Knowsley's workforce have the skills and training to access employment opportunities in a low carbon economy.

This Strategy addresses all these issues. It captures existing and on-going work that we have been undertaking for a number of years, and outlines new action that needs to be taken. We have recognised that in some areas, further work is required to fully formulate our response and develop medium and longer-term actions. This is outlined in the strategy.

Our over-arching targets are those contained within the Local Area Agreement, where we are working with Partners to reduce our CO₂ emissions per capita. We have also set Council targets where we can, for example we are aiming to reduce energy use in Council buildings by 3% this year. We will undertake further work during 2008 to quantify a broader range of carbon emissions and set appropriate targets in 2009.

A revised, updated Strategy will be produced in 2009 to incorporate the extensive on-going work being undertaken, in addition to a report on progress against the actions in this strategy. The Council will also be required to report progress against 3 new National Indicators on CO₂ emissions from our operations (NI 185), per capita CO₂ emissions in the Borough (NI 186) and adapting to climate change (NI 188).

This Strategy sets out Knowsley Council's response to climate change. However, everyone in the Borough will need to play their part – in addition to Council staff, businesses, residents and organisations will all need to take action to reduce carbon emissions and assist with ensuring that we can cope with the effects of climate change.

Signed:



Cllr Ron Round
Leader



Sheena Ramsey
Chief Executive

EXECUTIVE SUMMARY

The Government has stated that climate change is the greatest long-term challenge facing the world today and local authorities are at the forefront of the UK's efforts to cut carbon dioxide emissions. Predicted effects of climate change in the North West include hotter/drier summers, warmer/wetter winters and more extreme weather events all year round. This will lead to an increased risk of flooding, changes in biodiversity, increase in heat-related illnesses/deaths, transport disruption and building and infrastructure damage.

The 'Stern Review' published in 2006 made headline news as it stated that the economic benefits of strong, early action on climate change outweigh the costs, and that the stabilisation of carbon emissions and averting climate change is feasible and consistent with continued economic growth.

The UK has international CO₂ reduction targets under the Kyoto Protocol, and has also set domestic targets. The UK Climate Change Bill is expected to receive Royal Assent in 2008, and will make a 60% reduction target from 1990 levels by 2050 binding. Although there are currently no regional or sub-regional CO₂ targets, a Climate Change Action Plan for England's North West was launched in November 2006. As part of this Action Plan, a package of support for local authorities on climate change is currently being developed (NW Climate Change Local Areas Support Programme).

At a local level, Knowsley's key strategic documents – the Sustainable Community Strategy and Corporate Plan, include commitments to act on climate change.

Knowsley Council has also made specific commitments to addressing climate change, signing the NW Climate Change Charter in January 2006 and Nottingham Declaration on Climate Change in October 2007.

Development of this Strategy supports a commitment in the Nottingham Declaration to produce a Climate Strategy within 2 years. It also provides a delivery plan for 3 indicators on climate change in the Government's new performance framework for local authorities and partnerships:

- NI 185 – CO₂ reduction from Local Authority operations
- NI 186 – Per capita reduction in CO₂ emissions in the Local Authority area
- NI 188 – Planning to adapt to climate change

NI 186 is also one of 35 priority indicators selected by Knowsley's Local Strategic Partnership (LSP) for inclusion within Knowsley's Local Area Agreement (LAA) 2008 – 2010. Improvement targets against this indicator have been agreed with Government Office North West.

The Strategy has been developed using best practice guidance from the Energy Saving Trust and Carbon Trust. Workshops were held with key officers and Elected Members across the Council, and the findings of the 2007/08 Environment and Housing Scrutiny Committee Climate Change Review Group also fed into the development of the Strategy.

Our vision for this Strategy is:

A cooler future for Knowsley by 2023 – taking actions and changing behaviours to reduce carbon emissions and adapt to climate change

This vision is supported by a number of objectives:

- To reduce greenhouse gas emissions from:
 - Energy use in Council buildings, schools, street lighting, domestic properties and industrial/commercial premises
 - Council fleet vehicles, staff travel and transport in the community
 - Waste production within the Council, schools and community
- Prepare for the future effects of climate change

The Strategy includes actions to achieve these objectives. The actions are grouped under the following headings to align with the new performance indicators:

- Carbon emissions from the Council's estate – our role as an estate manager (NI 185)
- Carbon emissions from the local community – our role as a service provider and a community leader (NI 186)
- Preparing for the future effects of climate change (NI 188)

In each chapter, an outline is provided of our emissions baseline, achievements to date, future projections and targets, and proposed actions.

The Strategy also includes a section on cross-cutting actions. This includes themes that support a number of objectives:

- Embedding climate change across the Council
- Council procurement
- Communicating climate change
- Land-use planning
- Green spaces

In addition, there are economic opportunities associated with climate change that we can assist businesses to take advantage of, for example, the development of new environmental technologies and services. We also need to ensure that Knowsley's workforce have the skills and training to access employment opportunities in a low carbon economy. This is also addressed within the Strategy.

This initial version of the Strategy is our first step in addressing the climate change agenda. It has not been possible to set targets in some areas due to data on current and future carbon emissions being unavailable. The majority of actions in this Strategy are short-term and further work is needed to look at the medium to long-term action that will be required.

These areas will be developed over the next year and a revised Strategy will be produced in 2009, along with a monitoring report outlining progress with actions in this Strategy. Work is also on-going with partners to produce a Borough Climate Change Strategy in 2009/10.

1. Introduction

Climate change is currently receiving a high media profile, with scientific consensus that most of the global warming observed over the last 50 years is attributable to emissions of greenhouse gases from human activity.

The Government has stated that climate change is the greatest long-term challenge facing the world today. This is evidenced in recent Government documents such as the Local Government White Paper 'Strong and Prosperous Communities', Code for Sustainable Homes and Climate Change Bill. Local authorities are seen as at the forefront of the UK's efforts to cut carbon dioxide emissions and tackling climate change is now part of the performance assessment framework.

'Local authorities are uniquely placed to provide vision and leadership to local communities, raise awareness and help change behaviours. In addition, through their powers and responsibilities (housing, planning, local transport, powers to promote well-being and through activities such as their own local procurement and operations) they can have significant influence over emissions in their local areas'

Climate Change – The UK Programme, HM Government 2006

Knowsley Council has made commitments to addressing climate change, signing the North West Climate Change Charter in January 2006 and the Nottingham Declaration on Climate Change in October 2007.

The Nottingham Declaration commits the Council to develop an action plan with our partners within 2 years. This initial Council Strategy and Action Plan is the first step in this process. Work is on-going with Knowsley's Local Strategic Partnership (the Knowsley Partnership) to develop a borough-wide climate change strategy (see Section 9).

Developing the Strategy

The development of this Council Strategy has been led by the Environmental Sustainability Service in the Directorate of Neighbourhood Delivery (DND), taking into account guidance from the Energy Saving Trust and Carbon Trust:

- Developing a climate change strategy – Briefing Note (May 2005)
- Nottingham Declaration Action Pack (October 2006)
- Energy Saving Trust workshop 'Developing a Climate Change Strategy' (October 2007)
- Carbon Trust Carbon Management Toolkit

A baseline review was completed in May 2007 as a 'stock take' of current actions, commitments and policy drivers in relation to climate change.

The Strategy was then developed using the outcomes from the following:

- Environment and Housing Scrutiny Committee review of climate change (June 2007 to March 2008)
- A series of themed workshops with key Council officers (December 2007 to March 2008)
- Climate change workshop for Elected Members and Senior Managers (facilitated by Quantum Strategy and Technology Ltd, March 2008)

The following groups were consulted on the draft strategy:

- Policy Practitioners' Group
- Policy and Performance Forum
- Directorate Environmental Champions
- Service Directors' Group
- Corporate Management Team
- Environment and Housing Scrutiny Committee Climate Change Review Group

The Strategy was approved by Cabinet on 15th October 2008.

2. Vision and Objectives

Our Vision is:

A cooler future for Knowsley by 2023 – taking action and changing behaviours to reduce carbon emissions and adapt to climate change

Our Objectives are:

Ref	Objective	Measure	Target
1	To reduce greenhouse gas emissions from energy use in Council buildings	% reduction in greenhouse gas emissions from energy use in Council buildings (NI 185)	3% reduction in 2008/09 compared to 2007/08
2	To reduce greenhouse gas emissions from energy use in schools	% reduction in greenhouse gas emissions from energy use in schools (NI 185)	3% reduction in 2008/09 compared to 2007/08
3	To limit CO ₂ emissions from energy use in street lighting	% increase in CO ₂ emissions from energy use in street lighting (due to the required increase in the number of lamp columns) (NI 185)	Limit the unavoidable increase in CO ₂ emissions from street lighting to 12% above the 2006 baseline level by 2015
4	To reduce greenhouse gas emissions from the Council's fleet vehicles	% reduction in CO ₂ emissions from the Council's fleet vehicles (NI 185)	To be set in 2009 following collation of 2008/09 baseline data in accordance with DEFRA requirements
5	To reduce greenhouse gas emissions from staff using their own vehicles on Council business	% reduction in CO ₂ emissions from staff travel (NI 185)	To be set in 2009 following collation of 2008/09 baseline data in accordance with DEFRA requirements
6	To reduce greenhouse gas emissions from waste production within the Council and schools	% reduction in greenhouse gas emissions from waste	To be set in 2009 following collation of baseline data
7	To reduce greenhouse gas emissions from energy use in domestic properties	% reduction in CO ₂ emissions from energy use in domestic properties (NI 186)	30% reduction from 1996 baseline by March 2010
8	To reduce greenhouse gas emissions from energy use in industrial/commercial premises	% reduction in CO ₂ emissions from energy use in industrial/commercial premises (NI 186)	To be set in 2009 following work with local partners
9	To reduce greenhouse gas emissions from transport in the community	% reduction in CO ₂ emissions from transport in the community (NI 186)	To be set in 2009 following work with local partners
10	To reduce greenhouse gas emissions from waste production in the community	kg of residual household waste per head (NI 191)	761kg (2008/09) 713kg (2009/10) 664kg (2010/11)

11	To prepare for the future effects of climate change	Achievement of Level 4 as defined by NI 188	Achieve Level 4 by April 2010
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Objectives are not proposed for issues such as procurement, awareness-raising, land use planning. These issues are cross-cutting and will support a number of the objectives above (see Section 10).

3. Causes of Climate Change

As the sun warms the earth, some of the energy reflected back towards space becomes trapped by gases in the atmosphere, keeping the heat in. This is a natural process known as the greenhouse effect. When we use gas and electricity, travel in cars, send waste to landfill, greenhouse gases such as carbon dioxide (CO₂) and methane are emitted. There is general scientific consensus that this human activity is making the greenhouse effect stronger, and causing the earth's climate to change unnaturally. A recent report by the Intergovernmental Panel on Climate Change (IPCC) concluded that it was at least 90% certain that human emissions of greenhouse gases are warming the earth's surface rather than natural variations (IPCC, 2007).

Approximately 63% of the predicted warming effect of greenhouse gas increases over the next 100 years has been attributed to carbon dioxide (CO₂), whilst 24% attributed to methane. The remainder is down to a mix of various other gases such as nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. For this reason, actions to reduce CO₂ and methane emissions are seen as a priority.

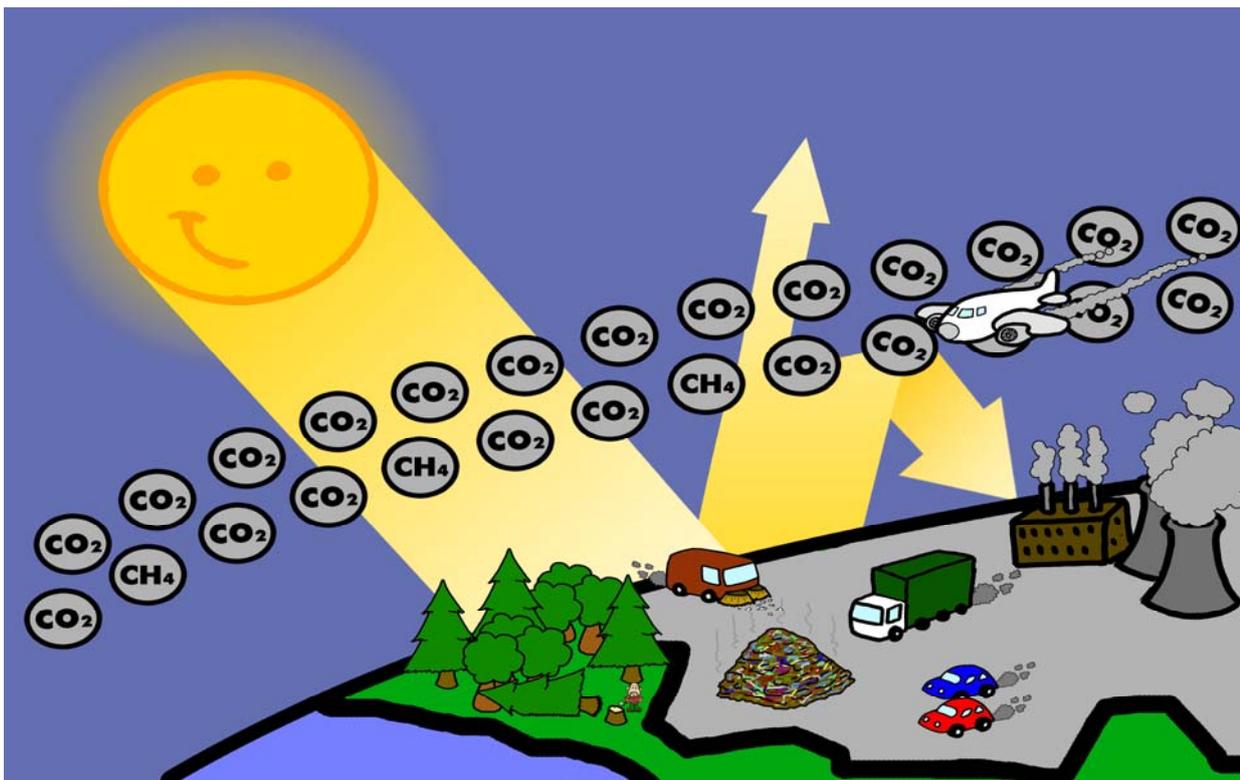


Figure 3.1. The Greenhouse Effect

4. Effects of Climate Change

Global effects of climate change that have been observed include a rise in temperatures, increase in sea levels and retreating glaciers. Changes have also been seen in the Northwest of England, including:

- 0.4°C rise in annual mean temperature at Manchester Airport between 1988 and 1997
- 20% decrease in summer rainfall over the last century
- Increased high intensity rainfall since the 1960s
- Seasonal rainfall varying by as much as 15% from the average in the last 30 years
- Sea level rise at Liverpool of around 6cm in the last 50 years
- Increased flooding of some of the regions major rivers in the last few decades (Shackley et al, 1998)

Predictions for the Northwest show as a worst case scenario, that by the 2080's there could be a 6°C change in the maximum summer temperature, a 60% decrease in summer rainfall, 30% increase in winter rainfall and a 69cm change in sea level (CURE & Tyndall Centre North, 2003).

In 2005, the Northwest Climate Group published a report 'Climate change in the Northwest and its impacts'. Potential impacts for the region include:

- Increased risk of flooding
- Changes in the biodiversity of the region
- Health impacts – e.g. increase in heat-related illnesses/deaths, respiratory problems due to high levels of ozone, food poisoning, skin cancer and deaths from flooding
- Decrease in the water supply, problems with water quality
- Transport disruption due to flooding, extreme weather events, infrastructure damage
- Problems with forestry productivity due to changing weather patterns
- Little overall change in agriculture but greater potential for sugar beet and potato crops
- Building damage due to flooding and extreme weather events
- Building design will need to adapt to higher summer temperatures
- Increase in insurance claims for building damage due to flooding/extreme weather
- Damage to the utility infrastructure due to flooding
- Opportunities for increased visitor numbers, which will need to be managed to protect the environment.

In February 2008, the Health Protection Agency and Department of Health (DoH) released a report 'Health Effects of Climate Change in the UK 2008', and the DoH published a further report in April 'The Health Impact of Climate Change: Promoting Sustainable Communities'. These reports indicate general potential impacts nationally, that will need to be assessed for relevance to Knowsley:

- Evidence suggests that the UK population is capable of adapting to warmer conditions but the predicted increase in the frequency of heat waves present a serious risk, particularly to the very old and young, chronically ill and poor.
- The concentration of ozone is likely to increase which will increase attributable deaths and hospital admissions
- Increased risk of flooding will potentially increase drinking water contamination, water borne infections, injuries, deaths, stress and mental health problems
- Skin cancers are expected to increase due to the increased exposure to ultra-violet light
- Warmer summers are likely to be associated with an increase in food-borne diseases
- There are likely to be increased problems with bacteria in surface water and algal blooms in reservoirs
- Outbreaks of malaria in the UK are likely to remain rare although Health Authorities need to remain alert to the possibility of outbreaks in malaria in other European countries and to the possibility that more effective vectors may arrive in the UK

The DoH states that if not addressed, climate change will impact negatively, countering the dramatic improvements in health and life expectancy achieved so far.

5. Benefits of taking action on climate change

'The Economics of Climate Change' was published in October 2006. This was an independent review, commissioned by the Government and led by Sir Nicholas Stern, Head of the Government's Economic Service. The report made headline news as it was the first comprehensive assessment of global economics and climate change.

Two main messages came out of the review:

- The economic benefits of strong, early action on climate change outweigh the costs. Therefore the costs incurred in reducing emissions must be viewed as an investment to avoid the risks of the future.
- The stabilisation of carbon emissions and averting climate change is feasible and consistent with continued economic growth. There does not need to be a choice between climate and growth.

For the Council and the Borough's communities, potential benefits from taking action on climate change include lower energy bills due to increased energy efficiency measures, new market opportunities for environmental technologies such as renewable energy, reduction in the amount of waste being sent to landfill, and improved public transport.

6. Policy Background

Climate change is a broad, cross-cutting issue and impacts on a wide range of policy areas. Numerous policy documents and strategies have been produced both nationally and internationally. The following section therefore only outlines key recent legislation, strategies and policy documents produced by the Government, regionally, and Knowsley Council, that are relevant to climate change.

6.1 International Level

Kyoto Protocol

This is an international agreement to reduce greenhouse gas emissions. It came into force in February 2005 and is legally binding to those countries that have ratified it (162 countries to date including the UK).

The UK's target under the Kyoto Protocol is to reduce emissions of greenhouse gases by 12.5% below 1990 levels by 2008 – 2012.

In March 2008 the Government reported that the UK is on track to meet this target.

6.2 National Level

Climate Change – The UK Programme

This sets out the Government's overall strategy on dealing with climate change. This programme includes action to meet the UK's domestic targets of:

- 20% reduction of CO₂ emissions from 1990 levels by 2010
- 60% reduction of CO₂ emissions from 1990 levels by 2050

Chapter 8 of this Programme relates to the key position of the public sector in responding to climate change. Reference is made to the potential for including climate change outcomes in Local Area Agreements and Sustainable Community Strategies, and focus on action on climate change in the local government performance framework.

UK Climate Change Bill

This Bill is expected to receive Royal Assent in 2008 and will make the 60% reduction target and the setting of carbon budgets legally binding. Also included within the Bill are enabling powers to allow the Government to introduce new domestic emissions trading schemes (such as the Carbon Reduction Commitment – see Section 7.1) through secondary legislation.

Climate Change and Sustainable Energy Act

Under this legislation the Secretary of State has produced an 'Energy Measures Report' which gives guidance on reducing greenhouse gas emissions. Local authorities must have regard to this report when exercising their functions.

Local Government White Paper: Strong and Prosperous Communities

This White Paper promotes community and neighbourhood engagement. It covers a range of issues in relation to council constitutions, Sustainable Community Strategies, Local Area Agreements, performance management and inspections.

Climate change is referenced throughout the document. It is referred to as a complex, cross-cutting issue that needs to be addressed locally along with social exclusion and anti-social behaviour.

Performance Framework for Local Authorities and Local Authority Partnerships

The Government's new performance framework includes 3 indicators on climate change:

- NI 185 CO₂ reduction from Local Authority operations
- NI 186 Per capita CO₂ emissions in the Local Authority area
- NI 188 Planning to adapt to climate change

These relate to Public Service Agreement 27 – lead the global effort to avoid dangerous climate change.

Comprehensive Area Assessment Use of Resources Audit

Comprehensive Area Assessment (CAA) is a new approach that will provide the first independent assessment of the prospects for local areas and the quality of life for people living there. It will assess and report how well public money is spent and will ensure that local public bodies are accountable for their quality and impact.

'Use of Resources' is a key part of the new CAA. There is now a wider definition of the term 'resources' and included for 2008/09 is an assessment of the Council's use of natural resources, which is directly relevant to climate change. The Key Line of Enquiry (KLOE) focus for 2008/09 will be:

The organisation:

- understands and can quantify its use of natural resources and can identify the main influencing factors;
- manages performance to reduce its impact on the environment; and
- manages the environmental risks it faces, working effectively with partners.

Officer workshops have been held within the Council to raise the awareness of actions which need to be taken to ensure compliance with Use of Resources and these will continue during the year to monitor progress.

6.3 Regional Level

Rising to the Challenge – A Climate Change Action Plan for England's Northwest

This Action Plan was launched by Regional Partners in November 2006. The aim of the Action Plan is to stimulate and measure the progress of the region towards a low carbon economy, preparing it for the challenges of a changing climate and future energy demands. The Action Plan has a vision of 'A low carbon and well-adapted NW by 2020', with 2 objectives:

- Reduce greenhouse gas emissions
- Adapt to unavoidable climate change

It also has a series of desired outcomes for 2020 in relation to:

- Transport
- Capture and Sequestration
- Low Carbon Energy Technologies
- Policy and Co-ordination
- Monitoring and Research
- Raising Awareness of and Support for Practical Actions
- Energy Supply
- Energy Efficiency and Demand
- Risks and Opportunities

There are no specific CO₂ reduction targets set for the Northwest or Merseyside. However, the Action Plan states that we must work together to meet or exceed the national targets in the Northwest.

The Action Plan has received significant funding from the North West Development Agency (NWDA) and partner organisations, and capacity, knowledge, mitigation and adaptation activities in the North West are currently being developed.

NW Regional Improvement and Efficiency Partnership (NWIEP) Delivery Plan

Climate change has been identified as a key strand of the NWIEP delivery plan for 2008/09 and sub-regional transformation programmes. As a result, NWIEP have provided funding for an 18 month programme of support which will assist North West Local Authorities and Local Strategic Partnerships (LSPs) in tackling climate change, through reducing carbon dioxide emissions from their estate and communities.

The NW Climate Change Local Areas Programme (NWCCLASP) will have particular emphasis on the implementation and progression of National Indicators 185 and 186. The programme will include networking opportunities, publicising best practice, information resources, training for LSP members, consultancy support and advice, and targeted master classes, seminars and workshops on key issues.

The proposed programme of work has strong links to the NW Climate Change Action Plan, led by the NW Climate Change Partnership.

6.4 Sub-regional Level

Merseyside Action Plan

The Mersey Partnership produced the Merseyside Action Plan in July 2006. Priority 15 relates to Environmental Performance and includes reference to the sub-regional delivery of strategies on climate change and energy.

6.5 Local Level

Knowsley's Sustainable Community Strategy

Knowsley's Sustainable Community Strategy 2008 – 2023 has recently been approved. Action on climate change is included under the key driver:

- Improving the offer and quality of place

Development of the Borough's Climate Change Strategy is included with the following aim:

'By 2023 we want to have a Borough with low carbon emissions'.

The Strategy states:

'We will mitigate and adapt to climate change through the Borough's Climate Change Strategy, monitor and manage flood risks and address the environmental and health impacts of increased heat waves.'

Climate change is also directly relevant to other key drivers within the Sustainable Community Strategy:

- A well connected Knowsley
- Safer more cohesive communities
- A diverse and prosperous economy

Knowsley's Local Area Agreement 2008 – 2010

National Indicator 186 'Per capita reduction in CO₂ emissions in the local authority area' is one of the 35 priority indicators selected by the Knowsley Partnership for inclusion within Knowsley's Local Area Agreement 2008 – 2010. Improvement targets against this indicator have been agreed with Government Office North West (See Section 8.1).

Knowsley Council's Corporate Plan

Developing a Climate Change Strategy is included as a key project within the Corporate Plan (2008 – 2011). Mitigating and adapting to climate change supports the Council's Vision 'Improving People's Lives' and the following objectives:

Every Child Matters - The effects of climate change will have the greatest impact on future generations.

A Healthy Independent Knowsley - The future impact of climate change could cause health problems such as heat-related illness, increased incidences of skin cancer, uncomfortable summer working conditions.

Safer and Stronger Knowsley - Future climate change could lead to flooding and building/infrastructure damage due to extreme weather events. Actions taken to mitigate climate change will also have a positive impact on neighbourhoods, for example reducing pollution, waste, increasing energy efficiency of dwellings, sustainable transport initiatives etc. Poorer people are more likely to suffer the impacts of climate change, and will be less financially able to respond. Synergies between tackling climate change and disadvantage can be exploited (for example using energy efficiency improvements in homes to reduce fuel poverty).

Prosperous Knowsley - A low carbon economy can make a positive contribution to economic growth, job creation and enhanced local environments, for example by creating new markets for environmentally friendly technologies.

Knowsley Council's Environmental Policy

Knowsley Council published an Environmental Policy in 2000, which was subsequently revised in 2006. The Policy states the Council's commitment to minimise the impact of its services on the environment. Actions to mitigate climate change are essential to ensure compliance with the Policy statements.

7. Carbon Emissions from the Council's Estate - The Council's role as an estate manager

7.1 Overview

Carbon emissions from the Council's estate

Carbon is emitted from the Council's estate due to energy use in buildings and street lighting, and from staff travel. The latest complete set of available data relates to the municipal year 2006/07 (Figure 7.1). Overall, CO₂ emissions from the Council's estate in 2006/07 were 23,913 Tonnes, with 71% of CO₂ emissions resulting from energy use in Council buildings (including schools) (Figure 7.2).

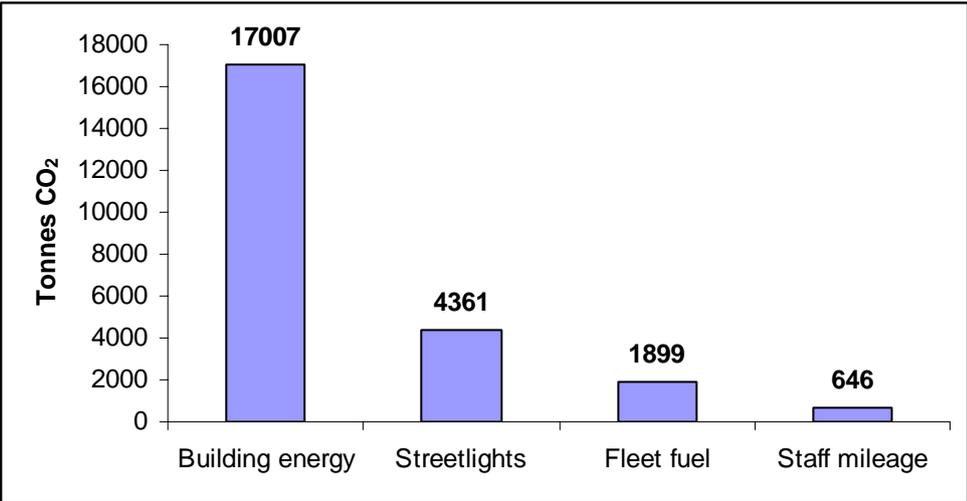


Figure 7.1. Tonnes of CO₂ emitted from the Council's estate 2006/07

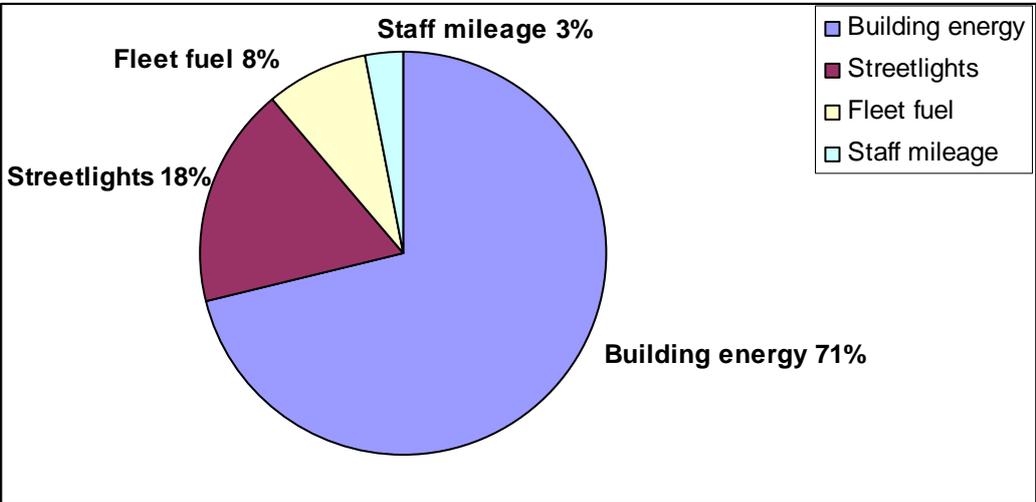


Figure 7.2. CO₂ emitted from the Council's estate 2006/07 – percentage split

Electricity is currently purchased on a green tariff which means that CO₂ emissions from electricity use are effectively zero. However, the figures reported throughout this Strategy do not take this into account. This is because DEFRA reporting guidelines do not allow a reduction for green electricity that has not been produced on site. If the purchase of green electricity is taken into account, this reduces CO₂ emissions by over 7,000 Tonnes to 16,579 Tonnes for 2006/07.

Figure 7.3 below, shows a further breakdown of CO₂ emissions produced by the Council's building stock, illustrating that schools account for 62% of emissions. For this reason schools are considered separately to corporate buildings in the following chapters. In 2006/07, 20% of emissions arose from buildings within the Directorate of Neighbourhood Delivery which at that time included leisure centres, libraries and community centres. Emissions from the Municipal Buildings are assigned to the Directorate of Corporate Resources, but are also used by other directorates, for example the Directorate of Change and Transformation.

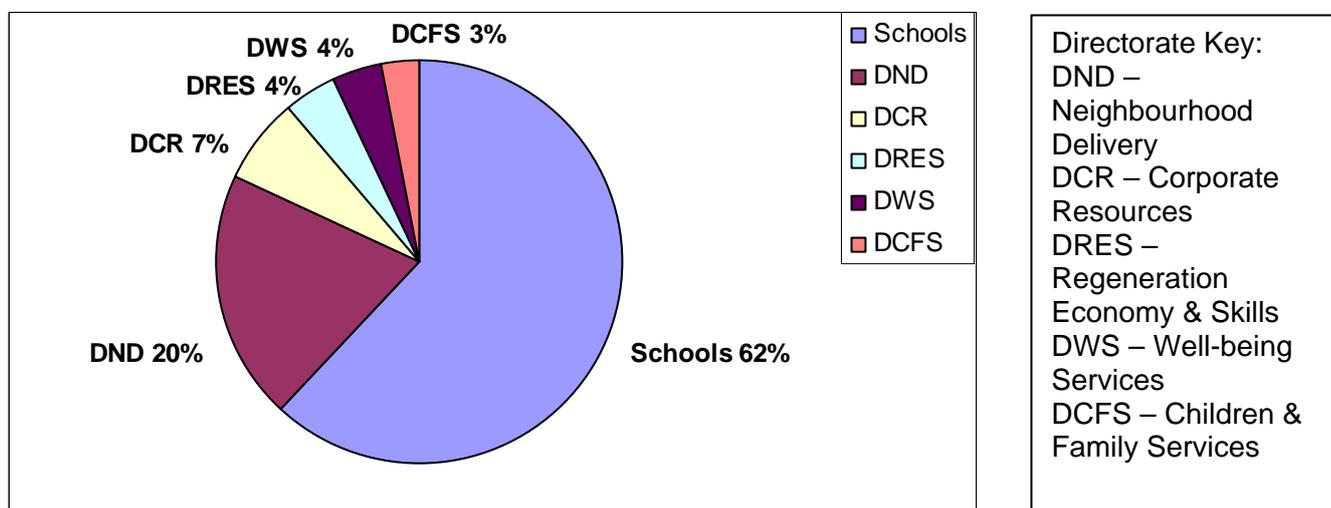


Figure 7.3. CO₂ emissions by Directorate 2006/07

National Indicator 185 – CO₂ reduction from local authority operations

In the Government's new performance framework, local authorities will have to report progress against indicator 185 which measures the CO₂ reduction from local authority operations.

DEFRA have provided a spreadsheet which must be used to collate and report on Council CO₂ emissions from:

- Energy use in buildings
- Street lighting
- Fleet transport
- Use of staff vehicles on Council business
- Use of public transport on Council business

Data is to be collated for the year April 2008 to March 2009 and reported to DEFRA by end of July 2009. This will become the baseline year against which future performance will be measured.

Carbon Reduction Commitment

The Government have recently published implementation proposals for the Carbon Reduction Commitment (CRC) which will go live in January 2010. The aim is to incentivise organisations to invest in energy efficient measures. Those likely to be included are local authorities, supermarkets, hotel chains, banks, large offices, universities, and hospitals.

The initiative will require the purchase of carbon allowances (carbon trading) and is promoted as revenue neutral, where revenue obtained from the sale of the allowances will be recycled back to CRC organisations based on their average annual emissions since the start of the scheme, and a bonus or penalty payment which will be determined by their position in a CRC league table. The base for performance measuring is expected to be 2009/10.

Carbon and methane emissions from Waste and Water use

Waste and water use is not included within the performance indicator NI 185. However, when waste degrades in landfill sites it releases carbon dioxide and methane, both greenhouse gases. Indirect emissions of CO₂ also arise from water use. Utility companies use energy to collect, treat and transport water to Council premises and treat waste water. Reducing the amount of water we use will therefore lead to a reduction in CO₂ emissions. For this reason, waste management and water use within the Council are addressed within this section.

7.2 Energy Use in Council buildings, schools and street lighting

7.2.1 Energy Use in Council buildings

Objective 1: To reduce greenhouse gas emissions from energy use in Council buildings (excluding schools)

Measure: % reduction in greenhouse gas emissions from energy use in Council buildings

Target: 3% reduction in greenhouse gas emissions in 2008/09 compared to 2007/08

How are we doing now? – our emissions baseline

The Council has an estate of 70 buildings including offices, depots, leisure centres, libraries, community centres, care centres and a museum. The Energy Conservation Team work across the Borough to reduce consumptions and collate information on energy usage and CO₂ emissions from the Council's estate. They identify problem sites which assists in directing resources and the team produce an annual report which shows consumptions, costs and CO₂ emissions all of which help to formulate policies and strategies. Figure 7.4 below shows the reported CO₂ emissions over the three municipal years from April 2005 to March 2008.

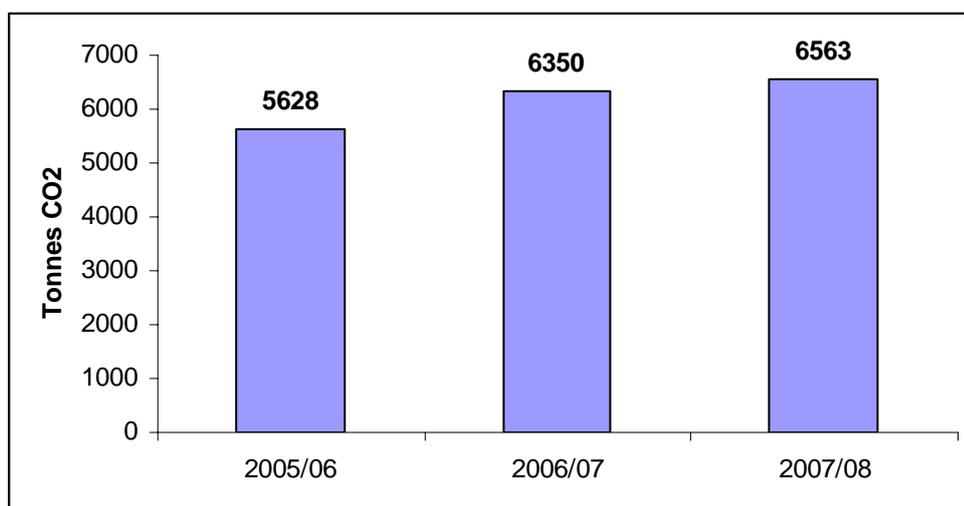


Figure 7.4 CO₂ emissions from energy use in council buildings (excluding schools), 2005 – 2008

The increase in gross CO₂ emissions is in part due to the inclusion of data from areas that were not previously included within earlier Annual Reports. Neither do the figures make an allowance for colder weather (including cooler summers) which requires heating on for longer periods. Weather corrected data relates to fossil fuel use and does show reductions.

Fossil Fuel use over the three year period has fallen from 56.3million kWh pa to 53.6m kWh pa. This relates to gas, oil and coal used for space and water heating and kitchen appliances.

This trend downwards is as a result of Energy Team proactive interventions using real time energy monitoring systems to identify and correct erroneous consumptions.

On electricity however there is a detectable trend upwards which can be related to the increased use of IT and ancillary equipment. However, the Energy Team are working closely with IT staff to reduce this trend.

Achievements to Date

Energy Conservation Team work is particularly focussed around the Borough's Leisure Centres which consume large amounts of energy. Actual CO₂ emissions from Leisure Centres have halved from 4621 Tonnes in 1998/99 to 2053 Tonnes in 2007/08.

Table 7.1 CO₂ Emissions from Leisure Centres

KMBC Leisure Centres						
Leisure Centre	1998/1999		2007/08		Difference	
	Elec kWh	Gas kWh	Elec kWh	Gas kWh	Elec kWh	Gas kWh
Bridgefield/Halewood	453,333	2,415,777	742,463	1,408,989	-289,130	1,006,788
Heatwaves	1,139,513	3,202,041	344,447	549,264	795,066	2,652,777
Huyton	951,087	2,434,261	504,986	1,672,839	446,101	761,422
Kirkby Pool/New Kirkby Leisure	472,814	3,464,042	509,190	1,564,296	-36,376	1,899,746
Kirkby Sports	488,047	1,252,450	185,506	304,962	302,541	947,488
Scotchbarn	512,254	2,461,829	428,542	1,771,840	83,712	689,989
King George V	0	0	151,757	258,914	-151,757	-258,914
Total:	4,017,048	15,230,400	2,866,891	7,531,104	1,150,157	7,699,296
CO₂ Emissions:	1,727	2,894	1,233	1,431	495	1,463
Total:	4,621		2,664		1,957	

Real-time energy monitoring systems have been installed at 31 (non-school) sites. The system is proven to reduce energy use and the cost of the system is usually recouped within 5 years. There has also been investment in heating, lighting and water controls at a number of sites.

Since 1998, the Council has operated an 'Energy Recycling Fund' to assist services with installing energy monitoring and energy efficiency measures. A total of £200,000 is available in the fund for interest free loans over a 5 year period. Services re-pay the loan from the savings made due to reduced energy bills and over seventy projects have been financed using this fund.

Future Projections and Targets

Knowsley Council produced a Corporate Energy Policy in 2005 which states an aim to reduce energy consumption and CO₂ emissions by 3% each municipal year. This target was set in line with corporate policy to reduce overall costs from buildings by 3%.

It is proposed that this target remains in place for 2008/09 and is reviewed in 2009/10.

The reasons for this are as follows:

- To comply with the new National Indicator 185 'CO₂ reduction from local authority operations', baseline data is to be calculated for the year 2008/09 and inputted in to a standard spreadsheet recently supplied by DEFRA. This baseline data will then be used to set target reductions for subsequent years.
- A review is currently being undertaken of the land and property within the Council's estate and a 3 year plan of site openings/closures should be available by September 2008. This will assist in predicting future emissions and the setting of achievable targets.

Action Plan – Energy use in Council buildings

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
01	Continue to source electricity on a green tariff, provided that there is no significant additional cost	BM DRES	2010	Existing	% of Council's electricity from a green tariff Target – 100%	7000 Tonnes per year (but can't be included in NI 185)
02	Delegate formal responsibility for energy reduction to Directorate reps of the Asset Management Group so that designated staff are motivated to monitor, control and reduce consumptions	Chair of Asset Man. Group	Dec 2008	Officer time	Number of Directorates with an officer responsible for reducing energy use Target – 6	3% reduction
03	Implement a Sustainable Cooling Policy to minimise the use of air conditioning systems	Chair of Asset Man Group DRES	Dec 2008	None required (reduced costs)	Policy approved and publicised – via Policy Hub and Global e-mail	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
04	Develop 'Active CO ₂ ' software to shutdown PCs centrally at the end of the working day and pilot with 30 users in the Yorkon Building	WW DCR	Dec 2008	Existing	Active CO ₂ installed on 30 PCs	To be determined as part of the pilot
05	Investigate the feasibility of installing on-site renewable energy to Council buildings	BM DRES	Mar 2009	Officer time	Feasibility report produced	Not known
06	Develop further proposals to reduce CO ₂ emissions from corporate energy use	BM DRES	Mar 2009	Officer time	Proposals developed	Not known

BM = Barry McKean, Energy Conservation Manager, DRES
 WW = Wayne Wiegand, Senior IST Officer, DCR

7.2.2. Energy use in Schools

Objective 2: To reduce greenhouse gas emissions from energy use in schools

Measure: % reduction in greenhouse gas emissions from energy use in schools

Target: 3% reduction in greenhouse gas emissions in 2008/09 compared to 2007/08

How are we doing now? – our emissions baseline

There are currently 56 primary, 11 secondary and 8 special schools in Knowsley. Figure 7.5 below shows the CO₂ emissions over the 3 municipal years from April 2005 to March 2008.

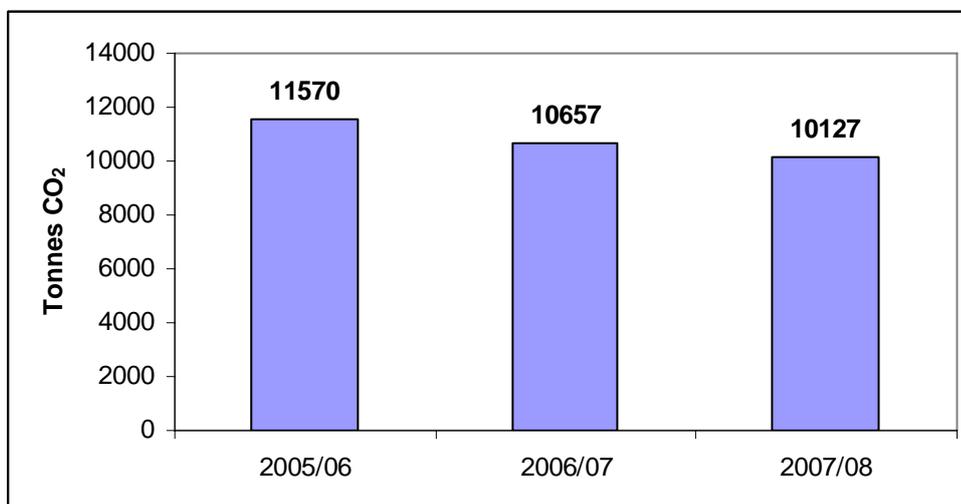


Figure 7.5. CO₂ emissions from energy use in schools (electricity purchased on a green tariff but not taken into account)

The graph shows that CO₂ emissions from energy use in schools decreased by 8% from the previous year in 2006/07, and by 5% in 2007/08.

Achievements to Date

There has been a consistent decrease in energy use and CO₂ emissions from school buildings over the last 2 years. The Energy Conservation Team have a Service Level Agreement with schools and visit each site on average 3 times per year to check heating controls and advise on energy efficiency.

The 'Eco-warrior' real-time energy monitoring system has been installed at 18 out of 75 schools.

Future Projections and Targets

All of Knowsley's secondary schools will be demolished by 2009 and replaced with 7 new Learning Centres. The Learning Centres will incorporate energy efficiency within the design and 19% of on-site energy will be generated from renewable sources (ground source heat pumps). Current predictions indicate that there will be an overall reduction in CO₂ emissions from energy use in secondary schools of 1,323 tonnes per annum as a result of the construction of the new Learning Centres. This is due to the reduction in the number of buildings from 11 to 7. However, CO₂ emissions per centre are expected to increase due to the proposed extended opening hours.

These calculations are based on the ground source heat pumps being used solely for heating. If they are to be used for summer cooling, electricity consumption and CO₂ emissions will increase further.

There is a refurbishment programme in place for the Borough's primary schools, which will include some energy efficiency measures. However predicted CO₂ reduction from this work has not yet been quantified.

It is proposed that the existing target of a 3% reduction in CO₂ emissions remains in place for 2008/09, and reviewed in 2009/10, when further work has been undertaken to quantify CO₂ emissions and baseline data for 2008 has been collated in accordance with DEFRA requirements.

Action Plan – Energy use in schools

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
07	Construction of 7 new Learning Centres incorporating energy efficiency measures and 19% renewable energy	MR DCFS	2009	Existing	Number of new Learning Centres with renewable energy installed	1323 Tonnes pa from 2009
08	Energy Conservation Team to continue to provide advice and support to Primary and Special Schools in improving energy efficiency via the Service Level Agreements	BM DRES	March 2009	Via existing SLAs	No. of visits to primary and special schools to advise on energy efficiency Target = 3 visits per school, per annum	3% pa
09	Provide support to schools in respect of the Eco-schools programme and sustainable schools agenda via awareness-raising and signposting	JE DND	March 2009	Existing	No. of schools supported Target = 40 schools	Not known

MR = Mike Rees, BSF Programme Manager, DCFS
BM = Barry McKean, Energy Conservation Manager, DRES
JE = John Eves, Environmental Strategy Manager, DND

7.2.3. Energy use in Street lighting

Objective 3: To limit CO₂ emissions from energy use in street lighting

Measure: % increase in CO₂ emissions from energy use in street lighting (due to the required increase in the number of lamp columns)

Target: Limit the unavoidable increase in CO₂ emissions from street lighting to 12% above the 2006 baseline level by 2015

How are we doing now? – our emissions baseline

Knowsley currently has 18,000 lamp columns in place. Energy use in street lighting is not metered. An inventory of lamp columns is kept, with the number of hours the lamps are operated to estimate consumption.

From April 2004 to March 2007 CO₂ emissions from energy use in street lighting has remained constant at 4361 Tonnes per year. This was 18% of the CO₂ emitted from the Council's estate in 2006/07.

Future Projections and targets

An innovative bid to the Department of Transport to replace more than 70% of Knowsley's existing street lighting with modern, brighter, more energy efficient, intelligent street lighting was successful in May 2008. However, in order to comply with European Union requirements, a 15% increase in the number of lamp columns will be required. This will mean a predicted 12% increase of CO₂ emissions from energy use in street lighting (516 Tonnes) each year above the 2006 baseline.

The project is due to start in early 2010 and be completed by 2015. At present, a programme of replacement over this 5 year period has not been determined, so the annual impact of the replacement on the Council's CO₂ emissions cannot be determined. This will need to be addressed with the successful contractor.

Action Plan – Street lighting

Ref	Action	Lead	Time	Resources	Measure	Predicted CO ₂ reduction
10	Ensure that the replacement and new street lights to be installed as part of the PFI street lighting replacement programme are energy efficient	SC DRES	2010 - 2015	Existing funding through a PFI	Replacement of street lights as specified in the PFI contract	Increase in CO ₂ emissions limited to 516 Tonnes above the 2006 baseline by 2015

SC = Sue Callister, Project Manager - PFI Street lighting and Traffic Sign, DRES

7.3 Council Transport

7.3.1 Fleet Vehicles

Objective 4: To reduce greenhouse gas emissions from the Council's fleet vehicles

Measure: % reduction in CO₂ emissions from the Council's fleet vehicles

Target: To be set in 2009/10 following collation of 2008/09 baseline data in accordance with DEFRA requirements

How are we doing now? – Our emissions Baseline

The Council has a fleet of 219 vehicles including small to large vans, small HGVs, refuse collection vehicles, road sweepers and grounds maintenance vehicles. The majority of vehicles refuel at the Council's Stretton Way depot in Huyton using a blend of 95:5 diesel/biodiesel (since January 2007). A small number of vehicles use unleaded petrol. A number of vehicles based in Kirkby re-fuel at local petrol stations.

CO₂ emissions from fleet fuel have been calculated from the amount of fuel supplied at Stretton Way and via Agency Cards, using a conversion factor supplied by DEFRA. Figure 7.6 below shows the CO₂ emissions over the 3 municipal years from April 2004 to March 2007.

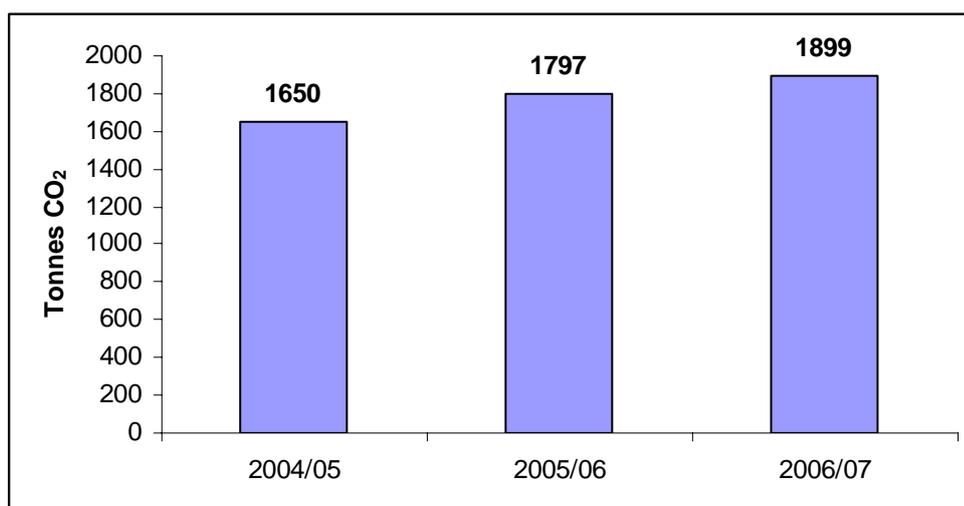


Figure 7.6 CO₂ emissions from fleet transport, 2004 – 2007

In 2005/06 CO₂ emissions from fleet transport increased by 9%, and again by 6% in 2006/07.

It is thought that the increase is due to expansion of the kerbside household waste recycling service and an increase in the number of green waste and refuse collection rounds.

Achievements to Date

Action to reduce emissions from the Council's vehicle fleet has been on-going since 1999 when dual fuel LPG/petrol vans were introduced. However, due to difficulties with maintenance, it was decided that this was not a feasible option for the Council.

Electric vans were also tested and found to be appropriate for the distances travelled for the 'meals-on-wheels' service. They were only de-commissioned when it was found that vehicles used in the evening by security could be utilised during the day for 'meals-on-wheels'.

Since January 2007, the Council has been using a blend of 95:5 diesel/biodiesel in fleet vehicles re-fuelling at Stretton Way. This is the maximum proportion of biodiesel that can be used without affecting vehicle warranties and has reduced vehicle CO₂ emissions by approximately 44 Tonnes per year. At present, this reduction in CO₂ due to the use of biofuels cannot be included in the calculation of CO₂ reduction from local authority operations as required by National Indicator 185. This is due to work on the development of robust conversion factors not yet being complete.

A review of transport use in Streetscene services has been undertaken in 2008, and the number of vehicles reduced.

Future Projections and Targets

The Council's household waste collection service has recently undergone a major review (see Section 8). As part of the review, a round optimisation project was undertaken and a number of options put forward to reduce the number of waste collection vehicles and distance travelled. It is expected that a decision regarding which option to implement will be made in January 2009. In addition, during 2008/09 a number of other efficiency savings are being made by the Waste Management Service which are linked to reducing the number of vehicles being used to deliver services i.e. reduction of bulky household waste collection teams from 3 to 2, reduction of commercial waste collection teams from 2 to 1 and suspension of the green waste collection service for 3 months during the period 1st December 2008 to 28 February 2009.

These actions should lead to a reduction in the amount of CO₂ emitted from Council transport. However at present it is not possible to estimate the actual reductions.

The Council provides transport for 1,500 residents each week including adult services, Special Educational Needs children, pupils in mainstream education and the collegiate. This service is provided by a mix of council vehicles, taxis and community transport. As part of the Corporate Service Review of Transport this provision is currently being analysed with consideration being given to reducing the number of journeys provided by taxis and maximising the use of more sustainable transport options.

It is therefore proposed to defer setting a target reduction until 2009/10, when a decision has been made regarding the round optimisation project and the Transport Service Review is complete. This will also allow 2008/09 baseline data to be collated in accordance with

DEFRA's requirements for National Indicator NI 185 'CO₂ reduction from local authority operations'.

4.4 Action Plan – Fleet transport

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
11	Continue to procure a mix of 95:5 diesel/biodiesel for use in fleet vehicles, and consider increasing the proportion of biodiesel used when allowed by vehicle manufacturers	SM DND	March 2009	95:5 blend within existing budgets	% of biodiesel used in fleet vehicles Target = 5%	44 Tonnes CO ₂ per annum (Not currently included in NI 185)
12	Seek to reduce the number of waste collection rounds/vehicles used to deliver waste collection and recycling services through implementation of 'optimised' collection rounds	JD DND	Jan 2009	Reduced waste collection costs through reduction on fleet size	Amount of fuel consumed by waste collection and recycling vehicles	Reduction in CO ₂ emissions (to be confirmed following conclusion of Phase 2 Round Optimisation Project)
13	More efficient use of mechanical cleansing vehicles by the use of route software and electronic work schedules.	JM DND	Sept 2008	Potential reduced cost due to decrease in fuel use	Amount of fuel consumed by mechanical cleansing vehicles	Reduction in CO ₂ emissions
14	Provide information to the drivers of the Council's fleet vehicles on how smarter driving can reduce CO ₂ emissions	NN SM DND	March 2009	Officer time	% of Council fleet drivers that have received information Target = 100%	Not known
15	Assess further the use of alternative vehicles and fuels to reduce the Council's carbon footprint and secure financial savings from a reduction in fuel use	SM DND	March 2009	Officer time	Assessment complete	Not known

SM = Steve Marsh, Transport Manager, DND

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

JM = Julie Mallon, Head of Streetscene Services, DND

7.3.2 Staff travel in own vehicles and public transport on Council business

Objective 5: To reduce greenhouse gas emissions from staff using their own vehicles on Council business

Measure: % reduction in CO₂ emissions from staff travel

Target: To be set in 2009/10 following collation of 2008/09 baseline data in accordance with DEFRA requirements

How are we doing now? – our emissions baseline

In 2006/07, over 1600 members of staff used their own vehicles on Council business. Mileage is recorded via the Council's car user scheme, and CO₂ emissions have been estimated using DEFRA conversion factors.

Figure 7.7 below shows the CO₂ emissions over the 4 municipal years from April 2004 to March 2008.

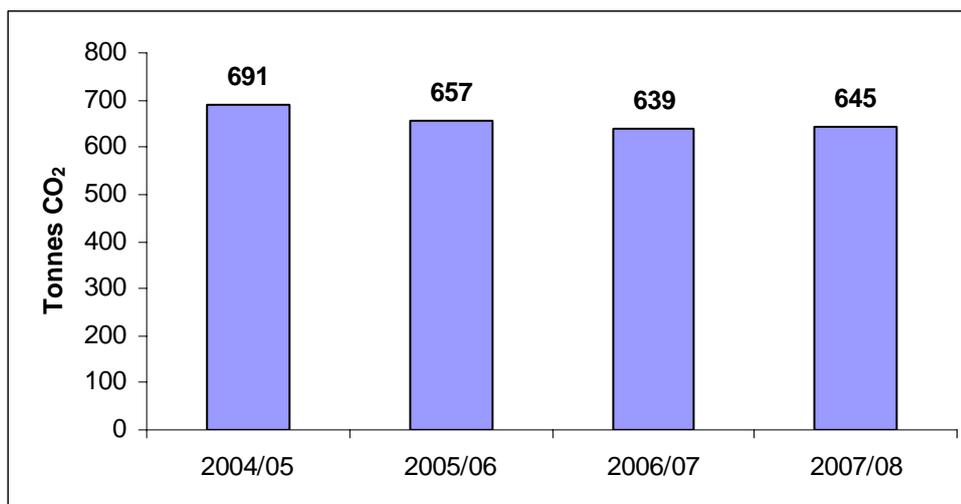


Figure 7.7 CO₂ emissions from staff travel on Council business, 2004 – 2008

CO₂ emissions from this source decreased by 5% in 2005/06 and by a further 2.5% in 2006/07. There was a slight increase (1%) in 2007/08.

There are currently no systems in place to centrally collate data on the mileage undertaken by staff using public transport and taxis on Council business. This is now required by DEFRA to report progress against National Indicator 185 – CO₂ reduction from Local Authority operations. This will be addressed in 2008.

Achievements to Date

Knowsley Council's Corporate Management Team have approved that a Travel Plan Co-ordinator be appointed to develop a joint Council/Primary Care Trust (PCT) Travel Plan which would seek to reduce car use within the Council and hence CO₂ emissions. A Travel Plan would consider options such as cut-price season tickets for public transport, car sharing, encouraging cycling and home-working. A Staff Travel Survey was conducted in April 2008 to inform this work.

Future Projections and Targets

Data on CO₂ emissions from staff car use on Council business has been collated and is outlined above. However, no data is collected on public transport use, as now required by DEFRA. Work is being undertaken during 2008 to resolve this. In addition, the Council is about to appoint a Travel Plan Co-ordinator who will undertake responsibility for reducing car use. It is therefore proposed to defer setting a target and producing detailed actions until 2009. The year 2008/09 will then be used as a baseline in line with DEFRA reporting requirements against NI 185.

Action Plan – Staff Travel

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
16	Appoint a Travel Plan Co-ordinator	JD DCR	Sept 2008	Existing	Travel Plan Co-ordinator in post	Not known
17	Develop a Travel Plan for the Council and PCT to reduce CO ₂ emissions from staff travel on Council business	Travel Plan Co-ordinator , DCR	April 2009	Existing	Travel Plan produced	To be calculated as part of Travel Plan development
18	Set up a system to record mileage from public transport use by staff on Council business	NN DND SS DCR	July 2008	Officer time	System in place	N/A
19	Undertake a review of the car lease scheme to establish proposals for reducing CO ₂ emissions from lease vehicles.	WC DCR NN DND	Mar 2009	Officer time	Review complete and proposals submitted for approval	Not known

JD = Jaci Dick, Human Resource and Organisational Development Manager, DCR

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

SS = Sue Szkudlapski, Procurement Officer, DCR

WC = Wendy Clarke, Procurement Manager, DCR

7.4 Waste generation in Council buildings and schools

Objective 6: To reduce greenhouse gas emissions from waste production within the Council and schools

Measure: % reduction in greenhouse gas emissions from waste

Target: To be set in 2009/10 following collation of baseline data

How are we doing now? – our emissions baseline

At present, it is not possible to determine how much waste is collected or recycled from Council buildings. This will be addressed in the Action Plan below.

Achievements to Date

During 2003 to 2006, the Council ran a waste minimisation project 'What A Waste!' which resulted in increased recycling facilities at 20 sites across the Council. The Council currently provides a dedicated weekly paper recycling collection service to 11 sites. Knowsley's Dog Wardens collect toner cartridges from across the Council for recycling.

Ad hoc recycling collections are offered in circumstances where large volumes of waste have been produced (for example cardboard packaging, end of term school clearances).

Surplus furniture is usually advertised via the internet, although there is no formal policy.

55 Knowsley schools also receive a weekly paper recycling collection service, whilst the remaining 24 schools utilise dedicated bring site facilities for disposal of recycled paper. All schools are scheduled to receive a fortnightly cardboard recycling service.

Future Projections and Targets

Work will be undertaken to investigate the measurement of waste from Council buildings and targets will then be considered.

Action Plan – Waste Management

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
20	Undertake an assessment of the quantity of waste generated by the Council having regard to containment, frequency of collection, quantity of recycled waste etc.	JD KS DND	Dec 2008	Existing	Quantity of waste collected or recycled from Council occupied buildings identified	N/A
21	Review provision of recycling services to Council buildings and develop an action plan to extend current service provision both in terms of the no. of buildings serviced and range of recyclables collected.	JD JS DND	By March 2009	To be determined as part of the review/ officer time	Action Plan developed	Not known
22	Ensure that all PCs default to double sided printing to reduce paper use (where this facility is available)	AG DCR NN DND	March 2009	Officer time	Reduction in paper use Target = 5%	Not known
23	Develop a policy on the recycling of furniture from Council buildings	NN KS DND	Sept 2009	To be determined	Policy developed	Not known
24	Implement 'co-mingled' recycling collections in all schools and re-designate a number of residual waste bins as recycling bins	JD DND	Oct – Dec 2008	Existing	NI 192 – Household waste recycled and composted Target = 25% 2008/09 35% 2010/11	Not known

JD = Jon Dyson, Head of Waste Management, DND

AG = Andy Garden, Head of IT, DCR

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

JS = Juliet Staples, Head of Environmental Sustainability Service, DND

KS = Karen Smith, Head of Business Development, DND

7.4 Water use in Council buildings and schools

The Energy Conservation Team advise on water conservation and support site managers to reduce water consumption by the installation of water controls. Information on water usage in Council buildings and schools is collated at some sites via the Eco warrior system, and at the remaining sites financial information is collated via utility bills. However, at present accurate figures of water consumption for all buildings is not yet available. It is estimated that carbon emissions from water are less than 1% of total emissions from Council buildings and services.

Action will continue, to install water controls when it is beneficial to so do. It is our intention to collate and publish water consumption figures and to develop systems in order to be able to collate accurate data. However, given the negligible contribution to the Council's overall carbon emissions, and exclusion from National Indicator 185, the setting of objectives and targets on water usage will be deferred.

8. Carbon emissions from the local community – the Council's role as a service provider

8.1 Overview

The previous chapter addressed greenhouse gas emissions from the Council's estate. However, the Council also has a role in reducing emissions from the community through the services it provides, for example planning policies, home energy, waste services and transport schemes.

DEFRA produce details of CO₂ emissions for each local authority area. The latest figures relate to 2005, and were published in November 2007. DEFRA have also produced data for 2003 and 2004, but the results are not comparable due to changes in the way that the figures have been calculated each year.

In the Government's new performance framework, local authorities are required to use this data to report progress against the following indicator:

NI 186 – Per capita reduction in CO₂ emissions in the Local Authority area

Data from 2005 will be used as the baseline year against which future performance will be measured. CO₂ emission data for 2006 is expected during Autumn 2008.

Emission sources included in the DEFRA figures are energy use in domestic, industrial and commercial properties, road transport, changes in land use and forestry. However it has been recognised that there are certain elements that local authorities have little or no control over. For the purposes of indicator 186, only CO₂ emissions from the following sources need to be considered:

- Energy use from domestic and industrial/commercial properties, but excluding industrial installations that are covered by the European Union Emissions Trading Scheme
- Road transport excluding motorways

Knowsley's total emissions in relation to National Indicator 186 were 1.2 million tonnes in 2005, which is equal to 7.8 tonnes per head of the population. This is approximately the same as the UK and North West averages of 7.9 and 7.6 Tonnes per capita respectively.

The majority of Knowsley's emissions are from energy use in the industrial and commercial sector (Figure 8.1).

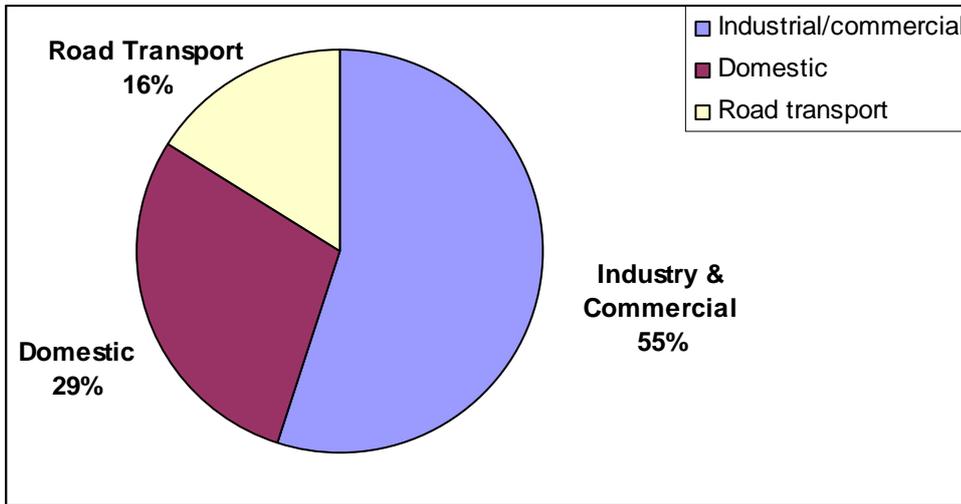


Figure 8.1. CO₂ emissions in Knowsley, 2005 – excluding EUETS installations and motorways (DEFRA, 2007)

National Indicator 186 has been included in Knowsley’s Local Area Agreement (LAA). The reduction targets in Table 8.1 below have been agreed by Government Office NW, and a delivery plan has been produced for 2008 involving actions from a number of Partners.

Year	Overall CO ₂ reduction from 2005 baseline	CO ₂ reductions from ‘National’ measures	CO ₂ reductions from ‘Local’ measures
2006	-	-	(0.96%)
2007	-	-	(0.96%)
2008	4.72%	4.32%	0.40%
2009	2.68%	1.44%	1.24%
2010	2.68%	1.44%	1.24%
Total	10.08%	7.20%	2.88%

Table 8.1. Summary of annual targets to meet Knowsley’s 10% NI 186 target from 2005 to 2010

Waste is not included within National Indicator 186. However, when waste degrades in landfill sites it releases carbon dioxide and methane, both greenhouse gases and is subject to its own specific targeted reductions in the Borough’s LAA (NI 192). For these reasons, waste management within the community is addressed within this section.

The actions in the following sections relate to those that are the responsibility of Knowsley Council. Partners will also contribute actions that reduce CO₂ emissions in these areas and this will be reflected in the Knowsley Partnership’s Climate Change Strategy which is in development.

8.2 Energy use in domestic properties and industrial/commercial premises

8.2.1. Energy Use in Domestic Properties

Objective 8: To reduce greenhouse gas emissions from energy use in domestic properties

Measure: % reduction in CO₂ emissions from energy use in domestic properties

Target: 30% reduction from 1996 baseline by March 2010

How are we doing now? – our emissions baseline

According to DEFRA figures, in 2005, 344,000 Tonnes of CO₂ was emitted from gas and electricity use in Knowsley's domestic properties, equating to 2.3 Tonnes per head of population. This is slightly below the average for the UK and the North West, which is 2.5 Tonnes per head of population. 29% of Knowsley's emissions are from this source (see Figure 8.1 above).

Achievements to Date

The Energy Conservation Team work in partnership with the Government and utility companies to improve the energy efficiency of residential properties through schemes such as 'Heatstreets' and 'Warmfront'.

Since 2003/04, an average of almost 3,000 measures (such as loft and cavity wall insulation) have been installed annually. CO₂ reductions from households receiving insulation through Warmfront and Heatstreets Schemes is shown below:

Year	Total CO ₂ savings/Tonnes
2003/04	2636
2004/05	3247
2005/06	2247
2006/07	2580
Total	10710

Table 8.2. CO₂ reductions from Knowsley households receiving insulation through Warmfront and Heatstreet schemes

Under the Home Energy Conservation Act 1995 (HECA), all Council's are required to reduce CO₂ emissions from domestic properties by 30% from a 1996 baseline by March 2010. The latest figures available relate to 2006/07 and show an overall improvement in energy efficiency from 1 April 1996 to 31 March 2007 of 22%.

In October 2006, British Gas undertook a home energy survey of one million UK homes and found that Knowsley homes were the most energy efficient.

For new housing, since June 2006, Knowsley Council has had a planning policy in place (Ref: MW7) which requires 10% of the energy requirements to be generated on-site by renewable energy for all new residential developments of over 10 homes. As a result of this policy, renewable energy will feature in some homes as part of the Huyton New Deal for Communities scheme.

Future Projections and Targets

There are currently 64,300 dwellings in Knowsley. This is a net increase of 991 dwellings since 2002. The number of household is set to rise further, largely due to the increase in the number of single-person households caused by elderly people living longer, higher rates of separation and divorce, and more young people forming single households of their own. The current draft of the revised Regional Spatial Strategy includes a requirement of 450 net dwelling completions per year for Knowsley up to 2021.

Additional housing will lead to an increase in CO₂ emissions from the Borough. Some Government measures are in place to offset the impact of new housing, for example Part L of the Building Regulations and the Code for Sustainable Homes. By 2010 new dwellings must be 25% more efficient than they were in 2006, rising to 44% by 2013, and zero carbon by 2016. In addition, Knowsley Council has a planning policy requiring that all new residential developments of more than 10 units provide 10% of the energy requirements from on-site renewable energy.

As stated above the Council has a target to reduce greenhouse gas emissions from energy use in residential properties by 30% from a 1996 baseline by March 2010 under the Home Energy Conservation Act 1995.

Action Plan – Energy use in Residential Properties

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
25	Continuation of grants to householders for energy efficiency via Warmfront and 'Free to All' Insulation Policy	BM DRES	2008 - 2010	Existing	1,000 homes per year to receive energy efficiency measures	1,000 Tonnes CO ₂ per annum
26	Investigation of options for a programme to improve the energy efficiency of the Borough's 10,000 'Hard to Heat' homes (i.e. non traditional construction)	BM DRES	March 2009	Existing	Programme in place to deal with Hard to Heat homes	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO₂ reduction
27	Electricity 'smart' metering trial in the homes of 22 vulnerable private sector residents	BM DRES	July 2008	Existing	Trial complete	Not known

BM = Barry McKean, Energy Conservation Manager, DRES

8.2.2. Energy Use in Industrial/Commercial Premises

Objective 9: To reduce greenhouse gas emissions from energy use in industrial/commercial premises

Measure: % reduction in CO₂ emissions from energy use in industrial/commercial premises

Target: To be set in 2009 following collaboration with LSP Partners

How are we doing now? – our emissions baseline

Knowsley has over 3,000 businesses in the borough and a large number of these are Small and Medium Enterprises (SMEs).

According to DEFRA figures, in 2005, 646,000 Tonnes of CO₂ was emitted from gas and electricity use in Knowsley's industrial and commercial properties (excluding installations covered by the EU Emissions Trading Scheme). The majority of CO₂ emissions in Knowsley are from this source (55% - see Figure 8.1 above). This is a higher proportion than the Northwest and UK figures where 46% and 43% of CO₂ emissions are from the industrial and commercial sectors (compared to residential sources and transport).

Again, DEFRA have also produced data for 2003 and 2004, but the results are not comparable due to changes in the way that the figures have been calculated each year.

Achievements to Date

The Knowsley Business Environment Club broke new ground when it was formed by Knowsley Council in December 2002. It was the first of its kind on Merseyside, and one of the first in the UK. Knowsley Council has supported this innovative Club since its inception and has championed the close partnership approach taken, believing that it is only with the real collaboration of all the agencies and the local business community that a change in culture could be achieved.

The Club was set up to help SMEs particularly to take the leap into more environmentally friendly practices, often against a range of objections. The view has always been taken by the club partners that making environmental improvements would also benefit the business themselves and almost always reduce costs.

Knowsley businesses have been able to take advantage of a range of services over the past 6 years

Groundwork Merseyside also support the Knowsley Business Environment Club and offer Carbon Footprint Assessments to SMEs across Merseyside. The assessment calculates CO₂ emissions and includes staff travel, business travel, energy use, water use and waste disposal to landfill.

Knowsley's Economic Partnership have developed a draft Economic Regeneration Strategy. The draft strategy refers to climate change and the need to ensure that economic development within the Borough is environmentally sustainable. It also refers to capitalising on the opportunities that will arise as new environmental technologies and practices are developed (see Section 12).

Future Projections and Targets

Major regeneration programmes for the Borough are outlined below:

- 2010 – 2013 Kirkby Town Centre Regeneration
- 2007 – 2010 Whiston Hospital redevelopment
- 2008 – 2009 Ravencourt development, Halewood
- 2008 – 2011 Alchemy Business Park, A580

It is not possible to accurately predict the impact of this development on the Borough's CO₂ emissions. It is not therefore proposed to set an overall individual target for Knowsley Council to reduce CO₂ emissions from industrial/commercial premises at present. Further work will be undertaken with LSP partners to address the issues involved. Action in this Section will contribute to targets set to reduce CO₂ emissions per capita in accordance with National Indicator 186 – see Section 8.1 above.

Action Plan – Energy use in industrial/commercial premises

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
28	Continue to support the Knowsley Business Environment Club and promote widely to encourage maximum participation from businesses in the Borough.	NB DRES	March 2009	Existing	Increase no. of members by 20%	Not known
29	Promote climate change at Knowsley Business Environment Club events and via Club quarterly newsletter	NN DND	March 2009	Officer time	No. of newsletters with climate change information = 4 per year	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
30	Promote to businesses the environmental support offered through the ENWORKS programme	NB DRES	2010	Existing	No. of businesses Groundwork work with per year Target = approx. 30	Reduction of approx. 3580 Tonnes CO ₂ per year
31	Produce proposals to ensure that economic development and businesses address the need to mitigate CO ₂ emissions	DM DRES JS DND	March 2009	To be determined	Proposals produced	Not known

NB = Nora Brinkley, Sector Development Officer, DRES

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

DM = David Moore, Head of Economic Development, DRES

JS = Juliet Staples, Head of Environmental Sustainability, DND

8.3 Transport in the community

Objective 10: To reduce greenhouse gas emissions from transport in the community

Measure: % reduction in CO₂ emissions from transport in the community

Target: To be set in 2009 following collaboration with LSP partners

How are we doing now? – our emissions baseline

DEFRA produce details of CO₂ emissions for each local authority area. The latest figures relate to 2005, and were published in November 2007. DEFRA have also produced data for 2003 and 2004, but the results are not comparable due to changes in the way that the figures have been calculated each year.

In 2005, 184,000 Tonnes of CO₂ was emitted from local road transport in Knowsley (i.e. excluding motorways), equating to 1.2 Tonnes per head of population. This is below the average for the North West, which is 1.6 Tonnes per head of population. 29% of Knowsley's emissions are from this source (see Figure 8.1 above).

Achievements to Date

The Council work in partnership with Merseytravel and the other Merseyside authorities to produce an integrated transport plan, the Merseyside Local Transport Plan (LTP). The current Plan (LTP2) covers the period 2006 – 2011. The LTP incorporates a £200million investment programme of new transport infrastructure (roads, buses, trains, cycle and walking paths) and improved services to provide Merseyside with a safer, greener, transport network.

Around 80% of Knowsley's schools have Travel Plans in place, which is very good progress towards the national target of all schools to have a travel plan by 2010. Monitoring shows a 4.5% reduction in car use for schools in Knowsley with travel plans.

A draft 'Sustainable Modes of Travel Strategy' has been produced to improve sustainable travel options with regards to journeys from or between education sites. The final strategy will be submitted in August 2008. A package of measures will be co-ordinated through a web-site on the Council internet (www.gettingtoschool.knowsley.gov.uk) which will provide an easy-to-use reference on access to all schools by walking, cycle or bus.

Investment is being made in the provision of improved cycling facilities in the Borough. The Council has recently secured £200,000 of grant funding from Sustrans towards

providing a cycling/walking link between Stadt Moers Park and the proposed new countryside leisure facility at the ex-Cronton Colliery site, and then on into Cronton.

Cycling is promoted in the Borough via a number of initiatives. High standard School Travel Plans, cycle training in schools, improved cycle routes, and widespread traffic calming measures are provided. Through the LTP, the Council is a partner in the TravelWise Merseyside campaign, promoting travel by the more sustainable modes of cycling, walking and public transport. The council works in co-operation with the Primary Care Trust to promote healthier lifestyles, including guided cycle rides across the Borough. In addition, the council is hosting two posts, in conjunction with outside bodies, to encourage more cycling. A 'Bikelt' officer, supported by the charity Sustrans, works 1.5 days a week to promote cycling in specific schools, and a Cycling Development Officer, supported by the National Lottery and Cycling Projects, works 5 days a week.

Future Projections and Targets

Traffic levels in the area are forecast to continue to grow, and the Merseyside LTP includes a stretching target of restricting traffic growth to 9.2% between 2004 and 2010/11. In the period 2004 to 2011 car ownership levels are forecast by the Department for Transport to increase by 14% in Knowsley, and by 12% for Merseyside.

Progress against this objective will be measured using DEFRA data as outlined in Section 8.1 above. However, it is not proposed to set an individual target at this stage. Further work will be undertaken with LSP partners to address the issues involved. Action in this section will contribute to targets set to reduce CO₂ emissions per capita in accordance with National Indicator 186 – see Section 8.1.

Action Plan – Transport in the Community

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
32	Continue to work within the framework of the Merseyside Local Transport Plan (LTP) to provide a fully integrated and sustainable transport network for Knowsley and Merseyside	MK DRES	2006-11	Existing	Implementation of District action plans Reduced growth in car trips	Not known
33	Promote suitable sites for Park and Ride schemes and a new rail station, and liaise with Merseytravel to ensure implementation. Parking currently being extended at Kirkby rail station. Future extensions	MK DRES	2006-11	Existing	LTP2 Target = 35% increase in park and ride usage across Merseyside by 2010/11	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
	proposed for Whiston, possibly Huyton, and a new station with parking at Tower Hill.					
34	Encourage children, parents and staff to walk or cycle to school through the development of School Travel Plans and the provision of pedestrian and cyclist training	MK DRES	By 2010	Existing	% of schools with Travel Plans in place (current 80% Target 100% LTP2 Target – 1.1% reduction in mode share of travel to school by car by 2010/11	Not known
35	Work with partners to promote travel awareness campaigns including Walk to School Week, National Bike Week, International Car Free Day, Green Transport Week and the Knowsley Walking Festival	MK DRES	March 2009	Existing	Support for national campaigns and local events; offer training for travel plan coordinators in schools	Not known
36	Implement the Knowsley Cycling Action Plan, supporting the Merseyside Cycling Strategy (promote cycling e.g. better parking, cycle training, calmer routes, cycle maps)	MK DRES	2010/ 11	Existing	Implementation of the Plan Target = 10% increase in cycle use from 2005/6 by 2010/11	Not known
37	Increase provision of off-road shared pedestrian and cycle routes Routes implemented in Dista Fields, Halewood Park. Current schemes for Cronton Colliery, Stadt Moers, Whiston Greenway	MK DRES	On- going	Grants from Sustrans to support this initiative	Increased use of walk and cycle, and improved access to local parks and green areas	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO₂ reduction
38	Implement the Knowsley Pedestrian Action Plan, supporting the Merseyside Pedestrian Strategy	MK DRES	On-going	Existing	Provision of 'Calorie Maps' Rights of Way Improvement Plan; Completion of pedestrian audits	Not known
39	Develop a Sustainable Modes of Travel Strategy for improving the sustainable travel infrastructure and increasing the range of sustainable travel options with regards to journeys from or between education sites	PB DRES	Aug 2008	Existing	Strategy in place	Not known

MK = Mike Kilby, Team Leader – Transport Strategy and Resources, DRES

PB = Paul Buntin, Travel Plan Advisor, DRES

8.4 Waste generation in the community

Objective 11: To reduce greenhouse gas emissions from waste production in the community

Measure: National Indicator 191 – Residual household waste per head

Target: 761kg 2008/09, 713kg 2009/10, 664kg 2010/11

How are we doing now? – our emissions baseline

Figure 8.2 below shows that the amount of household waste per head of the population has decreased over the last 3 years. This correlates with an increase in household recycling in the Borough.

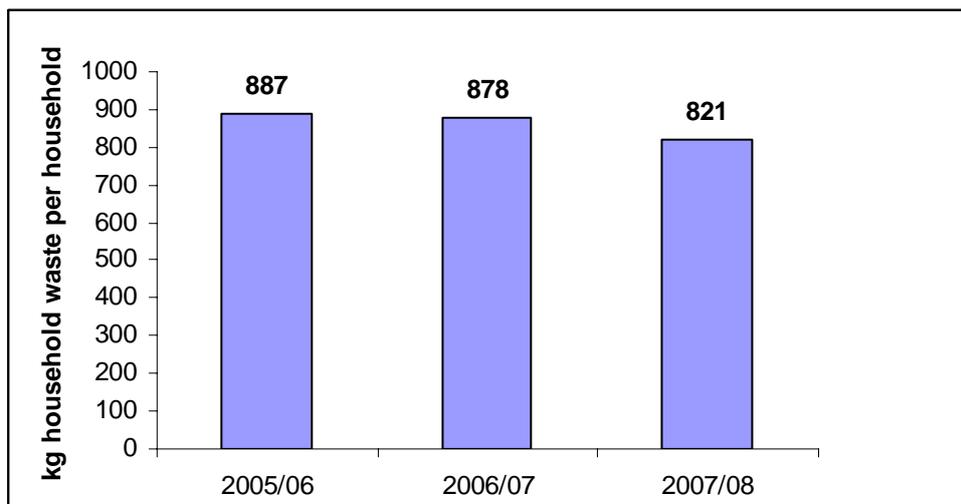


Figure 8.2. kg household waste per head of Knowsley population, 2005 - 2008

Achievements to Date

As a Waste Collection Authority, Knowsley Council provides the following municipal waste collection services to residents and businesses in the Borough.

- The collection of domestic refuse on a weekly basis
- The fortnightly kerbside collection of paper, cardboard, glass, cans and plastic
- The fortnightly kerbside collection of green garden waste
- The collection of domestic refuse from hard to reach properties e.g. farms.
- The co-ordination of the servicing of 30 bring recycling centres
- The delivery of a bulky-household waste collection service.

- The collection of commercial waste from 407 private sector clients and 84 Council department clients.
- The collection of clinical waste from 1,374 clients.

The Council is aware of the need to reduce further the amount of waste in the Borough that is sent to landfill, and in October 2006 a Special Joint Waste Management Working Group was established, consisting of all members of the Environment and Housing Scrutiny Committee and the Chairs of all other Council Scrutiny Committees. The Group considered the full spectrum of waste management issues relevant to Knowsley. Final recommendations of the Group were approved by Cabinet on the 17th October 2007. As a result of the review, a new waste collection system has been introduced from Monday 2nd June, 2008 as follows:

- Provision of a weekly residual waste collection service;
- Provision of a new fortnightly co-mingled recycling collection for paper, cardboard, glass, cans and plastic;
- Introduction of a new co-mingled recycling service for residents in high-rise flats and multi-occupancy dwellings (to be implemented during the period October – December 2008);
- Provision of a fortnightly collection of green garden waste;
- Facilitate behavioural change in generating greater community, social and environmental responsibility through public engagement in recycling. This will be sought through public education, service promotion, and increased capacity and ease for residents to recycle their waste.

The Knowsley Business Environment Club works to promote waste management with local businesses with regular awareness-raising events (see Section 8.2.2 above).

Future Projections and Targets

‘Residual household waste per head’ is a new National Indicator (NI 191). Targets have been set to reduce residual household waste per head in Knowsley for the next 3 years and have been adopted to measure progress against this objective.

Action Plan – Reducing Waste in the Community

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
40	Roll out new co-mingled recycling service to circa 62,000 residential properties	JD DND	June 2008	Existing	NI 192 - % of household waste sent for re-use, recycling and composting Target = 25% 2008/09	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
41	Roll out new co-mingled recycling service to high rise flats and multi-occupancy dwellings	JD DND	Oct – Dec 2008	Existing	NI 192 - % of household waste sent for re-use, recycling and composting Target = 25% 2008/09	Not known
42	Provide information on waste minimisation to businesses via the Knowsley Business Environment Club	NB DRES	March 2009	Existing	No. of events/ newsletter articles relating to waste per year Target = 4	Not known
43	Undertake a feasibility study investigating how to support and increase trade waste recycling at all Knowsley's Industrial Parks (led by Knowsley Business Environment Club)	NB DRES	Dec 2008	Existing funding via NRF	Feasibility study complete	N/A

JD = Jon Dyson, Waste Manager, DND

JE = John Eves, Environmental Strategy Manager, DND

NB = Nora Brinkley, Sector Development Officer, DRES

9. Carbon emissions from the local community – the Council’s role as a community leader

9.1 Overview

Effective action to address climate change requires the support of all partners operating within the Borough. The Government sees local authorities as uniquely placed to provide vision and leadership to local communities and have stated that by working with our Local Strategic Partnerships, we can have significant influence over emissions in our area.

9.2 Working with the Knowsley Partnership

Achievements to Date

In July 2007, the Knowsley Partnership agreed that a climate change strategy for the Borough should be developed. This is being taken forward by the Strategic Housing and Environment Partnership, with the Council taking a lead co-ordinating role.

A baseline review of current activities was undertaken in December 2007, and awareness-raising presentations have been delivered to most Thematic Partnerships.

National Indicator 186 ‘Per capita reduction in CO₂ emissions in the Local Authority area’ has been included as a priority indicator in Knowsley’s Local Area Agreement, 2008 – 2010, and targets negotiated with Government Office North West (See Section 8.1). An initial delivery plan is in place, but this now needs to be developed with partners.

Action Plan

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
44	Hold a workshop with LSP Partners to develop an action plan for mitigating and adapting to climate change	NN DND	Oct 2008	tbc	Workshop held	Not known
45	Develop a draft Borough Climate Change Strategy	NN DND	March 2009		Draft Climate Change Strategy developed	Reduction of CO ₂ emissions in line with target set for NI 186

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

9.3 Working with regional and sub-regional partners

Achievements to date

Networking with other Merseyside authorities has mainly taken place on an ad-hoc basis via existing environmental groups such as the Merseyside Environmental Officers Group and Merseyside Sustainable Development Officers Group. The Merseyside Environmental Economy Group have a remit to look at the economic aspects of climate change.

The Merseyside LSP and Policy Network hosted a climate change workshop in May 2008 which was attended by local authority officers working on climate change, in addition to representatives from The Mersey Partnership, Northwest Development Agency and Government Office North West. This workshop facilitated the exchange of information in relation to regional, sub-regional and local initiatives and produced ideas for further action at a sub-regional level. A Merseyside Climate Change Working Group has now been established.

Regional partners are providing support to local authorities as part of the Northwest Climate Change Action Plan, and have established a Climate Change Unit, based with the North West Development Agency.

Funding was recently made available for an awareness-raising workshop for Elected Members and senior officers, facilitated by Quantum Strategy and Technology and Limited. Knowsley took advantage of this opportunity and worked with Quantum to tailor the workshop to link to this developing strategy.

Funding has also been made available for sub-regional climate change managers. Appointment of a manager for Merseyside is expected shortly who will facilitate the sub-regional delivery of the Northwest Climate Change Action Plan and ensure the causes of climate change are reduced.

The Northwest Climate Change Partnership is also working with the Northwest Improvement and Efficiency Partnership to develop a programme of support for Local Strategic Partnerships 'Northwest Climate Change Local Areas Support Programme' (NW CCLASP). This programme was launched on the 1st July 2008 and will provide consultancy support, training and networking opportunities to assist with the implementation of National Indicators 185 (CO₂ reduction from local authority operations) and 186 (Per capita reduction in CO₂ emissions in the local authority area).

Action Plan

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
46	Participate in, and utilise regional and sub-regional climate change networks	NN DND	March 2009	Officer time	No. of meetings attended	Not known

NN = Natalie Naisbitt, Climate Change and Sustainability Co-ordinator, DND

10. Cross-cutting actions

10.1 Overview

There are a number of actions which are cross-cutting and will support a range of other objectives in this strategy. For example general awareness-raising on climate change will support objectives to reduce greenhouse gas emissions from energy use, transport and waste.

This section therefore contains cross-cutting actions that support more than one objective, grouped under the following themes:

- Embedding Climate Change across the Council
- Procurement
- Communication
- Land-use planning
- Green Spaces

10.2 Embedding Climate Change across the Council

Achievements to Date

Knowsley Council has made public commitments to addressing climate change, signing the North West Climate Change Charter in January 2006 and the Nottingham Declaration on Climate Change in October 2007. It has been recognised that responding to climate change and reducing the Council's carbon emissions needs to be addressed across Council services and incorporated into key policy/strategy documents and the Council's decision-making process.

Some steps have already been taken to address this:

- Development of the Climate Change Strategy is listed as a key project in the Corporate Plan
- The Corporate Plan now includes a section on the Council's carbon footprint
- Climate change is addressed in the Sustainable Community Strategy
- A Sustainability Appraisal Toolkit has been developed which incorporates climate change and will be used to appraise key Council documents
- Sustainability and climate change are incorporated in the Policy and Strategy Toolkits

Action Plan

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
47	Incorporate climate change into the guidance issued on preparing Directorate and Service Plans to ensure that climate change is incorporated into the business planning process across the Council	PH/ MG DCT via PPF & PPSG	Dec 2008	Officer time	Guidance to include climate change All Business and Service Plans address climate change	Not known
48	Audit the Council's current policies and strategies for links/impact on climate change and address any identified negative impacts through the Sustainability Impact Assessment process.	MG DCT via PPG	March 2009	Officer time	Audit complete	Not known
49	Promote the use of the Sustainability Appraisal Toolkit, Policy Protocol and Strategy Toolkit to address climate change in policies and strategies	MG DCT	March 2009	Existing	Requirement to consider climate change embedded within the council's plans, policies and strategies	Not known
50	Amend the Standard Report Template to ensure that Council reports outline the impact of the project/decision on climate change	YL DCR PC DCT	Dec 2008	Officer time	Climate change implications addressed in Council reports	Not known
51	Develop a training/communication plan to ensure that Leadership Teams, Service Directors Group and Corporate	NN DND + MG DCT via PPG	Dec 2008	Officer time	Communication plan developed Climate change addressed in key decisions	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
	Management Team address climate change in decision making					
52	Re-establish and re-launch the Environmental Champions Group	JS DND	Dec 2008	Existing	No. of meetings held per year (target = 4)	Not known
53	Develop a communication plan to ensure that staff understand and address climate change in project development and service delivery	NN DND + Env Champs	Dec 2008	Officer time/ To be determined	Communication plan developed Climate change addressed in project development & service delivery	Not known
54	Extend the provision of on-line Council services which should reduce paper use and travel.	AG DCR	New web-site launched Jan 2009	Existing	Number of council services accessed on-line	Not known
55	Consider carbon impacts (reducing paper use and travel) in the programme assessing modernising work styles and business processes in DWS	JP DWS	TBC	Potential for reduced costs	Assessment complete and carbon impacts addressed	To be calculated
56	Develop a pilot Environmental Management System at the Stretton Way depot	JS DND	March 2009	Existing	Pilot complete	Not known

PH = Paul Hussey, Head of Policy and Strategy, DCT

MG = Mark Glover, Corporate Policy manager, DCT

YL = Yvonne Ledgerton, Head of Democratic Services, DCR

PC = Phillipa Cook, Head of Communications, DCT

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

JS = Head of Environmental Sustainability, DND

JP = Jean Parr, Service Manager – Business Transformation, DWS

PPF = Policy and Performance Forum

PPSG = Planning Performance Strategy Group

PPG = Policy Practitioners' Group

10.3 Council procurement

Achievements to Date

Corporate Procurement

The Council has had Environmental Procurement Guidelines in place since 2005, and at the same time produced a guide 'Buying Green at Knowsley MBC'. Sustainability is a consideration when awarding corporate procurement contracts, and supplier engagement has taken place in some areas, for example office supplies. The Council procures biofuels, electricity on a green tariff, and Fairtrade tea and coffee.

Sustainability is included in the Council's Procurement Strategy and Improvement Plan 2008 – 2010, with a key objective:

- To promote procurement practices which contribute to the Council's priorities on sustainability and regeneration

The Government are promoting the use of a 'Flexible Framework' to local authorities which was developed by their Sustainable Procurement Task Force as the basis for developing sustainable procurement. This is included within the Council's Improvement Plan.

Construction is major area of Council spending – during 2005, £27 million was spent on construction and related services. As a major buyer, the Council is in a strong position to influence and encourage sustainable practices throughout the industry and improve the sustainability of its own building stock.

Good progress has already been made by the Highway Engineering Team and the Construction Procurement Team. Numerous highway schemes have utilised recycled aggregates in recent years. For example, at the Prescott Regeneration site (the old cable factory area) the majority of the demolition and excavated hard materials were crushed and retained on site for construction fill and spread, acting as a capping layer for the construction phase. On the recent demolition of Kirkby Leisure Centre, the contractor will reuse the demolition rubble and excavated material in the M62/Tarbock Island improvement works. Other initiatives include replacement of glazing at the Huyton Municipal Building with insulation levels higher than building control standards, use of recycled plastic kerbing at Kirkby Industrial Estate and work towards a minimum 10% recycled content on all construction.

Action Plan – Council Procurement

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
57	Adopt the Sustainable Procurement Task Force 'Flexible Framework' to develop a strategy and policies that address sustainable procurement and in particular reduce carbon emissions from Council procurement	NN DND WC DCR	March 2009	Existing	Level 1 by March 2009	Not known
58	Make a formal corporate commitment to the procurement of recycled products by signing the 'Buy Recycled Code'	NN DND	Dec 2008	None	Signing of the code Increase in the no. of recycled products procured	Not known
59	Investigate the feasibility of all Directorates only procuring copier paper with a minimum of 80% recycled content	NN DND WC DCR	Dec 2008	Additional cost of switching estimated at £3251 pa	% of copier paper procured with minimum 80% recycled content Current = 28% Target = 100%	Not known
60	Work with stationery supplier and purchasing staff to minimise the number of deliveries to Council buildings	WC DCR	Dec 2008	Officer time	No. of delivery trips to Council buildings	Not known
61	Investigate feasibility of switching to re-manufactured toner cartridges	WC DCR	Dec 2008	Officer time Cost saving	Feasibility study complete	Not known
62	Incorporate environmental criteria into the 'Knowsley General Brief for all New Building Work'	SB DRES	Aug 2008	Existing	Environmental criteria incorporated into General Brief	Not known

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO₂ reduction
63	Investigate the potential for developing further guidance/policies on sustainable construction for both Council new builds and refurbishments, taking into account 'whole life' costs	SB DRES NN DND	Sept 2009	Officer time Resource implications of implementing policies will be investigated	Guidance document produced and approved	Not known

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

WC = Wendy Clarke, Procurement Manager, DCR

SB = Siobhan Bird, Construction Procurement Development Officer, DRES

10.4 Communicating climate change

Achievements to Date

The Council have already taken steps to raise awareness of climate change in the Borough.

Schools

37 schools are registered on the Eco-schools scheme and in support of the programme, the Environmental Sustainability Service (DND), secured funding to run a number of interactive plays to address environmental issues affecting our world today, including climate change. For the past 5 years, the Council has funded the Merseyside Energy Efficiency Advice Centre (MEEAC) to deliver their 'Watt Watchers' programme in Knowsley schools. This year the programme has been extended to cover climate change in more detail, alongside energy saving and renewables.

Community

The Environmental Sustainability Service also regularly promote the environmental message at Knowsley's high profile park events (Green Fayre, Knowsley Flower Show, Winter Celebration). Over the last year there has been a specific focus on climate change. A bi-annual environmental newsletter for community groups 'Green Life' is also produced and the spring 2007 issue focussed on climate change with articles on Knowsley teenager Stephanie Lynch, who was appointed Northwest Climate Change Champion in 2006 and top tips to reduce energy use at home. The Winter Issue also had a strong focus on climate change.

In Spring 2007, an interactive climate change workshop was developed, aimed at 7-11 year olds. The workshop was successfully piloted with Stockbridge Junior Wardens and has now been tailored to be suitable for all community groups.

Staff

Work has also been taking place to raise awareness amongst staff. The Council has dedicated 'Sustainability at Work' intranet pages where staff can measure their Carbon Footprint, find out more about climate change or get advice on greening their office. A staff 'Green Guide' has also been produced and is made available to new starters in induction packs. In May 2007, successful drop-in sessions were held on energy efficiency and climate change for staff at 10 of the Council's key sites. More than 260 staff attended the surgeries with positive feedback received.

Future issues

The development of an effective communication campaign is a significant undertaking and likely to be resource intensive. Research has recently been published by the NW Climate Change Partnership and DEFRA on behaviours and attitudes towards climate change which needs to be assessed to design a successful campaign. Questionnaires for the

target audiences also need to be considered to gauge and measure the effectiveness of any campaign. Resources will need to be identified for promotional material.

For community awareness-raising, there is the potential for the Council to work with local partners and other Merseyside authorities to plan co-ordinated campaigns, promote consistent messages, and pool resources. A Merseyside group of local authority officers working on climate change has recently been convened, and a Merseyside Low Carbon Economy Manager will shortly be appointed. Joint working will be explored further via these routes.

It is therefore proposed that a specific Climate Change Communication Plan is developed to build on the existing work undertaken in this area. Awareness-raising with staff and elected members, residents, businesses and schools will be addressed.

Whilst the Plan is being developed, existing awareness-raising activities will continue (see below).

Action Plan – Communicating Climate Change

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
64	Produce a Climate Change Communication Plan	JE NN DND	Dec 2008	To be addressed by the Plan	Plan produced	Not known
65	Produce a regular Climate Change Briefing for Staff	NN DND	March 2009	Existing	No. of briefings per year Target = 4	Not known
66	Promote Climate Change to the community at the Borough's major events (e.g. Green Fayre, Flower Show, Winter Celebration)	NN DND	March 2009	Existing	No. of events per year Target = 2	Not known
67	Provide up-to-date information on climate change on the Council's Internet and Intranet sites.	NN DND	March 2009	Existing	Updated web-sites	Not known

JE = John Eves, Environmental Strategy Manager, DND

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

10.5 Land-use planning

Achievements to Date

Physical development and regeneration in Knowsley is governed by policies and strategies in the Unitary Development Plan (UDP), which was adopted in 2006. The UDP contains a number of policies on energy, transport and waste that will support the reduction of carbon emissions from development.

In particular, Policy MW7 requires that 10% of the energy requirements to be generated on-site by renewable energy for all new residential developments of over 10 homes and for industrial/commercial developments over 1000m².

As a result of this policy at least 10% of the energy supply to Knowsley's new Learning Centres will be supplied via ground source heat pumps. In the North Huyton Action Area, new residential properties and community buildings will also achieve the 10% target.

In 2005, the Knowsley Guide to Development was produced. The overarching design and development principles outlined included energy efficiency, renewable energy, waste minimisation and sustainable transport.

A Supplementary Planning Document (SPD) on Householder Development was produced in November 2007 which promotes energy efficiency, renewable energy, re-use of building materials and facilities for recycling. A Supplementary Planning Document on the Design of New Development is in preparation which will promote sustainable forms of development.

Since April 2008, a Sustainability Statement is required to be submitted with planning applications for large developments.

Future issues

The planning system has now changed and Knowsley's UDP will be replaced by a Local Development Framework (LDF). Development of the LDF has commenced and should be adopted by 2010/11. The Framework will be subject to a Strategic Environmental Assessment and Sustainability Appraisal.

Climate change will be taken into consideration as the LDF is progressed to ensure that carbon emissions from development in Knowsley are minimised.

Action Plan – Land Use Planning

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO ₂ reduction
68	Ensure that climate change is addressed in the new SPD on Transport	JC DRES	Jan 2009	Officer time	Climate change addressed within SPD	Not known
69	Ensure that climate change is addressed in the new SPD on Design	JC DRES	March 2009	Officer time	Climate change addressed within SPD	Not known
70	Ensure that the LDF addresses climate change and supports the objectives of this strategy	JC DRES	2010/ 11	Officer time	Climate change addressed within the LDF	Not known
71	Investigate potential for requiring developer funding to contribute towards decentralised renewable energy production and/or energy efficiency measures in the locality	JC DRES	2010/ 11	Officer time	Policies on developer funding addressed within the LDF – see above	Not known
72	Investigate the feasibility of producing a guide to sustainable development for developers	KH DRES NN DND	March 2009	Officer time/ To be determined	Feasibility complete	Not known
73	Produce guidance note on Permitted Development Rights for microgeneration and promote via Knowsley web-site	NN DND KH DRES	Dec 2008	Officer time	Guidance Note produced	Not known

JC = Jonathan Clarke, Strategic Planning Manager, DRES

KH = Kieran Howarth, Development Quality Team South Manager, DRES

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

10.6 Green Spaces

Overview

The Borough's green spaces play a vital role in both mitigating CO₂ emissions and adapting to climate change.

When trees are growing, they utilise CO₂ from the atmosphere, a process known as carbon sequestration. Green spaces can also reduce CO₂ emissions indirectly, for example, food grown on local allotments can reduce 'food miles' and hence CO₂ emissions from transport.

There is evidence that in addition to mitigating carbon emissions, green spaces can help areas to adapt to climate change through cooling, provision of shade and water management. The provision of parks and play areas will also be important as the demand for outdoor recreational facilities increases during the predicted hotter, drier summers.

However, green spaces are also susceptible to the impacts of climate change such as earlier flowering and longer growing seasons, increased competition from weeds and increased water stress on plants, lawns and grass swards. Some effects have already been observed in Knowsley – the extended growing season has given rise to increased mowing frequency with increasing costs for this activity. Considerable storm damage has increased the costs of arboricultural services and tree replacement, and aggressive weed growth has been encountered, especially exotic species.

Achievements to Date

Policy DQ4 of Knowsley Council's replacement Unitary Development Plan requires that proposals for new development should include appropriate planting of trees. Where the Council accepts that tree loss will be unavoidable, the applicant is required to make adequate provision for their replacement – usually two new trees for each tree lost.

Where a tree on Council land is removed, the Council endeavours to plant at least two trees of a suitable species and size at the most appropriate site in the locality.

Management Plans are in place for 8 of Knowsley's parks, which address climate change issues such as energy conservation and water management.

Future issues

A Green Space Strategy for Knowsley is expected to be adopted in December 2008. The draft strategy addresses the impact of climate change and the following 4 key action statements are proposed:

Action Statement Su1

Long term planning of green space management and maintenance contracts will take place to enable mitigation and adaptation to climate change.

Action Statement Su2

Further creation of Sustainable Urban Drainage Systems (SUDS) will be encouraged on new and existing green spaces in order to slow the movement of rainwater and reduce the effect of large urban areas of hard surfaces.

Action Statement Su3

Carbon emissions will be reduced where possible through the use of environmentally friendly practice and technology.

Action Statement Su4

Tree coverage will be improved through the production of a Tree Strategy for the Borough by 2011.

Given that the impact of climate change on green spaces will be addressed by the Green Space Strategy and in the Climate Change Adaptation Action Plan (see Section 11), it is not proposed that detailed actions are outlined here.

Action Plan – Green spaces

Ref	Action	Lead	Dates	Resources	Measure	Predicted CO₂ reduction
74	Ensure that climate change is addressed in Knowsley's Green Space Strategy	FM DND	Dec 2008	Officer time	Climate change addressed within Green Space Strategy	Not known

FM = Fiona Mather, Green Space Strategy Manager, DND

11. Preparing for the future effects of climate change

Objective 12: To prepare for the future effects of climate change

Measure: Achievement of Level 4 as defined by National Indicator 188

Target: Achieve Level 4 by April 2010

Overview

As outlined in Section 4, even if we take action to reduce our carbon emissions, it is predicted that we will still experience some effects of climate change such as hotter/drier summers, warmer/wetter winters and more extreme weather events. These could create risks and opportunities such as: impacts to transport infrastructure from melting roads or buckling rails, increases in tourism, increased damage to buildings from storms, impacts on local ecosystems and biodiversity, scope to grow new crops, changing patterns of disease, impacts on planning and the local economy and public health.

The Government have included an indicator on adapting to climate change in the new performance framework:

- **NI 188 – Planning to adapt to climate change**

The indicator will measure our progress on assessing and managing climate risks and opportunities, and incorporating appropriate action into ours and partners' strategic planning.

A process has been set out by the Government which local authorities must follow, and performance will be measured against 5 levels of progress:

Level 0:	Baseline
Level 1:	Public commitment and prioritised risk-based assessment
Level 2:	Comprehensive risk-based assessment and prioritised action in some areas
Level 3:	Comprehensive action plan and prioritised action in all priority areas
Level 4:	Implementation, monitoring and continuous review

How are we doing now? – Baseline

The Council has begun to address the impacts of climate change and has a lead officer responsible for progressing our response, has undertaken an audit of existing risk registers and action plans, and has a work plan in place setting out the actions that will be taken to achieve Level 4. We have therefore achieved Level 0 of National Indicator 188.

In addition, significant progress has been made towards achieving Level 1. The Council has signed the Nottingham Declaration on Climate Change, has begun to compile a Local Climate Impacts Profile and undertaken an initial assessment of the likely future climate using the UK Climate Impacts Programme scenarios (UKCIP02). We have also engaged with our Partners on addressing the impacts of climate change.

Achievements to Date

Although Knowsley has a relatively low flood risk compared to other areas, there have been incidences of flooding, with 6,000 incidents over the last 10 years (some of which are due to accidents rather than heavy rainfall). There is 48 km of 'main' river flowing through Knowsley, with 570 properties at some risk of flooding. Flooding can also occur due to problems with the surface water drainage system, for example blocked gullies.

As a result of recent flooding incidents, the Council's Risk and Resilience Group has established a sub-group to develop an action plan to address flooding in the Borough. In addition, consultants have been commissioned to undertake a strategic flood risk assessment as part of the Local Development Framework process. The assessment will go beyond flooding from watercourses and look at the wider drainage network, surface flooding and pressure points. The assessment will take into account future scenarios predicted as a result of climate change.

Knowsley's Unitary Development Plan (2006) includes a policy on flood risk (ENV7) which imposes controls over new development, aims to minimise the risk of proposals causing flooding elsewhere and promotes Sustainable Urban Drainage Systems (SUDS).

In respect of reducing the risk of surface water flooding, routine maintenance is carried out with the aim of ensuring all gullies or grids are not blocked and will run free in times of heavy rain. Gullies are inspected once every 6 months. Recent changes to the way that completely blocked gullies are dealt with has led to faster resolution of problems and the potential to flood has reduced significantly.

Knowsley is actively engaged with the Merseyside Local Risk Resilience Forum which produced an updated Community Risk Register in July 2007. The Risk Register assesses the likelihood and impact of weather-related risks such as flooding, storms, droughts and heatwaves.

Action Plan – Adapting to Climate Change

As outlined above the Council is required to adopt a process that will result in a comprehensive action plan being produced to manage climate change impacts and risks. Knowsley is currently at an early stage in this process. The interim action plan below outlines proposals for achieving the performance levels outlined for National Indicator 188, along with some initial actions that have already been identified as necessary.

Government guidance suggests that good performance would be assessed as an upwards progression of one level each year. This would result in the Council developing a comprehensive action plan and achieving Level 3 by April 2011. However, we intend to achieve Level 3 by October 2009 to fulfil commitments made in the Nottingham Declaration on Climate Change.

Ref	Action	Lead	Dates	Resources	Measure
75	Review inspection frequencies for gullies that are identified as problematic	HM DND	Dec 2008	Officer time	Review completed
76	Undertake a Strategic Flood Risk Assessment to identify flood risks and guide future development proposals	JC DRES	Sept 2008 Final report	Existing	Strategic Flood Risk Assessment produced
77	Produce Business Continuity Plans for all service areas which take into account climate related scenarios loss of premises and loss of power	AN DCR	April 2009	Existing	% of services with Business Continuity Plans in place Target = 100%
78	Produce an initial local risk-based assessment of significant vulnerabilities and opportunities to weather and climate and communicate to managers and partners	NN DND	Dec 2008	Officer time	Achieve Level 1 of NI 188
79	Produce a comprehensive risk-based assessment and prioritise action in some areas	NN DND	April 2009	Officer time/ to be determined	Achieve Level 2 of NI 188
80	Produce a comprehensive action plan and prioritise action in all priority areas	NN DND	Oct 2009	Officer time/ To be determined	Achieve Level 3 of NI 188
81	Implement a robust monitoring and review process	NN DND	April 2010	Officer time	Achieve Level 4 of NI 188

HM = Howard Morris, Group Manager Streetscene Services, DND

JC = Jonathan Clarke, Strategic Planning Manager, DRES

AN = Anne-Marie Ness, Corporate Risk Manager, DCR

NN = Natalie Naisbitt, Climate Change & Sustainability Co-ordinator, DND

12. Maximising the economic opportunities of a transition to a low carbon economy

Overview

In 2005 the UK environmental sector was estimated to be worth the same as the pharmaceutical sector (£25 billion) and this is expected to grow to £46 billion by 2015.

As outlined in Section 5 above, the Stern Review outlined the economic opportunities of climate change, in particular:

- productivity gains through better energy efficiency
- new markets in environmental goods and services
- a new wave of innovation in environmental technologies

In response to the Stern Review, the Government established the Commission on Environmental Markets and Economic Performance (CEMEP) to examine how the economic opportunities of a transition to a low carbon, resource efficient economy can be maximised.

The Government's response to CEMEP's report states that the local and regional government landscape provides a framework within which eco-innovation can be nurtured.

The Northwest Climate Change Action Plan recognises the economic opportunities of climate change and the potential for the region's environmental technologies sector to expand in response to market demand. The plan includes the following actions:

25. Develop a regional low carbon fund/joint venture to better co-ordinate and increase the availability of funding for research, development and commercialisation of:
 - Low carbon technologies and
 - Low carbon fuels
26. Increase the region's capacity to engage with international markets and secure additional national and European funding to grow the region's low carbon energy technologies sector

At a sub-regional level, Priority 15 of the Merseyside Action Plan (06 – 09) relates to 'Environmental Performance' and states that substantial market opportunities exist in the environmental economy, through new technologies and emerging markets (such as renewable energy). A key priority in the plan is to grow the environmental technologies sector including major project development in waste, renewable technologies and car industries. A Low Carbon Economy Manager post for Merseyside is being funded by regional partners and has been advertised.

Achievements to Date

Knowsley's draft Economic Regeneration Strategy recognises that the Borough needs to capitalise on the opportunities that will arise as new environmental technologies and

practices are developed. The following action is included within the draft action plan as a priority over the next 3 years:

- Assist businesses in the Borough to respond to climate change by capitalising on opportunities to develop green products, processes and services

An example of this in Knowsley is a pioneering waste recycling and processing facility in Huyton. The project was funded via the Government's New Technology Demonstrator Programme, Northwest Regional Development Agency and Merseyside Waste Disposal Authority. Orchid Environmental have developed the technology and operate the facility. Clean recyclable material will be recovered from up to 50,000 Tonnes of non-hazardous household waste a year, with the remaining material processed into high quality fuel using a low temperature heat treatment process.

The facility is designed as an alternative to waste disposal measures such as incineration and landfill. The process is housed in a sealed building using bio-filters containing natural products to filter dust and emissions.

Action Plan – Maximising the economic opportunities of a transition to a low carbon economy

Ref	Action	Lead	Dates	Resources	Measure
82	Develop proposals to assist businesses in the Borough to respond to climate change by capitalising on opportunities to develop green products, processes and services.	DM DRES	March 2009	Officer time	Proposals developed
83	Develop proposals to ensure that the current and future workforce of Knowsley have the skills and training to work in a low carbon economy	DM DRES	March 2009	Officer time	Proposals developed

DM = David Moore, Head of Economic Development, Enterprise and Competitiveness,
DRES

13. Conclusion

Next Steps

Climate change is a wide, cross-cutting issue, impacting on numerous services across the Council. A substantial amount of data collation is required to properly assess the Council's impact and set meaningful targets.

This initial version of the Strategy is our first step in addressing this agenda. It has not been possible to set targets in some areas due to data on current and future carbon emissions being unavailable. The majority of actions in this Strategy are short-term and further work is needed to look at the medium to long-term action that will be required to address this agenda and the financial implications of this.

These areas will be developed over the next year and a revised Strategy will be produced in 2009 along with a detailed financial analysis of any new proposals.

A communication plan will also be developed to ensure that staff, partners and the community are aware of the contents of the strategy and action required.

Work is on-going with partners to produce a Borough Climate Change Strategy, and we will also take full advantage of the support programme being developed by North West partners (NW Climate Change Local Areas Support Programme).

Monitoring

A report of progress against existing actions and targets within this strategy will be produced in 2009, which will inform the development of the revised strategy as outlined above.

Monitoring of progress will also be required in accordance with 3 new National Indicators on climate change:

NI185 – CO₂ reduction from Local Authority operations

NI186 – Per capita reduction in CO₂ emissions in the Local Authority area

NI188 – Planning to adapt to climate change

Appendix 1 – NW Climate Change Charter

Knowsley Metropolitan Borough Council acknowledges that climate change will profoundly influence the environmental, social and economic conditions in the Northwest of England and will continue to be a critical factor throughout the 21st Century. We have a responsibility to lessen the destructive effects of this phenomenon, in the interests of our own organisation and the region.

We commit to:

- Taking action to mitigate and adapt to climate change
- Acknowledging that action needs to take place at all levels – global, international, European, national, regional and locally
- Helping the region to achieve the national goal of reducing CO₂ by 60% by 2050 (based on 1990 levels)
- Supporting better ways to co-ordinate action on climate change across the region

We will take on the climate change challenge by:

- Putting climate change at the heart of our internal decision-making process
- Taking all practical steps to limit CO₂ emissions and responding to the challenges posed by the impacts of climate change
- Setting up organisation-wide and effective CO₂ measurement and monitoring arrangements and comparing our results with appropriate benchmarks
- Working with others to communicate our progress and successes and encourage others to take action to ensure that England's Northwest becomes a champion for climate change activity

Signed by Councillor R. Round, Leader of Knowsley Council, 26th January 2006

Appendix 2 – The Nottingham Declaration on Climate Change

We acknowledge that

- Evidence shows that climate change is occurring.
- Climate change will continue to have far reaching effects on the UK's people and places, economy, society and environment.

We welcome the

- Social, economic and environmental benefits which come from combating climate change.
- Emissions targets agreed by central government and the programme for delivering change, as set out in the UK Climate Change Programme.
- Opportunity for local government to lead the response at a local level, encouraging and helping local residents, local businesses and other organisations – to reduce their energy costs, to reduce congestion, to adapt to the impacts of climate change, to improve the local environment and to deal with fuel poverty in our communities.
- Endorsement of this declaration by central government.

We commit our Council from this date 11th October 2007 to

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

Knowsley Council acknowledges the increasing impact that climate change will have on our community during the 21st century and commits to tackling the causes and effects of a changing climate on our borough.

Councillor R Round – Leader of the Council
Sheena Ramsey – Chief Executive

Appendix 3 – Links to other Knowsley Council Policies and Strategies

Outlined below is a list of Knowsley Council policies, strategies and guidelines that will support the objectives of this Climate Change Strategy. Climate change is a broad cross-cutting issue, and this list is not exhaustive. Further linkages will be identified as our work in this area develops and action on climate change becomes embedded across the Council.

Corporate Energy Policy

Environmental Procurement Guidelines

Buying Green at KMBC

Environmental Policy

Unitary Development Plan

Draft Green Space Strategy

Procurement Strategy and Improvement Plan 2008 – 2010

Improving People's Lives – Corporate Plan 2008-2011

Draft Economic Regeneration Strategy

Local Area Agreement 2008 – 2010

Sustainable Community Strategy 2008 – 2023

Knowsley's Cycling Strategy

Affordable Warmth Strategy

Local Transport Plan

Knowsley's Children's and Young People's Strategic Plan 2007 – 2010

Knowsley's Risk Management Strategy 2007

Asset Management Plan

Appendix 4 – List of Abbreviations

BERR	Department of Business, Enterprise and Regulatory Reform
CAA	Comprehensive Area Assessment
CEMEP	Commission on Environmental Markets and Economic Performance
CO ₂	Carbon Dioxide
CRC	Carbon Reduction Commitment
DCFS	Directorate of Children and Family Services
DCLG	Department of Communities and Local Government
DCR	Directorate of Corporate Resources
DEFRA	Department of Environment, Food and Rural Affairs
DoH	Department of Health
DND	Directorate of Neighbourhood Delivery
DRES	Directorate of Regeneration Economy and Skills
DTI	Department of Trade and Industry
DWS	Directorate of Well-being Services
ENV7	Environmental Protection and Nature Conservation Policy 7
HECA	Home Energy Conservation Act 1995
IPCC	Intergovernmental Panel on Climate Change
KLOE	Key Lines of Enquiry
LAA	Local Area Agreement
LDF	Local Development framework
LPG	Liquid Petroleum Gas
LSP	Local Strategic Partnership
LTP	Local Transport Plan
MEEAC	Merseyside Energy Efficiency Advice Centre
MW7	Minerals Waste and Energy Policy 7
NI	National Indicator
NWCCLASP	North West Climate Change Local Areas Support Programme
NWDA	North West Development Agency
NWIEP	North West Improvement and Efficiency Partnership
PCT	Primary Care Trust
PPF	Policy Performance Forum
PPG	Policy Practitioners' Group
PPSG	Planning Performance Strategy Group
SCS	Sustainable Community Strategy
SIA	Sustainability Impact Assessment
SME	Small to Medium Enterprise
SPD	Supplementary Planning Document
SUDS	Sustainable Urban Drainage Systems
UDP	Unitary Development Plan
UKCIP02	UK Climate Impacts Programme 2002

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Appendix 6 – Useful Web-sites

DirectGov Climate Change pages including the Act on CO₂ Calculator:

<http://www.direct.gov.uk/en/Environmentandgreenerliving/Thewiderenvironment/Climatechange/index.htm>

The Carbon Trust:

<http://www.carbontrust.co.uk/default.ct>

Climate Change North West:

<http://www.climatechangenorthwest.co.uk/home.html>

UK Climate Impacts Programme:

<http://www.ukcip.org.uk/>

Energy Saving Trust:

<http://www.energysavingtrust.org.uk/>

Nottingham Declaration Action Pack:

<http://www.energysavingtrust.org.uk/housingbuildings/localauthorities/NottinghamDeclaration/>

Defra Climate Change Pages:

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

Defra pages on NI 185, 186, 188:

<http://www.defra.gov.uk/environment/localgovindicators/indicators.htm>