

ClimateCO₂de

Climate Change and Sustainability Strategy



Foreword

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I am pleased to say that there have been many improvements to the Council's environmental performance in recent years.

The Council's actions to date have been many and varied, yet have often been taken independently of one another. This Strategy brings together all the strands of the Council, looks at its achievements and sphere of influence and begins to co-ordinate its efforts to maximise their effects and those of our future actions.

According to the Department for Environment, Food and Rural Affairs (DEFRA), as of 2005 Rochford District had the second lowest per capita CO₂ emissions in Essex – 5.6 Tonnes. However, there is more that can be done to reduce this figure and we have been given a target of 5.1 Tonnes to be achieved by 2011.

In January this year, the Council's Review Committee identified the need for the Council to take certain actions to combat climate change. This strategy is the first of those actions.

This Climate Change Strategy takes a long-term perspective, whilst also including targets and actions for the short and medium terms. The action plan – which we've called our **ClimateCO₂de** - will be reviewed annually, whilst the strategy itself will be reviewed in five years time.

At Rochford District Council, we want to lead in the process of creating a sustainable community. We want to be compared favourably with the Beacon Councils announced in the 'Tackling Climate Change' category earlier this year and will work with the community, businesses and our public and private partners to make this happen.

The following pages contain our vision for how we can enhance our environment – both locally and further afield – helping to make Rochford District the place of choice in the County to live, work and visit.

Signed

[Photo]

Electronic Signature

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Rochford District Council's Vision

To make Rochford District the place of choice in the County to live, work and visit.

Values

- Be an open, accountable, listening, responsible Council
- Put the customer and citizen at the heart of everything we do, delivering services in a caring and sensitive manner
- Co-ordinate the management of resources with an emphasis on sustainability
- Value the contribution of partners, employees and citizens, trusting each other and working collaboratively

Objectives

- Provide an excellent cost-effective frontline service for all our customers
- Work towards a safer and more caring community
- Provide a green and sustainable environment
- Encourage a thriving local economy
- Improve the quality of life for people in our district
- Maintain and enhance our local heritage

Introduction

Rochford District Council – An Overview

Rochford District Council (the Council) is in south-east Essex. The south of the district neighbours the urban areas of Southend-on-Sea Borough Council and Castle Point Borough Council. The district is further bordered by Basildon District Council to the west, the River Crouch to the north and the North Sea to the east.

The district covers an area of approximately 168 square kilometres which is predominantly rural in nature with three larger urban areas (Rayleigh, Rochford and Hockley) and a number of smaller settlements.

A view of the district can be formed from the following statistics:

- 78 489 population (2001 census) - this number is predicted to rise to approximately 81 000 in 2021
- 32 707 dwellings (in 2001) with a requirement to provide a further 4 600 by 2021
- 4th lowest carbon footprint in Essex
- 85% of the district is green belt
- 41% of households own 2 or more cars
- 7 industrial estates with a new business park currently being developed

Rochford District Council has clearly illustrated its commitment to sustainability and improving the local environment within its 2008 'Vision to Reality' document, and includes specific reference to these matters within its values and objectives.

We want to create an environment that is vibrant, inclusive, safe, sustainable and modern while retaining the essential characteristics of the salt marshes, rivers, woodland, open countryside, villages and market towns that make Rochford what it is today. We see the District as a place with high quality natural and built environments that retain their distinctiveness, foster civic pride and where all have access to quality accessible services.

- i) Build on the heritage, cultural and economic strengths of our area and the sense of identity and civic pride of our people
 - ii) Improve the quality of life for people in our communities and play a full role in the sustainable growth and prosperity of our County.
 - iii) In particular, we will utilise our position within Thames Gateway South Essex to promote the District as the 'green part' of the sub region.
- Source: Vision to Reality, Rochford District Council, 2008*

The Council acknowledges its environmental responsibilities and recognises that in order to preserve and enhance the local (and global) environment, it needs to take steps to improve its performance and that of the people who live and work in the district.

The Council and Climate Change

In the eight years since the Council wrote its Local Agenda 21 Strategy, there has been world-wide recognition of the need to adapt to and mitigate for the effects of climate change.

There is widespread scientific consensus that man-made greenhouse gas emissions are driving climate change, the effects of which are potentially irreversible. Many high-profile reviews, documentaries and even concerts have addressed the subject and many of our everyday behaviours have already been influenced for the better.

The inevitable consequences of climate change will continue to occur for the next few decades because of past human activity and the inherent inertia in the climate mechanism. Temperatures will continue to rise for approximately 40 years and so will sea levels for more than a century. It is therefore vitally important that the Council, its residents and the businesses that operate within Rochford District pursue the complementary actions of adaptation and mitigation from this point on.

Adaptation: Any adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Mitigation: An anthropogenic intervention in order to reduce the anthropogenic forcing in the climate system; it includes strategies to reduce greenhouse sources and emissions and enhancing greenhouse gas sinks.
Source: Glossary, IPCC Fourth Assessment Report, 2007

The UK is already experiencing changes in weather events:

- Milder and wetter winters
- Hotter and drier summers
- More frequent 'extreme' weather events (e.g. heavy rainfall, high temperatures and heat-waves, strong winds)
- Rising sea levels (exacerbated by potential subsidence)
- Reduced soil moisture (particularly in summer and autumn)

The need for action is particularly important for local authorities in Essex, because not only is the county low lying and situated within the Greater Thames Estuary, it is also one of the driest parts of the UK. The increased

demand for development and infrastructure, lifestyle changes and migration will increase Rochford District's vulnerability to the effects of climate change.

In our position of responsibility, we as a council must take steps to:

- Minimise the potential risks to people, the environment, property and businesses;
- Minimise our own impacts – and those of our residents and businesses – upon global warming; and
- Acknowledge and realise the opportunities that may arise due to the effects of climate change (where they do not worsen the impacts on others)

The changing weather directs us all in how to adapt for the future. For instance, if we plan now for homes which can cope with higher temperatures and stronger winds, this will be far better than trying to make changes to existing properties later when those effects are being felt. Similarly, homes - new and old - can be made to manage energy and water resources more effectively, thereby minimising the effects of the lifestyles of their occupants.

Furthermore, we also need to recognise that the changing environment may also give rise to some positive impacts within, for example, the areas of fuel poverty and leisure and tourism as well as potentially give rise to areas of conflict such as air quality.

The 2005 Stern Review on the Economics of Climate Change clearly illustrated the financial benefits of the UK acting early and decisively to mitigate the effects of climate change, whilst also acknowledging that adaptation measures are crucial in reducing the economy's vulnerability to the effects of climate change.

Legal Context

The UK target under the 1997 Kyoto Protocol is a 12.5% decrease in greenhouse gas emissions by 2012 (based on 1990 levels). In the Climate Change Bill, which at the time of writing is still passing through Parliament, the Government has committed to reduce the UK's greenhouse gas emissions by 80% by 2050.

This has been accompanied by the establishment of the Department for Energy and Climate Change which brings the subject of climate change directly to the Cabinet for the first time.

Every Local Authority has an obligation, through national indicators, to take steps to tackle climate change. Indeed, these indicators are included in Essex County Council's priorities in partnership with all the Essex Local Authorities.

Pressures and Opportunities

The Council will not be acting in a static environment as alongside the actions arising from this strategy, it has its stated objectives to fulfil. Excluding the challenges brought about by climate change itself, there are numerous challenges and responsibilities to be faced. For the council, these include housing demand, growth of the local economy and the expansion of London Southend Airport and the obligations within external strategic documents such as Thames Gateway South Essex and those of partner organisations such as the National Health Service, Environment Agency, etc. Some examples of these are given below:

- International & National
Kyoto Summit; Climate Change Bill; Infrastructure requirements; Development Control requirements; Sustainable Communities Act 2007; National Indicators
- Regional
Location; Topography; Migration; Resource demand; Thames Gateway South Essex; Other public bodies
- Local
The district's urban/rural mix, history and vision; Leadership role and public expectations; Comprehensive Area Assessment inspections; Local Development Framework; Joint Area Action Plan for London Southend Airport; Sea defences; Neighbouring local authorities; Partner organisations

Aims of the Strategy

- 1) To affirm the Council's commitment to tackling the causes and effects of global climate change at a local level and produce an action plan – to be called **ClimateCO₂de** – setting out how it is going to achieve this;
- 2) To make Climate Change an embedded consideration in every decision taken by the Council - whether it be by employees or Members;
- 3) To comply with, and exceed where possible, Central Government targets;
- 4) To work to secure additional benefits such as:
 - a. Increased resilience to the effects of climate change, leading to greater protection and quality of life for people living and working in the district
 - b. Better housing and reduction in fuel poverty, resulting in social and health benefits
 - c. Financial savings for the Council and efficient use of public sector resources
 - d. Lower costs for businesses, making them more competitive
 - e. Improved local air quality and a better, integrated transport system

Overall, this strategy aims to get every person and organisation within the District to use resources effectively, live and operate sustainably and make a positive contribution to the environment.

What this strategy doesn't do:

- Repeat existing action plans relating to specific departments. Only new measures or revisions to existing plans are included.
- Make promises on behalf of partner organisations
- Solve climate change on its own

Only through the ownership of this document by employees and Members will Rochford District Council be able to say that it is 'doing its bit'.

ClimateCO₂de

The Council's action plan recognises a number of issues, namely:

- The local leadership role of the Council and its partners;
- The Council must lead by example as well as directly influence the behaviours of its residents, businesses and visitors;
- Adaptation and mitigation measures must both be implemented;
- Education and promotion is inherent in every action taken;
- There may be conflicts as well as opportunities arising from the effects of climate change and the way in which they are addressed;
- The action plan must be a working document which will be reviewed regularly, with ownership through all levels of the Council and a strong focus on co-ordination of actions, which must themselves be measurable.

From this point on, climate change must be an embedded consideration in every decision taken by the Council

Topics

Legislation & National Indicators

Climate Change Bill

At the time of writing, the Climate Change Bill is making its way through Parliament, so the information in this section reflects the Bill as it currently stands and may be subject to change. We expect the Climate Change Bill to become law by the end of 2008 but this will depend upon the speed of its passage through Parliament.

The Climate Change Bill contains a reporting power. Under this power, reporting authorities - public sector organisations at all levels and statutory undertakers such as the utility companies - can be directed to produce a report on how their organisation is assessing and acting on the risks and opportunities arising from the changing climate (adaptation).

The reports will be published and Government can request further information if required. It is anticipated that the reporting power will be used in the same way that inspections of council operations are carried out now and that councils will be assessed upon their performance accordingly.

Any organisation which has produced a report will then have a duty to have regard to that report in its ongoing operations - so the reports themselves will also act as a further driver for adaptation.

This strategy and the associated action plan is a good starting point for any future reports which may have to be submitted. It is important therefore that the **ClimateCO₂de** contains targets which deliver demonstrable outcomes.

Other Legislation

The Local Government Association document 'Cutting Through The Green Tape' cites numerous pieces of legislation that a local authority may use in its efforts to implement both adaptation and mitigation measures. Although they are not repeated here, the Council's **ClimateCO₂de** endeavours to ensure that full use is made of all the legislative options at its disposal.

The Essex Local Area Agreement

The Essex Local Area Agreement (LAA) is a document drawn up by the Essex Sustainable Partnership and co-ordinated by Essex County Council. Priority nine of the LAA is 'a smaller carbon footprint with less waste' and it specifies each of the partner Councils' targets are under the chosen National Indicators, which are detailed below.

NI186

Per capita reduction in CO₂ emissions in the Local Authority area – Achieve per capita CO₂ emissions within Rochford district of at most 5.1 tonnes by 2010/11 compared to 5.66 tonnes in 2005.

NI188

Planning to adapt to climate change - Achieve at least Level 3 by 2010/11, based on Level 0 in 2007/8.

NI191

Residual household waste per household – Reduce the mass of waste per household sent to landfill from 813kg in 2006/7 to at most 679kg by 2010/11.

NI192

Percentage of household waste sent for reuse, recycling and composting – Increase the percentage of waste recycled or composted from 17.2% in 2006/7 to at least 32% by 2010/11.

Some other allied National Indicators are included within the LAA under other priority areas.

Additional National Indicators relevant to this strategy but not included within the LAA are:

NI185

Percentage CO₂ reduction from Local Authority operations - Cut the Council's CO₂ footprint by 30% by 2012, based on 2005 levels.

NI194

% reduction in NO_x and primary PM₁₀ emissions through local authority's estate and operations – Year-on-year reduction in NO_x and primary PM₁₀ emissions through the council's estate and operations

Work is under way on many of these indicators, and many gains have already been made. Examples of these will be covered in more detail in later sections.

However, with specific regard to NI188 – Planning to adapt to climate change, the Council has yet to reach Level 0, despite having addressed some actions in later levels. Under the Sustainable Essex Partnership, a toolkit has recently been produced to help all the partner authorities jointly undertake adaptation measures, pooling resources and expertise. The majority of Essex local authorities are at level 0 and have a target of level 3, to be reached by 2010/11.

For simplicity and because this is an emerging piece of work, the Council's **ClimateCO₂de** will not duplicate any of the actions contained within the joint toolkit that are above Level 1. The Council needs to attain Level 1 within a short period of time and therefore it is expedient to contain some actions within the **ClimateCO₂de** at this time in order to help us achieve that. A copy

of the NI188 draft toolkit as it stands at the time of publication of this strategy is attached as Appendix 1.

We will report our progress on the NIs listed above through the usual annual internal audit programme.

Thames Gateway South Essex Partnership

Rochford District Council is part of the Thames Gateway South Essex Partnership (TGSE) which in turn is part of the main Thames Gateway; the UK government's top priority for regeneration and growth. TGSE aims to *"...provide an improved quality of life for all the people of South Essex and to allow the area to participate, via the Thames Gateway initiative, in the prosperity of the wider South-East and East of England."*

Within the context of TGSE, the Partnership identified the following priorities for Rochford:

- With Southend Borough Council, resolve the future of London Southend Airport and its environs
- Develop and extend the 'Green Grid' concept across the district and, in particular, in association with the development and expansion of Cherry Orchard Jubilee Country Park
- Promote the leisure and tourism potential of the District and secure new hotel provision in the area
- Conserve and enhance the District's heritage, particularly the centres of Rochford and Rayleigh
- Enhance rail/bus interchange facilities across the District
- Secure high value-added employment

Only a small section of the district falls within the TGSE area but the council uses its position to promote itself as the "green part" of the Gateway. Rochford is tasked with developing high quality spaces for the enjoyment of local residents and visitors.

Rochford's most valuable ongoing contribution to TGSE is its commitment to 'Green Grid', a long-term project as part of a sustainable transport strategy to develop a network of open spaces and green links throughout the TGSE area.

The council's main challenge in meeting the priorities of the TGSE will be to effectively balance the conflicting demands of further residential and economic development whilst protecting and enhancing the area's natural resources and cultural heritage.

Comprehensive Area Assessment

The 2006 White Paper on public sector reform, 'Strong and Prosperous Communities', has given rise to a new local performance framework, based

upon geographical areas, within which the development of Comprehensive Area Assessment (CAA) is a main element. The Audit Commission had previously inspected local authorities under the Comprehensive Performance Assessment inspection regime.

CAA is a new approach, due to begin in April 2009, which 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 effectively public resources are used and will ensure that local public bodies are accountable for the quality and impact of the services that they provide. The issues assessed in each area will reflect local priorities for improving quality of life and will cover issues such as the reduction of an area's carbon footprint.

The joint inspectorate, comprising of the Audit Commission and other inspection bodies, will assess councils, health bodies, police forces, fire and rescue services and other organisations responsible for providing local public services, both collectively and individually.

Local public services are increasingly expected to work in partnership to improve the quality of life of their communities. This will be the first time that we will be held to account collectively for our impact on better outcomes and will influence the way in which the council works with its sister public service organisations.

1980, March – The Cabinet Office predicts an average global temperature rise of 1-2°C by 2000

Source: Adapted from 'ENDS at 30 – How green has Britain gone since 1978?', The ENDS 30th anniversary supplement, Haymarket, May 2008

Energy and Water

Central to the Council's efforts to address climate change is the efficient use of resources, both within Council buildings and across the district by our partners, residents, businesses and other organisations.

Energy

Inefficient or poorly managed use of energy can lead to excessive CO₂ emissions, unnecessary use of resources and loss of money. Reduced and more efficient use of energy and the use of alternative, renewable sources of energy can help to mitigate climate change as well as reduce expenditure on energy in the first place.

As if an incentive was needed, there is also concern over the long-term surety of some fuel supplies and the rising costs of fossil fuels.

Internally, the Council has had a draft Energy and Water Management Strategy since January 2007. Although to date this has not been formally endorsed by Council, actions undertaken by officers both before and after its creation have seen a number of energy efficiency measures implemented. These include the widespread installation of energy efficient lighting, the replacement of boilers with more efficient types with smart metering and the systematic monitoring of energy usage.

Earlier this year, the Council also had an audit undertaken by the Carbon Trust to identify further potential energy saving opportunities within its offices in South Street, Rochford. The audit identified that energy consumption within the offices could be reduced by approximately 40%.

Additional actions identified by the Energy and Water Management Strategy will see further boiler replacements take place at other council-owned buildings, a proportion of electricity purchased to come from renewable sources, a staff energy efficiency campaign, the rewiring of one of the offices and further replacement of light fittings.

The Council has also recently transferred its housing stock to Rochford Housing Association (RHA). Many homes were either at, or near to being at the Decent Homes standard, which incorporates many energy efficiency measures. RHA is committed to improving 100% of their stock to at least the Decent Homes standard by 2010. Central government defines a 'decent home' as one which is 'wind- and weather-tight, warm and has modern facilities' i.e. the property must have both effective insulation and efficient heating.

Indeed, RHA has committed to exceed the minimum requirements of the Decent Homes standard. Examples of the types of energy efficiency measures employed in RHA homes include:

- Double glazing/draught-proofing
- Cavity wall insulation
- Loft insulation
- Over-cladding
- Combination boilers
- Thermostatic radiators

Facing outwards, the Council has officers who promote energy efficiency and installation schemes to private residents across the district. They are a source of advice on techniques, technologies and financial assistance. This is of particular need where fuel poverty – when a household finds it too expensive to heat their home – is an issue.

The Council supports the Warmfront scheme which provides grants up to £2,700 for home owners and private tenants receiving income or disability-related benefits to provide heating and insulation measures. In addition the Council provide top up grants where the cost of the work exceeds the Warmfront grant.

Using the provisions of the Housing Act 2004 relating to excess cold, we work with landlords to ensure privately-rented properties are efficiently heated and insulated, taking enforcement action where necessary.

The council also provides a discretionary grant to homeowners on income or disability benefits to enable repairs to be carried out to their property to bring it up to the Decent Home standard thereby providing a reasonable degree of thermal comfort.

Areas to be addressed by the action plan:

- Investigations in to the feasibility of installing renewable technologies at council-owned land and buildings and broadening the scope of the draft Energy and Water Strategy prior to adoption
- Work more closely with the Energy Saving Trust, British Gas and Warmfront and housing associations to improve energy management across the district
- Reallocation of resources to be supplied to officers promoting energy efficiency so as to better co-ordinate their efforts and enhance the funding schemes available for energy efficiency measures

Water

Similar to energy, inefficient and inappropriate use of water can lead to excessive use of resources and loss of money. The effects of climate change will see a dual increase of the pressure on water supplies in the district due to reduced rainfall and increased demand.

The latest refurbishment programme of public conveniences saw the fitting of waterless urinals and a reduction in annual water usage of 100 000 litres per urinal per year. Dual flush cisterns were also installed throughout the conveniences. Similar improvements to the toilets at the Council offices at Rochford alone have resulted in 1.4 million litres of water less being used per year. All Council offices now have these features.

Very little else has been undertaken by the Council – internally or externally – to address water usage, and this is something that we are committed to correcting.

Areas to be addressed by the action plan:

- Investigations in to the feasibility of installing rainwater harvesting at council-owned land and buildings and the broadening of the draft Energy and Water Strategy prior to adoption
- Work with our partners and housing associations to improve water management across the district
- Identify resources and officers to co-ordinate water efficiency promotions and offer incentives

1982, November – The first wind turbine to be connected to the National Grid - generating 200 kilowatts - is commissioned in Carmarthen Bay, Wales

Development Control

The Council is in a position to control the type of development that is carried out across the district and therefore has a great say in how sustainable they can be. Evaluation of the location and design of buildings and associated factors (e.g. infrastructure) can help us mitigate and adapt to climate change problems and influence the long-term behaviour of residents and businesses.

The Government recognises this role and through the Planning Policy Statement on Planning and Climate Change (2007) sets out how it expects local authorities to consider the effects of climate change through its policies. It states that local authorities, through their Local Development Frameworks, should promote and encourage the construction of sustainable buildings and the employment of renewable and low carbon energy generation.

Further to this, the Building a Greener Future policy statement (2007) commits the Government to ensuring that all new domestic dwellings built from 2016 will be carbon-neutral. The timetable and requirements for this can be found in the Code for Sustainable Homes.

The Council is currently preparing its Local Development Framework (LDF), which will replace the Local Plan from 2009. The LDF is a portfolio of Local Development Documents which together will provide the spatial planning framework for the District up to 2021. The portfolio identifies and reviews issues facing the District and sets out policies to guide future development in the right direction.

At the time of writing, the Council is composing its Core Strategy – the overarching planning policy document within the LDF. The emerging Core Strategy therefore provides an ideal opportunity to address many of the issues that will help the area adapt to, as well as mitigate for, the effects of climate change. After all, the buildings erected now will be those which suffer the effects of more extreme weather events in the future, and will also have to be as resource efficient as possible at the time at which they are constructed.

With these issues in mind, the authors are looking at a number of options prior to consultation which will enhance the environmental performance of new developments, their surrounds and their use. For instance, some of the options considered include the fast-tracking of the implementation of the Code for Sustainable Homes, similar requirements for commercial developments (using the BRE Environmental Assessment Method) and an 'Uttlesford Rule' whereby cost-effective energy efficiency measures are required to the existing building as part of the permission for house extensions.

The authors are also seeking to direct development to areas accessible by a range of sustainable transport choices. The LDF will state how the council will work with partners to deliver sustainable transport infrastructure improvements, including through developer contributions, to ensure new areas are connected to services and facilities by alternatives to the private car. This in turn would have knock-on benefits to the existing communities.

It is well understood that developing land can cause water management issues in particular. As an example of how the surrounding areas to developments may benefit, sustainable drainage systems (SUDS) can be employed which may play several roles including surface run-off/storm water collection, flood risk management, irrigation water and provision of wetland habitats.

Given that the district is amongst the driest areas in the country and summers are forecast to become drier, where new developments are granted planning permission, appropriate, substantive sustainable water management techniques must be employed.

Allied to the Core Strategy is the Joint Area Action Plan which, in partnership with Southend Borough Council, will be a specific planning framework for development at and around London Southend Airport. Should the airport expand – an already thorny issue with respect to climate change – it will have to ensure that it and the surrounding development is done sustainably.

It is important to note here that both documents will have to caution against any worsening of air quality in its efforts to combat climate change and vice-versa.

Internally, any new Council buildings will be of carbon-neutral construction and employ all relevant techniques to ensure that they can be used in the most sustainable manner possible. Similarly, any extensions to or refurbishment of existing Council buildings will have to be carried out under similar lines to the 'Uttlesford Rule'.

Where this is not possible, for instance where buildings are listed, climate change issues will be considered on a case-by-case basis.

Areas to be addressed by the action plan:

- These will be dictated by the consultation responses to both the Core Strategy and Joint Area Action Plan

1987, April – 'Our Common Future' ('the Brundtland Report') is published by the UN Worldwide Commission on Environment and Development. Sustainable Development is defined as 'development that meets the needs of people today without undermining those of tomorrow'

Transport and Air Quality

Use of private and public transport is one of the most significant contributing sources of CO₂-equivalent gasses. Vehicle emissions are also a source of other pollutants for which the local authority is responsible for monitoring and reducing where ceiling levels are breached.

European and UK governmental targets and strategies are requiring and incentivising the research and development of 'cleaner' low-carbon vehicles and the marketplace is responding.

Transport

The Council has a number of employees and councillors who travel to and from work by car and who are required to have a car to carry out their duties. Similarly, contractors working on behalf of the Council also require their own vehicles.

The Council has just joined the Essex-wide 'Travelbudi' scheme which will enable employees to reduce their mileage and therefore CO₂, Nitrogen Oxides (NO_x) and Particulate Matter (PM) emissions.

The Council will further encourage the wider use of public transport and lower emission and more fuel-efficient private (personal and business) vehicles by investigating methods of promotion and incentives for staff, residents and businesses. The council currently promotes cycle-use by its staff. Cycle racks and a shower are provided at the Council offices at Rochford

Essex County Council is the highways authority for the county, so aside from a small number of Highways Agency roads, determines the layout, repair and improvement of the district's roads.

The emerging Localism agenda is a scheme whereby Essex County Council will devolve the expenditure of finite resources to local authorities to spend on highways issues. The council sees that there may be opportunities for it to address both climate change and air quality issues through appropriate use of those resources.

Areas to be addressed by the action plan:

- The co-ordinated promotion and incentivisation of more sustainable travel by staff and councillors
- Working with the relevant partners to establish and incentivise more sustainable travel by residents, visitors and business across the district
- Targeting expenditure of the Localism resources on climate change/air quality projects as they are identified
- Support for the implementation of the South Essex Rapid Transit Scheme (SERT)

Air Quality

With regard to air quality, under the Environment Act 1995 the Council is obliged to periodically review the quality of the air within its district for certain prescribed pollutants. Of the seven pollutant types, two – nitrogen dioxide (NO₂) and particulate matter (PM₁₀) - have been found to exceed national objectives, each in a different location. Where an exceedance is found and there is 'relevant exposure' (as defined), the local authority must declare an Air Quality Management Area (AQMA) and compose an action plan to reduce pollutant levels.

At the time of writing, the Council has not declared an AQMA, however Defra has asked the Council to declare one in Rayleigh High Street for past exceedances. Should the Council be forced to go ahead with a declaration, the resulting action plan may give rise to conflict with climate change measures. For example, should one of the options considered be to redirect traffic, this may increase journey mileage and therefore fuel use and wear-and-tear on car parts.

Conversely, should the 'solution' be to install air conditioning, this may mitigate the effects of the pollutant, but use more resources as a result. Such conflicting considerations may arise in future planning applications as well.

Areas to be addressed by the action plan:

- On those occasions where the council has to remedy or avoid air quality problems, it will commit to avoiding so far as possible the inclusion of actions which will contribute to the effects of climate change

1990, May – The intergovernmental Panel on Climate Change predicts a 0.3°C average global temperature rise per decade under a 'business as usual' approach

Procurement

Many of the Council's services are provided by external organisations such as Sita (Waste and recycling), Connaught (Street scene, building maintenance), SunGard Vivista (ICT) and Virgin Active (Leisure) as well as smaller contracts with other organisations.

Other products and services are bought through partnership arrangements such as stationery and electricity. Examples of products and services bought independently include furniture, training, cleaning services, office waste collection and food and drink.

All of these products and services have an impact upon the environment and to varying degrees will contribute to the effects of climate change. In this light, the Council needs to review the implications of its procurement policy and review the life-cycle of the products it buys and the means by which the services provided in its name are carried out.

Where long-term contracts are in place, we need to work with those organisations to review their environmental credentials and bring about as great an improvement to their (our) performance as possible.

Areas to be addressed by the action plan:

- Review the Council's Environment Policy (2000)
- Revise the Procurement Strategy in line with the Local Government Sustainable Procurement Strategy (2007) so that sustainability is an embedded consideration in every decision made and all future contracts maximise environmental performance
- Review long-term contracts to see what improvements can be made and come to formal/informal arrangements as appropriate
- Work at a corporate level to seek further partnerships which may enable products or services to be bought in more sustainably

1992, June – The UN Earth Summit in Rio de Janeiro was held, leading to the Climate Change Convention and later, the Kyoto Protocol

Waste and Recycling

The rising volume of waste generated, collected and disposed of is of increasing concern with regards to climate change and the wider environment. The Government's Waste Strategy for England 2007 identifies that Councils' aims must be to stall the growth of household waste and reduce the overall quantity of waste collected from residents, whilst also increasing the percentage of waste collected that is sent to be recycled.

Significant consideration must be given as to how we deal with the disposal of non-recyclable materials in the waste stream. In landfill biodegradable matter breaks down, releasing methane and other gasses which contribute to the worsening of the global climate.

In July 2008, the Council successfully introduced a revised household waste collection scheme which encourages an even greater amount of recycling than previously. We collect a wider variety of recyclable materials from the doorstep than before, including compostable materials, and early figures show that we are in line with the targets set out in NIs 191 and 192. Below are some of our reported statistics (all figures in tonnes):

Waste Type / Date Collected (2008)	June	August
<i>Mass Dry Recyclables Recycled</i>	354	837
<i>Mass Kitchen/Garden Waste Composted</i>	121	984
<i>Mass Waste Landfilled</i>	2323	725

In addition, the Council promotes waste minimisation and recycling to residents, schools and other organisations across the district through educational visits and art workshops. They are a source of advice on techniques, technologies and incentives. However, there is little contact with businesses and no work done regarding water.

Of course, we must also look at how we can achieve the same aims with our own waste as well as influence the actions of businesses – particularly with regard to waste minimisation which can have dual cost-saving benefits on top of being sustainable. Our procurement approach can help.

Areas to be addressed by the action plan:

- Compose, resource and implement an integrated Waste Management Strategy for the Council which addresses both the internal and external waste issues within the district
- Clarify responsibility for and effectively co-ordinate internal waste/recycling collection and disposal operations from all Council buildings

1996, March – The Renewable Energy Co. is the first UK company to market electricity solely generated from renewable sources

Leisure, Green Spaces and Biodiversity

These topics are just some of the areas where there may be both adverse impacts as well as opportunities. Drier, warmer summers will lead to increased peak demand for leisure products and services and use of green spaces. There may also be increased year-round demand for these due to milder winter conditions.

The year-round changes in weather conditions will also impact upon biodiversity and the resilience of natural habitats. The needs of green space users will also change.

As more leisure time becomes spent outdoors, the public's health may be adversely as well as beneficially affected. Longer exposure to the sun may give rise to more skin-related illness but potentially increased physical activity may improve the general fitness of the public. With partners, the Council will have to consider how best to promote the use of leisure facilities and open spaces and how to be safe when doing so. The Council will have to consider such things as how much shade is provided and where sun-care campaigns may be required.

Further safety concerns also involve how people use green spaces and what activities may pose risks to others e.g. fires.

However, the parks and woodlands at the Council's disposal provide opportunities to set examples and facilitate educational programmes. The council is currently investigating the feasibility of constructing a carbon-neutral reception and educational facility at Cherry Orchard Jubilee Park. It is hoped that the building can be completely constructed from local materials, mainly from the park, and be largely self-sufficient in respect of energy and food resources.

Tree planting has its obvious benefits in that trees absorb CO₂, however this must be carried out in a manner that will prevent further depletion of soil moisture. This may affect the surrounding biodiversity and increase fire risk, but shallow rooted varieties may also be more vulnerable in strong winds. Similar issues are raised with regards to other types of vegetation that are already or intended to be planted and the council managing their water need and evapotranspiration.

The changing climatic conditions will give rise to higher rainfall during winter and longer dry periods in summer months. This in turn means that in summers we will see a rise in demand for water resources coupled with the falls in reservoir and river levels, whilst there is an increased chance of flash flooding.

At present, the council sells on logs and woodchips from its management operations, returning the income in to further management operations.

Areas of development will exacerbate the problem as the reduced permeability increases the likelihood of flooding. Collection and re-use of water is an increasingly important water-management technique – in green spaces and developments – to alleviate the risk of flooding and assist the supply of drinking water to where it is needed.

Overall, the quantity and quality of green space/green infrastructure will have an increasingly important role to play by reducing flood risk, sequestering carbon, enhancing biodiversity, providing cooling and shading and absorbing air pollutants.

Areas to be addressed by the action plan:

- Compose, resource and implement a long-term district-wide plan for the management of green spaces
- Sun-awareness campaigns run through our Leisure and Environmental Services teams involving our partners

1997, December – The Kyoto Protocol is signed by 38 developed countries. It is a pledge to cut greenhouse gas emissions by an average of 5.2% below 1990 levels by 2012

Business and Community

The Council recognises that only through the combined efforts of itself, businesses and residents will CO₂ emissions from the district be substantially reduced. This theme relies heavily on co-ordinated educational and promotional activities to aid understanding of climate change and what can be done by us all to address it.

Business

For businesses, becoming more sustainable can result in:

- increased efficiency
- reduced costs
- improved profile
- better staff recruitment/retention
- a head start against future legislative changes

Knowledge of the issues may also assist companies to spot opportunities in the marketplace to grow their business.

The Council recognises that different industries and individual businesses may already be at varying stages and have different resources in place to become more sustainable. The Council wants to provide all businesses with sound, accessible advice and incentives to behave in an environmentally responsible manner.

Next year, the Council will be re-writing its Economic Development Strategy and this will have a strong focus on sustainability.

One project being investigated at this time is an 'Eco-Enterprise Unit' for start-up businesses. This is a carbon-neutral building which new businesses can occupy for a limited time. Businesses would operate in a sustainable manner in a environment conducive to do so. This, coupled with a growth in similar, second-phase accommodation will help to embed sustainable actions within those businesses which can then be carried forward.

Previous work on the sustainability agenda has been sporadic, however the Council has been the proud sponsor of the Evening Echo newspaper's annual Essex Business Awards, sponsoring the Environmental Awareness category for the last few years. The award recognises three local companies in respect of their efforts to trade in a more environmentally responsible manner. It is important that the council in its role as a community and business leader and regulator endorses and promotes such behaviour.

Community

Publicly demonstrating the Council's commitment to adapt to climate change and become more sustainable is central to encouraging residents to take ownership of the climate change issue and modify their behaviour accordingly.

The Council has relied upon the independent actions of the Recycling and Home Energy teams to improve the knowledge and ability of the community to address climate change. There has therefore been little co-ordinated publicity to aid the public in understanding issues raised by climate change and what they can do to help.

The Nottingham Declaration is a document whereby councils voluntarily, and publicly, pledge their commitment to address the effects of climate change. At the time of writing, more than 300 local authorities have signed up, yet Rochford District Council is one of only five Essex councils yet to do so. There is an opportunity to kick-start the public-relations and education campaign that is required to generate and maintain knowledge and enthusiasm about climate change mitigation and the council and its partners' achievements.

Areas to be addressed by the action plan:

- Sign the Nottingham Declaration and develop a co-ordinated publicity campaign for the duration of this strategy in order to capture all members of the community and businesses
- Ensure that full use is made of all the various forms of communication available in order to ensure everyone has access to comprehensive information on climate change and related issues

1999, October – The six billionth member of the global population is born in a Sarajevo hospital

