

## **Bracknell Forest Borough Council Climate Change Action Plan**

The Nottingham Declaration on Climate Change was signed by the Leader and Chief Executive of Bracknell Forest Borough Council on 27<sup>th</sup> February 2007.

The Declaration committed us: "Within the next two years develop plans with our partners and local communities to progressively address the causes and the impacts of climate change, according to local priorities, securing maximum benefit for our communities."

This is our first climate change action plan, which focuses mainly on short term actions that the Council can implement internally. We have, however, included some actions that our partners from the statutory, business, voluntary and community sectors can support through the Bracknell Forest Partnership and in their own organisations.

The aims of our climate change action plan are:

- To reduce greenhouse gas emissions from the Council's own operations, especially, energy sourcing and use, travel and transport, waste production and disposal, and the purchase of goods and services.
- To reduce CO<sub>2</sub> emissions by 10% in 2010 and 2011 from a baseline of 2009 in line with the Council's LAA Target.
- To implement policies which reduce greenhouse gas emissions in the Borough.
- To provide focus for climate change leadership in the Borough.
- To highlight and support complimentary strategies and plans in the Borough e.g. waste & recycling, transport, housing development, biodiversity, etc.
- To encourage members of the Bracknell Forest Partnership and other local organisations to reduce their greenhouse gas emissions.
- To prepare for the impacts of climate change.
- To demonstrate the economic, social and environmental benefits of tackling climate change.
- To change attitudes and behaviour towards the use of natural resources, particularly fossil fuels.

This initial action plan covers a three year time frame from 2008 to 2011. This will be reviewed and updated annually as new information becomes available and new targets are set to progressively address the causes and impacts of climate change with the broader community of Bracknell Forest.

### **What is Climate Change?**

Climate refers to the average weather experienced over a long period of time. This includes temperature, wind and rainfall patterns. The Earth's climate is not static, and has changed many times in response to a variety of natural causes.

The Earth has warmed 0.74°C over the last hundred years. About 0.4°C of this warming has occurred since the 1970s.

The Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) leaves little doubt that human activity is the main cause of observed climatic changes.

The main human influence on global climate is emissions of the key greenhouse gasses carbon dioxide, methane and nitrous oxide. At present, just over 7 billion tonnes of CO<sub>2</sub> is emitted globally through fossil fuel use and an additional 1.6 billion tonnes are emitted by land use change, largely by deforestation. The concentration of these gasses in the atmosphere has now reached levels unprecedented for tens of thousands of years.

According to AR4, mean global temperatures are likely to rise between 1.1 and 6.4°C (with a best estimate of 1.8 to 4.0°C) above 1990 levels by the end of this century, depending on our emissions. This will result in further global sea level rises of between 20 and 60cm by the end of the century, continued melting of ice caps, glaciers and sea ice, changes in rainfall patterns and intensification of tropical cyclones.

For the UK, climate change means hotter, drier summers, milder, wetter winters, higher sea levels and a risk of coastal flooding. Across the globe, there will be more intense heat waves, droughts and more flooding. There may be severe problems for regions where people are particularly vulnerable to changes in the weather. Food shortages and the spread of disease are commonly predicted.

While there are alternative views on the science behind Climate Change, the Council has formed the view that it does exist and that human activity makes a significant contribution to it.

### **Why Must We Act?**

Under the international Kyoto Protocol, the UK must reduce its greenhouse gas emissions by 12.5% below 1990 levels over the 2008-2012 commitment period.

In 1997, the UK Government set a national goal to reduce carbon dioxide emissions by 20% below 1990 levels by 2010. In 2003 the Energy White Paper adopted a longer term goal to put the UK on a path to reduce carbon dioxide emissions by 60% by 2050, with real progress by 2020.

While the UK is on track to meet its Kyoto Protocol target, more needs to be done to achieve our challenging domestic targets. The 2006 Climate Change Programme reaffirms Government commitment and sets out a programme to achieve our domestic targets.

The draft Climate Change Bill (2007) proposes to put into statute the UK's target to reduce carbon dioxide emissions through domestic and international action by at least 60% by 2050 and 26-32% by 2020 against a 1990 baseline.

The Stern Review: The Economics of Climate Change (2007) concluded that the costs of not acting will be equivalent to 5% of global GDP each year and could rise to 20% if a wider range of risks and impacts are taken into account. In contrast, the cost of acting now to reduce greenhouse gas emissions and avoid the worst impacts of climate change can be limited to about 1% of global GDP per year.

## Carbon Dioxide Emissions Baseline

Since 2003, DEFRA has published experimental statistics of carbon dioxide emissions for Local Authority areas.

In 2007, the Department for Communities and Local Government published a set of 189 national performance indicators, including NI186- per capita reduction of carbon dioxide emissions in the Local Authority area.

DEFRA proposes to use the 2005 experimental statistics to set the baseline for this indicator and to upgrade them from experimental to full national statistics status when the 2006 data set is published in 2008.

In Bracknell Forest the main sources of carbon dioxide emissions by end user (2005) are:

	<b>Domestic</b>	<b>Industrial &amp; Commercial</b>	<b>Road Transport</b>	<b>Land Use Changes</b>	<b>Total</b>
<b>Bracknell Forest (kt CO<sub>2</sub>)</b>	255	319	189	-1	761
<b>Bracknell Forest %</b>	34%	42%	25%	-	100%
<b>UK %</b>	29%	46%	23%	2%	100%

Carbon dioxide emissions per capita:

	<b>Bracknell Forest</b>	<b>South East Average</b>	<b>UK Average</b>
<b>Per capita CO<sub>2</sub> (tonnes)</b>	6.9	8.4	9.3
<b>Domestic per capita CO<sub>2</sub> (tonnes)</b>	2.3	2.5	2.5

Per capita emissions are derived from energy consumption from all sources, adjusted by removing emission from industrial users already covered by carbon trading (ETS) and emissions due to motorway and rail travel. The resulting emissions are allocated as “end user” (i.e. all citizens) and reflect their energy use in the workplace, at home, through local travel and through consumption and lifestyle generally.

NB they exclude aviation and shipping emissions – although these will be covered by carbon trading eventually.

The first table shows that Bracknell Forest emits a higher percentage of domestic (household) and road transport CO<sub>2</sub> than the national average but a lower percentage of industrial & commercial and land use change CO<sub>2</sub> than the national average.

The second table shows that Bracknell Forest emits less CO<sub>2</sub> per capita across all end user sectors as well as the domestic (household) sector than the South East or UK average.

The apparent contradictions in these figures may be due to the different intensity of end user sectors in Bracknell Forest, relative to the resident population. Although the domestic per capita CO<sub>2</sub> emissions (2.3 tonnes) is below the South East and UK average (2.5 tonnes) this is no cause for complacency.

Gaining a better understanding of where our carbon dioxide emissions come from in the Borough enables us to focus our actions where they will have the most impact.

Bracknell Forest has an LAA target to reduce its own CO2 emissions by 10% in 2010 and 2011 (4% in 2010, 6% in 2011) from a baseline established in 2009. Additionally, it has an aspirational target of reducing CO2 emissions by 30% by 2012 from a baseline of 2007 as part of its Carbon Reduction Plan. If successful in this latter target, this would reduce energy costs by an estimated £4.4 million in the period.

## **Taking the Lead**

Bracknell Forest Borough Council is taking the lead on climate change in the Borough to ensure the long term economic, social and environmental well-being of the local community. This includes taking advantage of the economic opportunities created by climate change and providing everyone in the community with a high quality, healthy, well adapted environment. We are also conscious of the impacts of climate change on the poorest communities of the world and believe that there is a moral imperative for everyone to take action on climate change - now.

Bracknell Forest Borough Council is uniquely placed to tackle climate change locally. It has a democratic mandate for action, enjoys close proximity to citizens through the services it delivers, has a strategic role convening and leading other public, private and voluntary sector partners, and works with other regional bodies. By signing the Nottingham Declaration on Climate Change, we made a commitment to work with partners and local communities to progressively address the causes and the impacts of climate change, according to local priorities, securing maximum benefit for our communities.

While Bracknell Forest Borough Council is leading by example in reducing carbon dioxide emissions from its own operations, far greater CO<sub>2</sub> emissions are generated by the local community. We therefore plan to work with our partners and local communities to adopt low carbon lifestyles and tackle climate change together.

No.	Action	SMART Target(s)	Lead Team	Partners	Resource
L1	Lead by example – improve our own policies and practices	Review Council policies and practices to ensure that sustainability is adequately and consistently addressed. Report to CMT by June 2009 Publish revised policies by March 2010	Climate Change Working Group	Chief Exec's Office DMTs CMT	Existing resource
L2	Publish and utilise planning policies to promote sustainability	Include sustainability in all planning policy documents. Ensure compliance with sustainability requirements of planning policies - ongoing	Planning Policy	Building Control CMT	Existing resource
L3	Engage with Bracknell Forest Partnership to secure commitment to action	Secure commitment to the Bracknell Forest Climate Change Action Plan by December 2008	BFP Board	BFP partners	Existing resource
L4	Optimise sustainability of all new Council buildings	Seek to achieve BREEAM "very good" standards on all new Council buildings by September 2009. Utilise "low carbon/renewable energy" grants, where available - ongoing	CMT	Surveyors	E.g. Low Carbon Buildings grants provide 50% towards capital cost of renewable energy technology.
L5	Raise awareness and stimulate actions in the community	Maintain public awareness of climate change and sustainability issues. Implement a programme of community actions by March 2009	Climate Change Working Group	Corporate Communications	Existing resource
L6	Support homeowners to improve energy efficiency	Investigate alternative schemes to support home energy efficiency. Report to CMT by March 2009	Climate Change Working Group	Sustainable Energy Officer	Existing resource

L7	Educate current and future generations on sustainability	Support the DC&F sustainable schools agenda in all Bracknell Schools. Support the Eco-Schools programme in local schools – ongoing. Provide sustainability educational support to community groups by December 2008	Social Care and Learning  Climate Change Working Group		Existing resource
L8	Print Council publications on recycled paper, using environmentally friendly printing processes, wherever feasible.	All office printers to use recycled paper by March 2009. All corporate publications printed in-house or externally by March 2009	IT Corporate Services  Chief Executive's		Existing resource

# ENERGY

In 2004, the energy supply sector was responsible for about 36% of total UK carbon dioxide emissions. Over the previous decade, the sector reduced CO<sub>2</sub> emissions by about 19%. This was largely through the switch from carbon intensive fuels such as coal and oil, towards low or zero carbon emission fuels such as gas, nuclear and renewable energy.

In 2004, the domestic sector was responsible for about 30% of UK energy use and about 27% of carbon dioxide emissions on an end user basis. Energy is used by a wide range of different appliances in the home – with about 60% used for heating, 20% for hot water and the remainder for lighting and appliances.

The “energy hierarchy” should be used to determine priorities for action:

- Reduce the need for energy
- Maximise energy efficiency
- Use renewable energy

Combined heat and power is an efficient way to produce heat and electricity at the same time. CHP gives a 70-90% fuel efficiency compared to about 50% efficiency for a conventional power station. CHP enables a wide range of energy users, from heavy industry down to individual homes, to save money and reduce carbon dioxide emissions.

Types of renewable energy include:

- Wind turbines – electricity
- Solar photovoltaic (PV) – electricity
- Solar thermal – hot water
- Fuel cells - electricity
- Ground source heat pumps – hot water
- Air source heat pumps – hot water
- Biomass boilers – hot water
- Hydro (water driven) – electricity

Bracknell Forest Borough Council is taking steps to reduce energy consumption and greenhouse gas emissions from its own properties and those of its partners in the Bracknell Forest Partnership. The council also provides support and subsidies for local residents to make their homes more energy efficient.

CHP is already used at Coral Reef and Bracknell Forest Leisure Centre and is being planned for the new Civic Hub and Time Square refurbishment. Renewable energy technologies are currently being planned for the new Garth Hill College.

From February 2008, all new developments over 5 houses or 500 M<sup>2</sup> of floor space for other development will have to demonstrate how carbon dioxide emissions will be reduced by at least 10% and provide at least 20% on-site renewable energy generation. Development below this threshold will need to provide at least 10% of their energy requirements from on-site renewable energy generation (Policy CS12 of the Council's Core Strategy).

No.	Action	SMART Target(s)	Lead Team	Partners	Resource
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### Internal

E1	Participate in the Carbon Trust's Local Authority Carbon Management Programme.	Application submitted February 2008. Programme completion January 2009.	Climate Change Team.	Carbon Trust.	Carbon Trust funded. Officer time 2 days per week x 10 months from existing resource.
E2	Improve energy monitoring and targeting in all Council properties.	Establish Systemlink for all Council properties by January 2009. Train service managers in use of Systemlink by April 2009. Enter direct meter reading data for all properties by April 2009. Provide quarterly energy reports to departmental management teams by July 2009.	Climate Change Team.	All Council departments.	Systemlink software already installed. Energy Technical Assistant appointment approved.
E3	Improve energy metering.	Identify sites where sub-metering is needed by December 2008. Submit proposals to DMT by April 2009. Investigate feasibility of smart meters at all Council properties by June 2009. Report to CMT by September 2009	Climate Change Team.	All Council departments.	Existing resource
E4	Implement Energy Performance of Buildings Directive in Council properties.	Obtain accreditation as an Energy Performance Assessor by September 2008. Display certificates in relevant Council buildings by October 2008.	Energy Manager		Within existing resources Each facility paying about £425 each
E5	Embed carbon management in Council energy policy and procedures.	Review energy policy and procedures in light of LA Carbon Management Programme by January 2009. Establish carbon reduction targets for	Climate Change Team	CMT	Existing resources

		all Council departments by March 2009. Review Energy Efficiency Accreditation for renewal in 2009 Report to CMT by March 2009.			Accreditation £3,000
E6	Supply a minimum 20% on-site renewable energy on all new Council properties over 500 M <sup>2</sup> in accordance with Local Development Framework.	Assess renewable energy options for New Civic Hub & Garth Hill College by September 2008.	Climate Change Team. Chief Exec's Office SCL.	Planning. GHOSP PMT	Garth Hill OSP has DFES financial incentive to exceed LDF target.
E7	Investigate the feasibility of installing on-site renewable energy in existing Council premises.	Review boiler replacement schedule and high carbon sites to identify priorities by July 2009. Conduct an options appraisal for priority sites by December 2009. Report to CMT by March 2010	Climate Change Team.	Surveyors.	Existing resources. CHP for Time square already approved.
E8	Investigate the feasibility of using no/low energy & on-site renewable technology for street signs, street lighting, traffic lights and bus stops.	Review available technologies by September 2009. Report to DMT by December 2009.	Street Lighting	Transport Planning Suppliers	Existing resources
E9	Investigate energy saving opportunities in ICT	Undertake Gartner Benchmarking for Green ITC Data Centre power reduction and air conditioning ongoing. Thin client desktop investigation by January 2009 Review procurement of all ICT to ensure green credentials by January 2009 Review office printers to reduce printers, paper, toner & energy by March 2009 Investigate whether Citrix Servers can be powered off when not in use by September 2008	ICT	Suppliers Civic Hub Group Procurement	Seeking £6,000 for Gartner Benchmarking – funded from available resources in IT and Climate Change budget

E10	Review funding mechanisms for energy/carbon saving measures.	Review Low Carbon Buildings and similar grant schemes by September 2008. Review Council's Spend-to-Save scheme by March 2009. Consider SALIX fund application by March 2009.	Climate Change Team	Corporate Finance. Carbon Trust	Existing resources
E11	Review the potential for wind turbines on Council owned land.	Work with the Carbon Trust's Partnerships for Renewables to conduct a feasibility study of Council owned sites for wind turbine potential by March 2009.	DECC	Corporate Property	Potential income stream

### Households

E12	Promote energy efficiency in private sector homes to meet NI187 targets and contribute towards new NI 186.	Achieve 1% decrease of those in fuel poverty under SAP 35 and 1% increase in those above SAP 65 per NI 187 by December 2009	Climate Change Team	British Gas and Marks Insulations Warm Front Bracknell Forest Homes	Sustainable Energy Officer
E13	Promote Flexible Loan Scheme to private home owners for home improvements.	Value of loans awarded by April 2009	Environmental Health Team /Housing Strategy Team	Berkshire Authorities	Grants Officer to be trained & licensed

# TRANSPORT

In 2005, the transport sector was responsible for around 27% of total UK carbon dioxide emissions. While emissions caused by UK industry declined by 19% since 1990, those attributed to transport increased by 14% over the same period.

The increase in transport emissions is due to the following factors:

- As the economy grows, people travel further and buy more goods from all over the world.
- As people become more prosperous they choose to travel in ways that use more carbon.
- Although average new car fuel efficiency has improved by 10% since 1997, this is not enough to offset the increase in travel.

The 2006 UK Climate Change Programme commits the Government to reducing the impact of travel on the environment; reducing the carbon content of transport fuels; increasing the fuel efficiency of vehicles and; encouraging a move towards more environmentally friendly forms of transport.

In Bracknell Forest, the Local Transport Plan 2006-2011 focuses on five broad objectives:

- To maintain local roads
- To improve road safety
- To reduce peak hour congestion
- To provide better access to essential services
- To improve public transport

The LTP is subjected to a Strategic Environmental Assessment to ensure that environmental issues are integrated into the final document.

SEA Objective 11 - Climate Change:

“The LTP will have positive impacts when mitigating the causes of climate change because reducing traffic and encouraging the use of sustainable methods of transport are key themes of the plan. This will reduce emissions of carbon dioxide, which contributes towards climate change, and this will in turn reduce secondary impacts, including flooding, impacts on biodiversity and health.”

In addition to its transport planning function, Bracknell Forest Borough Council operates a substantial fleet of vehicles and employs a large number of personnel who travel on Council business and between home and work. All of these contribute to the Borough's carbon dioxide emissions.

From 2008 all Local Authorities will be measured against 198 national performance indicators. Two of these include carbon dioxide emissions from road transport and one relates to the mode of travel to schools:

- NI 185 CO<sub>2</sub> reduction from Local Authority operations
- NI 186 Per capita CO<sub>2</sub> emissions in the LA area
- NI 198 Children travelling to school – mode of travel usually used

Bracknell Forest Borough Council works in partnership with other statutory, business, voluntary and community sector organisations through the Bracknell Forest Partnership. This contains a number of theme partnerships including the Bracknell Transport Partnership, which will support the roll out of this action plan in the broader community.

No.	Action	SMART Target(s)	Lead Team	Partners	Resource
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### Transport Planning

T1	Increase the use of sustainable modes of transport	<ul style="list-style-type: none"> <li>Increase cycling by 20% over 2003/04 levels by March 2011</li> <li>Improve bus patronage on 2004/05 levels by 6% by March 2011</li> </ul>	Planning and Transportation	Bracknell Forest Partnership	Existing resource
T2	Increase the number of children travelling to school by sustainable modes of transport	<ul style="list-style-type: none"> <li>All schools to have a school travel plan by 2010</li> <li>Reduce car use to school to 33% by March 2010</li> </ul>	Planning and Transportation	Schools Education Department	Local authority schools are eligible to receive a school travel planning grant worth up to £5000
T3	Constrain the increase of traffic on Bracknell's roads	<ul style="list-style-type: none"> <li>Constrain road traffic growth to 4.6% over the five years to March 2011</li> </ul>	Planning and Transportation	Bracknell Forest Partnership	Existing resource
T4	Reduce staff travel by unsustainable modes of transport	<ul style="list-style-type: none"> <li>Review BFBC staff travel policy by September 2008</li> <li>Amend staff travel policy by December 2008</li> <li>Implement revised staff travel policy by March 2009</li> <li>Implement staff travel plan by September 2009</li> <li>Reduce business mileage by 5% on 2006/07 levels by 2010</li> </ul>	Planning and Transportation  CMT	Climate Change Working Group  HR	Implementation of a Staff Travel Plan is outstanding (even though the LTP states that we will adopt one by December 2006)  Potential Economy
T5	Increase green travel planning in the Borough	<ul style="list-style-type: none"> <li>Establish green travel planning objectives by December 2008</li> <li>Promote best practice to local organisations by July 2009</li> </ul>	Planning and Transportation	Bracknell Forest Partnership	Existing resource

## Fleet Management

T6	Centralise the management of Social Services transport services for greater efficiency.	<ul style="list-style-type: none"> <li>Report on passenger transport service provision by September 2009</li> <li>Transfer passenger transport services to the Integrated Transport Unit by April 2010</li> <li>Promote service to additional users by July 2010</li> </ul>	Integrated Transport Unit	Passenger transport users	Existing resource
T7	Improve transport management system	<ul style="list-style-type: none"> <li>Pilot Advanced Passenger Transport Service (APTS) software by September 2009</li> <li>Provide detailed management reports by January 2010</li> <li>Extend to all fleet vehicle users by April 2010</li> <li>Extend to staff travel by September 2010</li> <li>Investigate feasibility of a Vehicle Tracking System</li> </ul>	Integrated Transport Unit	Fleet vehicle users HR  Berkshire Shared Services	APTS Software already acquired. Vehicle Tracking System TBC
T8	Improve driver skills	<ul style="list-style-type: none"> <li>Provide SAFED (Safe &amp; Fuel Efficient Driving) training to all passenger &amp; goods vehicle drivers by April 2009</li> <li>Offer equivalent driver training to all Council staff from April 2010</li> </ul>	Integrated Transport Unit  HR	HR	One day subsidised SAFED driver training @ £50 for 20 drivers piloted April 2008. Additional drivers @ £150 pp.
T9	Reduce environmental impact of vehicle fleet	<ul style="list-style-type: none"> <li>Undertake a green fleet review from the Energy Savings Trust by March 2010</li> </ul>	Integrated Transport Unit	Climate Change Working Group	Review fully funded by the Department of transport

		<ul style="list-style-type: none"> <li>• Submit report with recommendations by July 2010</li> </ul>			
T10	Improve green fleet management practices in the Borough	<ul style="list-style-type: none"> <li>• Establish green fleet management objectives by December 2009</li> <li>• Increase membership of the Transport Partnership by December 2009</li> <li>• Promote best practice to local fleet managers by July 2010</li> </ul>	Planning and Transportation	Bracknell Forest Partnership	Promotional costs

# WASTE

How we manage our waste has a direct impact on climate change. Everyday waste contains readily biodegradable organic matter such as kitchen waste, garden waste and paper. When these wastes break down in landfill they give off carbon dioxide and methane gas. Methane is one of the greenhouse gasses that are believed to be contributing to the effects of climate change.

Here are some facts from DEFRA about the link between our waste and climate change:

- Whilst CO<sub>2</sub> (carbon dioxide) is the most prevalent greenhouse gas, methane is 23 times more damaging to the atmosphere than CO<sub>2</sub>.
- Methane emissions from biodegradable waste in landfill account for 40% of all UK methane emissions and 3% of total UK greenhouse gas emissions.
- Current UK recycling of waste materials is estimated to save more than 18 million tonnes of CO<sub>2</sub>, through avoided primary material production. That's equivalent to the annual CO<sub>2</sub> output of 5 million cars.

Although it's a complex thing to assess, recycling is often less energy intensive than making products from virgin materials. For example aluminium recycling uses 95% less energy than is used in making the same product from aluminium ore. Energy consumption is a major contributor to climate change and recycling can be one way of reducing it.

The way in which waste is collected also has an impact on climate change. Vehicles are a major source of CO<sub>2</sub> emissions and so recent developments like kerbside recycling enable councils to greatly reduce the number of journeys that would previously have been needed to recover the same amount of recyclable waste from residents.

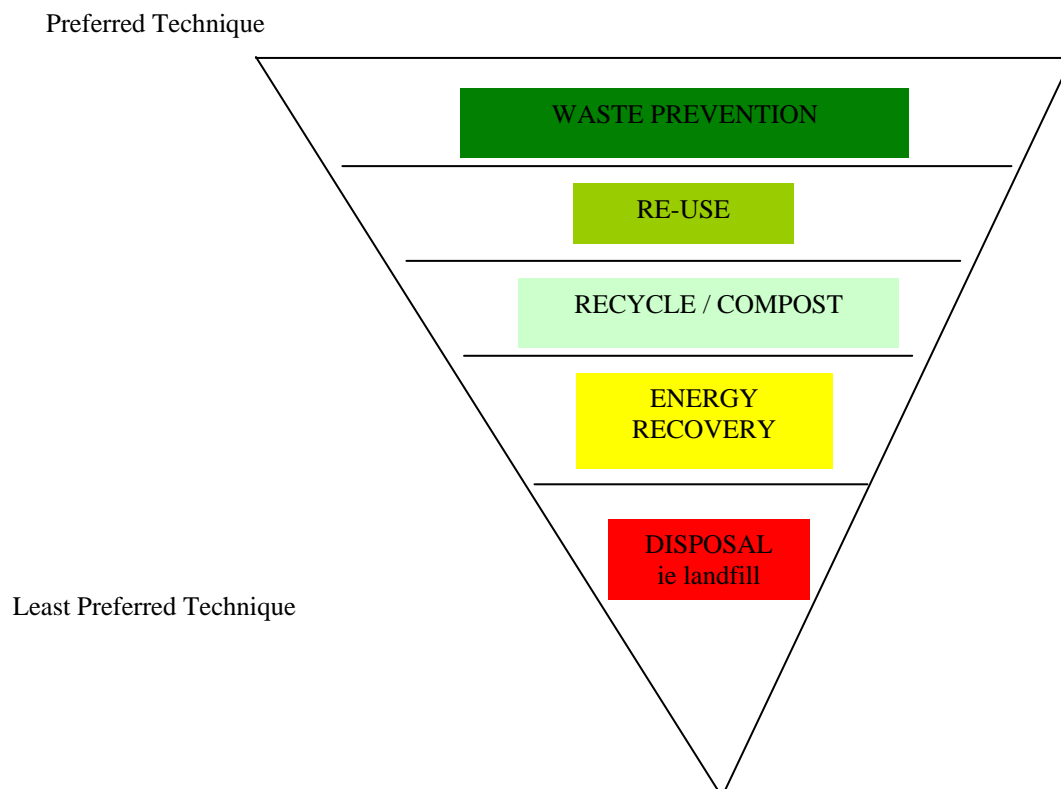
Bracknell Forest Borough Council has worked to continually increase the amount of waste recycled and composted including promoting home composting. The council introduced Alternate Weekly Collections in 2006. The amount of waste recycled and composted has increased from 9% in 1998 to over 40% in 2008.

Bracknell Forest Borough Council has formed a partnership with Reading and Wokingham Borough Councils together with waste disposal contractor Waste Recycling Group (WRG). This partnership is known as re3 and WRG has a 25-year contract to provide new waste facilities (which includes educational facilities) to deal with the 200,000 tonnes of waste from the three councils in the most sustainable and cost effective way. It also aims to encourage people to reduce, reuse and recycle more waste and will minimise landfill by diverting a proportion of residual waste to produce energy.

The re3 partners have formulated a joint waste strategy and have adopted the Government waste hierarchy (National Waste Strategy 2007) below, which shows the best way to deal with waste. The most important action is to reduce the amount of waste we produce in the first place.

Bracknell Forest Borough Council as an individual authority and as part of the re3 partnership is committed to the protection of the environment in relation to management of waste and climate change and will continually review ways in which these issues can be tackled.

### The Waste Hierarchy



No	Action	SMART Target(s)	Lead	Partners	Resource
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### Waste Strategy

W1	Implement joint waste strategy with partner councils (Reading and Wokingham Councils) with objective based on the waste hierarchy in the National Waste Strategy using best practical environmental options.	<ul style="list-style-type: none"> <li>Adopt the joint waste strategy for Bracknell Forest by December 2008.</li> <li>Publish strategy by April 2009</li> <li>Implement strategy by April 2009</li> </ul>	re3 partners.	Other stakeholders. Contractors. Joint Waste Board.	Use grant funding from DEFRA and staff time within existing budgets.
W2	Ensure that the Council has a strategy to reduce waste from Council offices and other Council-owned premises.	<ul style="list-style-type: none"> <li>The Council has a waste strategy for its own premises to ensure it leads by example by April 2009.</li> </ul>	Waste and Recycling Manager	Waste and Recycling Team. Climate Change Group. Schools Facility managers	Facilities management budgets.
W3	Investigate feasibility of partnership work with waste collection services.	<ul style="list-style-type: none"> <li>Feasibility study 2009/10.</li> </ul>	re3 partners.	Collection contractors.	Existing resource

### Waste Minimisation and Awareness

W4	Build on current participation in recycling and composting and seek to raise awareness to effect positive behavioural change.	<ul style="list-style-type: none"> <li>Develop a co-ordinated programme for awareness raising for the whole community.</li> <li>Produce a schools pack about waste and recycling.</li> <li>Produce A-Z of waste as</li> </ul>	re3 waste minimisation officers.  Waste and Recycling Team.	re3 council waste and recycling teams.	Existing resource
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		booklet to be delivered to all residents as well as on website.			
W5	Support and advise local small businesses on recycling and waste reduction	<ul style="list-style-type: none"> <li>Apply for funding for resource to survey local businesses.</li> <li>Work with larger business to promote best practice.</li> <li>Networking and partnerships.</li> </ul>	re3 partners.	Business Link. Environwise.	Brew funding if application successful. re3 partners current resources.

### Garden Waste

W6	Promotion of home composting.	<ul style="list-style-type: none"> <li>Increase the number of home composters delivered in the Borough.</li> </ul>	re3 waste minimisation officers.	WRAP (Waste Resources Action Programme) and re3 partners.	WRAP to fund promotional events. Manage delivery of compost bins, help line and promotional material.
W7	Promotion of the garden waste collection scheme.	<ul style="list-style-type: none"> <li>Increase participation in the scheme by 5%.</li> </ul>	Recycling officer.	re3 waste minimisation officer. Other stakeholders.	Existing resource

### Recycling

W8	<p>Increase glass and textile recycling sites in Bracknell Forest.</p> <p>Ensure all new developments are provided with underground recycling sites for glass and charity banks.</p> <p>Ensure all recycling sites have clear signs, new litter bins and advice on fly-tipping.</p>	<ul style="list-style-type: none"> <li>Increase the number of recycling sites available to residents for items not collected at the kerbside.</li> <li>Reduce the amount of dumped rubbish at recycling sites.</li> </ul>	<p>Recycling officer.</p> <p>Waste and Recycling Team.</p>	<p>re3 waste contractor.</p> <p>Planning Dept Developers.</p> <p>Enforcement teams.</p> <p>Waste collection contractor</p>	<p>Existing resource</p> <p>Funded as part of new development</p>
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W9	Investigate various methods of dealing with food waste and assess feasibility of collections and food digesters.	<ul style="list-style-type: none"> <li>Report on the feasibility and cost of food collections and food digesters</li> </ul>	Waste & Recycling Team.	Re3 Waste Minimisation officers. Re3 partners.  Participants in trial.	Within existing budgets.  Waste performance Efficiency grant.
W10	Work with local charities, voluntary groups and other organisations to develop small recycling and reuse schemes for items that are currently more difficult to recycle and reuse.	<ul style="list-style-type: none"> <li>Become a partner in a community recycling art and craft project in the Town Centre to include the following, if feasible: Implement a community repaint scheme in the Borough. Help to implement a Scrap Store in the Borough, if feasible.</li> </ul>	Waste & Recycling Team	Local Charities, Bracknell Day Centre, Children's Play Development Services, Re3 Waste Minimisation officers	Self funded charity project with donations from Waste Performance Efficiency Grant.

# PROCUREMENT

The UK Government's 2005 Sustainable Development Strategy set out the ambitious goal to make the UK a leader in the EU in sustainable procurement by 2009.

"Sustainable Procurement is a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, while minimising damage to the environment."  
Procuring the Future (Sustainable Procurement Task Force, June 2006)

The Local Government Sustainable Procurement Strategy (LGA, November 2007) was drawn up in response to the recommendations of the Sustainable Procurement Task Force and in light of the Government's response and national action plan published in March 2007.

Local Government spends more than £40 billion each year undertaking capital projects and buying goods and services. LGA notes, "Our spending decisions are an important instrument in tackling climate change both by reducing carbon emissions and ensuring that our buildings and infrastructure are resilient to climate change."

At Bracknell Forest Borough Council (BFBC) we spend approximately £90 million per annum on goods and services. Our Procurement Strategy, to deliver the Council's Medium Term Objectives, was approved in 2003 and is updated annually with support from an interdepartmental Strategic Procurement Group. We also have an e-Procurement Strategy 2008 for the use of electronic processes to support procurement within the council.

We have a small team of specialised procurement officers in the Corporate Procurement Group who develop procurement policies and procedures and establish and manage corporate contracts. All other procurement and purchasing activities are devolved to departmental budget holders with central advice and support.

The Council's Corporate Procurement team was set up in 2002 in recognition of the need to bring a more professional approach to the way the Council had previously procured goods and services. The primary objectives of the team are to secure financial savings and to ensure that the Council complies with relevant legislation. A stretching financial target for ongoing savings has been set for the next two financial years (£200,000 in 2008/09 with a further £170,000 in 2009/10).

Procurement has published a Sustainable Purchasing Guide as Appendix 3 of the Procurement Manual. The Guide "promotes awareness of the environmental, social and economic impacts of various goods and services and aims to help staff involved in Council purchasing to integrate sustainability into purchasing decisions."

From April 2007, the previous Head of Procurement for BFBC was seconded for two years to the Berkshire Procurement and Shared Services Unit (BPSSU) to help drive strategic and collaborative procurement within the Thames Valley region.

The current policy framework provides an opportunity to review our procurement policies and practices to ensure that sustainable procurement is fully embedded into all parts of our procurement processes.

No.	Action	SMART Target	Lead Team	Partners	Resource
P1	Review progress towards sustainable procurement and identify improvements required.	<ul style="list-style-type: none"> <li>• Establish current position on the LGA sustainable procurement flexible framework by December 2008</li> <li>• Identify priority areas for improvement by December 2008</li> <li>• Submit report for CMT approval by March 2009</li> </ul>	Strategic Procurement Group.	Climate Change working group.	Existing resource
P2	Embed sustainable procurement in the Procurement Strategy.	<ul style="list-style-type: none"> <li>• Review strategies for sustainable procurement content by September 2009</li> <li>• Revise strategies for approval by CMT by December 2009</li> </ul>	Strategic Procurement Group.	Climate Change working group.	Existing resource
P3	Embed sustainable procurement in procurement processes and procedures.	<ul style="list-style-type: none"> <li>• Review Procurement Manual and related documents for sustainable procurement content by September 2010</li> <li>• Revise documents for approval by SPG by December 2010</li> <li>• Implement revised processes and procedures by April 2011</li> </ul>	Corporate Procurement. Legal Services	Climate Change working group.	Existing resource
P4	Implement Quick Wins in procurement specifications.	<ul style="list-style-type: none"> <li>• Review OGC's Sustainability Mandatory Standards (Quick Wins) 2007 for BFBC by September 2009</li> <li>• Submit recommendations for adoption to CMT by December 2009</li> <li>• Implement approved quick wins</li> </ul>	Strategic Procurement Group.		Existing resource

		by April 2010			
P5	Increase purchases of sustainable goods and services.	<ul style="list-style-type: none"> <li>Analyse sustainable purchase practice in BFBC (e.g. Banner o2o Green Guide purchases) by September 2009.</li> <li>Survey attitudes to sustainable purchasing amongst authorised purchasers by September 2009</li> <li>Develop action plan for approval by CMT by January 2010</li> <li>Implement approved action plan by September 2010</li> </ul>	Corporate Procurement.	Climate Change Working group.	Existing resource

## ADAPTATION

There is now widespread scientific consensus that man-made greenhouse gas emissions are leading to rapid and potentially irreversible climate change.

The Stern Review highlighted the fact that even if the world were to cease all greenhouse gas emissions tomorrow, we would still face many decades of climate change, due to the length of time that carbon dioxide stays in the atmosphere. Although efforts to cut emissions should continue, it is essential that we begin adapting assets, infrastructure and services to cope with the future impacts of climate change.

The UK Climate Impacts Programme (UKCIP 02) identifies the following climate change risks for SE England;

- Hotter, drier summers,
- Milder, wetter winters,
- More frequent extreme high temperatures,
- More frequent heavy downpours of rain,
- Significant decreases in soil moisture content in summer,
- Sea level rises and increases in storm surge height,
- Possible higher wind speeds.

While Bracknell Forest may not feel the direct impact of sea level rises and storm surges, there is a risk of flooding from local rivers and surface water.

The Local Development Framework, informed by a Strategic Flood Risk Assessment, limits development in the floodplains of The Cut and Blackwater rivers on the northern and southern boundaries of the Borough. However, the risk of flooding from surface water run-off during periods of heavy and prolonged rainfall is less predictable and may occur anywhere in the Borough.

Bracknell Forest was fortunate to avoid the worst of the summer 2007 floods, which cost eighteen Local Authorities a quarter of a billion pounds. Seventy percent of this cost was incurred by just four Local Authorities. The floods also highlighted problems of coordination amongst the agencies responsible for water management and emergency response.

At the other end of the spectrum, hotter, drier summers can cause drought, resulting in domestic water restrictions; hosepipe bans; plant die-off; species migration and forest fires.

During the summer 2006 drought and hosepipe ban, Bracknell Forest Borough Council reached agreement with local pharmaceutical company, Boehringer Ingelheim, to use the company's purified waste water for plant irrigation in the Town Centre. This was trialled during the 2007 growing season and will be continued and extended in future years.

Extreme variations in the moisture content of soil can cause heave and shrinkage, resulting in structural damage to buildings.

No.	Action	SMART Target	Lead Team	Partners	Resource
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**Water**

A1	Reduce the risk of surface flooding throughout the Borough.	<ul style="list-style-type: none"> <li>Establish GIS mapping of surface flooding incidents by September 2009.</li> <li>Review surface water drainage to identify areas at risk of flooding under climate change predictions by December 2009.</li> <li>Develop an appropriate surface water drainage strategy by December 2010.</li> </ul>	Climate Change Team.  Environment & Public Protection.	Thames Water. Environment Agency.	Existing resource
A2	Reduce water use in all council buildings.	<ul style="list-style-type: none"> <li>Establish water monitoring and targeting system for all Council premises by July 2010.</li> <li>Provide quarterly water reports to departmental management teams by September 2010.</li> <li>Investigate feasibility of dual flush toilets and time controlled taps</li> <li>Include water consumption data in annual energy report by December 2010.</li> <li>Reduce water consumption &amp; leakage by 5% by March 2011</li> </ul>	Climate Change Team.	Schools  Facility Managers	Existing resource

A3	Encourage public to have more environmentally friendly gardens, reducing need for watering.	<ul style="list-style-type: none"> <li>• Seek approval from Bracknell Flowers' committee for greater recognition of green initiatives in all categories of the Your Gardens competition by June 2009</li> <li>• Increase promotion of green gardening and water conservation techniques e.g. garden centre day.</li> <li>• Switch to the use of grey water to maintain all floral displays &amp; publicise on Council water tankers.</li> <li>• Maximise the use of grey water at satellite sites i.e. Binfield House Nursery.</li> <li>• Install a roadside trial of drought tolerant sedum matting as an alternative to bedding or grass.</li> <li>• Demonstrate drought resistant planting in Town Centre planters.</li> <li>• Promote awareness of the impact of excessive hard surface in front &amp; rear gardens by reducing water infiltration and increasing surface run off.</li> <li>• Encourage new planting of woody plants to take place during the winter months by September 2009.</li> </ul>	Landscape Services.	Bracknell Flowers committee. Boehringer Ingleheim.	Increased promotional time & cost.
A4	Improve water supply and retention to trees in order to reduce impacts of warmer	<ul style="list-style-type: none"> <li>• Increase planting of amenity trees during winter months.</li> <li>• The Council will not plant trees</li> </ul>	Landscape Services.	Ranger Services.	Increased cost of planting boxes, compost/mulch/wood chip.

	summers and droughts.	<p>outside of the planting season.</p> <ul style="list-style-type: none"> <li>• Use of drought resistant tree species to be given greater consideration.</li> <li>• Greater use of the planting box to minimise run off and evaporation of water.</li> <li>• Greater utilisation of compost/ mulch/wood chip to prepare planting pits and top dress newly planted trees.</li> </ul>			
A5	Reduce water consumption in new buildings.	<ul style="list-style-type: none"> <li>• Reduce average water consumption by design in new residential dwellings to 110 litres per person/day &amp; exceed statutory requirements in non-residential buildings. Per Sustainable Resource Management SDP by December 2008.</li> </ul>	Planning and Transportation.		Existing resource
A6	Future-proof the water impacts of new development.	<ul style="list-style-type: none"> <li>• Implement water efficiency &amp; flood prevention techniques: rainwater harvesting, grey &amp; black water recycling, low water landscaping &amp; gardening, &amp; sustainable urban drainage systems (SUDS). Per Sustainable Resource Management SDP by December 2008.</li> </ul>	Planning and Transportation.	Environment Agency.	Existing resource

## Open Spaces

A7	Adapt maintenance programmes for parks and open spaces to changes in the growth patterns of plants	<ul style="list-style-type: none"> <li>Review current maintenance regimes to accommodate altered growth patterns of plants i.e. grass cutting, pruning requirements etc</li> <li>Continue to write risk management policy document addressing climate change and its impact on the relationship between trees and structures.</li> <li>Greater use of mulching and soil improvement techniques to improve soil structure in beds and borders.</li> </ul>	Landscape Services		Assess implications once review and changes in growing season are known
A8	Plan for impacts of climate change on species and habitat conservation and migration	<ul style="list-style-type: none"> <li>Tree Service and Ecologist to be consulted on all tree planting schemes to advise on site and species selection</li> </ul>	Landscape Services Parks & Countryside Service	Friends Groups Countryside Agency English Nature	Increased consultation time by Tree Service and Ecologist.

## Local Development and Building Design

A9	Implement microclimate design principles: green space, orientation of buildings & streets, shading, cool pavement materials, & passive ventilation.	<ul style="list-style-type: none"> <li>Per Sustainable Resource Management SDP by December 2008.</li> </ul>	Planning and Transportation.		Existing resource
A10	Plant trees to provide shade.	<ul style="list-style-type: none"> <li>Encourage schools and other land owners to plant shade trees utilising national events i.e. National Tree Week.</li> </ul>	Landscape Services.	Education. Ranger Service.	TBC – conditional on availability of funds to plant and maintain new trees.

## Emergency Response

A11	Improve prevention and response to climate change emergencies.	<ul style="list-style-type: none"><li>• Review the Thames Valley Community Risk Register for climate change impacts by September 2009.</li><li>• Develop appropriate prevention &amp; response strategies &amp; plans by December 2009.</li><li>• Support Berkshire Local Authorities' climate change adaptation strategies by January 2010.</li></ul>	Emergency Planning.	Thames Valley Local Resilience Forum. Berkshire Integrated Emergency Planning (BIEPS).	Existing resource
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## RAISING AWARENESS

There can be few people today who are not aware of climate change through the popular media. From extreme weather events around the globe to melting ice caps and the plight of the polar bears, climate change is rarely out of the news.

How our everyday lifestyles contribute towards climate change and what effects it may have on our lives or those of our children are less well understood.

The widespread scientific consensus that man-made greenhouse gas emissions are responsible for climate change and the increasing evidence of the consequences are galvanising our actions around two themes:

- Mitigation – reducing greenhouse gas emissions.
- Adaptation – preparing for the consequences.

Hence, while the Council has been raising awareness of environmental issues for many years, the emphasis is now shifting to their climate change impact.

The Energy Savings Trust identified three ways that Local Authorities can address climate change:

- As estate managers - Local Authorities are large employers and major consumers of energy and other resources. Through better management of transport and buildings, Councils can cut emissions and save money. They can also consider how their estate can be better adapted to the changing climate.
- As service providers - For all the services a Local Authority provides, from Emergency Planning to Social Care, Councils can ensure that the impacts of climate change are properly taken into account and emissions are cut as far as possible.
- As community leaders - through the Sustainable Community Strategy and Local Strategic Partnership, Local Authorities can work with other public and private agencies and the wider community to help cut the overall emissions of their area and develop an integrated response to climate change adaptation.

Raising awareness of climate change will take place in each of these areas to ensure that everyone is able to play their part in the major challenge of our time. This includes councillors, council staff, members of the Bracknell Forest Partnership, local statutory, business, voluntary and community sector organisations and individual members of the community.

No.	Action	SMART Target	Lead Team	Partners	Resource
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**Internal**

R1	Raise staff awareness of the Climate Change Action Plan.	<ul style="list-style-type: none"> <li>Publish Climate Change Action Plan by February 2009.</li> <li>Include actions in Council service plans for 2009/10.</li> </ul>	Climate Change Working Group. CMT.	Corporate Communications.	Existing resources
R2	Include climate change in staff training programmes.	<ul style="list-style-type: none"> <li>Include climate change in staff induction programme by July 2009.</li> <li>Include climate change in staff training and development programmes, where relevant, by July 2009.</li> <li>Run environmental management workshops for school managers and governors annually.</li> </ul>	Climate Change Team  Schools Environmental Management Group.	HR	Existing resources
R3	Develop an Energy Champions network to improve energy efficiency in Council premises.	<ul style="list-style-type: none"> <li>Pilot Energy Champions in Environment Culture &amp; Communities by 2008.</li> <li>Run Energy Champions workshops quarterly.</li> <li>Roll out Energy Champions pilot to all departments by July 2009.</li> <li>Broaden Energy Champions role to become Climate Change Champions by July 2010.</li> </ul>	Climate Change Team	Facilities Management.	Existing resources
R4	Maintain staff awareness through internal communications channels.	<ul style="list-style-type: none"> <li>Publish a Climate Change page on BORIS with links to relevant resources.</li> </ul>	Climate Change Team	Corporate Communications, I.T.	Existing resources

		<ul style="list-style-type: none"> <li>• Publish climate change articles in Forest Views.</li> <li>• Run global Turn-It-Off campaign using BORIS, e-mail, posters &amp; stickers (including every PC)</li> <li>• Publish annual Corporate Energy Report and Schools Environmental Report.</li> </ul>		Energy Champions  Education.	
R5	Increase the number of registered Eco-Schools achieving awards.	<ul style="list-style-type: none"> <li>• Increase Eco-School registrations to 22 by December 2008.</li> <li>• Increase awards to 10 bronze, 3 silver, &amp; 1 green flag by July 2009.</li> </ul>	Climate Change Team	Education.	Existing resources
R6	Promote environmental education in schools.	<ul style="list-style-type: none"> <li>• Develop learners awareness of the environment and climate change through Geography and cross curricular activities.</li> <li>• Incorporate environmental and climate change themes in intra/inter school collaborative projects e.g. music &amp; dance.</li> </ul>	Social Care & Learning	Schools	Existing resource

### Low Carbon Buildings

R7	Raise awareness of climate change implications for planners and building control officers.	<ul style="list-style-type: none"> <li>• Brief planners and building control officers on the implications of climate change policies and regulations affecting their work by December 2008.</li> </ul>	Planning. Building Control.		Already underway. Existing resources
R8	Disseminate climate change policy information for developers.	<ul style="list-style-type: none"> <li>• Brief developers on the Local Development Framework and</li> </ul>	Planning.		Already underway. Briefing costs

		supplementary planning documents by January 2009 <ul style="list-style-type: none"> <li>Promote Code for Sustainable Homes by January 2009</li> </ul>			
R9	Demonstrate good practice in sustainable building design and construction.	<ul style="list-style-type: none"> <li>Publicise the good practice features of new developments by September 2009.</li> <li>Arrange site visits to demonstrate good practice by September 2010.</li> </ul>	Chief Exec's Office. Garth Hill PMT.	Corporate Communications.	Publicity costs & staff time

### Strategic Planning

R10	Raise awareness of climate change amongst all members of the Bracknell Forest Partnership.	<ul style="list-style-type: none"> <li>Run climate change briefings in each theme partnership by December 2009.</li> <li>Establish a climate change champion in each theme. partnership by December 2009</li> <li>Establish quarterly climate change champions meetings by January 2010.</li> </ul>	Climate Change Team.  Partnership Board.  Climate Change Partnership.	Theme Partnerships.	Existing resources
R11	Include climate change in all Bracknell Forest Partnership strategies and plans.	<ul style="list-style-type: none"> <li>Community Plan 2009.</li> <li>Corporate Plans 2009.</li> <li>Local Area Agreement 2009.</li> </ul>	Chief Exec's Office.	BF Partnership.	Existing resources
R12	Include climate change in all theme partnership work.	<ul style="list-style-type: none"> <li>Work plans reflect climate change implications by 2009.</li> </ul>	Partnership Board.	Theme Partnerships.	Existing resources
R13	Encourage partnership members to develop and publish their own CC action plans.	<ul style="list-style-type: none"> <li>Action plans published annually.</li> </ul>	Partnership Board.	BFP Members.	Existing resources

### Throughout the Borough

R14	Raise awareness of climate change amongst community groups.	<ul style="list-style-type: none"> <li>• Encourage town &amp; parish councils to develop Climate Change action plans by January 2010.</li> <li>• Encourage voluntary sector organisations to adopt the Third Sector Declaration on Climate Change by January 2010.</li> <li>• Encourage churches to participate in Operation Noah.</li> <li>• Work with Chamber of Commerce to raise awareness in the business sector by January 2010.</li> </ul>	Climate Change Team	Environment Partnership. Town & Parish Councils. BFVA, Federation of Community Groups. Chamber of Commerce.	Existing resources
R15	Communicate climate change to the public through a variety of local media.	<ul style="list-style-type: none"> <li>• Publish a Climate Change page on BFBC web site with links to relevant resources.</li> <li>• Publish climate change articles in Town &amp; Country.</li> <li>• Issue climate change press releases to local media.</li> <li>• Promote climate change behaviour at public events.</li> </ul>	Climate Change Team	Corporate Communications. I.T.	Existing resources
R16	Establish a Climate Change Award Scheme to reward individuals and organisations in the Borough that have made a significant contribution to combating climate change.	<ul style="list-style-type: none"> <li>• Agree categories, criteria and awards by September 2009</li> <li>• Publish award scheme by January 2010</li> <li>• Call for entries by November 2010.</li> <li>• Hold first award ceremony by February 2011</li> </ul>	Climate Change Team	Climate Change working group. Climate Change Partnership. Partnership Board. Corporate Communications	Cost of awards and award ceremony. Existing promotional budgets