### **Foreword**

Moray's environment is among the best in the world, but we recognise that greenhouse gas emissions can be generated in Moray and climate change can affect Moray. The Moray Council is keen to play its part in dealing with climate change. The Council has agreed to reduce greenhouse gas emissions, and is committed to meeting any legislative requirements. The Council will not only change its own culture and practices, but it will lead by example to encourage the Community Planning Partnership, local communities, voluntary sector and businesses to plan their part in minimising, and adapting to, the effects of climate change.

The Climate Change Action plan is one part of the Council's approach to dealing with greenhouse gas emissions. It sets out the practical steps the Council will consider and use. It also includes some examples of how Community Plan Partners are responding to climate change. Technology on its own will not prevent or solve the problems. Much of the change will come from how Council employees and other people use energy and resources, and how they will encourage others to play their role. Change will not always be easy, or a quick fix in the short term. It will require the Council to have a long-term commitment to help with global, as well as local issues.

Climate change is not caused by, or the responsibility of, one organisation or sector of society. We all have a part to play in our individual and collective actions. I firmly believe that the Council, its employees, Community Planning Partners and the wider Moray communities do accept that change is needed, and that together we will support and benefit from this Action plan.



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# **Executive Summary**

General corporate introduction to the document from senior management, CPP and Cllrs.

The Climate Change (Scotland) Act 2009 requires public bodies to act:

- In the way best calculated to contribute to the delivery of the emissions targets in the Act.
- In the way best calculated to help delivery of the Government's climate change adaptation programme.
- In a way it considers most sustainable.

The purpose of the Moray Climate Change Action Plan is to establish a framework for action in Moray, to tackle the causes and consequences of climate change. This strategy describes the present situation, future intentions and actions for the Moray Council to take, in order to achieve the strategic aims set out within this document.

In order to seek to fulfil these requirements the aims of the Moray Climate Change Action Plan are as follows:

- 1. To contribute towards national targets to reduce CO<sub>2</sub> emissions by 80% by 2050 and interim target of 42% by 2020.
- 2. To contribute towards the achievement of the Scottish Government's National Outcomes 12 and 14.

"We value and enjoy our built and natural environment and protect it for future generations".

"We reduce the local and global environmental impact of our consumption and production".

3. To ensure climate change risks to Moray are appropriately identified, assessed, communicated and managed.

Tackling climate change will require the Council to work in partnership with community planning partners, the wider community as well as the business and voluntary sectors. In order to meet these objectives, a programme of actions have been identified for implementation during the period 2010 to 2015. The main projects are as follows.

- Implementation of Carbon Management plan to reduce councils emissions by 30% over 5 years
- Dissemination of Awareness raising campaign to encourage behavioural change
- Installation of energy efficiency measures across council buildings to reduce emissions
- Adoption and Implementation of corporate and office travel plans
- Reduce business and fleet mileage through vehicle rationalisation and increased use of video and teleconferencing
- Promotion and installation of renewables, development of Renewable Energy Action Plan for Moray
- Develop Green Procurement Strategy
- Reduce waste by introducing food composting and anaerobic digestion

#### Climate Change and the Human Dimension

There is a general acceptance within the scientific community that climate change is occurring. The Intergovernmental Panel on Climate Change IPCC, Climate Change 2007: Synthesis Report states "global warming is now unequivocal, as is now evident from observations of increases in global temperatures and ocean temperatures, widespread melting of snow and ice and rising global average sea levels." (IPCC, 2007:2)

Within this report the IPCC attributes most of the observed increase in global average temperatures in latter half of the 20th century to observed increases in anthropogenic greenhouse gas emissions. (IPCC, 2007:5)

Green house gas emissions arise from almost every activity we undertake. The main source is the use of fossil fuels to generate electricity, heat buildings and provide transport. Other significant sources are the result of chemical or biological processes like the production of cement, the process of growing crops, rearing of livestock and the decomposition of waste.

If we don't stop or at least reduce these harmful emissions, the levels of greenhouse gases in the atmosphere are predicted to double from preindustrial levels by 2050. This is very likely to result in an eventual global temperature rise of 1.8 - 6 °C and push many ecosystems (such as coral reefs and rainforests) into irreversible decline.

Even if global temperatures rise by only 2.0 °C, 20-30% of species could face extinction. Furthermore we can expect to see serious effects on our environment, food, water supplies and health.

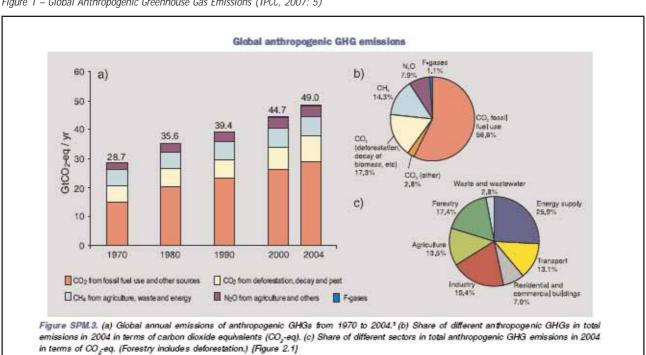


Figure 1 - Global Anthropogenic Greenhouse Gas Emissions (IPCC, 2007: 5)

#### Scotland's Share

Scotland's net emissions of  $CO_2$  in 2005 was 54 million tonnes which equates to approximately 0.2% of the worlds  $CO_2$ , and 0.15% of all greenhouse gas emissions due to human activities. Put in context Scotland has around 0.08% of the world's population, and therefore produces a much greater average amount of emissions in proportion to its population. These figures do not take account of the fact that consumption patterns within Scotland cause emissions in those countries that produce goods on our behalf.

#### Moray's Ecological and Carbon Footprint

The Stockholm Institute results from 2004 show Moray's ecological footprint (global hectares per capita) and carbon footprint (tonnes CO2 per capita) compared to Scotland and the UK.

	Ecological Footprint (gha/capita)	Carbon Footprint (tonnes CO2/capita)
UK	5.30	12.08
Region		
Scotland	5.34	12.16
LA/Region		
Moray	5.18	11.82

The Moray footprint in both instances is below the Scottish and UK average.

# The Role of the Moray Council in tackling climate change

The main aim of this strategy is to provide a clear framework of targets and actions to mitigate climate change by significantly reducing harmful green house gas emissions and in particular carbon dioxide emissions. It is recognised that climate change will have far reaching effects in Scotland's economy, its people and environment.

There are various prompts that have led to the preparation of this document including tighter legislation, moral obligation, reputation, leadership, early action to limit impact and economic development opportunities. The decline in the availability of cheap energy, peak oil debate and future increased energy prices have also made action imperative.

The Moray Council signed the Climate Change Declaration in January 2007, and committed to produce and publicly declare a climate change action plan with targets and time scales to achieve a significant reduction in greenhouse gas emissions from its operations. In line with the Declaration this action plan will address energy use, travel and transportation, waste production and disposal, estate management, procurement of goods and services and improved staff awareness.

On 24 June 2009, the Scottish Parliament unanimously passed the Climate Change (Scotland) Bill, placing Scotland at the forefront of efforts to tackle climate change. The main objectives of the Act are summarised below.

The Climate Change (Scotland) Act has created a long-term framework that will.

- Introduce a statutory target to reduce Scotland's greenhouse gas emissions by at least 80% by 2050.
- Establish an interim target of at least 42% emissions reductions reductions by 2020, with a power for this to be varied based on expert advice from the UK Committee on Climate Change.
- · Establish a framework of annual targets and,
- Include emissions from international aviation and international shipping.

The Scottish Government acknowledges that the public sector has a crucial leadership role in the delivery of Scotland's climate change ambitions and should lead the drive towards sustainable economic growth.

Part 4 of the Climate Change (Scotland) Act 2009 places duties on public bodies relative to climate change. These duties will come into force on 1 January 2011.

The duties require that a public body must in exercise its functions Act:

- (a) In a way best calculated to contribute to the delivery of the targets set out under the climate change act
- (b) In the best way calculated to help deliver the governments climate change adaptation programme
- (c) In a way it considers most sustainable.

  The content of this document addresses the main duties within the Act.

Alongside the Climate Change Act, there are other legislative measures that require local authorities to reduce emissions, including the Carbon Reduction Commitment (CRC) and the Energy Performance in Buildings Directive (EPBD).

Future legislation within the framework of the Climate Change (Scotland) Act 2009 could force local authorities to take further action to tackle climate change. This could impact on the financial well being of the Council, especially if it is unable to anticipate forthcoming changes and prepare for them and act in advance.

#### Strategic Vision

The founding principles of this document are framed around reducing the Council's green house gas emissions in order to mitigate against climate change. It is accepted that we are locked into some level of climate change in the coming years, and alongside mitigation it is essential for Moray to adapt.

These aims are broadly consistent with the Scottish Government's Greener Agenda and specifically National outcomes 12 and 14.

- 12. "We value and enjoy our built and natural environment and protect it for future generations".
- 14. "We reduce the local and global environmental impact of our consumption and production".

The targets and measures within the strategy build upon the key actions within the Moray Community Planning Partnership Single Outcome Agreement 2010/11.

The Council has three main ways to reduce its emissions of greenhouse gases, and help the community adapt to the impacts of climate change.

- As an Estate Manager the authority is a large employer and major consumer of energy and other resources. Through better planning for management of energy, transport and buildings the Council can cut emissions and save money.
- 2. As a Service Provider from Emergency Planning to Social Care, the Council can ensure that the impacts of climate change are properly taken into account and emissions are cut as far as possible.
- As a Community Leader the Council can work with other public and private agencies and the wider community, to help cut the overall emissions in Moray and develop an integrated response to climate change. The Council can also form direct partnerships with others in the community to address climate change.

Addressing the challenges associated with climate change requires an integrated approach in order to limit the magnitude and rate of change, and deal with the impacts and opportunities that may arise. The first is to mitigate in the form of actions to reduce emissions or enhance green house gas sinks. The second is to employ effective measures directed at enhancing the Council's capacity to adapt, minimise, adjust to and take advantage of the consequences of climate change.

These two approaches need to be part of a balanced response to climate change. The founding principles of this document have been summarised into a strategic vision outlining the councils commitments.

Reduce our demand for energy by improving the energy efficiency of all Council buildings.

Reduce our business travel, staff travel including commuting and reduce school travel. Rationalise the Council's fleet and extend alternative fuel trials

Disseminate an effective awareness campaign to Moray Council staff and the wider public. Share best practice and working in partnership with our Community Planning Partners.

Promote the uptake of renewable energy technologies, low carbon solutions and develop sustainable design guidance

Ensure climate change risks to Moray are appropriately identified, assessed, communicated and managed.

#### Strengths and Weaknesses

The following section provides a SWOT analysis of the Council's position in terms of its ability to act to address climate change. It identifies strengths and weaknesses as well as opportunities and threats. The conclusions of this analysis have been used in determining the best course of action.

The Council has an obligation to act on climate change. This assessment emphasises that there are opportunities for the Council to take a leadership role with Community Planning Partners, to minimise the potentially harmful environmental and financial impacts of climate change. In order to do this the Council needs strong early implementation of its Carbon Management Plan, and to build a consensus across the organisation that climate change is an important issues that needs to be addressed now. The Council needs to promote a change of

culture within the organisation, so staff consider it part of their job to reduce greenhouse gas emissions.

There is already a great deal of work being undertaking across various Council sections. It would appear that there is more risk attached to carrying on in a business as usual manner waiting to see how the impacts of climate change manifest themselves rather than implementing a strong proactive programme of actions to significantly reduce emissions, and manage the potential impacts of climate change.

In developing this strategy the Council has chosen to take positive action, the following strategic themes, key objectives, underlying targets and actions provide a framework to allow the Council to significantly reduce emissions.

Strengths	Weaknesses
The Council has undertaken the Carbon Management Programme and has a framework to reduce CO2 emissions by 30% by 2014	Environmental issues and climate change are the responsibility of only a limited number members of staff and have not been fully embedded into the organisation.
Moray has an excellent record in terms of waste management and recycling and can built upon these successes in meeting the challenge of climate change.	A relative lack of knowledge and expertise in the field of climate change, especially climate change adaptation.
There is already a significant amount of work ongoing across the Council and this can be brought together with a strategic focus to tackle climate change.	The distant and far off nature of target dates for emission reductions 80% reduction by 2050.
	Rural nature of Moray means it is difficult to provide services without contributing to climate change through travel to various locations.

Opportunities	Threats
Save money and alleviate fuel poverty	Lack of urgency and continuation of the business as usual scenario.
Local community can respond to local action as opposed to global action	Tighter legislative requirements with financial penalties
Early action to limit the financial and environmental implications to Moray as a whole.	Rising energy prices and unstable energy markets.
Council to lead by example	Flooding, land slips, damage to infrastructure.
Creation of Green Economy and business opportunities within Moray	
Increased partnership working within the Moray Community Planning Partnership.	

The various strands of the strategic vision are broken down into the following themes.

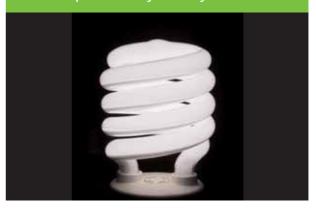
- Carbon Management/Energy Efficiency and the Promotion of Renewable Energy
- Active Travel and Sustainable Travel
- Waste Minimisation
- Sustainable Procurement
- Alternative Fuels and Vehicle Utilisation
- Low Carbon Buildings and Sustainable Design Guidance
- The Natural Environment
- Awareness Raising and Environmental Education
- Local Development Plan
- Climate Change Adaptation
- Partnership Working



# Carbon management, Energy Efficiency and the Promotion of Renewable Energy

#### **KEY OBJECTIVES:**

To reduce carbon dioxide emissions across Council operations by 30% by 2013.



The Council has participated in the Local Authority Carbon Management Programme and this has provided the basis for action to reduce carbon dioxide emissions across a number of Council operations. The programme has identified a number projects that when implemented will reduce the carbon dioxide emissions associated with the Council's daily operations, and raise carbon awareness throughout the organisation. Projects have been chosen to maximise efforts to reduce emissions and specifically target energy efficiency, waste reduction, resource use, greener travel options and promotion of renewable technologies and low carbon solutions. As they develop further projects will be added to the programme during its lifetime to ensure that the Council continue's to lower its carbon footprint.

In terms of energy efficiency the Council continues to monitor energy consumption at all its properties, and has set a reduction target of 2% per annum on the energy consumed by its properties. To achieve this target a programme of energy efficiency and energy reduction projects has been instigated. Projects already in progress include improved insulation, upgraded controls to heating systems

and the installation of lighting controls. The Council has piloted the installation of air source heat pumps in its housing stock. Future projects will include the installation of energy efficient lighting, and the further use of renewable energy to reduce dependency on carbon based fuels.

The Council is also involved in the Carbon Reduction Commitment, a mandatory scheme to reduce carbon emissions by ensuring that organisation purchase allowances to allow them to emit carbon dioxide. The cost of these allowances encourages organisations to reduce their emissions, with the number of allowances available reducing over time making the cost of each allowance increase. The Council has achieved the Carbon Trust Standard, a voluntary measure of the Council's commitment to reduce its carbon output by implementing processes and procedures to ensure that carbon is managed in an effective and efficient manner.

**Promotion of Renewable Technologies** 

# KEY OBJECTIVES: Prepare a Renewable Action Plan for Moray

Scotland's dependence on fossil fuel energy needs to be reduced through more efficient energy consumption, and the increased use of long term sustainable energy sources. In Moray this requires a transition away fossil fuels to renewable energy sources. To promote renewable energy in the Moray

area the Council is proposing to the lead in the preparation of A Renewable Energy Action Plan in conjunction with its Community Planning Partners including the Forestry Commission Scotland, and Highland and Islands Enterprise.

The plan will contain actions to increase the share of the renewable energy whilst balancing environmental and other considerations to ensure sensitive areas of Moray are protected. The plan is also intended as an economic development strategy that aims to identify opportunities to create local jobs and improve the local economy.

The Council should lead by example and install renewable technologies in its own property portfolio.

Active travel/Sustainable Transport



Car dependency in Moray is relatively high with car ownership increasing at a greater rate than Scotland as a whole. In 2001, there was an average of 1.09 cars per household, compared to an average of 0.93 cars per household in Scotland. Public transport services in Moray are focussed along the A96 corridor and outwith this area services are not commercially viable without public sector subsidy. This has led to an over reliance on car transport particularly for short journeys in and

around towns, which increases environmental problems and deters walking and cycling.

In order to address these issues the Council is working with the Scottish Government's Sustainable Travel Team, and other organisations to deliver a model of best practice in sustainable 'Green' travel for Elgin and the surrounding catchment. A key output is an increased uptake of "greener" travel options within Elgin and the surrounding area. There are proposed improvements to the public transport network and the development of the 'Active Travel Network' for cyclists and pedestrians. By increasing sustainable travel choice the Council is seeking to achieve significant reductions in transport related carbon dioxide emissions.

A two year project named 'Urban Freedom' commenced in April 2009 aiming to achieve a sustained change in travel behaviour, including increased proportions of active travel and public transport use, and decreased proportion of car use in particular single occupancy journeys. The project will also provide an opportunity for the Council to undertake activity on sustainable travel, share lessons learned and provide practical experience over time to mainstream these activities in Scotland once they have proven effective. A range of partner organisations and groups has agreed to work with the Council towards the project aims. Key partners include the Local Area Forums, Active Schools, Cycling Scotland, First Scotrail, Hitrans, Stagecoach and Sustrans.



#### **Waste Minimisation**

#### **KEY OBJECTIVES:**

Development of Waste Recycling and Diversion to reach Scottish Government targets



The Council has both a moral and legal duty to ensure that the waste which it collects and disposes of is managed in such a way which has the least impact on the environment, and which does not harm human health. All of the Council's waste activities have some impact on the Council's carbon footprint, and it is estimated that the impact of landfilling our current level of municipal solid waste is around 16,000t of CO<sub>2</sub> each year.

At present the Council operates a segregated kerbside collection of residents' waste to around 34000 domestic properties in urban areas out of a total of around 44000. Green (garden) waste is collected fortnightly alternately with residual waste, and a weekly collection for dry recyclates of paper/glass bottles/cans is provided. A segregated collection system has also been introduced to the business sector to remove as much recyclate from their residual waste as possible. 7 main recycling centres (5 of which are attended) and over 60 recycling points are also available for the deposit of recyclates. This combination has kept the Council in the top six best performing authorities in Scotland for the past few years, and it was the top performer in 2007/08 with a 44% recycling & composting rate.

It is unclear from the data from 2007/08 and 2008/09 if any further progress can be made in raising the Council's recycling rate. It is widely acknowledged by waste managers that the recycling performance level will undoubtedly at some point plateau.

The current status and expected progress against recycling targets are summarised in the table below.

	31.3.06	31.3.07	31.3.08	31.3.09	31.3.10	31.3.11	31.3.12	31.3.13
Recycling target	26.8%	-	30%	-	40%	-	-	50%
Performance	30.9%	38.4%	44%	44%	44%est	44%est	44%est	44%est
Landfill Allowance	33881t	28437t	27395t	26425t	25437t	22611t	19785t	16958t
Perfomance	26326t	23554t	21278t	21228t*	22000t est	22000t est	22000t est	22000t est

<sup>\*</sup> unaudited

The table demonstrates that further action is needed in order to continue to meet Government targets. In 2008/09, municipal waste arising in Moray amounted to 63707 tonnes, 35723 tonnes were landfilled of which 21228 tonnes (approximately 60%) were biodegradable. It is estimated that around a fifth of household waste is due to food waste and therefore up to 7000t of food waste, could be removed from the residual waste stream with full participation across the whole of Moray.

Following rigorous investigation a three phase action plan has been identified which will allow the Council to meet targets using the most appropriate waste management initiatives. Progress with the action plan will be entirely dependent upon funding being made available and it should be noted that at present the possible actions have not been agreed or committed to by the Council.

Phase 1: An option would be to utilise the existing kerbside collection system for green waste to include all food waste. Householders would be provided with kitchen caddies to store waste food in prior to deposit in the brown bin. In vessel composting, a tried and tested method in the UK, would then be used to treat the biodegradable waste.

It is estimated that 4500 tonnes of food waste can be diverted from landfill by the introduction of food waste collection across the existing kerbside collection. This is based on an estimated 150kg per household per year of 'clean' material i.e. no packaging. In doing this it is estimated that recycling performance will increase to 50% and that the amount of biodegradable material landfilled will be 16790 tonnes, which will be less than the maximum allowance of 16958t in 2013.

Under Phase 2 the Council option is to introduce kerbside collection to the remaining households in Moray. All households would be offered boxes for dry recyclates and a bin for green and food waste, thus all households would receive the same service across Moray. It is estimated that the recycling performance would increase to around 55% ensuring that the 2020 target of 60% is within reach. It is anticipated that phases 1 and 2 may take up to three years to implement.

Phase 3 requires that an alternative disposal option be sought for residual waste to comply with the Scottish Government target of landfilling only 5% of municipal solid waste by 2025.

# Alternative Fuels and Vehicle Utilisation

#### **KEY OBJECTIVES:**

Promote Low Carbon vehicles and reduce emissions associated with staff travel and fleet journeys



As part of the Council's Designing Better Services Programme the Transport, Vehicles and Plant theme will be considering carbon emission reductions. There are currently two vehicles currently under evaluation a refuse vehicle and van running on used cooking oil which seems to very successful. Currently, the Council are also considering the use of electric vehicles In terms of the Council's fleet, all new vehicles are diesel euro 5 and contribute to emission reductions. Spend to save initiatives currently being investigated include up front capital expenditure to reduce the age profile of the fleet thus reducing maintenance costs and carbon emissions.



Designing Better Services has introduced a pool car scheme aimed at reducing the 2.8 million miles staff travel using their own vehicles and £1.2m in costs. This would reduce the amount of older vehicles used for Moray Council business, achieve significant financial savings and reduce the associated carbon dioxide and other emissions.

#### Sustainable Procurement

#### KEY OBJECTIVES: Produce a Green Procurement Strategy by 2011



The Moray Council recognises that its activities have an impact on the community in which we work and live, and it acknowledges its corporate social responsibility. When we buy goods and services we aim to do so in a way that minimises impact on the environment. Our aspiration is that our suppliers share our commitment to continuous environmental improvement.

The Moray Council's procurement policy places focus on the consideration of the environmental impact of purchasing decisions to minimise adverse impacts through buying products, wherever possible, which have least impact on the environment. Full lifecycle costs, including disposal, must be taken into account and the choice should favour the option that minimises any adverse environmental effect. In addition,

procurers will also encourage suppliers to minimise any adverse environmental effects of their activities.

We will ensure that we:

- Conserve resources
- Reduce waste
- Phase out ozone depleting substances
- Ensure that any products derived from wildlife are from sustainable sources
- Encourage manufacturers to provide environmentally friendly products
- Apply environmental impact assessments

To ensure that these principles are embedded in the Council's procurement processes a Green Procurement Strategy will be prepared by 2011.

# Sustainable Construction Techniques and Low Carbon Buildings

#### **KEY OBJECTIVES:**

The Development Sustainable Design Guidance

Adoption of BREEAM Standards for all Council new builds and refurbishment projects



Buildings as the main locus of most human activity contribute to half of all carbon dioxide emissions. This extends from the construction and maintenance of our building stock, to the energy



we use to heat, light and run our buildings. The design of new development should address the causes of climate change by minimising carbon and other greenhouse gas emissions, and should include features that provide effective adaptation to the predicted effects of climate change.

As part of the Council's Carbon Management Programme it was agreed to investigate the adoption of BREEAM standards for all new builds and refurbishment projects. The benefits associated with this approach include the consideration of sustainability, whole life costing, energy reductions and the provision of flexible and adaptable buildings.

The Council is currently preparing a Sustainable Design Guide which will be adopted as supplementary planning guidance. The design guide is intended to ensure that sustainability is incorporated early in the design process to maximise potential to reduce energy demands.

The Council collaborated with the Forestry Commission, Highland, Aberdeen City, Aberdeenshire Council's and the Cairngorms National Park to produce \*'Using local timber - contributing to sustainable construction'. This Guidance is for the North of Scotland and seeks to encourage the use of more sustainable and local construction materials and specifically promote the use of local timber in new developments.



#### **Natural Environment**

#### **KEY OBJECTIVES:**

Improvement, Promotion and Management of Moray's Core Path Network and Development of an Open Space Strategy



Our natural heritage encompasses all of the ecosystems, species, habitat, landscape and geology that surrounds us. Much of this resource is finite or difficult to replace and has been steadily lost or eroded over long periods of time.

The diversity of coastline, farmland, woodland, moorland, mountains and river valleys forms a rich variety of landscapes and natural habitats throughout Moray. Much of the area is covered by international, national and local nature conservation designations which highlights the ecological value of the area. 275 of the nationally listed species of conservation concern (21%) and 45 (73%) of the habitats of conservation concern are found in Moray.

Moray's environment is an important asset that requires protecting and enhancing. The Council has a role to play in ensuring the greater use and enjoyment of the outdoor environment. The Moray Core Paths Plan provides a basic framework of Core paths giving the public reasonable access to throughout Moray. It also sets out a vision of how these will be developed to maximise the environmental benefits to the Moray area.

The Council is in the process of developing an Open Space Strategy. The Council also provides a ranger service and supports public and private outdoor educational events as well as promoting the Scottish Outdoor Access code.

# Awareness Raising and Environmental Education

#### **KEY OBJECTIVES:**

Provide simple, constructive and practical advice as to what individuals can do to reduce emissions and manage the changes as a result of climate change.



It is acknowledged that awareness raising and education are key to achieving the significant cuts in emissions that are required in order to meet the Government's ambitious targets. The Council currently undertakes awareness raising events internally and externally.

The Council works with all sectors of the community and has undertaken significant works promoting waste awareness and encouraging everyone to take on board the three 'Rs' message – Reduce Reuse Recycle.

Working within the school environment a number of varied workshops and presentations help pupils of all ages to understand the importance of waste reduction and recycling. Nearly all the schools in Moray have signed up for the Eco Schools awards.

In terms of the wider community individual households, businesses and community groups all face different challenges when trying to reduce their rubbish and the Council's Waste Team are available to discuss individual problems and where possible, to provide solutions. Promotion of the service is carried out by individual visits, talks and presentations to community groups (community councils, church groups, youth groups, fetes, galas and other organisations) and visiting villages and towns with an information vehicle.

The Council is in the process of developing new ideas for promoting the service and encouraging further reduction, reuse and recycling of office waste wherever possible. Communicating with front line staff who work with the general public is seen as an important step in addressing the challenges that lie ahead in meeting the Scottish Government's waste reduction and recycling targets.

The Moray Community planning Partnership Greener Group has a remit for awareness raising. A number of events have been held in Moray specifically promoting renewable energy and sustainable design, these include Moray Energy Efficiency Fair 2010, Sustainable Design Seminar 2010, Green Business Seminar 2009 and Moray Environmental Awareness 2007 and 2008.

The Council as an organisation hosts awareness raising sessions for staff and events have included energy efficiency, carbon management, green travel and use of video and teleconferencing. There are seasonal advertising campaigns to reduce energy consumption. The role of staff and their contribution to emission reductions by various means are presented at inductions for all new staff.

The council is also developing training for janitorial and cleansing staff in an effort to seek further reductions in energy consumption.

#### Local Development Plan

#### **KEY OBJECTIVES:**

Production of a Moray Local Development Plan in 2013.



In accordance with Scottish Planning Policy and Climate Change commitments the settlement strategy set out in the next Local Development Plan due for adoption in 2013 should promote a more sustainable pattern of growth for the area, taking into account the scale and type of development pressure and the need for growth and regeneration. There are significant emissions associated with car journeys, and the plan will seek to reduce the need to travel and encourage active travel and travel by public transport.

When designating land for new residential, commercial and industrial development consideration will be given to heat and energy requirements to make use of opportunities for decentralised and local renewable sources of heat and power.

The siting, design and layout of all new development should limit likely greenhouse gas emissions, particularly by limiting resource and energy requirements. The Local Plan will also require all new buildings to be designed to avoid a specified and rising proportion of the projected greenhouse gas emissions from their use, through the installation and operation of low and zero carbon generating technologies. Furthermore,

supplementary guidance is required to set out the approach to existing buildings which are being altered or extended including historic buildings.

New development will also need to provide effective adaptation to the predicted effects of climate change which includes increase risk of damage to buildings and infrastructure by flood, storm, landslip, subsidence and coastal erosion.

#### **Climate Change Adaptation**

#### **KEY OBJECTIVES:**

Ensure climate change risks to Moray are appropriately identified, assessed communicated and managed.



Even across relatively small areas like the UK, climate change is expected to cause marked regional differences in temperature and rainfall by the end of the 21st century.

The UK Climate Projections (UKCP09) provide the latest information on how continued emissions of greenhouse gases may change the UK's climate over the 21st century. Low, medium and high emission scenarios have been developed to reflect possible future climates.

The Committee on Climate Change has identified various adaptation actions.

- Ensure new buildings and infrastructure is sited to minimise flooding.
- Provide national infrastructure that can cope with severe weather events.

- Design and refurbishing buildings to take account of rising temperatures, flooding and minimising water use.
- Extend green spaces to manage surface water, drainage and cope with rising temperatures and heat waves.
- Extend ecological networks so species can adapt and move as the climate changes.

The key findings for North Scotland, 2080s under a medium emissions scenario are summarised below.

- Under medium emissions, the central estimate of increase in winter mean temperature is 2.2°C; it is very unlikely to be less than 0.9°C and is very unlikely to be more than 3.6°C.
- Under medium emissions, the central estimate of increase in summer mean temperature is 3 °C; it is very unlikely to be less than 1.5°C and is very unlikely to be more than 4.9°C.
- Under medium emissions, the central estimate of change in winter mean precipitation is 17%; it is very unlikely to be less than 4 % and is very unlikely to be more than 35%. A wider range of uncertainty is from 4% to 45%.
- Under medium emissions, the central estimate of change in summer mean precipitation is -11%; it is very unlikely to be less than -28 % and is very unlikely to be more than 4%.

What are the expected outcomes of these types of change? Many aspects of our lives and lifestyles will be affected by climate change. We must adapt to minimise the impact of the potential scenarios ahead of us. The IPCC defines climate change adaptation as 'adjustment in natural or human systems in response to actual or expected changes in the climate or their effects, which moderates harm or exploits beneficial opportunities'.



#### Potential Impacts on Moray Council

No one can predict the consequences of climate change with complete certainty but enough is known to understand the risks. The Council needs to adapt its services, resources, plans and policies to deal with the predicted impacts of Climate Change. Most scientists agree that we are already committed to some degree of climate change regardless of mitigation efforts.

The following examples highlight the issues the Council is likely to face in the future.

Planning – Higher risk of flooding/erosion of susceptible developments in floodplains or coastal margins. Additional expenditure may be necessary for further flood alleviation works and coastal defence works. Hotter longer summers could increase pressure on water resources.

Building Standards – Changes to standards to promote greater energy efficiency and support micro generation. Higher temperatures could lead to requirements for air conditioning in buildings.

Emergency Planning – Increased risk of flooding and severe weather events. Increased severe weather events would result in all kinds of public services being disrupted and more often.

Roads Maintenance – Increased rainfall intensity affecting embankments, bridges, high risk to roads located in floodplains, increased risk of landslips, damage to bridges from high water levels.

Economic Development – Impact on tourism and agriculture (extended growing seasons, hotter summers). Decreased amounts of snow could severely damage the ski industry.

Health and Social Services – Milder winters resulting in fewer cold related deaths and more heat related effects.

There will also be positive opportunities that arise as a result of climate change. One of these is a decrease in levels of fuel poverty. There may also be economic benefits associated with the promotion and development of a 'green economy' within Moray, it is proposed to investigate this as part of the Renewable Energy Action Plan.

#### **Partnership Working**

The Role of the Community Planning Partnership and specifically the Greener Strategic Group will be important in supporting this strategy. The Council has a role in encouraging other organisations to take action, and maximising impact by sharing resources and experience to achieve a common goal. There is a significant amount of working ongoing across the Moray Community Planning Partnership and this demonstrated in the table in Appendix 2.



# **Financial Implications**

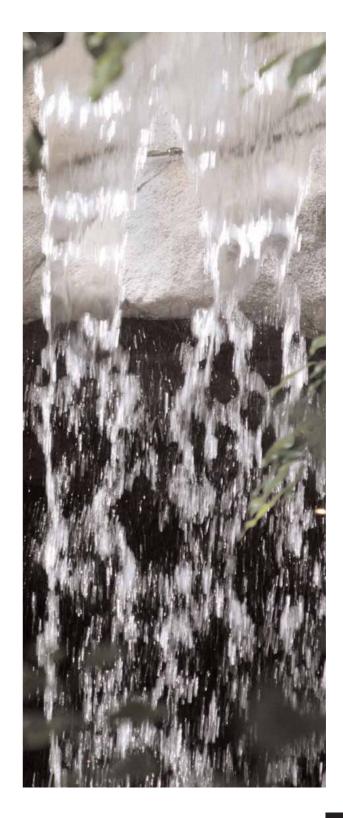
The scientific evidence points to increasing risk of serious, irreversible impacts from climate change associated with a business as usual path for emissions. The evidence gathered as part of the Stern Review The Economics of Climate Change came to the simple conclusion that the benefits of strong action on climate change outweigh the cost.

The finances associated with climate change mitigation should be viewed as an investment, the costs incurred now and in the coming decades will help to avoid the risk of very severe consequences in the future. If these investments are made wisely, the costs will be manageable, and there will be a wide range of opportunities for economic growth and development along the way.

Achieving the deep cuts in emissions set out by the Scottish Government will be challenging but according to the Stern Review, the costs associated with this will be significant but manageable if strong action to reduce emissions is taken early. In many cases the money spent on initiative to reduce emissions yield financial savings as energy and fuel consumption decreases. The Council will wherever possible fully utilise the support and expertise of Government agencies such as the Energy Saving Trust and Carbon Trust to support projects.

#### Targets, Actions and Time Scales

A table of targets, actions and objectives have been identified to demonstrate progress in meeting the key objectives highlighted within the main body of the action plan. The Council intends to report on progress annually and will reflect reportive requirements introduced as a result of the duties on public bodies consultation.



# Reduce Emissions in Council Properties

Comment	Late Autumn/Winter campaign under development including corporate branding for carbon management programme.								
Status	Ongoing	No progress	Ongoing	No progress	Ongoing	Ongoing	Ongoing	Complete	
Timescale	Start Autumn 2009	2009/10	2010/11	2010	2009-2014				
Responsibility	Emma Gordon	Bill Anderson	Bill Anderson/ Emma Gordon	Emma Gordon/ Bill Anderson	Emma Gordon	Bill Anderson	Bill Anderson	Bill Anderson/ Emma Gordon Bill Anderson	
Action	<ul> <li>Awareness raising campaign focussing on energy efficiency, reducing staff mileage and waste minimisation</li> </ul>	<ul> <li>Develop energy management training for maintenance and janitorial staff.</li> </ul>	<ul> <li>Deliver presentation on environmental issues to all new employees at induction.</li> </ul>	<ul> <li>Develop a programme of events and training to create a Green Champions Network across Council.</li> </ul>	<ul> <li>Publicity campaigns to coincide with UK/Scottish Energy Efficiency campaigns.</li> </ul>	<ul> <li>Rolling programme of upgrading and extending BEMS (Building Energy Management Systems) in all suitable schools and office sites.</li> </ul>	<ul> <li>Installation of voltage reduction devices across suitable council sites.</li> </ul>	<ul> <li>Introduce systems for :         <ul> <li>Tracking and reporting financial and</li> <li>CO2 associated with Carbon</li> <li>Management Projects</li> <li>Checking and paying energy bills</li> </ul> </li> </ul>	
Reference	TMC001					TMC002	TMC003		

Reference	Action	Responsibility	Timescale	Status	Comment
	<ul> <li>Appraising costs and benefits of energy projects and renewables ontions</li> </ul>	Bill Anderson		Ongoing	
	<ul> <li>Review and refresh baseline data from Year 1 to improve reliability of baseline</li> </ul>	Bill Anderson		Complete	
	Prepare and display energy property certificates for all applicable Council non domestic properties.	Estates	47 to be completed 18 done as of 31/8/09 target date of completion March 2010	Complete?	
	<ul> <li>Quarterly performance reports on electricity, gas use and CO2 reductions</li> </ul>	Bill Anderson		Under Preparation	
	Pilot installation of smart metering.	Bill Anderson		Under Preparation	
TMC010	<ul> <li>Ensure "low carbon" approach is delivered in all building projects (i.e. BREEAM)</li> <li>Pilot Projects – new office builds and refurbishment of former Safeway building</li> </ul>	Emma Gordon Property and Estates	Organising meetings with counterparts in Aberdeenshire to discuss implications	Under Preparation	
TMC008	Printer rationalisation through the roll out of multi functional devices	Phil McDonald F & ICT/ Margaret Stewart	Elgin HQ offices started April 2009 proposed completion date December 2009	Ongoing	Proposed roll out to all Council assets by end of 2010
TMC009	<ul> <li>Server rationalisation to reduce the number of physical servers, through a server consolidation programme through virtualisation.</li> </ul>	Graham Cooper		Ongoing	

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Reference	Action	Responsibility	Timescale	Status	Comment
TMC005	<ul> <li>Adoption and implementation of corporate and office level travel plans (as per Vipre consultants work)</li> </ul>	Chris Thompson	Summer 2009	Complete	
	Campaign to persuade staff to move to sustainable modes of transport including work place travel planning workshops /seminars to increase travel planning initiatives beyond the Council.	Chris Thompson	2009/10	Ongoing	Establish successful awareness raising campaign. Events including Bike Week, Choose Another Way and promotion of car sharing within the Council.
	<ul> <li>Develop branding and marketing strategy for sustainable travel in Moray.</li> </ul>	Chris Thompson	October 2009	Complete	Urban Freedom campaign launched in October 2009
	<ul> <li>Set up multi disciplinary steering group for sustainable travel projects</li> </ul>	Chris Thompson	October 2009	Complete	First meeting of group in October 2009 partners include Tesco, First Scotrail, Stagecoach, HITRANS.
	<ul> <li>Investigate the provision for cycle carriage on buses</li> </ul>	Katherine Forrest	2009/10	Ongoing	
	<ul> <li>Develop sustainable travel incentive scheme.</li> </ul>	Chris Thompson	early 2010	No progress	To be included within the business of the sustainable travel projects steering group.
	<ul> <li>Install additional cycle storage facilities at workplaces in Elgin area.</li> </ul>	Chris Thompson	2010/11	No progress	
	<ul> <li>Develop sustainable travel website</li> </ul>	Chris Thompson	October 2009	Complete	www.urbanfreedom.org.uk
	<ul> <li>Continue to implement Moray School         Travel Programme with particular     </li> <li>emphasis on secondary involvement.</li> </ul>	Chris Thompson		Ongoing	Secondary schools conference held in Inverness Summer 2009. Currently 93% engagement with schools.

Reference Action	Action	Responsibility	Timescale	Status	Comment
FMC007	<ul> <li>Increase use of video conferencing (linked to awareness raising campaign and ICT open day).</li> </ul>	Emma Gordon/ Phil McDonald	2010	Ongoing	Video & audio conferencing drop in session
	<ul> <li>Introduction of pool bikes for short business journeys and provision of showers, changing facilities and bike lockers.</li> </ul>	Chris Thompson	Sept 09	Complete	Pool bike hire for business journeys and lockers in place since September.

# Waste Minimisation

Reference Action	Action	Responsibility	Timescale	Status	Comment
TMC004	<ul> <li>Extension of kerbside recycling to all households within Moray and the inclusion of food waste and associated treatment.</li> </ul>	Steve Williamson	Unknown	No progress	Action Plan for waste under consideration

# Sustainable Development and Renewable Energy

Reference	Action	Responsibility	Timescale	Status	Comment
TMC003	Promotion of renewable technologies in Calison Hannan Council properties. Pilot scheme Speyside Biomass Project.	Alison Hannan		Under Preparation	Report being presented to
	<ul> <li>Development of renewables at Moray schools and the appraising costs and benefits of renewables options</li> </ul>	Property/ Educational Services/ Bill Anderson		Under Preparation	
	<ul> <li>Development of Sustainable Design Guide.</li> </ul>	Emma Gordon/ Building Standards		No Progress	
	<ul> <li>Production of Use of Home Grown Timber Guidance</li> </ul>	Emma Gordon/ Aberdeenshire, Highland, Aberdeen City and Forestry Commission Scotland	Early 2010	Complete	Council currently taking part in a working group to establish the parameters of the guidance.

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Comment	
Status	
Timescale	
Responsibility	Fiona Geddes
Action	<ul> <li>Updating of fuel poverty strategy.</li> </ul>
Reference Action	

		Sustainable Procurement	Procurement		
Reference	Action	Responsibility	Timescale	Status	Comment
	<ul> <li>Development of a Green Procurement Strategy for 2011</li> </ul>	Diane Law	2011		
		Environmental Education	al Education		
Reference	Action	Responsibility	Timescale	Status	Comment
	Moray Local Development Plan	Mark Cross	2013		Main Issues Report 2011 Adopted Plan 2013
		Climate Change Adaptation	e Adaptation		
Reference	Action	Responsibility	Timescale	Status	Comment
	Business Continuity Plan				

Organisation	MORAY COUNCIL
Carbon Management Programme	The Council has completed the Carbon Trust Carbon Management Programme and finalised a five year plan to reduce emissions by 30 % equating to 10,000 tonnes of carbon dioxide.
Climate Change Action Plan	The Carbon Management Plan will form an integral part of a Climate Change Strategy, prepared over 2008/09. The core team of the Carbon Management team forms the basis of a council wide working group on Climate Change. The Council is seeking to produce a community wide strategy and will be seeking input from all partners through the Greener Group.
Waste Minimisation/ Recycling	Recycling figure for 2007/08 stands at 44% amongst best performers in Scotland. The Council has already surpassed the National target of achieving 40% by 2010 and is well on its way to achieving the 2013 target of 50%. In the future, it is hoped that the current kerbside collection system can be extended to all domestic properties in Moray and that food waste is also collected for recycling (via composting).
Environmental Awareness	The Council try to persuade the general public to reduce the amount of waste they produce via presentations, talks, roadshows and attendance at various community events together with regular school events.  The Council, in partnership with the Carbon Trust and the Energy Saving Trust, has an Energy Awareness programme ongoing.  A budget agreed by the Council to promote carbon management.
Energy Efficiency Measures	The Council is running a small vehicle and van fuelled by cooking oil from Moray Schools. This has proved financially viable as well as environmentally friendly. The Council is looking to extend the scheme.  The Council is arranging for a Green Fleet Review to be undertaken by the Energy Savings Trust.  Energy efficiency measures have been implemented utilising the Central Energy Efficiency Fund and Spend to Save budget set up by the Council. Projects vary in size from timer controllers to full loft insulation projects and the installation of Building Energy Management Systems at the large sites.  The carbon reductions from individual projects are recorded against the project for future collation  The Council will prepare a Sustainable Design Guide in 2011.

Sustainable Construction Techniques Green Travel	The Council has adopted BREEAM standards for recent building programmes including Elgin Academy, Keith Primary School new builds and conversion of former Safeway to Council offices. The proposed sustainable design guide will include reference to sustainable construction.  The Council has prepared a Green Travel Plan for the Elgin Headquarters in association with the Energy Savings Trust. This is in the initial stages for implementation it is anticipated that new storage for HQ will be installed over the summer with pool bikes available soon after.
Protecting and Enhancing the Environment	Protecting and enhancing the environment is one of the main aims within the Moray Local Plan 2000 and Emerging Local Plan 2008.  The Council has undertaken a Strategic Environmental Assessment for the Emerging Local Plan and an assessment of the impact on Natura 2000 sites prepared.  The Council is in the process of developing a Core Paths Strategy and an Open Space Strategy.  The Council has implemented numerous environmental improvements across Moray.
Sustainable Procurement	The Council has a Procurement Strategy 2007-2010. It includes the consideration of the environmental impact of purchasing decisions to minimise adverse impacts. Full lifecycle costs, including disposal, must be taken into account. In addition, procurers will also encourage suppliers to minimise any adverse environmental effects of their activities.  • We will ensure that we Conserve resources • Reduce waste • Phase out ozone depleting substances • Ensure that any products derived from wildlife are from sustainable sources • Encourage manufacturers to provide environmentally friendly products • Initiating environmental impact assessments

Organisation	SNH
Carbon Management Programme	High-level corporate objective to reduce CO2 emissions. SNH now has good quality mgt info on types and sources of CO2 emissions, with quarterly reporting and associated annual local targets – primarily for work travel and energy use.
Climate Change Action Plan	SNH is developing a Climate Change Action Plan for internal corporate systems and outward-facing work with partners and as it affects the natural heritage.
Waste Minimisation/ Recycling	Average SNH recycling rate is 62% of solid wastes from our operations. All offices have targets to recycle 80% and reduce waste.  All new offices operate a 'no bin at desk' policy.
Environmental Awareness	SNH network of Greening Reps in offices provide front-line awareness and local effort. All SNH offices have a Green Office Plan with annual local targets signed off by local Managers and applicable by all staff. Awareness-raising via staff newsletter and other media.
Energy Efficiency Measures	All offices have energy efficiency targets achievable by behaviour change. All IT, office equipment is energy efficient. All lighting and heating systems and controls work towards best energy efficiency. Renewable energy systems are installed at SNH offices and visitor centres where operationally, technically and financially appropriate.
Sustainable Construction Techniques	SNH uses a 'sustainability matrix' to guide capital refurbishment projects and maintenance of properties where we have management. All new-build offices must meet BREEAM 'excellent' rating.
Green Travel	SNH has a travel hierarchy for staff (with non-travel being the top – we have video conference kits in 25+ offices and it is very well used). All new office developments have Green Travel planning – focusing on TTW (public transport info & service improvements, car -sharing, facilities for bikes & walking)
Protecting and Enhancing the Environmenet	This is SNH's main function. SEA, Community Planning, Designations, Planning applications, access and enjoyment, tourism, rural management, marine, grants etc
Sustainable Procurement	SNH has mandatory sustainable criteria for all procurement over £10k Whole life costs, energy efficiency, waste minimisation, natural products, recycled products, recyclability, biodegradability etc.  Local purchasing (food, office supplies, cleaning materials) is expected to be as sustainable as locally feasible.

Organisation	GRAMPIAN FIRE AND RESCUE
Carbon Management Programme	The Carbon trust has carried out energy efficiency surveys at some of GFRS premises and forwarded recommendations which are being actioned by Maintenance Manager. In 2009/10 GFRS will be introducing a range of initiatives to support progress towards achieving ISO 14001 standard.
Climate Change Action Plan	
Waste Minimisation/ Recycling	A waste management programme is in place at some GFRS premises. No targets set.
Environmental Awareness	Awareness raising initiative is under development
Energy Efficiency Measures	GFRS Internal Environmental Policy under development
Sustainable Construction Techniques	All GFRS new build premise and major refurbishments must meet BREEAM "excellent" rating
Green Travel	GFRS has organised a salary sacrifice scheme where employees are able to purchase bikes at a discounted price cycle lockers also installed at premises.  Green Fleet assessment of GFRS vehicles carried out action plan on recommendations under development
Protecting and Enhancing the Environment	GFRS Environmental Management System under development
Sustainable Procurement	GFRS Procurement Policy requires its suppliers and services to operate to high environmental performance standards. Suppliers are asked to demonstrate their commitment to environmental best practice.

Organisation	FORESTRY COMMISSION SCOTLAND
Carbon Management Programme	In terms of Carbon Management Programme the Forestry Commission has a programme called Greenerways to reduce carbon emissions from their activities
Climate Change Action Plan	FCS has produced a comprehensive Climate Change Action Plan which is currently out to public consultation, this builds upon the climate change actions set out in the Scottish Forestry strategy.
Waste Minimisation/ Recycling	
Environmental Awareness	FCS are involved in many activities and partnerships to Encourage access to, enjoyment of and awareness of the environment. This includes provision of recreation facilities, outreach work though initiatives such as Walk Moray and the Forest Education Initiative and the targeting of funds and effort through the Woodlands in and around towns initiative.
Energy Efficiency Measures	
Sustainable Construction Techniques	FCS has just published New Timber Architecture in Scotland by Peter Wilson which celebrates and promotes the use of timber. We are also working on a major project on Scots pine timber quality.
Green Travel	FCS has set targets to reduce co2 emissions from our activities as part of the Greenerways initiative.
Protecting and Enhancing the Environment	FCS are supporting and regulating Sustainable forestry and woodland expansion, this includes a major shift to alternative to clearfell management by Moray FD which will naturalise the forests and improve their ecological value whilst retaining the production of quality timber. We are funding and delivering many species and habitat projects e.g. red squirrel conservation, capercallie etc
Sustainable Procurement	FCS has a national policy and seeks to procure all timber products from sustainable sources. The whole of Moray FD has FSC certification.

Organisation	NHS GRAMPIAN
Carbon Management Programme	Participated in the Carbon Trust Carbon Management Programme in previous years.
Climate Change Action Plan	The NHS has signed up to producing a community wide Climate Change Action Plan with Moray Council through Community Planning
Waste Minimisation/ Recycling	Waste Minimisation programme is in place.
Environmental Awareness	Environmental Awareness is ongoing throughout the NHS Grampian area as identified in the adopted carbon management plan.
Energy Efficiency Measures	Energy efficiency projects are ongoing as part of the implementation of NHS Grampians adopted carbon management Plan
Sustainable Construction Techniques	The NHS has adopted new BREEAM standards for Healthcare standards for all new projects and major refurbishments.
Green Travel	A Draft Green travel plan is currently being consulted on internally
Protecting and Enhancing the Environment	The setting and surroundings of NHS properties can be assessed under the recently adopted BREEAM standards
Sustainable Procurement	NHS Grampian is required to implement sustainable procurement through its environmental policy. There is an ongoing national initiative

Organisation	HIE MORAY
Carbon Management Programme	HIE has undertaken an initial Carbon Footprint review of its 06/07 operations. This is informing the development of further emissions measurement and management activity during the remainder of the 08/09 financial year. This work will support the development of Carbon Management Plans
Climate Change Action Plan	Developing Carbon Management plans will present the opportunity to generate more local or sector specific Climate Change plans
Waste Minimisation/ Recycling	The organisation's Environmental Management System will demonstrate levels of resource use, recycling etc. This information will be available by office/area.
Environmental Awareness	There will be an ongoing programme of work to raise awareness of environmental, emissions and sustainable growth issues. For example the organisation has recently held a "spotlight on Sustainable Growth" week for staff. It is planned to repeat this process every 3-4 months focussing on different environmental, emissions or sustainable growth issues.
Energy Efficiency Measures	HIE is continually reviewing its energy use. The organisations Environmental management system will help facilitate more detailed monitoring and analysis. Investigating how to encourage energy efficiency amongst our suppliers and customers.
Sustainable Construction Techniques	In Late summer 2007 HIE produced a Sustainable Construction Policy. The purpose of this document is to establish a standard of sustainability that will be incorporated into the design and construction of our property portfolio. Recent buildings constructed in Moray employ renewable technologies such as GSHP and solar panels to heat space and water, high efficiency boilers, mechanical ventilation etc. BREEAM excellent ratings are aimed at in all new build
Green Travel	HIE has several salary sacrifice scheme where employees were able to purchase bikes at a discounted price. Working with other stakeholders to identify the feasibility of a bus salary sacrifice programme. Undertaking an organisation wide travel survey which will identify further options for evolving the transport mix.
Protecting and Enhancing the Environmenet	HIE recently undertook a Strategic Environmental Assessment on its Operating Plan. Ongoing development work around reducing HIE's carbon footprint and greenhouse gas emissions will create opportunities to enhance the local environment.
Sustainable Procurement	

Organisation	SEPA
Carbon Management Programme	SEPA participates in the Carbon Trusts Local Authority Carbon Management programme.
riogramme	SEPA maintain certification to the International Environmental Management System standard ISO14001 for all sites and all activities.
	The Corporate Plan has a target for CO2 reduction of 25% by March 2012 (below 2006-07 baseline).
Climate Change Action Plan	SEPA is developing a Climate Change Plan. The consultative draft outlined that SEPA's strategic vision is for SEPA to be an exemplary organisation in responding to the serious threat of climate change and to ensure that the consequences of, and for, climate change arising from its decisions are fully integrated into SEPA's business processes.
Waste Minimisation/	SEPA's Internal Environmental Policy commits SEPA to promote waste minimisation within its own workplaces and encourage reuse or recycling wherever possible.
Recycling	As an example SEPA's recent short term target for reducing paper consumption was 5% per FTE by March 2008 (below 2006/07 levels). Target was not met for 2006/07.
	Practical actions include:
	<ul> <li>Apply waste management hierarchy</li> <li>Bins per office, rather than per desk</li> <li>Central office recycling of paper, plastic, glass etc (exact recyclate depends on location)</li> <li>Most offices also compost their own kitchen waste</li> <li>Contractor for paper collection and shredding</li> <li>Waste minimisation intranet pages</li> <li>Large or double computer screens to reduce the requirement to print out</li> <li>Old IT equipment donated to charities</li> </ul>
Environmental Awareness	Raising environmental awareness is a core function for SEPA both through regulation and its influence role.
	Practical actions include: Green Network of co-ordinators who take responsibility for recording and reviewing progress. Intranet pages on 'Greening SEPA' Produce Internal Environment Report each year - www.sepa.org.uk/pdf/publications/ann_env_report/greeningsepa0607.pdf

#### Energy Efficiency Measures

SEPA's Internal Environmental Policy commits SEPA to measure its energy consumption and set targets to minimise its use. It also optimises the efficient and effective use of energy and support the use of energy from sustainable renewable sources, where appropriate or possible.

#### Practical actions include:

- · Energy efficient bulbs throughout
- Lights on movement timers
- · Reminder posters to switch things off

#### Sustainable Construction Techniques

SEPA has a commitment to ensure that all new built SEPA buildings achieve an 'excellent' rating using Building Research Establishment's Environmental Assessment Methodology.

#### **Green Travel**

SEPA's Internal Environmental Policy commits that SEPA will encourage the use of public transport by its employees wherever appropriate. It also encourages the use of systems such as teleconferencing as a substitute for travelling.

Through monitoring SEPA is already aware that emissions from transport make up the greatest proportion of SEPA's carbon footprint.

The Corporate Plan has a specific target of CO2 reduction from all transport modes of 10% by March 2011 below 2006/07 baseline.

#### Practical actions include:

- Travel hierarchy in place (ie. is travel necessary? can I use public transport, is my only option to drive?)
- · Car share to work database
- · Business travel calendar
- Video conferencing facilities in nearly all offices (during 2006/07 250,000 work miles were recorded as saved through its use)
- Additional expenses paid if passengers taken on business trip
- Support cycle to work scheme
- Offices have bike racks and showering facilities

# Protecting and Enhancing the Environment

This is also SEPA's core business. SEPA aims is to provide an efficient and integrated environmental protection system for Scotland; a system that will both improve the environment and help deliver the Scotlish Government's overall purpose.

#### Practical actions include:

- Produce basic habitats and species inventory for SEPA premises
- Vary grass cutting regimes
- Put up bird boxes

#### Sustainable Procurement

SEPA's Internal Environmental Policy commits SEPA to require its suppliers of goods and services to operate to high environmental performance standards. Suppliers are asked to demonstrate their commitment to environmental best practice. SEPA, where practicable, purchases the least environmentally damaging materials.

#### Practical actions include:

- Sustainable wood sources are required for all office furniture
- Green electricity contract
- only 100% recycled paper used
- Only Low energy white goods purchased
- Less damaging cleaning chemicals used

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