

ABERDEENSHIRE COUNCIL**Climate Change Action Plan****June 2008****1 Introduction**

- 1.1 Climate change is happening. It is widely acknowledged that the actions of mankind are a major contributor, largely through the emissions of greenhouse gases, predominantly carbon dioxide (CO₂). Aberdeenshire Council recognises that climate change will have far reaching global and local effects, impacting on the economy, society and the environment. Signing Scotland's Climate Change Declaration in 2007 was one consequence of this recognition, along with the full acceptance of the Council's responsibilities.
- 1.2 Aberdeenshire Council has begun to address the issue, dealing with its own operations and working to fulfil its role in the wider area. Actions to address climate change are corporate and already extend across all Services of the Council. One major study which reflects this approach was the preparation, in 2007, of a Strategy and Implementation Plan (SIP) under the Carbon Trust's Local Authority Carbon Management Programme. The Climate Change Action Plan incorporates this work, updating the actions in the SIP and includes other work on climate change in order to facilitate management and reporting.
- 1.3 Following a report on climate change, 'The Bigger Issue', by the Council's Scrutiny and Audit Committee, Aberdeenshire Council has committed to working towards being a carbon neutral organisation in the short to medium term ("for example, by 2020") and to use this work as an exemplar and basis for expanding action through the community. This wider action will help fulfil the Council's commitment to enter into a dialogue with local partners to achieve the aim of the area becoming a carbon neutral region in the medium term ("for example, by 2030"). The Council also recognises the economic opportunities available to the area through businesses embracing the climate change challenge.
- 1.4 This Climate Change Action Plan sets out the context for work over the next few years and gives details on some projects which will assist the Council in achieving its aims. The Plan is intended as a document for Aberdeenshire Council as an organisation, so it concentrates on how emissions reductions will be achieved through the Council's day-to-day operations and project planning and investment decisions. However, the nature of the business of the Council, with the provision of services to the community, means that sometimes it is difficult to separate what can be attributed to the Council operations or to the individual members of the community. This Plan therefore also includes actions which are primarily taken by the Council but which have direct influence on the wider community, in terms of individuals, businesses and other organisations. This also fits with the aim of the area becoming carbon neutral.
- 1.5 Climate change is part of the wider sustainability agenda. Aberdeenshire Council has been working for some time to integrate sustainability into its operations and is taking steps to raise the profile of this aspect of the role it

plays in the wider community. In its Sustainability Charter, the Council seeks to ensure that resource use to provide for social, economic and environmental well-being in the short term does not preclude future generations from meeting their needs. Climate change has added extra impetus to this agenda. Appropriate actions will bring wide benefits to the Council, not just in demonstrating leadership but also in financial terms (for example, the new Aboyne wood fuelled boiler is saving the Council £20,000 per year; the introduction of multi-function copiers is saving paper, energy and money, and if extended, could save £800,000 per year).

2 Global and National Context

- 2.1 Climate change has now moved to the 'mainstream' in commanding the attention of governments around the world. In November 2006, Sir Nicholas Stern published his review, "The Economics of Climate Change"¹. This influential review concluded that action is required now to avoid substantial economic burdens in the future, caused by the effects of unmitigated climate change.
- 2.2 The Intergovernmental Panel on Climate Change (IPCC) concluded in 2007 that global temperatures are rising and that this rise was "likely to be caused by the actions of humans"². It forecast global average temperature rises of 1.8 - 4°C by 2100, which could lead to sea level rises, changes in local agricultural and ecological conditions, and more extreme weather. If forecast warming continues beyond this, the resulting disappearance of the Greenland ice sheet could lead to a 7m rise in sea level. The rise in temperature is related to the increased level of carbon dioxide and other 'greenhouse' gases.
- 2.3 In December 2007, agreement was reached between 180 countries to start the process of deciding a way forward to continue and expand on the 1997 Kyoto Protocol, the first commitment period of which ends in 2012. In a controversial compromise step, in order to include the US in the agreement, no set targets on carbon emission reductions were mentioned. Negotiations are due to be concluded at the United Nations Climate Change Conference in Copenhagen in 2009.
- 2.4 The EU has committed to a reduction of 20% in emissions by 2050 (from 1990 levels). This will rise to 30% if supported by similar commitments from member and other countries.
- 2.5 The UK Government has published its Climate Change Bill. The Bill sets a target of at least 60% reduction in CO₂ emissions by 2050 and 26-32% reduction by 2020, against a 1990 baseline. There are to be legally-binding five-year carbon budgets. A UK Committee on Climate Change, chaired by Adair Turner, has been set up to advise the UK Government and the Devolved Administrations on how to reduce emissions, the targets to be set, and the implications of including international aviation and shipping emissions.

¹ Sir Nicholas Stern, 'The Economics of Climate Change', 2006

² Intergovernmental Panel on Climate Change (IPCC) '4th Assessment Report' 2007

- 2.6 The enabling powers in the UK Bill will be used to implement the Carbon Reduction Commitment, which is a mandatory scheme covering CO₂ emissions from approximately 5,000 large organisations, including local authorities, throughout the UK. The UK Government and Devolved Administrations intend to begin this scheme in 2010, with a three year introductory phase. Aberdeenshire Council is likely to be included in the CRC.
- 2.7 In the March budget, the Chancellor of the Exchequer announced that, in addition to the requirement for new domestic building to be zero carbon by 2016, he was proposing that public sector new buildings should be zero carbon by 2018 and all new non-domestic building zero carbon by 2019. Guidance on the definition of zero carbon is expected by the end of 2008.
- 2.9 The Scottish Government has published a consultation paper on its own Climate Change Bill. Aberdeenshire Council submitted its response to the questions in the paper, and contributed to the responses from COSLA and the Sustainable Scotland Network. The Bill is likely to set a target of an 80% reduction in CO₂ emissions by 2050 (on 1990 baseline levels). It is likely to include interim carbon budget periods or targets, set ten or more years in advance, and mandatory annual reporting. The Government hopes to introduce the draft Bill to Parliament in autumn 2008.
- 2.10 There are also targets on the amount of energy to be produced from renewable sources. The UK commitment is for 15% to be generated from renewables by 2020. The Scottish Government has set a target for Scotland to generate 50% of its electricity from renewables by 2050.

3 Aberdeenshire Council Context

Scotland's Climate Change Declaration

- 3.1 In January 2007, Aberdeenshire Council signed Scotland's Climate Change Declaration (see box below for the text). This committed the Council to reduce carbon emissions and work to adapt to, and mitigate against, climate change. One of the commitments in the Declaration is to produce a plan, "with targets and timescales to achieve a significant reduction in greenhouse gas emissions from our own operations".
- 3.2 Work is underway, through the Sustainable Scotland Network (SSN), to provide advice and guidance on how local authorities should be progressing their commitments under the Declaration, particularly the annual statements. There is an aspiration to publish, within the first half of 2008, an agreed Scottish Local Authority Climate Change Programme, which will guide future work.

Scotland's Climate Change Declaration

We acknowledge that:

- Climate change is occurring and human activities are having a significant negative and powerfully dangerous influence.
- Climate change will have far reaching effects on Scotland's people and places, impacting on our economy, society and environment.
- There are significant social, economic and environmental benefits in taking action to combat and prepare for climate change.
- We all in Scotland have duties and responsibilities to take action to both mitigate and adapt to climate change, and to promote the sustainable development and well-being of our local communities.

We welcome the

- Scottish and UK Climate change Programmes and targets for the reduction of greenhouse gas emissions.
- Opportunity for local government in particular and other agencies, voluntary and community organisations and individuals to show leadership at a local level to respond to climate change.
- Opportunity to address climate change by promoting the sustainable development of our local communities.

We commit Aberdeenshire Council to

- Work with the Scottish Executive and the UK Government to contribute to the delivery of Scotland's and the UK's Climate Change Programmes, including to reduce greenhouse gas emissions and to adapt to future climate change scenarios.
- Produce and publicly declare a plan, with targets and timescales, to achieve a significant reduction in greenhouse gas emissions from our own operations. This will include our energy use and sourcing, travel and transportation, waste production and disposal, estate management, procurement of goods and services, and improved staff awareness.
- Ensure that greenhouse gas reduction and climate change adaptation measures are clearly incorporated into our new and existing strategies, plans and programmes, in line with sustainable development principles.
- Assess the risks and opportunities for our services and our communities of predicted climate change scenarios and impacts, and take action to adapt accordingly and in line with sustainable development principles.
- Encourage and work with others in our local community to take action to adapt to the impact of climate change, to reduce their own greenhouse gas emissions and to make public their commitment to action
- Publish an annual statement on the monitoring and progress of our climate change response, detailing targets set, actions taken, outcomes achieved and further actions required.
- Collaborate with other organisations to promote good practice on climate change mitigation and adaptation.

We acknowledge the increasing impact that climate change will have on our community, Scotland and other countries during the 21st Century and commit to tackling the causes and effects of a changing climate within our local area.

Local Authority Carbon Management Programme

- 3.2 At the time of signing Scotland's Climate Change Declaration, Aberdeenshire Council had already taken the first steps to managing its carbon emissions. In 2006, the Council was accepted by the Carbon Trust to work through its Local Authority Carbon Management Programme (LACMP). The final Strategy and Implementation Plan (SIP) was approved by the Council in April 2007. The SIP was the Council's initial response to the Climate Change Declaration commitment to prepare a plan.
- 3.3 The preparation of the SIP involved determining and assembling the appropriate data. This was influenced by the Carbon Trust 'template' for the programme as well as the remit of the Council. For example, it was decided to include the municipal waste going to landfill as the Council has a legal obligation to dispose of this. The waste figure accounts for a substantial portion of the total emissions, but it excludes the waste from Council buildings. The study also excluded emissions from Council housing, although Aberdeenshire Council has been working to improve the energy efficiency of its housing.
- 3.4 The SIP set out the baseline data on carbon emissions for the financial year 2005/06 and identified the breakdown to reach a target of 20% reduction overall by 2012 (Table 1). The SIP provided details, including the governance and reporting, on a number of actions to assist the Council in achieving these targets. The actions were divided into: long term enablement projects, no- and low-cost emissions reduction projects and direct emissions reduction actions requiring investment. Regular updates have been provided on the actions.

Table 1 Summary of data from the SIP

	2005/06 baseline (tonnes CO₂)	% of total	Target % reduction By 2012	2011/12 target (tonnes CO₂)
Buildings	54,023	40	20	43,218
Municipal waste to landfill	55,049	41	20	44,039
Transport	15,088	11	10	13,579
Street lighting	6,553	5	5	6,225
Business mileage	3,058	2	6	2,875
Sub total	133,771		17.8	109,936
(awareness campaign)			3	(3,298)
Total	133,771		20	106,638

- 3.5 Following the establishment of the baseline data for the carbon management programme, data has also been gathered to establish the emissions levels for the year 2006/07. Table 2 shows the results, with the percentage change over the year. As the SIP was only completed in March 2007, this clearly

covers the period prior to the approval of the document. However, work programmes were already underway to reduce emissions, particularly through the use of the Scottish Government Central Energy Efficiency Fund for reducing energy use in buildings. The data for 2006/07 showed reductions in emissions from buildings/property, municipal waste and transport, which form the major portion of the total, but increases in emissions from street lighting and business mileage. This illustrates the challenge for the Council in reaching its 2012 target.

Table 2 Annual update: emissions of CO₂ in tonnes

	2005/06 baseline	2006/07	% change
Buildings/property	54,023	52,497	- 3
Waste to landfill	55,049	51,124	- 7
Transport	15,088	13,232	- 12
Street lighting	6,553	6,742	+ 3
Business mileage	3,058	3,090	+ 1
Total	133,771	126,685	- 5.3

'The Bigger Issue'

- 3.6 'The Bigger Issue' is the report, completed in February 2007, setting out the findings of the work of Aberdeenshire Council's Scrutiny and Audit Committee following its investigation into the issue of climate change and its implications for the geographical area of Aberdeenshire and for Aberdeenshire Council as an organisation. The Committee heard evidence from staff and external witnesses during November and December 2006. This included advice from The Macaulay Institute on the science and evidence of climate change, which pointed to the likelihood of warmer and drier summers in Aberdeenshire and warmer and wetter autumns and winters, with more powerful storms. The Macaulay Institute also mapped greenhouse gas emissions in Aberdeenshire to illustrate the distribution from various sources.
- 3.7 The Scrutiny and Audit Committee was convinced that 'business as usual' is not a rational option for the Council or Aberdeenshire. This was based on the following factors:
- A re-adjustment to a lower carbon lifestyle is required as a result of changes at a global level;
 - Tighter legislation and higher standards are on the way;
 - There is a moral obligation;
 - The Council's reputation is at stake;
 - Early action can limit economic damage;
 - Early action can create economic development opportunities.
- 3.8 'The Bigger Issue' investigation concluded that early action is necessary to respond to the implications of climate change, and that this presents both challenges and opportunities on all aspects: environmental, social and economic. The Committee recommended that the Council took two strategic

decisions: commit itself to becoming a carbon neutral organisation in the short to medium term e.g. by 2020; and instigate an urgent dialogue with local partners to agree actions, process and resources needed to achieve the aim of Aberdeenshire becoming a carbon neutral region in the medium term e.g. by 2030. Although the Council was taking some steps, there was clearly further action which will need to follow to achieve these far-reaching ambitions. 'The Bigger Issue' set out a number of suggestions to illustrate the actions. These actions have been incorporated into the Climate Change Action Plan.

The North East Scotland Global Footprint Reduction Report

- 3.9 In May 2007, a joint pilot study by Aberdeenshire Council and the City of Aberdeen published the North East Scotland Global Footprint Reduction Report. This was funded by a number of organisations, including the Councils, Scottish Executive, WWF Scotland, Scottish Natural Heritage and Scottish Environment Protection Agency and Scottish Power.
- 3.10 The global footprint is a tool which measures the area of land and sea, in global hectares (gha), used to provide energy, food, water and materials required to support the population. It is based on consumption of resources. If the world's resources were divided evenly throughout the world, the global footprint would be 1.8 gha per person. The study showed that Aberdeenshire's footprint was 5.64gha per person, compared to Scotland's overall global footprint of 5.37gha per person. This infers that the consumption level is running at the equivalent of almost three planets' worth of resources.
- 3.11 The Report investigated how different scenarios of action could help reduce the footprint. Scenarios were developed for the built environment and energy, and transport. The 'proposed outcomes' identified would result in a reduced global footprint and would also result in reduced emissions of CO₂. These outcomes have been incorporated into the Climate Change Action Plan, where appropriate.

Aberdeenshire Council Strategic Priorities 2007-2011

- 3.12 The Council's Strategic Priorities are designed to guide policy development, ensure that resources are allocated appropriately and effectively, and promote continuous improvement.
- 3.13 The projected population increase over the next 20 years is identified as a specific challenge for the Council, as its commitment to become a carbon neutral organisation. The estimated requirement for approximately 35,000 additional houses in the Shire part of the new Structure Plan area demonstrates part of this challenge.
- 3.14 The Strategic Priorities include: reduce Aberdeenshire's global footprint and achieving sustainable development. Energy conservation and renewable energy sources are key actions.

4 Climate Change Adaptation and Mitigation

- 4.1 Climate change is already taking place. Climate data on the North East of Scotland, from the Macaulay Institute, show that all seasons have, on average, become warmer, and precipitation patterns have changed, with summers drier and autumn and winter wetter, along with more days of heavy rain. Predictions are for these trends to continue. Even in Aberdeenshire, therefore, it will be necessary for individuals and businesses, including farmers, foresters and builders, to adapt to deal with these changes. The changes have implications for society, the economy and the environment of the north east of Scotland. Examples include: flooding, water shortage, and altered growing conditions (all of which affect biodiversity).
- 4.2 Work carried out by Aberdeenshire Council is incorporating adaptation for possible climate change effects, both internally and through its statutory duties. This is particularly relevant through the development plan and development management processes (including the planning gain procedures) and will continue to be a key issue in addressing sustainable resource use.
- 4.3 The Council will continue to take into account the work on climate change adaptation measures carried out by various organisations, such as Scottish Climate Change Impacts Programme. The Scottish Government is expected to publish a consultation report on its Scottish Adaptation Strategy in the summer of 2008.
- 4.4 Mitigation measures are required in order to slow the rate of climate change. The Stern Review estimated that, in order to stabilise the greenhouse gas concentrations in the atmosphere in the range 450-550 parts per million, global emissions would need to peak in the next 10 years and then fall at over 5% per annum to reach 70% below current levels by 2050. Clearly, the sooner action is taken to reduce CO₂ emissions, the greater the chance of attaining this target. In addition, the rate of increase in developing countries may mean that the UK has to reduce its emissions at a higher rate.
- 4.5 Mitigation measures will include reducing the overall need for energy, increasing the energy efficiency of both buildings and equipment, generating energy using renewable sources, and sequestration or increasing the absorption of CO₂ (that is, preventing its release into the atmosphere, such as maintaining carbon 'sinks' like peat and forestry, and through 'carbon capture and storage').

5 Carbon Neutrality

- 5.1 For the purposes of this Climate Change Action Plan and the work of Aberdeenshire Council, the definition of 'carbon neutral' is taken as meaning that there are **no net CO₂ emissions** from the operation of a site or organisation.
- 5.2 Emissions from the manufacture, building or development process, which would be included in the calculation of the total embodied carbon in a full life

cycle assessment, are not included as this would involve detailed information through the supply chain which is not practical to assess at this stage. However, as far as possible, this can be included in the application of the Council's Sustainable Purchasing Policy.

- 5.3 This means that if any activity results in the emissions of CO₂, then these emissions must be matched or exceeded by the generation of carbon neutral energy in a separate activity. This additionally generated energy must replace energy that would otherwise have been generated by fossil fuels. This is generally termed 'carbon offsetting'. In practice, the first step would be for the energy requirements to be reduced to a minimum, then the scope for renewable energy maximised. Any residual CO₂ emissions would need to be either eliminated through measures such as sequestration or storage, or offset (or a combination).
- 5.4 In recent years, several organisations have taken up the challenge and committed to become carbon neutral. For example, the Scottish Government has pledged that its core estate would be carbon neutral by 2012. Royal Mail is aiming at being carbon neutral by 2015 (with the likely use of offsetting in the latter stages). Marks and Spencer has introduced its 'Plan A', with a commitment to become carbon neutral by 2020. The Centre for Alternative Technology (CAT), based in Wales, published a report in June 2007 setting out policies to reduce carbon emissions in the UK to zero within 20 years.

6 Carbon Offsetting

- 6.1 Carbon offsetting means calculating the net amount of CO₂ emissions generated and taking steps to match this by investing in measures which reduce emissions by the same amount. In order to comply with the Kyoto Protocol, avoiding any double counting of savings in the UK, such offset schemes usually need to be outside the UK.
- 6.2 In the past, tree-planting schemes have been a popular method promoted for offsetting. However, the credibility of this method has been questioned, with the uncertainties over growth rate, mortality and CO₂ absorption capabilities. Generally, the more highly regarded schemes now tend to be addressing energy provision in developing countries or even 'retiring' carbon allowances in the EU emission trading scheme.
- 6.3 It is possible for offsetting to take place within a local area but this CO₂ saving could be regarded as double-counting because the appropriate power company could include the reduction of emissions (from the lower level of supply) in its calculations under the EU Emissions Trading Scheme. There may be scope for 'internal offsetting', with the generation of excess energy from renewable sources enabling other local buildings to use this and reduce their CO₂ emissions. A benefit of such a scheme would be easier verification of CO₂ reductions. Wider debate is taking place on this issue and further investigation is necessary to inform and clarify the position and potential opportunities for Aberdeenshire Council.

- 6.4 The Scrutiny and Audit Committee Report, 'The Bigger Issue' was sceptical on the topic of offsetting. However, the report recognised that carbon offsetting could be a last resort, after all steps have been taken to minimise CO₂ emissions, and that it should be seen as an interim measure on the path to carbon neutrality.
- 6.5 The Carbon Trust has developed a 'VALID' approach to carbon offsetting: the offsetting should be:
- **Verified** by an independent third party
 - **Additional** i.e. not something which was going to happen anyway
 - **Leakage free** i.e. no negative impacts beyond the project boundary
 - **Impermanency** must be avoided e.g. with reference to forestry planting
 - **Double counting** must be avoided.
- 6.6 The Sustainable Development Commission has carried out an initial investigation into carbon offsetting to provide some guidance, and the Scottish element of the Commission held a workshop in 2007. The UK Government is preparing a new code of practice on carbon offsetting.

7 **Aberdeenshire Council's Carbon Emissions**

- 7.1 The Local Authority Carbon Management Programme Strategy and Implementation (SIP) document provides details on the calculation of the Council's carbon emissions, as used for the baseline for the programme. As explained in the SIP report, decisions were taken on what should be included in the SIP emissions figures. The SIP 'boundaries' were delineated as carbon emissions from buildings, municipal waste, transport, street lighting, and business mileage. Thus, for example, Council housing, waste arising from Council premises, other staff business travel, school bus travel and staff commuting were all excluded. The waste data was based on the volume of municipal waste going to landfill, with the transport of the waste included in the figure for Council transport.
- 7.2 Taking the SIP total for the baseline year to 2006 of 133,771 tonnes of CO₂, the table below illustrates the reductions which would be necessary for the Council to achieve significant savings over the period to 2020. The target for the SIP was to achieve 20% reduction by the year 2012. **If this reduction rate is projected to 2020, a reduction of 47% would be made against the baseline of 2006.** This level is assuming there is no increase in emissions due to increased activity (resulting from, for example, an increase in population and housing numbers) or other factors such as climate changes.

Table 3 CO2 reductions to 2020

% reduction by 2020	CO2 reduction by 2020	Annual CO2 reduction	Annual % reduction
47	62,426	4,459	3.3
60	80,262	5,733	4.3
80	107,017	7,644	5.7
100 (i.e. neutral)	133,771	9,555	7.1

- 7.3 The table shows that a substantial reduction in overall emissions each year would need to be made if the Council is to make progress towards carbon neutrality purely on the basis of cutting emission levels. The annual progress update on the work of the SIP gave an overall emissions reduction of **5.3%** over the financial year to 2007 in the areas included in the Carbon Management Programme. If this rate of reduction was maintained, Aberdeenshire Council could potentially achieve an 80% reduction by 2020.
- 7.4 The calculations in Table 3 are clearly only demonstrating a straight-line projection of the target reductions set out in the Carbon Management Strategy and Implementation Plan (SIP). In reality, the rate of reduction will vary, perhaps with the greater reductions at the start of the low carbon approach, or perhaps at any stage, as new technologies become financially viable for mainstream application. Of course, early cuts achieve a greater cumulative reduction in emissions over the period.
- 7.5 As work for the SIP demonstrated, there are difficulties with data accuracy. In many areas, the baseline data had to be specifically drawn up and, inevitably contained some uncertainties and estimates. These are being addressed but this also makes comparisons difficult. There will also be seasonal and annual variations in levels due to a number of issues, from colder or warmer weather to changes in Council services or operational methods. In addition, the topics included in the SIP were restricted to certain aspects of Council operations, including disposal of municipal waste. These were the main but not the only activities which result in CO2 emissions. It may be appropriate to include other topics which the Council has either control or a direct influence over. Actions to reduce emissions from the following areas have been included in the Climate Change Action Plan: waste from Council premises, Council business travel other than mileage, staff commuting, and Council housing. Comparable baseline data are not available for these, so the Council will continue to monitor the SIP topics to establish annual updates.
- 7.6 Progress towards carbon neutrality depends on the actions taken by the Council and also by measures taken nationally, by the Scottish and UK Governments. There are a number of issues which militate against progress. These include: the difficulty in financing carbon reduction actions; the projected growth of the population and housing numbers in Aberdeenshire, with the associated demand on services; the uncertainty or margin of error in the data collected and the likelihood such a reduction rate cannot be

maintained. Thus the City and Shire Structure Plan, which is in preparation, anticipates approximately 35,000 new houses within Aberdeenshire in the period to 2025. In addition, replacing old buildings with new may result in an increase demand for energy as, for example in a school, a larger premise with more facilities is required even if this is highly energy efficient. Expansion of employment land will also result in an increased demand for energy and water, as well as travel.

- 7.7 Against this background, a **target annual reduction in emissions of 3 - 4%** for Aberdeenshire Council operations is certainly achievable. This would be in line with suggested national rates of reduction. This would result in a reduction of approximately 50 - 60% by 2020 (against the 2006 figures in the SIP). The aim of the Council is to become carbon neutral in this timescale. Therefore, if the current circumstances prevail, the remaining 40 - 50% of carbon emissions would need to be matched by carbon offsetting. Internal offsetting, within the local area, could play a role in this. Given the nature of the Council's operations, it can be acknowledged that it will not eliminate all carbon emissions, and indeed, this is not a necessary requisite to becoming a carbon neutral organisation.

8 Aberdeenshire Council Carbon Reduction Strategy

- 8.1 In working towards carbon neutrality the Council strategy will be:

1. **minimise the requirement for energy;**
2. **minimise actions which result in greenhouse gas emissions;**
3. **maximise the generation of carbon neutral energy; and**
4. **use 'offsetting' as a last resort to match the net carbon emissions**

- 8.2 The first step in reducing carbon dioxide emissions is to reduce the demand for energy, in buildings, equipment and travel. Reducing the demand for energy can be achieved through both reducing the overall need and by improving the energy efficiency of equipment and buildings. Secondly, it means reducing levels of waste sent to landfill, where the breakdown of material produces greenhouse gases, including methane, which is 20 times more potent than CO₂. The third step is to replace fossil fuels with low carbon alternatives, preferably renewable energy, such as biomass, hydro, wind, solar or heat pumps. Finally, unless the generation of carbon neutral energy replaces fossil fuel generated energy, matching the total emissions from the Council, or some form of carbon storage or sequestration is in place, carbon offsetting will be needed to counter the residual emissions.

- 8.3 Both 'The Bigger Issue' and the SIP set out a number of projects which sought to make progress to (1) reduce both demand for energy and waste going to landfill and (2) initiate renewable energy projects on Council premises. Carbon offsetting was raised in the course of the work for 'The Bigger Issue' but no further investigation has taken place.

9 Actions

- 9.1 This section sets out the specific actions which have been identified to achieve progress towards carbon neutrality. The projects contained in both the Carbon Management SIP and 'The Bigger Issue' have been reviewed and updated, as appropriate, and carried forward into the Climate Change Action Plan.
- 9.2 The actions/projects are distilled from:
1. the LA Carbon Management Programme Strategy & Implementation Plan (SIP) and subsequent work
 2. 'The Bigger Issue' (Scrutiny & Audit report)
 3. Proposed outcomes from the North East Scotland Global Footprint Reduction Report
 4. Other suggested projects from Council work
- 9.3 As the Climate Change Action Plan is designed to be a document with regular updates, the actions are predominantly those which are underway or can be started in the short term. However, the Plan also lists a number of actions which could play a significant role in reducing emissions but which, for a variety of reasons, are regarded as longer term actions. These actions could be started within the next five years (i.e. by 2013). As circumstances change, these could be brought into the short term category as appropriate.
- 9.4 **Actions which are underway or could be started within the next year** are divided into 'enabling actions' and 'direct actions' categories. The enabling actions will make a key contribution to reducing overall emissions as they allow the direct actions to be undertaken. Under the latter, actions are considered under the main topics in which the Council can influence reduction of greenhouse gases:
- Energy use
 - Renewable energy generation
 - Transport
 - Waste
- 9.5 For each topic, the Plan gives an example of work by the Council and lists actions which will affect, firstly, Council operations and, secondly, predominantly the wider community. This reflects the commitments from 'The Bigger Issue' and under Scotland's Climate Change Declaration to work with the local community on climate change issues. In some cases the differentiation between actions changing the internal operation of the Council and those influencing changes in the wider community is not clear cut. However, the division has been made on the basis of the main relevance and serves to illustrate the potentially wide ranging influence of the Council's actions.
- 9.6 Further details of each action are set out in Appendix 1 of the Plan, giving timescale, responsible officers and outcomes. This table can form the basis for monitoring progress of the actions. More detailed project proformas will be drawn up with the appropriate lead officers for each action as necessary.

These will set out the financial implications and the carbon savings, where this is possible.

Actions underway or to be implemented in 2008/9

1. Enabling Actions

9.7 The Council has made progress bringing in changes which should enable and facilitate direct actions to reduce carbon emissions. Carbon management is a key action in the Council's Strategic Priorities. Reducing greenhouse gases is the overarching objective of the Council's Sustainability Charter. Following the recommendation in 'The Bigger Issue' to enter a dialogue with local partners, the Council has instigated the formation of the North East Scotland Climate Change Partnership, which was officially launched at the All-Energy conference on 21 May 2008. A partnership climate change declaration has been agreed and signed by representatives from the organisations, including Councillor Anne Robertson on behalf of Aberdeenshire Council.

Examples of recent 'enabling' actions include:

- Inclusion of carbon management in Council Strategic Priorities
- Inclusion of climate change and sustainability in corporate induction programme
- Initial steps to specifically include CO₂ reduction in capital funding process
- Formation of North East Scotland Climate Change Partnership

Proposed actions for 2008/09:

9.8 Council:

1. Review and implement Sustainable Purchasing Policy
2. Raise profile of carbon in assessing and funding projects
3. Set up awareness raising training programme
4. Continue other awareness raising actions
5. Seconded post to co-ordinate work of Education Learning and Leisure Sustainable Development Focus Group
6. Promote use of global footprint tool in plans & policies
7. Develop best practice guidance for new Council buildings to be carbon neutral
8. Continue to monitor the national guidance on carbon accounting

9.9 Wider community

1. Continue support of advice centres/organisations
2. Co-ordinate Community Planning Sustainable Development Theme Forum
3. Co-ordinate North East Scotland Climate Change Partnership
4. Adopt and implement Supplementary Planning Guidance on Carbon Neutrality
5. Promote use of global footprint tool in communities
6. Promote adaptation measures in new buildings (e.g. water)

2. Direct Actions

Energy use

- 9.10 The Council continues to work to reduce its energy consumption and carbon emissions from its operations. This covers Transportation and Infrastructure work on buildings and street lighting, and Housing and Social Work projects on the Council housing stock. Examples include:
- Energy efficiency measures funded through the Government's Central Energy Efficiency Fund (CEEF).
 - Raising awareness through energy champions and a competition in schools to produce energy awareness posters
 - The replacement of lighting with more efficient fluorescent lighting in Fraserburgh North and Boddam Primary Schools
 - The replacement of boilers with high efficiency boilers at a number of primary schools and academies
 - Pilot project replacing street lights with lower wattage lamps
 - Projects to improve insulation in Council housing

- Targets:**
- 1. Reduce the energy use by Council properties by 2% per annum**
 - 2. Complete upgrading of loft insulation in Council housing by 2010**
 - 3. Eliminate the annual increase in energy demand for street lighting by 2010**

Proposed Actions for 2008/9:

9.11 Council:

1. Continue to use the CEEF funds to implement energy efficiency measures and reduce energy consumption
2. Reduce energy consumption through asset management and the refurbishment and replacement of buildings
3. Reduce energy consumption through the maintenance and replacement of plant and equipment within buildings
4. Continue projects for replacement of streetlight lanterns with lower wattage
5. Continue replacement of traffic light lamps with LED
6. Optimise street light timing

9.12 Wider community:

1. Continue programme of upgrading loft insulation in Council housing stock
2. Continue projects to extend gas mains to Council housing
3. Complete project on cavity wall insulation in Council housing

Renewable energy

- 9.13 The Council has taken opportunities to install renewable energy in its premises wherever possible. Renewable energy work has extended to the Council's housing stock, where pilot projects are underway. Examples of projects include:
- A biomass boiler at Aboyne Academy
 - Ground source heat pumps at Auchenblae, Kemnay and Balmedie primary schools

- Installation and analysis of ground- and air-source heat pumps in Council housing
- Appointment of officer to promote renewable energy in the community

Targets: ***Install at least one renewable energy source in a council building and facilitate at least one community project each year***

Proposed actions for 2008/9:

9.14 Council:

1. Install a ground source heat pump at Kincardine O'Neil Primary School.
2. Install a wind turbine at Balmedie Primary School
3. Install solar panels to provide hot water at a number of caravan sites
4. Install a wood pellet boiler in Banff Academy

9.15 Wider community:

1. Promote Sustainable Community Halls Initiative
2. Promote biomass heating, particularly for community heating networks
3. Continue projects in Council housing

Transport

9.16 The Council has prepared a Local Transport Strategy (LTS) and an Aberdeenshire Council Travel Plan. The LTS has a number of targets, including: to reduce the rate of traffic growth on Aberdeenshire roads, to increase share of sustainable travel modes, and to reduce business mileage. The travel planning officer is promoting video and audio conferencing to reduce business mileage and encouraging more sustainable modes of travel for staff commuting. The school travel planning officer works with schools to encourage sustainable travel. The Council is undertaking a 'transformation' study which includes flexible working practices. Recent examples of projects include:

- Video conference awareness event for staff
- Establishing officer posts to co-ordinate travel bookings
- 'Go for it' pilot project for 20 primary schools (this resulted in car trips dropping by over 40%)
- Pilot scheme for home working
- Promoting and monitoring travel plans through the planning system

Targets: ***1. Reduce business mileage by Aberdeenshire Council employees by 4% by 2010 and 6% by 2012***
2. Reduce emissions from fleet transport by 10% by 2010
3. Reduce the number of "single child" school trips made by car by 2.5% by 2010 (from base level of 24% in 2006)
4. Establish baseline and set reduction for non-car business travel by 2009

Proposed actions for 2008/9:

9.17 Council:

1. Set up procedure for accountability and reporting on all business travel
2. Pilot a pool car scheme
3. Continue to promote car sharing to meetings
4. Continue to increase use of audio-, web- and video-conferencing facilities

5. Continue to investigate flexible working options
6. Implement the new fleet management system
7. Complete study into reducing emissions from Council transportation
8. Continue to improve cycle infrastructure at Council premises
9. Establish salary sacrifice schemes to give discounts for bicycles and public transport

9.18 Wider community:

1. Promote public transport, care share scheme, & cycling (for commuting)
2. Continue to improve cycle and public transport infrastructure in Aberdeenshire
3. Continue to support preparation of School Travel Plans
4. Continue to monitor and enforce travel plans from developers
5. Promote travel plans to wider business community
6. Liaise with NESTRANS on region-wide sustainable travel projects
7. Promote Traveline Scotland's public transport journey planner

Waste

9.19 The Council continues to work to fulfil its Waste Plan, including raising the proportion of recycling within Aberdeenshire. It is also addressing the issue of waste from Council premises and operations. Examples of actions include:

- Trial kerbside collection of food waste for composting
- Appointment of waste officer for Council internal waste

Targets:

- ***Reduce the amount of Biodegradable Municipal Waste going to landfill each year in line with European Union targets to 54,917 tonnes by 2010.***
- ***Increase the percentage of Municipal Solid Waste being recycled or composted each year in line with Scottish Government targets (30% by 2008, 40% by 2010)***

Proposed actions for 2008/9:

9.20 Council:

1. Reduce waste generated by Council services
2. Reuse and Recycle materials that are no longer required by Council services
3. Raise staff awareness of waste and resource management

9.21 Wider community:

1. Reduce the amount of Biodegradable Municipal Waste sent to landfill each year.
2. Increase the percentage of Municipal Solid Waste recycled or composted each year.
3. Trial kerbside collection of food waste for composting
4. Support community projects which minimise the generation of waste and increase recycling and composting
5. Encourage trade waste customers to reduce waste production and increase recycling.

Longer term actions

9.22 The following are actions which could potentially make a significant contribution to reducing emissions of CO₂ but for which details and implementation are not possible at present. No commitment or financial allocation has been made for these longer term actions. These projects could be progressed within the next 5 years, as circumstances change:
(not in priority order)

1. Introduce carbon accounting
2. Improve data to review water consumption in Council premises
3. Review opportunities for energy-from-waste plant(s)
4. Promote a Combined Heat & Power plant (CHP)
5. Investigate feasibility of a water storage/hydro scheme on upper reaches of rivers
6. Review methane capture from landfill sites
7. Investigate carbon offsetting
8. Provide guidance for non-domestic buildings to be zero carbon
9. Provide guidance on sustainability in developments (adaptation and mitigation)
10. Investigate hydrogen fuel cell usage
11. Set up fund for carbon reduction projects
12. Review contract specification for emission levels for engines in school buses

10 Finance

- 10.1 For most of the actions identified as 'underway or to be implemented in 2008/09', the finance is either in place or is likely to be allocated from existing budgets. Some of the projects will rely on the availability of specific grants, usually from the Scottish Government. Further details on the individual actions will be identified and, for those not included in existing budget allocations, any financial implications will require approval at the appropriate stage. The 'longer term' actions do not have any financial details or commitment at this stage.
- 10.2 Some of the projects are 'enabling' and others are direct carbon emission reduction schemes. One of the most important 'enabling' projects is raising the importance of carbon within the financial appraisal process. Carbon accounting is often referred to but has not yet been developed to a state where it can be incorporated into the Council's operation. Hence 'monitoring carbon accounting' has been included as an action which is underway, and 'implementing carbon accounting' as a longer term action. However, it is imperative that greater emphasis is placed on the likely CO₂ savings of projects, rather than a restriction to purely financial payback periods, if the Council is to make significant progress towards carbon neutrality. Developments outside the Council may facilitate this, such as measures to be contained within the Climate Change Bill, including the Carbon Reduction Commitment, or more accepted methods of pricing carbon within the appraisal process.

11 Working with other organisations

- 11.1 This Action Plan is designed to address the operation of Aberdeenshire Council and the influence of the Council on the wider community, including business and industry. However, in undertaking this work, the Council will continue to welcome working with other organisations, both local and national. In many cases, there is much to be gained from joint working and this will be an additional aspect which will be taken forward at the earliest opportunity. The Council is already working in partnership with other organisations, through the Community Planning Sustainable Environment Theme Forum and through the newly formed North East Scotland Climate Change Partnership.

12 Governance

- 12.1 Officer input for work on the Climate Change Action Plan will be co-ordinated through the Sustainability Officers' Group, which has representatives from all Services and meets quarterly. The main responsibilities for the Plan reflect the cross-service nature of the principal climate change work:

Reports will be via the Sustainability Sub-Committee to the Policy and Resources Committee

Political sponsor: Chair of Sustainability Sub-Committee

Director: Director of Transportation and Infrastructure, with Director of Planning & Environmental Services as support

Line management: Head of Planning, Policy & Environment

Operational: Sustainability Officer

13 Monitoring and assurance

- 13.1 The Climate Change Action Plan will require a monitoring programme. It is recommended that there are reports to each meeting of the Sustainability Sub-Committee and twice annually to Policy and Resources Committee. There will be an annual full review of progress and reassessment of projects, at which point the action list will change as some are completed and others come forward.
- 13.2 The Climate Change Action Plan, together with the monitoring of the Sustainability Charter, will enable the Council to prepare an annual report on progress under its commitments to Scotland's Climate Change Declaration.

14 Conclusion

- 14.1 Climate change is one of the greatest global challenges. Aberdeenshire Council acknowledges that it has a role to play in addressing this challenge both locally and globally. It has made a commitment to become a carbon neutral organisation in the short- to medium-term and is working with local organisations to move towards a similar status in north east Scotland.
- 14.2 The commitment to become a carbon neutral organisation is important, both internally and externally. The Council is determined to deliver this but if it is to make significant progress towards its commitment, a substantial amount of work has to be carried out. This will require a change in approach and working methods of all staff. More importantly, it will require strong leadership and commitment from elected members, senior management and staff.
- 14.3 Successful implementation of some actions will require significant financial provision. Most of the actions to-date resulting in a significant reduction in carbon dioxide emissions have received grant funding. Until clear guidance on the inclusion of 'carbon accounting' is available and implemented, and the issue of reducing greenhouse gas emissions becomes a higher priority, the level and availability of grants will determine the progress which the Council can continue to make.
- 14.4 If the actions set out in this Plan are followed through, Aberdeenshire Council will be able to reduce its carbon emissions. Co-ordination and co-operation between Council Services will enable a number of projects to take place within current budget proposals. However, any new project to bring about a significant reduction of emissions is likely to require proportional additional funding.
- 14.5 With the current rate of reduction of carbon emissions and the issue of appropriate financial payback times for potential projects, , Aberdeenshire Council will not achieve carbon neutrality by eliminating all the carbon emissions from its operations. Therefore, if it is to achieve carbon neutrality by 2020, it is likely to need to include carbon offsetting as a final means of reaching this goal..
- 14.6 The work to reduce carbon emissions will have to become an integral part of the Council's internal operations and its role in the wider community. The rewards of moving to a low-carbon and then a carbon neutral organisation and area will be clear for all to see and will benefit not only the environment but the local economy and community. They will enable the Council to fulfil its climate change commitments **and** be an exemplar and inspiration to other organisations and the wider community.

APPENDIX 1 Actions underway or to be implemented in 2008/09

1. Enabling actions (EA)

Project Number	Action	Timescale	Lead Service and officers Responsible for project	Outcome
	Council			
EA01	Review and enforce Sustainable Purchasing Policy	June 2008 for review	L&A Craig Innes	Enforcement of a robust policy will facilitate purchase of appropriate items eg energy efficient equipment, recycled items, and restrict purchase of inappropriate items eg disposables
EA02	Raise the profile of carbon in assessing and funding projects	ongoing	Finance Capital Funding Group Finance – Sustainability Group: Julie Anderson	Raising the profile of carbon in decisions on capital planning. Preliminary inclusion of CO ₂ within wider sustainability score but should become separate, priority, measure as soon as practical.
EA03	Set up awareness raising training programme	2008 and ongoing	P&ES Anne Laird	Raising awareness of climate change issues within the wider sustainability agenda will facilitate actions to be taken throughout Council Services.
EA04	Continue awareness raising actions	ongoing	P&ES Sustainability officers	A number of actions to be implemented, including: (1)Continue presentation at Corporate Induction Course: Introducing the sustainability agenda, including climate change issues at the induction stage encourages appropriate action; (2) regular articles in Accent and on Arcadia and the web site; (3) co-ordinating input to awareness raising from various Council officers
EA05	Establish secondee post to support the work of the EL&L Sustainable Development Focus Group	2008 for one year	EL&L Thelma Birnie	This post will co-ordinate the potential initiatives brought to the Focus Group, enabling actions through the Service on climate change and sustainability.
EA06	Promote use of global footprint tool in Council plans	ongoing	P&ES Fiona Graham Joseph Somevi	Fulfilling the commitment in the North East Scotland Global Footprint Reduction Report to use the footprint as a decision-making tool for strategies and policies
EA 07	Develop best practice guide for new Council buildings to be carbon neutral	2008	T&I Brian Smith	Preparation to guide the Council in being ready for requirement for new public sector building to be 'zero carbon' by 2018.
EA08	Continue to monitor the national guidance on carbon accounting	ongoing	Finance Julie Anderson	The Finance – Sustainability Group will continue to monitor guidance and any practical experience, reporting on the appropriate implementation approach for the Council.

	Wider Community			
EA09	Continue support of advice centres	ongoing	T&I James Knowles	Continue funding and other support for centres/organizations, eg Save Cash and Reduce Fuel (SCARF), Renewables Connection, Business & Environment Partnership (BEPNE), all working to reduce resource use and emissions.
EA10	Community Planning Sustainable Environment Theme Forum	ongoing	Chief Executive Anne Laird	Co-ordinating the work of the Forum will facilitate actions on climate change and sustainability in the wider community
EA11	North East Scotland Climate Change Partnership	ongoing	T&I, P&ES Sustainability Officer	Co-ordinating the work of the Partnership will facilitate actions on climate change and sustainability in the wider community
EA12	Adopt and implement Supplementary Planning Guidance on Carbon Neutrality in new Development	2008	P&ES Daniel Harrington	Supplementary Planning Guidance will help reduce carbon emissions through lower energy demand and the use of renewable energy sources
EA13	Promote use of global footprint in communities	ongoing	P&ES Fiona Graham	Extend the application of the global footprint software tool to raise awareness and initiate actions within communities
EA14	Promote adaptation measures in new buildings	ongoing	L&A Stuart Robertson	Continuing to use the planning gain process to encourage sustainability measures to be incorporated into developments results in reduced demand for resources, including energy and water, and lower emissions.

2. Direct Actions (D)

Project Number	Action	Timescale	Lead & officer(s) Responsible	Outcome
	Energy (DE)			
	Council			
DE01	Continue to use finance from the Central Energy Efficiency Fund	ongoing	T&I Brian Smith Emma Donaldson	CEEF finance will be used to implement energy efficiency measures and reduce energy consumption
DE02	Asset management and refurbishment and replacement of buildings	ongoing	T&I Brian Smith Mike Porter	Reducing energy consumption will be part of the asset management programmes
DE03	Maintenance and replacement of plant and equipment	ongoing	T&I Brian Smith John Burkinshaw	Reducing energy consumption will be part of the maintenance programmes
DE04	Continue projects for replacing street light lanterns with lower wattage	ongoing	T&I Brian Strachan	Projects will result in reduced demand for energy
DE05	Continue replacement of traffic light lamps with LED	ongoing	T&I Brian Strachan	Projects will result in reduced demand for energy
DE06	Optimise street light timing	2008/09	T&I Brain Strachan	Consider options to reduce energy demand through reduced street lighting; check on guidance and experience of other Councils.
	Wider community			
DE07	Continue programme of upgrading loft insulation in Council housing	ongoing	H&SW Dave Thomson	Reduced energy demand
DE08	Continue projects to extend gas mains to Council housing	ongoing	H&SW Dave Thomson	Reduced emissions from using gas instead of electricity as energy source
DE09	Complete project on cavity wall insulation in Council housing	ongoing	H&SW Dave Thomson	Reduced energy demand

	Renewable Energy (DR)			
	Council			
DR01	Install ground source heat pump in Kincardine O'Neil Primary School	2008	T&I Mike Porter	Reduced energy demand from the grid and reduced emissions
DR02	Install a wind turbine at Balmedie Primary School	2008	T&I Mike Porter	Reduced energy demand from fossil fuel and reduced emissions
DR03	Install solar panels to provide hot water at caravan sites	2008/09	P&ES Landscape Services	Reduced energy demand from fossil fuel and reduced emissions
DR04	Install a wood pellet boiler in Banff Academy	2008	T&I Mike Porter	Reduced energy demand from fossil fuel and reduced emissions
	Wider Community			
DR05	Promote Sustainable Community Halls Initiative	2008	T&I Eric Wells	Reduced energy demand from fossil fuel and reduced emissions
DR06	Promote biomass heating, particularly for community heating networks	2008	T&I Eric Wells	Reduced energy demand from fossil fuel and reduced emissions
DR07	Continue projects in Council housing	ongoing	H&SW Dave Thomson	Pilot projects will lead to best practice for further installation. Reduced energy demand from fossil fuel and reduced emissions
	Transport (DT)			
	Council			
DT01	Set up procedure for business travel	2008	Finance, T&I, P&ES Philip MacKay Calum Spence Fiona Graham	Establishing a procedure for accountability and reporting on all business travel will result in reduced travel (finance and emissions) as alternatives are encouraged
DT02	Pilot a pool car scheme	2008	T&I Andrew Stewart Relevant officer	A pool car can be restricted to low emission vehicle and should result in reduced overall emissions
DT03	Continue to promote car sharing to meetings	ongoing	T&I Andrew Stewart	Reduced emissions and finance
DT04	Continue to increase use of video, audio and web based conference facilities	ongoing	T&I Andrew Stewart	Reduced emissions and finance
DT05	Continue to investigate flexible working options	2008	Chief Executive/ All Services	BT 'Transformation' study will identify potential savings in travel (expenditure and emissions)
DT06	Implement the new fleet management	2008	T&I	Reduced fuel and emissions through more

	system		Ian Paisley	efficient use of vehicles
DT07	Complete study into reducing emissions from Council transportation	2008	T&I Philip MacKay	Recommendation actions should result in reduced fuel and emissions.
DT08	Continue to improve cycle infrastructure in Council premises	ongoing	T&I Andrew Stewart	Increased use of cycles will lead to reductions in use of vehicles (expenditure & emissions).
DT09	Establish salary sacrifice scheme to give discounts for bicycles and public transport	2008/09	T&I Andrew Stewart	Increased use of cycles and public transport will lead to reductions in emissions.
	Wider community			
DT10	Promote public transport, car share scheme & cycling for commuting	ongoing	T&I Andrew Stewart	Reduced emissions
DT11	Continue to improve cycle and public transport infrastructure in Aberdeenshire	ongoing	T&I Andrew Stewart	Reduced emissions
DT12	Continue to support preparation of School Travel Plans	ongoing	T&I Aurelie Irving	Reduced emissions from fewer cars
DT13	Continue to monitor and enforce travel plans from developers	ongoing	T&I Peter McCallum	Reduced emissions
DT14	Promote travel plans to wider business community	ongoing	T&I Peter McCallum	Reduced emissions
DT15	Liaise with NESTRANS on region-wide sustainable travel projects	ongoing	T&I Andrew Stewart	Reduced emissions
DT16	Promote Traveline Scotland's public transport journey planner	ongoing	T&I Andrew Stewart	Reduced emissions

	Waste (DW)			
	Council			
DW01	Reduce waste generated by Council services (e.g. paper, ink, electrical)	2008 and ongoing	P&ES Amanda Ingram	Reduced emissions
DW02	Reuse and Recycle materials that are no longer required by Council services (e.g. office equipment and furniture, paper, cans, cardboard)	2008 and ongoing	P&ES Amanda Ingram	Reduced emissions and financial savings from re-use
DW03	Raise staff awareness of waste and resource management	2008 and ongoing	P&ES Amanda Ingram	Indirect savings and reduced emissions
	Wider community			
DW04	Reduce the amount of Biodegradable Municipal Waste sent to landfill each year.	ongoing	P&ES Matt Davis	Reduced emissions
DW05	Increase the percentage of Municipal Solid Waste recycled or composted each year.	ongoing	P&ES Matt Davis	Reduced emissions
DW06	Continue trial to collect food waste at kerbside and reduce waste sent to landfill	2008	P&ES Pam Walker	Reduced emissions
DW07	Support community projects that act to minimise the generation of waste and increase recycling and composting	2008 and ongoing	P&ES Pam Walker	Reduced emissions
DW08	Encourage trade waste customers to reduce waste production and increase recycling	2008 and ongoing	P&ES David Wilson And/or Trade Waste Advisor	Reduced emissions