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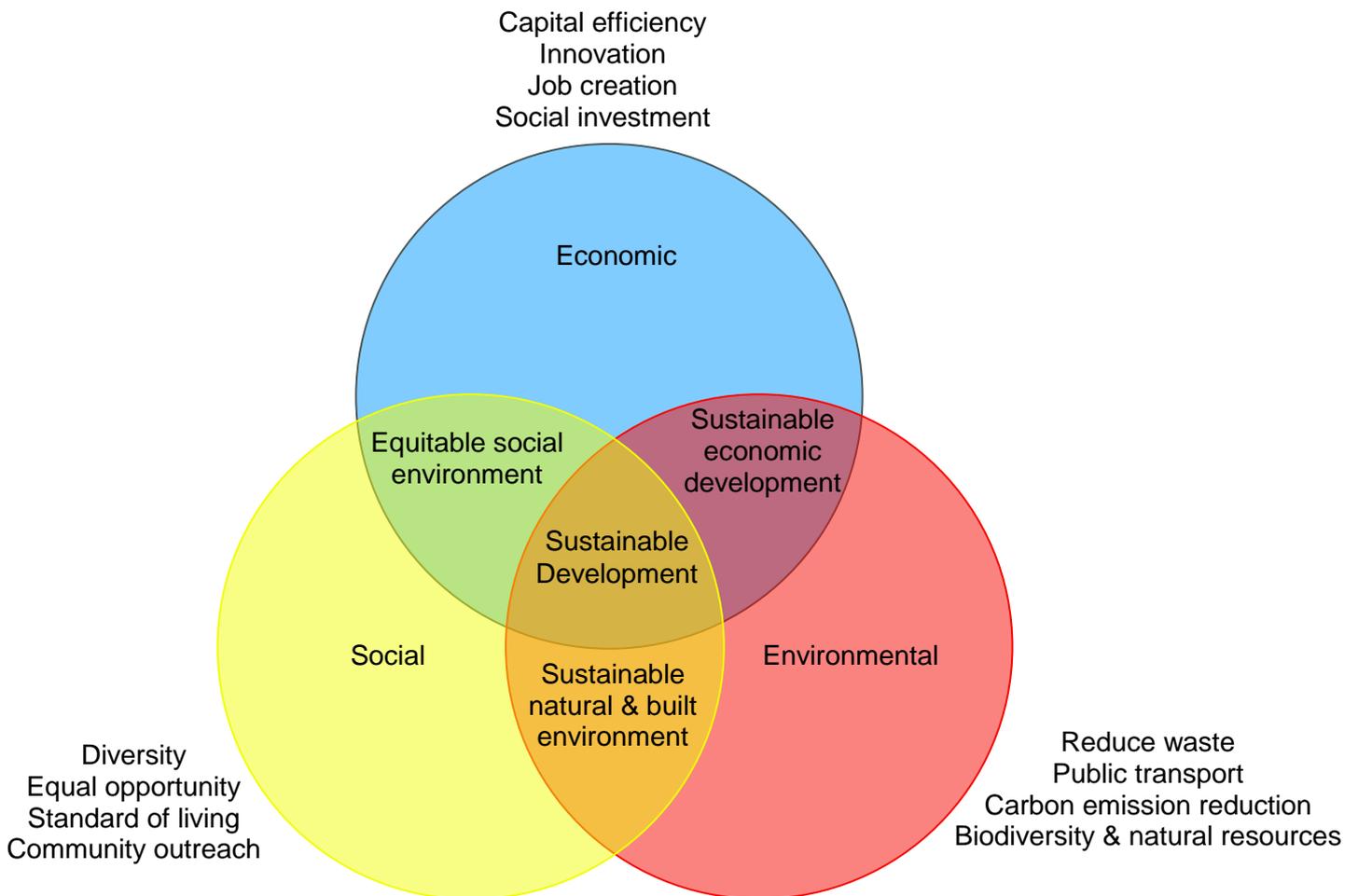
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SURF Briefing September 2011 – Sustainability, Climate Change and Carbon Management

What is sustainability?

In its broadest sense, sustainability and sustainable development means, "meeting the needs of today without compromising the ability of future generations to meet their own needs." Sustainable development is based on the idea that the quality of people's lives and the state of our communities is affected by a combination of economic, social and environmental factors. Therefore these three factors and the links between them should be taken into account in the decisions we make and the actions we take.

The below diagram explains the way that these three factors link together to create an overall framework for ensuring all development is sustainable.

Capital efficiency
Innovation
Job creation
Social investment

Economic

Equitable social environment

Sustainable economic development

Sustainable Development

Social

Sustainable natural & built environment

Environmental

Diversity
Equal opportunity
Standard of living
Community outreach

Reduce waste
Public transport
Carbon emission reduction
Biodiversity & natural resources

Cleaner and Greener City – a corporate priority

We primarily see this priority as being focused on transport, waste management and keeping the city clean through our Clean City services, but there is much more to this agenda than first meets the eye. Sustainability, climate change and carbon management are three other key areas that are integral to delivering on our cleaner and greener priority, and these important agendas affect

all of the council's services, from children's services, to legal, to corporate communications. It is important that now, and in the future, we are committed to not only reducing some of the negative impacts that these agendas have on the council, but also maximising the many opportunities that these areas present.

This briefing provides a more detailed overview of what we know about sustainability, including the agendas that have formed as a result – climate change and carbon management; what the Government is doing to tackle this agenda, and how we have responded locally. This particular area of work is gaining more and more momentum across central and local government, and there have been a number of legislative changes that will affect all services across the council.

National policy context

In 2005 the Labour Government published "Securing the Future", a revised UK Government strategy for sustainable development. Their focus was on sustainable consumption, climate change, protecting natural resources, and building sustainable communities, which began delivery through the previous National Indicator set.

The new coalition Government is looking to take this work one step further, and become the, "greenest Government ever", by ensuring that sustainability principles are embedded into mainstream policy and practice. The Mainstreaming Sustainable Development package will guarantee that Government policies have been 'sustainability-proofed' by tackling three key areas:

- Delivering sustainable economic growth, as set out in the Government's paper, "Enabling the Transition to a Green Economy." This includes proposals to attract investment for infrastructure (transport, water); introducing fiscal measures; encouraging sustainable procurement; and providing support to move to a low-carbon economy.
- Protecting our natural environment. This work is being supported by the Natural Environment White Paper (2011), which sets out a detailed programme of action from designating Nature Improvement Areas and Green Area Designations, to offsetting biodiversity in new developments and strengthening local public health activities.
- Improving our quality of life. This work is being embedded as part of the two above policy areas, and will be taken forward through new legislation such as the Green Deal – supporting those on low incomes to improve their energy efficiency at home.

Another element of embedding sustainable practices into policy, is being aware of, and taking action against, the future impacts of climate change. Climate change is high on the agenda of all the main political parties, and is seen as the most important long-term priority for local authorities in the UK. A 2008 poll by the Local Government Association found that 80% of MPs and 74% of the public believe that climate change is happening, and can be directly attributed to greenhouse gas emissions resulting from human activity. Furthermore, 62% of public respondents said that they were more likely to vote for a candidate with policies to tackle climate change.

In 2008, the Labour Government announced the world's first long-term framework for tackling climate change. The Climate Change Act set legally binding targets on reducing carbon emissions, gave the Secretary of State the power to direct certain public sector organisations to report on the impacts of climate change on their organisations and their proposals for adapting, as well as the requirement for Government to assess the risks of climate change to the UK every 5 years. The Coalition Government continues to support the legislation passed through the Climate Change Act (2008), and a Memorandum of Understanding has since been agreed

between the Department for Energy and Climate Change (DECC) and the Local Government Group (LGG), highlighting the pivotal role that Local Authorities are expected to play in taking forward action against climate change.

The Government has made clear that councils are expected to tackle climate change through:
- Reducing carbon emissions from council estates, vehicles and practices (and meeting the Government's targets).
- Encouraging businesses and individuals to reduce their carbon emissions.
- Taking forward carbon reduction projects and implementing policy areas such as the Green Deal.

In 2006, the Stern Report highlighted that climate change has the potential to cause major disruption to economic and social activity, and that ignoring climate change will eventually damage economic growth, which will impact on our ability to meet future generations' needs. This is why the Government are committed to tackling climate change, through reducing the UK's carbon emissions, and increasing energy efficiency. To aid this, the Government has introduced legislation to ensure that all local authorities (and other organisations) are committed to reducing carbon. The CRC Energy Efficiency Scheme is a mandatory carbon emissions scheme that was introduced by the Government on the 1st April 2010, and will affect all public sector organisations. Local authorities have to legally participate in the scheme and purchase allowances for every tonne of CO_2 that they emit, for each compliance year (from April to March) - much like a tax.

Based on the latest figures available from DECC (2010), greenhouse gas emissions are estimated to be in the region of 582.4 million tonnes nationally, which was 2.8% higher than 2009 figures. This rise in figures resulted primarily from a rise in residential gas use, combined with a move from nuclear power to coal and gas for electricity generation. An estimated 39% of CO_2 emissions were from the energy supply sector, 25% were from transport, 17% were from residential fossil fuel use and 16% were from business. The amount of carbon dioxide emissions released from the public sector increased by around 5% between 2009 and 2010.

One way in which council's (and other sectors) are being encouraged to reduce carbon emissions is through looking at options for renewable energy. In 2009 the EU Renewable Energy Directive set a target for the UK to achieve 15% of its energy consumption from renewable sources by 2020. This in turn led to the UK Government setting out a strategy for how to achieve this in the UK Renewable Energy Strategy. This strategy sets out the need for an increased strategic focus on renewable energy through spatial planning and development policy, as well as setting out the role for local authorities in promoting renewable energy through developing local targets and delivery plans.
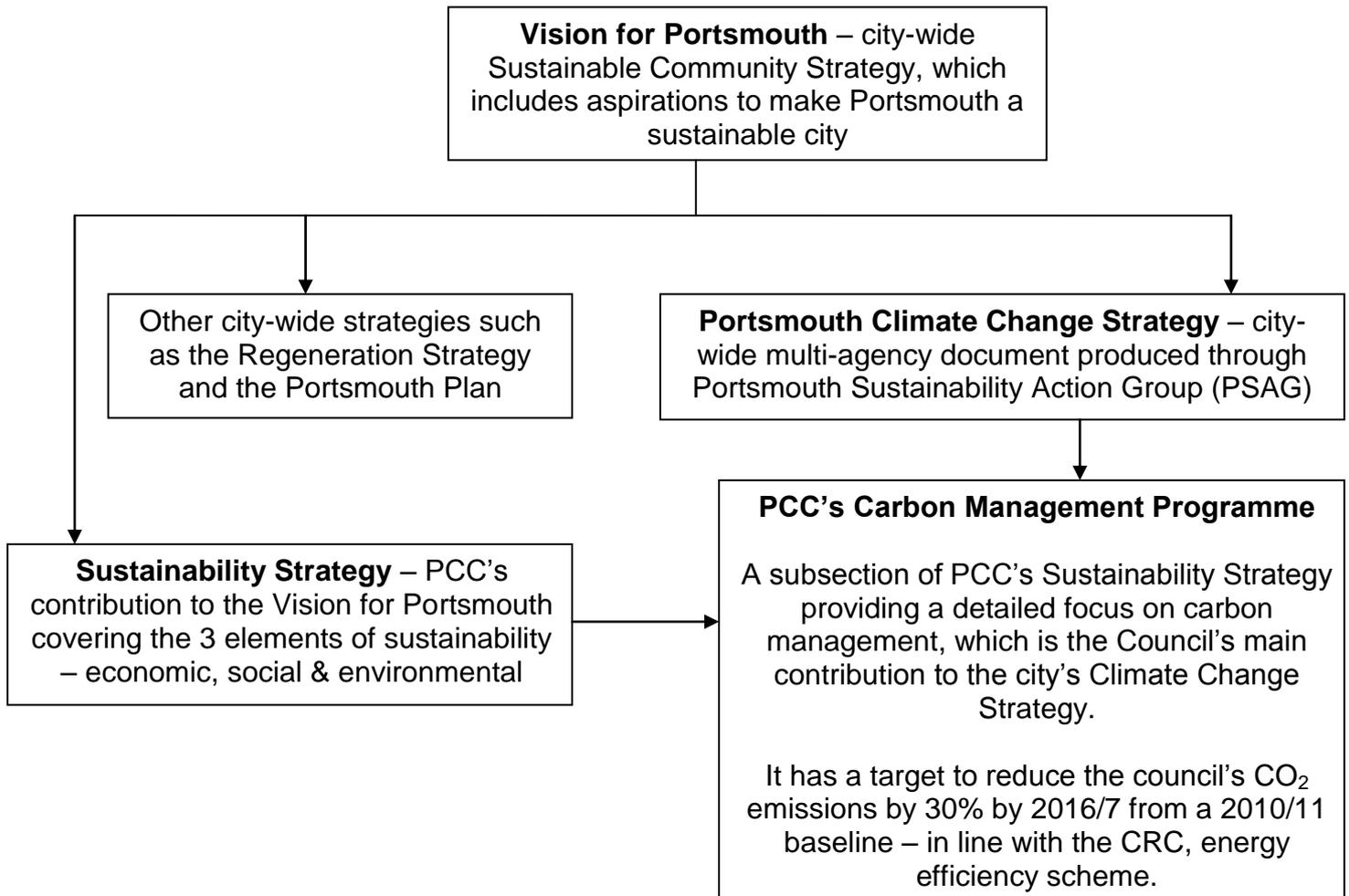

A local response

As set out by central Government, the council is embedding sustainability and climate change into local policies and practices. Sustainability is included as part of the city's long-term Vision for Portsmouth, and the council has developed two strategies that set out at a strategic level how the council will respond to this priority.

The Sustainability Strategy holds us to account for seven principles of sustainability, including protecting our natural resources, embedding sustainability into our procurement practices, and promoting local workforces and local jobs. As part of this strategy, the council is looking at how sustainability could be embedded into our project gateway processes, to ensure that all services

take account of sustainable practices when taking forward a new project, by completing a sustainability appraisal. The council is also taking the lead from central Government, and looking at how we can make our procurement policies and practices more sustainable.

The city's Climate Change Strategy sets out priorities to reduce the city's carbon footprint; adapt to climate change, and produce an energy strategy for the city. Extensive work across the council has taken place to ensure we are aware of the specific risks associated with climate change, and to provide services with ways in which they build resilience to climate change.

Both of these strategies were agreed by Members, and progress is reported back to them every year. The diagram below shows how these strategies fit together in the overall sustainability framework:

To take forward the Government's priority to reduce our carbon emissions as part of the wider agenda to tackle climate change, Portsmouth City Council has made a commitment to reduce its CO_2 emissions by 30% by 2016/17. This is part of a wider Carbon Management Programme, and is being taken forward by the Carbon Management Board. One of the reasons the council needs to prioritise carbon reduction due to the penalties of the CRC Energy Efficiency Scheme, as it has been estimated that **the cost of allowances for Portsmouth City Council is to be in the region of £365,000 per annum**. The first sale of allowances for 2011/12 will take place in April 2012.

In 2010/11, PCC's total carbon footprint emissions stood at 34,264 tonnes of CO_2. This will be our baseline to reduce the carbon emissions released from council activities by 30% by 2016/17. To obtain the target of 23,985 tonnes of CO_2 will require a gradual decline in emissions through increased efficiency and low carbon technologies. Per capita, PCC's emissions in 2010/11 were

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45.3 compared to 54.3 in 2009/10. This demonstrates a decline in the carbon intensity of delivering PCC's services.

What are the challenges?

Although the council is committed to embedding sustainability and tackling climate change, there will continue to be a number of challenges, both now and in the future, that the council as a whole needs to address:

Cost implications
- The costs of buying our "carbon allowances" under the CRC, Energy Efficiency Scheme will continue to increase if we cannot reduce our carbon emissions, so services should be looking at ways to reduce their emissions through carbon reduction projects.
- There are also implications of a changing climate on the insurability of properties, and there is likely to be additional costs to retrofitting buildings with adaptation measures if left for longer – as outlined in "Adapting to climate change impacts," based on commercially recognised principles, it is likely that the relative costs incurred in retrofitting adaptation measures at a later date will be 10-20% higher than if these works were incorporated in the base scheme.
- In July 2011, SSE announced an increase of electricity and gas prices of 11% and 18%. Volatile energy prices and the need to purchase carbon allowances will mean that even greater pressure will be put on services to make savings elsewhere.

Lack of accurate data
Gathering accurate data on our energy consumption, and therefore our carbon emissions will continue to be a challenge. Most services now have in place Automatic Meter Readers (AMRs), which monitor energy usage in buildings, but monitoring that data on a regular basis could be more consistent. Similarly, our in-house statistics on waste – how much we collect, recycle and reuse, are less clearly articulated and monitored than the statistics we collect for waste monitoring with residents. Measuring the performance of sustainability indicators will also be a challenge when it is more difficult to quantify, and minimal numerical data is collected.

Funding
As funding becomes more difficult to find, low-carbon technologies will be competing more against other council projects. It is therefore important that every service looks at how they can reduce their own carbon emissions and be more sustainable; incorporate their climate risks into service level risk registers, and ensure that they have business continuity plans in place to ensure continued service delivery during periods of extreme weather.

Vulnerable residents
Research from the Joseph Rowntree Foundation has shown that decision-makers need to consider how people's vulnerability to the climate will change over time, to build resilience in advance. If the council is committed to being sustainable, it needs to ensure that we are supporting people economically and socially, to provide the best possible outcomes for future generations. Some of the specific impacts on vulnerable people include:

- **Flood risk:** Residents living in flood risk areas (as identified by the Environment Agency), could struggle more to protect their homes from flooding. Services and senior management have been made aware of those assets which are in flood risk areas, and

should be looking at ways in which the risk to vulnerable people (and assets) could be reduced.

- **Fuel poverty:** There are still a number of vulnerable people across the city who live in fuel poverty, who are unable to afford energy efficiency measures in their home. This is exacerbated by the type of properties that are found in Portsmouth – many built before the 1920s – which lead to greater heat loss. A project is currently being undertaken to provide a thermal map of the city to identify those areas of greatest heat loss. Officers in API, Community Housing, and Housing Management are also working together to look at how fuel poverty can be reduced across the city.
- **Health impacts:** Older people and young children are also vulnerable to higher temperatures, which are being more frequently experienced in Portsmouth. This leads to health-related problems, and puts greater pressure on resources in care homes and in hospitals. Portsmouth NHS has developed a heatwave plan, which sets out what to do for incremental rises in temperature. The council also has advice on what to do in a heatwave, which services should be acquainting themselves with.

Culture change
This agenda requires the behaviour and culture of PCC to change, and adapt to new ways of thinking and working when it comes to working more sustainably, reducing carbon emissions, and being prepared for extreme weather. It will therefore be important that work takes place not only with senior managers, but with individual officers too, to ensure that we are being as sustainable as we can, as well as fully tackling the challenge of climate change.

The Transformation Programme will be key to aiding this culture change, and it will be important that everyone is aware of the benefits that can be had from engaging with this agenda. Being more sustainable offers opportunities to work more efficiently, which not only saves money, but improves customer and staff satisfaction.

Partnership working
This agenda will only succeed if we continue to work with our partners to achieve the objectives set out in our Climate Change and Sustainability strategies. We know that there are efficiency savings to be made, but we are likely to rely on partners to help deliver them.

Changing legislation
Continued changes in legislation will result in challenges, as councils look to shape their frameworks to the national requirements. It is important that the council continues to look for opportunities in changing legislation, and utilises any benefits that arise. Key pieces of draft legislation for 2011/12 include:

- The Energy Bill 2011-12: this bill gives powers for the creation of a Green Deal, which allows householders or businesses to approach a "Green Deal" provider to get information on potential energy improvements and pay-back scenarios. A Green Deal installer can do the instalments and the financing is arranged through the energy bill. If a LA wishes to become a Green Deal Provider organisation it will need to do so in conjunction with an energy supplier.
- Local Authorities will have a duty to issue a notice to a private-rent landlord whose rental property has a low performing Energy Performance Certificate. Before these arrangements can be put in place a review will be undertaken which looks at the relative energy efficiency of the private-rent sector compared to other sectors. These new regulations will not be introduced until at least 1st April 2015.
- The requirements of the CRC, Energy Efficiency Scheme will continue to change, and it will be difficult to provide enough resource to keep up to date with legislative changes.

What we are already doing and opportunities in the future

It has already been set out how, at a corporate level, the council is supporting the priority to embed sustainability in council policy and practice. It is clear that the Government has set out clear expectations for local authorities to reduce carbon emissions; support the move to a low-carbon economy, and adapt to climate change. Most services are already engaged in doing this, and will be further incentivised as the council begins to buy its carbon allowances. The table below shows what the council's services are already doing, and provides opportunities for them to consider in the future.

Service	What they are already doing	Future opportunities
Planning	• The draft Portsmouth Plan includes sustainable development policies (e.g. reducing flooding; green infrastructure), • An Infrastructure Development Plan is in place • Standards for BREEAM and the Code for Sustainable Homes are included as part of development assessments • Strategic Flood Risk Assessments are carried out for all development proposals which are in flood risk areas • Sustainable Urban Drainage systems is included in the Portsmouth Plan	• Taking forward climate change proposals in the core plan • Ensuring developers are considering adaptation to climate change and energy efficiency measures in their design plans • Putting forward proposals for developing sustainable Urban Drainage systems • Encourage renewable energy
Transport and environment	• Surface Water Management Plan and Preliminary Flood Risk Assessment in place • Continue to progress work outlined in the Portsea Island Strategy to protect the city from flooding. This strategy has secured funding • The Isambard Brunel Multi-Storey car park has had a lighting retrofit, such as reduced wattage lighting and re-wiring	• Look at expanding Park & Ride service • Better monitoring of business mileages • A new waste contract with Biffa starts in October. This will hopefully lead to more recycling and garden waste composting. All vehicles will also be run on bio-fuel
Housing management	• Developing a Greener Homes initiative • Being involved in taking forward the fuel poverty agenda • Successful completion of the Eco-Home and Solar PV Panel projects	• Retrofit and refurbish selected HRA properties to promote adaptation to climate change e.g. identify appropriate housing areas which would benefit from green energy • Reporting on success of Eco-Home
Community housing and regeneration	• The home improvements work in private sector housing will contribute towards reducing carbon emissions • Being involved in taking forward the fuel poverty agenda • Promoting local business growth through the Shaping our Future agenda	• Working with business to highlight impacts of climate change • Work to encourage business continuity plans • Ensuring home improvements team incorporate adaptation measures in their advice

Education	• Looking into adaptation options at some schools • Some schools trying to get funding for putting up shades • Low carbon schools programme - 10 schools have been chosen to take part in this Carbon Trust Programme	• Work with building companies to ensure new builds are adapted to climate change and reduce energy efficiency • Encourage schools to report and monitor carbon footprints • Put measures in place to reduce impacts of sea level rise on schools in flood risk zones
Children's Social Care	• Piloting home working • Identified which care homes are in flood risk areas	• Put measures in place to reduce impacts of care homes in flood risk areas • Work with care providers to ensure robust business continuity plans in place • Implement energy efficiency measures
Community Safety, HIDS & Licensing	• Test business continuity plans, to ensure they are fit for purpose. This includes ensuring disaster recovery systems are in place for SWIFT and SMART (HIDS) • Looking at how the Carers Centre could reduce their carbon footprint	• Provide appropriate support in emergencies, and ensure flood and heatwave plans are in place for city • Work with health providers to make sure they are keeping watch over those who are vulnerable to extreme heat
API	• Taking the lead on the Carbon Reduction Programme • Putting together a Building Resilience to Climate Change policy to guide services • Drafting Renewable Energy Policy • Drafting Responsible Procurement Policy • Delivering initial stages of renewable energy projects such as CHP and Solar PV	• Ensure that the Responsible Procurement Policy is embedded and look at rolling out a Responsible Procurement Policy • Sustainability appraisal for project gateway processes
Adult Social Care	Planned work: • Audit of our response to date in monitoring and reducing CO_2 emissions from all sources • Audit of sustainability plans that apply to Adult Social Care and our co-ordination of emergency responses with Health and other partners • Action plan to be drawn up based on the audit findings by December 2011 • Accurate monitoring of energy use in place within all our (PCC) buildings and vehicles.	• Assess which care homes are in flood risk areas and put measures in place to reduce impacts • Work with care service providers to ensure robust business continuity plans in place
Culture	• The Central Library has a new building management system (BMS), which allows remote access to control boilers	• Ensure all culture assets – libraries, theatres, are aware of their high carbon footprints, and

		work to reduce emissions
	to ensure optimum environment is efficiently maintained. • Take forward the coastal protection and sea defences detailed in the seafront strategy • Continue to Implement the Sustainable Planting policy. • All events have "wet weather" alternatives	• Assess which assets are in flood risk areas and ensure mitigating measures are considered • Explore provision of water points at key sites, e.g. Southsea Common
Asset Management	• 146 Automatic Meter Readers (AMRs) have been installed in PCC sites, and give AMS and site managers the means to monitor sites, identify problems and realise savings. • Working up energy efficiency projects for the carbon management board • Ensuring accurate energy use data is captured on SystemLink • Delivered energy efficiency projects in Civic – i.e. manually turning the fans off and installing light sensors	• Ensure the new Asset Management System/Database includes options for recording weather based damage to buildings, and all assets in flood zones are recorded as so • Continue to support the Carbon Management Plan and identify and deliver energy efficiency projects in a range of buildings

What all services could be doing

All services should be making use of the service level carbon footprints which will be available shortly, but there are also a number of quick-win solutions that services could be considering, such as:

- Ensuring resources aren't wasted - cutting down on the amount of paper that is printed per service, turning equipment off when not in use, using public transport to get to meetings etc.
- Making sure appropriate business continuity plans are in place, which include plans for how to tackle reduced service delivery as a result of an extreme weather event
- Ensuring that climate change risks, as identified for services last year, are included in service risk registers, and appropriate control measures are in place
- Preparing financial information on the costs of climate change to services
- Encourage flexible working where possible
- Ensure key messages – such as the impacts of heatwaves – are communicated to all staff

As well as long-term considerations of how the carbon emissions from our buildings are reduced:

- How efficient are boilers and heating systems?
- Are efficient windows in place? Have any drafts been tackled?
- For all new buildings, are appropriate BREEAM standards being met?
- For any upgrades required on buildings, have you considered retrofitting anything else while the work is being done? For example, putting in loft insulation, solar panels or other green technology?

Further reading
A Managers Guide to Carbon
Ways to cut carbon
Climate change projections