

Southampton

Low Carbon City

Low Carbon City Strategy and Delivery Plan
Year 1 Annual Progress Report (2011/2012)

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Contents

Foreword	4
Executive Summary	5
Year at a glance	6
Introduction and headline objectives	8
Key priority 1 – Low Carbon Economy	
- Case study of best practice	9
- Progress against actions	10
Key priority 2 – Sustainable Energy	
- Case study of best practice	14
- Progress against actions	15
Key priority 3 – Carbon Reduction	
- Case study of best practice	19
- Progress against actions	20
Key priority 4 – Flood Risk Management	
- Case study of best practice	24
- Progress against actions	25
Key priority 5 – Procurement	
- Progress against actions	29
Key priority 6 – Biodiversity	
- Case study of best practice	31
- Progress against actions	32
Key priority 7 – Low Carbon Travel and Transport	
- Case study of best practice	37
- Progress against actions	38
Key priority 8 – Waste Management	
- Case study of best practice	43
- Progress against actions	44

Foreword

The publication of the Low Carbon City Strategy signified an important milestone in confirming Southampton City Council's commitment to drive down our carbon emissions and ensure that the city is well placed to manage the consequences of a changing climate. I am delighted to present our first annual progress report on its implementation.

The Council is firmly committed to deliver the package of measures outlined in the Low Carbon City Strategy and this report acknowledges the good progress we have made so far. However, this is a challenging agenda and I will be working closely with my cabinet colleagues to identify further options for enhancing our intervention package where possible and ensure that we work with our partners to secure wider contributions from individuals, businesses and communities across the city and the surrounding area.

Cllr Richard Williams
Leader of the Council

Executive Summary




This report reflects the progress made in implementing the measures contained in the Low Carbon City Strategy and Delivery Plan which were published and adopted in July 2011.

This report provides:

- A qualitative assessment of the progress made in delivering the thematic actions
- Case studies highlighting key work in each theme; and
- An updated performance indicators framework for tracking Southampton's progress towards becoming a Low Carbon City.

The City Council is on track to meet the vast majority of measures outlined in the Low Carbon City Strategy Delivery Plan. During the past 12 months the focus was to embed the strategy at a strategic level and strengthen cross-directorate working, establish a clear picture on the city's environmental credentials and advance a number of bids to resource elements of the plan. The City Council has since made solid progress towards delivering organisational and city-wide carbon reduction targets.

Progress towards our key targets at a glance

Target	Status	Description
To reduce the City of Southampton's carbon dioxide emissions by 34% by 2020 from 1990 levels	✓	14.8% reduction since 2005
To reduce the Council's carbon dioxide emissions by 10% by 2013 from 2010/2011 levels	✓	14% reduction so far
To reduce the Council's carbon dioxide emissions by 40% by 2020 from 2010/2011 levels	✓	14% reduction so far
 We are not meeting the target		
 Progressing, but there is more work to do		
 We are on track to meet the target		









Year at a glance

Below is a selection of the key achievements under each of the eight key priority areas in the strategy over the past 12 months:

2011	June	Award of £3.6m from the LSTF for the Sustainable Travel City programme
		£2.5m district heat network at Centenary Quay is completed
		Opening ceremony for the energy centre at Centenary Quay
	July	Low Carbon City Strategy adopted by Cabinet
		CRC figures for footprint year released along with annual report
		Green Economy review commissioned
	Aug	GRaBS project finishes
		Latest carbon emission figures show that Southampton achieved a reduction of 12.3% per capita in 2009
	Sept	LEAP project mentoring visit from Mayor of South Dublin
		Dissertation study into the development of a framework for assessing risk of heat waves commissioned
	Oct	Completion of dissertation study of the GSF role in flood attenuation (evidence base to support GSF policy in CCAP)
		Green Economy in Southampton and South Hampshire report published
Work commences on £9m refurbishment of four tower blocks at International Way in Weston including energy efficiency measures		
Nov	Southampton Surface Water Management Plan adopted	
	DEFRA air quality grant awarded for the purchase of an electric staff pool car	
Dec	Feasibility study commissioned to assess the viability of a low emission zone in the city	
	Completion of first phase of PV installations on council owned buildings	
2012	Jan	Policy 10 Green Infrastructure and Open Spaces included in emerging CCAP (preferred approach) including the Green Space Factor tool
		Work commences on the replacement of the geothermal well head
		Urban Canopy GIS tool completed

Feb		The City Council runs a two week trial of two hydrogen-powered transit vans
		2012/2013 Salix invest-to-save programmes commences
		Carbon Offset Fund feasibility study commissioned
		SME Business seminar on energy auditing held in partnership with Carbon Trust
Mar		Completion of additional PV installations on council buildings
		Internal Sustainability Network inaugural meeting
		Figures for 2011 show that the Salix invest-to-save programme has delivered energy savings of over £250k over the past two years
Apr		SCC notified that it is a finalist for the European RegioStars Awards (GRaBS)
May		Code for Sustainable Homes Level 6 development at Stoneham Cemetery Lane opens
		Inaugural meeting of the BiodiverCity group held
		CLG figures released for period March 2010 to March 2012 for code certificate issued across the country demonstrate that Southampton is one of the top performing councils outside London with 1168 code certificates issued at design stage and 763 signed off at post construction stage
		Free insulation offered to Southampton residents through Cocoon programme. 2600 measured have been or are scheduled to be installed
June		Award of €2.6m for the BEEMS project
		GRaBS project given European RegioStars Award
July		CRC figures for 2 nd year of phase 1 released
		Publication of the PhD carbon footprinting thesis
		Flood and Coastal Erosion Flood Risk Management Strategy adopted

Key

	Key Priority 1 - We will invest in, strengthen and grow the city's low carbon economy		Key Priority 5 - We will incorporate sustainability into all of our buying decisions
	Key Priority 2 - We will generate and use energy in a sustainable way		Key Priority 6 - We will strengthen biodiversity in the city
	Key Priority 3 - We will reduce the carbon footprint of the city		Key Priority 7 - We will increase low carbon travel and transport
	Key Priority 4 - We will minimise the impact from flooding for the city		Key Priority 8 - We will use less, waste less and recycle more

Introduction

The publication of the Low Carbon City Strategy in 2011 marked an important milestone in confirming Southampton's commitment to reduce carbon emissions, support effective adaptation to a changing climate and realise the benefits a low carbon future can bring.

This report highlights activity across the city to drive down emissions, and prepare for a changing climate and reflects progress made in implementing actions in the Delivery Plan since publication of the strategy. The report provides a qualitative assessment of the progress made in delivering the actions in each of the 8 priority areas, incorporating a number of case studies, as well as providing an updated set of performance indicators for tracking progress.

Vision

Southampton will thrive in a new low carbon economy. By galvanising local action we will be competitive and prosperous; a focal point for green business as we move swiftly to low carbon energy, low carbon transport and a low carbon built environment.

Our headline objectives

Mitigation	Adaptation
To reduce the City of Southampton's carbon dioxide emissions by 34% by 2020 from 1990 levels	To engage all individuals and organisations in Southampton in the process of adapting to climate change in order to improve health and quality of life for everyone
To reduce the Council's carbon dioxide emissions by 40% by 2020 from 2010/2011 levels	

Key priority 1 – We will invest in, strengthen and grow the city’s low carbon economy

Southampton continues to strive to be at the forefront of exploiting the commercial and social opportunities the low carbon agenda presents. The following section details the progress being made in the foundational actions the authority has taken forward over the past 12 months that are identified in the Delivery Plan to make the city an attractive prospect for cleantech and low carbon industry.

Case study

BEEMS project

On 21 June 2012 Southampton City Council was awarded €2.6m following formal approval from the EU for the ‘Building European Environmental and Maritime Skills’ (BEEMS) project. Working with partners from Portsmouth, East of England and Normandy in France, the project will run from September 2012 to September 2014 and aim to stimulate the development and sustained growth of environmental and maritime skills within the marine renewable energy industry (offshore wind, wave and tidal flow), and to increase the sector’s economic viability through enhanced cross-border co-operation and joint-working.

In order to achieve this aim the project will:

- Understand the commercial commonalities and differences of the cross-border marine renewable energy sector, and its specific requirements for developing and retaining a skilled workforce that meets short, medium and long term growth in the offshore wind energy industry.
- Engage with cross-border sector employers and training providers to broker and establish an offshore wind energy industry employment strategy and skills training plan that meets industry needs in skills development, training, apprenticeships and workforce retention.
- Develop a cross-border offshore wind energy industry skills training and apprenticeship programme that will meet the educational, social and economic needs of unemployed people or those with low level skills.
- Develop and evaluate cross-border practical approaches and techniques that improve performance and employability, including a skills escalator, study trips and exchanges.
- Enhance opportunities for SME’s in each of the partner’s areas to benefit from the development of the marine renewable energy sector supply chain.

Over the course of the 2 year project research will be undertaken to identify where skills gaps lie, promote the career opportunities that are available to young and mature entrants alike, and collaborate in order to devise employment strategies and training programmes to meet the skills gaps. Once this has been done the project will move into an implementation phase which will develop skills training programmes and baseline certification before providing a training toolkit that can be used by partners, policymakers, employers and skills providers in the marine renewable energy sectors to inform future planning and delivery. This work will be vital preparatory work to ensure that local people benefit from the job opportunities that will be available with the development of two offshore wind energy sites close to the Solent region (totalling 1.5GW in size). Construction in the Hastings Zone will start in 2014 and be fully operational by 2016, while construction in the West of Wight Zone will begin in 2016 and be fully operational by 2018.

Key priority 1 – We will invest in, strengthen and grow the city’s low carbon economy

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
1.1	Create a political and planning climate to encourage business connected with the low carbon agenda to start, locate or invest in Southampton	Investigate a local scheme to incentivise improved energy efficiency equivalent to business rate relief	Funding captured to reinvest in the city. Individual businesses become more profitable.	2012	Amber	Local enterprise partnerships (LEPs) have offered councils the opportunity to shape their areas’ economic growth in partnership with local businesses. The re-localisation of business rates provides a new financial incentive for councils to encourage higher economic growth in their areas. Council to identify opportunities through dialogue with LEP.
		Incorporate specific action within the Investment Plan as Environmental Technologies are a key sector for the South Hampshire Economic Development Strategy	Increase in economic activity and the number of jobs in the city in a growing target sector	2011 to 2014	Green	Work is progressing on an Environmental Technologies proposition as one of two initial sector researches and this will be going up on the Invest-in-Southampton website shortly. Annual research into the status of the local green economy has also been undertaken.
		Convene a Low Carbon Southampton exhibition and conference to assess progress, inspire new stakeholders and build momentum for further action and seek to make it an	Number of stakeholders signed up	2012	Green	Southampton hosted the Nearer to Zero conference in October 2012. The event brought together house builders and planners from across the sub-region to

		international event of significance over time				understand the steps that must be taken if the ambition of zero carbon new homes from 2016 is to be realised, and to explore areas for greater collaboration between planning and house building to improve the supply of sustainable housing. Events are being planned in partnership with both the Hampshire Chamber of Commerce and Business Solent to promote the areas low carbon credentials – both will take place in 2013.
1.2	Become the UK's leading city for Environmental Technology and Services specifically the emerging low carbon sub sector	Conduct research and record details of the current and potential opportunities for Environmental Technology and Services (ETS) businesses in the South Hampshire sub-region and the wider Hampshire area	SCC employment land review identifying the number of ETS businesses and HQs of ETS businesses undertaken by 2011	2011	Green	The draft review of all employment sites has been completed identifying potential sites for redevelopment in the city.
			Full assessment of ETS enterprises within the sub-region undertaken by 2012 mapping out the cluster as it currently exists and detailing future market	2012	Green	The methodology for conducting this work has been agreed and the research has been undertaken identifying 398 businesses within the city and 211 in the surrounding area classified within the local green economy. The largest sub-sectors were again Building Technologies (119) and Environmental Consulting (60). So far, 7597 jobs in total have been identified in the green economy within South Hampshire. Research will be

						undertaken on an annual basis to assess sector growth.
		Articulate and implement the city's low carbon ambitions through robust planning policy to stimulate innovation and build on local economic strengths	Funding secured from appropriate sources to develop an ETS hub and deliver projects supporting labour growth related to environmental technologies	Bid formed by 2012	Green	An expression of interest to the Coastal Communities Fund was submitted in spring 2012. The EOI outlined a proposal to support labour growth in the local green economy by defining and mapping local skills provision and forming a training package and skills escalator. Although it was unsuccessful future funding opportunities are being explored.
	Adopt policy that will identify and safeguard office space and land in appropriate locations for ETS businesses by 2013 in the City Centre Action Plan (CCAP) and by 2015 for the rest of the city (Southampton Development Plan DPD)		2013 / 2015	Green	The CCAP is on schedule to be adopted in 2014. The CCAP 'preferred approach' (Jan 2012) document allocates significant office floorspace within the centrally located Major Development Quarter (MDQ). Additional incentives to draw in business specific to the ETS sector will be explored to support this designation.	
	Policies included in the CCAP and Southampton Development Plan that address the specific requirements of the ETS sector by 2015		2014	Green	Southampton Development Plan (SDP) document on hold whilst the CCAP is progressed to adoption (2014). The CCAP specifies increased net provision of office space available for business within the city centre. It is anticipated that the SDP and future	

						planning documents will be subsumed into a new Local Plan (2016), in line with the recently published National Planning Policy Framework. Site allocations and Development Management policies will be updated as part of that document.
			Initiate the 1 st Environmental Technology and Services hub in SE by 2014	Run workshops in 2011 to develop a project plan	Amber	Workshops to identify a project plan are yet to be held.
1.3	Work in partnership with the city Universities and Colleges to develop a sector skills programme to ensure that the local workforce can match the professional and technical requirements of new jobs	Link HE and FE sectors with employers in the renewables and retrofitting markets to ensure training and skills are matched to needs locally	Increased percentage of jobs taken up by residents from the PUSH area	2012	Green	Ongoing work with HE and FE sectors as well as wider training providers through SSDZ to identify and respond to emerging skills opportunities. Roll out of S 106 Employment and Skills methodology across PUSH area to standardise approach to employment and skills uptake by local residents. Retrofit and construction linked to Housing renewal and Estate Regeneration. Specific opportunities being sought through bids for external funding.
		Collaborate with the University of Southampton to create and promote a skills pool to build capacity locally for a low carbon technology hub	The number of students graduating with specific qualifications that relate to the needs of industry	Scope during 2011	Green	Links with the University of Southampton continue to be forged. A total of 6 work placements were hosted by the sustainability team over the

						summer months. The relationship with the University of Southampton has been further strengthened by the appointment of Prof Abubakr Bahaj as the council Chief Scientific Advisor.
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Key priority 2 – We will generate and use energy in a sustainable way

To reduce carbon emissions from energy production we must shift towards lower-carbon forms of energy production. We will also need to reduce energy demand through passive efficiency measures and by changing the way people habitually use energy at home and at work. The following section demonstrates the progress being made in actions to reduce energy use and generate renewable and low carbon energy across the city.

Case study

Feed in Tariff programme

The City Council has successfully installed solar photovoltaics on over 30 of its operational buildings across the city including schools, academies, council owned housing and the civic centre and city depot. The programme has delivered over 450 KWp of kit during the past 12 months resulting in over 46 tCO₂ being saved since the scheme began and total revenue savings in excess of £80k by January 2012 (including feed-in-tariff revenue, export revenue and displaced electricity savings).

Case study

CESP scheme at International Way in Weston

Structural and environmental improvements continue to be made to four tower blocks along International Way in Weston (Oslo, Havre, Copenhagen and Hampton) utilising Housing Revenue Account Capital programme funding and external funding secured from the Community Energy Savings Programme via utilisation of British Gas.

The project has seen the installation of external insulation, new double glazed windows and balcony doors and new gas-fired communal heating and hot water services resulting in reduced energy costs to tenants and leaseholders, an improved appearance to the buildings, and extended structural lives for the buildings. In addition the project has seen solar photovoltaics installed on the roof area of each block with the energy produced utilised to feed existing electrical systems in the blocks.

Draught proofing measures have also been installed to all properties at Canberra Towers, Hurstbourne Place, and the flats within Foxcott Close to improve the energy efficiency of these blocks. International Way sits within one of the five most deprived wards in the City and this proposal will have a significant impact in tackling issues of fuel poverty, child poverty and wider deprivation.

Key priority 2 – We will generate and use energy in a sustainable way

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
2.1	Develop a long-term programme for retrofitting public buildings across the city with Solar PV	Develop a portfolio of Solar PV retrofit projects including the Civic Centre	Percentage increase in renewable energy used in SCC property	2011-2013	Green	Installations on 31 separate buildings have been completed delivering over 450KWp of renewable energy.
2.2	Build and operate more energy efficient homes, businesses and public sector buildings	Continue with the existing City Council programme of energy management and work with partners to share knowledge on best practice	% reduction in energy through Buildings Energy Efficiency Programme (BEEP) framework contract and supplier base	2011-2013	Amber	There is no resource to take forward an energy performance contract. Energy savings in the corporate and admin estate will be delivered through the Salix programme. This programme has a budget of £408k set aside to deliver energy efficiency projects during 2012/2013
			946 tonnes of CO ₂ reduced through BEEP and £189k saved	2013	Amber	In 2012/13 the Salix budget of £408k will be spent on delivering the following energy efficiency projects: Lighting replacement and improved control at a number of sites including MS car parks, Improved heating controls, Insulation works to include pipework and building fabric improvements, CHP at a residential care home, and both

						corporate and schools estate.
			15% of schools to achieve Silver Eco Schools accreditation	2011	Green	Southampton Schools continues to be a hotspot for sustainability. With 4% achieving Ambassador/ Gold Eco school accreditation and 22% Silver
		Continue to support schools to become sustainable by 2020 through the Eco Schools renewables programme	Renewable energy technologies introduced in 8 schools utilising Low Carbon Buildings Funding	2011	Green	LCBP closed April 2010 replaced by Feed in Tariff and RHI December 2011
			All schools to have accurate Display Energy Certificates with A – G ratings	2011	Green	All schools requiring a DEC had one calculated. 40% achieved the national median = D. With 30% above a D and 30% below.
			% schools built to BREEAM Excellent or Outstanding	2011-2014	Red	Both Oasis Academy Mayfield and Oasis Academy Lord's Hill have been built to BREEAM Very Good rating. This is a function of the capped local and national funding made available to deliver the projects - the difference between Very Good and Excellent generally being equivalent to about 7 - 10% of the total capital cost of the Very Good baseline Scheme. It is highly likely that all new build Primary Review projects delivered between 2011 and 2014 will also fall into this bracket as a function of further reductions in local and central capital allocations.

			Expand Solar PV programme to a further 10 – 15 schools to capitalise upon Feed in Tariff	2011-2014	Green	172 KWp were installed on a further 10 schools before 3 rd March 2012 deadline
			Number of Oil and Gas fired boilers replaced with Biomass (woodchip) boilers from a local sustainable source	2011-2014	Amber	Government Renewable Heat Incentive (RHI) did not become available until Dec 11. Funding not available for additional 50% cost of boiler.
2.3	Work with partners at the city, sub-regional and national level to improve existing infrastructure, existing regulatory frameworks, and policy to help deliver a decarbonised generation and distribution system	Support appropriate low carbon and renewable energy schemes in the city	Expansion of Southampton City Centre district heating scheme where new connections are made	2014	Green	The Empire View block of flats, on the Gantry site adjacent to the Mayflower Theatre have been connected to the city centre network and is expected to save 190 tonnes CO ₂ p.a. Against a transparent comparator of conventional costs (fuel and all non-fuel costs) as a benchmark the heat tariff the Southampton Geothermal Heat Company will provide residents with an energy cost saving of circa 10%. The pipework has been extended to a point where it can pre-service the Central Station redevelopment area and Wyndham Court in the future.
			In depth feasibility District heating schemes covering a high density housing area- e.g. Thornhill, Weston, Millbrook, Redbridge	2014	Amber	Proposals to develop district heating in the city along with outlines for the feasibility work needed in key areas in the city are being included in a Sustainable Energy Action Plan.

		Heat captured from the Marchwood Energy-from-waste facility and fed into district heat network	MoU between Cofely, Veolia, HCC and SCC signed by 2011	2011	Red	Agreement to co-operate drafted but yet to be executed.
2.4	Maintain and develop local and sustainable energy networks	Develop new and grow existing community-based sustainable energy networks where energy can be used by local users and/or fed back into national and local grids	Complete the first phase of Centenary Quay, incorporating a district energy network and energy centre	2012	Green	The energy centre and district heat pipework at Centenary Quay has been completed and is providing heat to the houses completed on site. The network will deliver savings for residents in their energy bills. It has been estimated that the CHP unit will reduce total CO2 emissions for the entire site by around 11% (>1000 tonnes of CO2) from the 'energy efficient' design baseline.
			Complete heat mapping exercise identifying the best opportunities to use waste heat within the city	2011	Green	Cofely District Energy has produced a city-wide heat map to identify heat demand.
			City Centre Action Plan and Southampton Development Plan DPD adopted	2015	Green	The CCAP is on schedule to be adopted in 2014. There is provision in CCAP to develop and grow community energy networks. Policy 12 and its supporting text sets out SCC's support for renewable and low carbon energy plant in the city adding to the policy support within the core strategy.
2.5	Use the EU funded LEAP project to promote and exchange best	A co-ordinated citizen engagement programme of advice and support on domestic energy efficiency and	Low Carbon technology and decentralised energy conference	2012	Green	Southampton hosted the Nearer to Zero conference in October 2012
			Number of residents visited	2013	Green	A programme of community

	practice for city-wide sustainable energy generation	water efficiency for residents, landlords and building owners, including behavioural change, physical improvements and grant/loan information				roadshow events has been developed in partnership with the Smarter Travel Centre of Excellence and is being rolled out throughout 2012/2013. Information Days have been held at International Way to engage residents with the structural and environmental enhancements in the tower blocks and the new heating systems in place within the flats.
		Active business mentoring arrangements established. Peer advice given by established businesses to smaller businesses in the city	Number of mentoring visits	2013	Amber	Yet to commence.
		Energy efficiency demonstration sites throughout the city targeted at SME's	Number of stakeholders signed up to visit sites	2013	Green	The Southampton Energy Partnership has facilitated site visits to partner members including IKEA, Skandia, DP World, the City Depot and the National Oceanography Centre to showcase best practice and disseminate learning.
2.6	Promote a diverse range of renewable and low carbon energy technologies in the city to deliver stability and resilience	Work with partners to make Southampton a venue for smart grid technology trials including intelligent appliances, heat storage from excess generation, peak demand management, intelligent pricing, mixed generation and storage capacity.	Energy storage technology pilot completed by 2014	2014	Amber	Yet to commence.
			Smart grid technology trial completed by 2013	2013	Amber	Yet to commence.

Key priority 3 – We will reduce the carbon footprint of the city

This section presents the current progress being made with the headline emission reduction interventions identified in the Low Carbon City Strategy to reduce carbon emissions related to activity in both the local authorities operations and across the city as a whole.

Case study

Carbon Emissions Inventory

To help Southampton reduce its greenhouse gas emissions Southampton City Council partnered with researchers from the University of Southampton's Carbon Management Group (CMG) to measure the city's carbon footprint. The project has led to the development of the world's most detailed software model of a city's carbon footprint. It maps emissions from all sources in the city with robust data from all housing (by type, age, and location), business and commercial properties in the city collected using a specific methodology that was developed as part of the project. This enables the city's carbon footprint to be broken down by sectors, processes, fuels and locations, to better inform policy and action.

It establishes more accurate local data on carbon emissions, provides a database on which energy efficiency and sustainable energy investment can be modelled and based (i.e. types of solutions suited to different scenarios); and allows modelling of future actions to identify the best strategic solutions to be followed (for example heat mapping to identify where decentralised energy networks should be focussed). This information can be used to help direct the Low Carbon City Strategy and inform future policy to achieve carbon reduction targets.

The model makes it possible to identify areas where significant emissions reductions could be achieved and the best energy solutions to take forward. The ability to provide decision makers with this information is extremely powerful, providing the means to recognise not just the source of emissions, but also to identify the underlying drivers and processes.

This cutting edge work has attracted international interest with the outputs of the PhD study currently considered to be world leading in terms of developing a dedicated methodology and establishing an accurate carbon footprint at a city-wide level.

Key priority 3 – We will reduce the carbon footprint of the city

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
3.1	Generate investment into retrofitting of public and private sector housing across the city	Carbon Offset Fund in place as part of the Local Development Framework by 2012	Funding captured to reinvest in the city	2012	Green	The USEA were commissioned to undertake a feasibility report which was completed in May 2012. The recommendations emerging from the report are in the process of being considered and an appropriate route for implementation is being agreed with development management.
		Articulate and implement the city's low carbon ambitions through robust planning policy to stimulate innovation and build on local economic strengths	City Centre Masterplan in place by 2012	2012	Green	The City Centre Masterplan was launched on the 16 th March 2012. The event was attended by over 400 delegates. The document outlines a new business district in the city centre.
			Local Development Plan in place by 2013	2013	Green	It is anticipated that the SDP and future planning documents will be subsumed into a new Local Plan (2016), in line with the recently published National Planning Policy Framework.
			City Centre Action Plan in place by 2013	2013	Green	The CCAP is on schedule to be adopted in 2014. There is provision in CCAP to develop and grow community energy

						networks.
3.2	Work with key partners to reduce the city's carbon footprint through joint initiatives	Continue to set and achieve stretching carbon reduction targets for the City Council and the city and continue to report to the community on our CO ₂ emissions	10% CO ₂ reduction by 2013 (2010/2011 baseline)	2013	Green	Against a 2005 baseline there has been a 14.8% city-wide CO ₂ reduction up to 2009 (latest available data). 23% per capita reduction.
			40% CO ₂ reduction by 2020 (2010/2011 baseline)	2020	Green	Excluding transport and domestic emissions (which are not accounted for under CRC) the council has achieved a saving of 3,042 tCO ₂ over the past year which equates to a reduction of 14% against the 2010/2011 baseline.
		Develop the PhD Carbon Footprint framework for Southampton, and encourage organisations and individuals to accurately measure their emissions and their contribution to the city's reduction targets, while meeting their own needs and reporting requirements	A business emissions reduction strategy for the city is in place by 2014 using the PhD study findings as the baseline	2014	Amber	Work will commence upon final publication of PhD findings and access is given to the use of the CFM software.
			PhD completed by 2012	2012	Amber	PhD thesis expected to be completed by December 2012 (subject to final assessment). Carbon footprint methodology established and full data collected and available for the city. Carbon Footprint Model software in commercial development phase. The model will be used to calculate the impact of interventions included in the existing delivery plan and help to shape actions in the second delivery plan.
			Appropriate measures and targets for the city's impact on	2014	Green	The Carbon Management Group based at the University

			aviation and shipping in the new total carbon footprint approach to be adopted in 2014			of Southampton has been expanded with additional research into shipping emissions underway. This work will lead to the development of appropriate measures and targets.
			Publish and promote PhD findings by 2012	2012	Green	The PhD findings will be made available following the formal examination process for the submitted PhD thesis. The CFM was presented in October 2012 during a partner visit from European local authorities participating in the LEAP project.
	Deliver Private Housing Initiatives to reduce carbon emissions and save energy and fuel costs		Cocoon insulation discount scheme for residents	2011 to 2014	Green	2,600 measures have been or are scheduled to be installed in Southampton's private homes through the Cocoon and Heatseekers insulation discount schemes. The Council has worked with partners to offer free insulation through the Cocoon scheme from 14 May 2012.
			Warm Front referrals providing insulation, and efficient heating systems to homes in the city up to 2013	2011 to 2013	Green	Vulnerable customers are being referred to Warm Front whenever appropriate, but Government funding for this scheme has been significantly reduced.
			Free Insulation offer to staff in the city	2011 to 2014	Red	Offer withdrawn as it has been superceded by the cocoon insulation programme which

						now offers free insulation to all private homeowners in Southampton.
		Finalise the replacement of all road traffic signalling and street lighting with low-energy, long-life LEDs	The replacement of road traffic lights across the city will have saved 400 tonnes of CO ₂ every year	2011	Green	Completed.
			Southampton will be the first city in Europe to have its street lights replaced with LED technology which will save over 2700 tonnes of CO ₂ per year by 2025. The energy efficient kit and the dimming of lights at night will deliver a 11% CO ₂ saving by 2015 equivalent to over 600 tonnes of CO ₂	2011 to 2015	Green	To date the Peartree, Bevois, Freemantle, and Redbridge wards are the first to be lit up with new environmentally friendly street lights with Bitterne Park, Swaythling and Portswood scheduled to be completed by the end of 2012. The scheme will see a total of 13,500 columns, 3000 illuminated signs and 11,000 lanterns replaced.
3.3	Support the Green Deal programme of retrofitting with advice, incentives and investment models to help residents take up the offer	The Green Deal will improve insulation in homes in Southampton	Number of homes retrofitted	2013 onwards	Amber	Green Deal yet to commence.
		Secure delivery of services by Southampton firms	Number of registered Green Deal providers in the Southampton area	2013	Amber	Green Deal yet to commence.
3.4	A wide-reaching insulation and renewables retrofit programme has brought existing homes up to similar standards as new homes	Deliver decent homes initiatives to save energy and water in the city	The programme will have improved water and energy efficiency and reduced energy and water bills in at least approx 300 homes per year through new bath, cavity wall and loft insulation.	2011 to 2014	Green	Structural and environmental improvements continue to be made to four tower blocks along International Way in Weston (Oslo, Havre, Copenhagen and Hampton) utilising Housing Revenue Account Capital programme

						funding and external funding secured from the Community Energy Savings Programme via utilisation of British Gas.
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Key priority 4 – We will minimise the impact from flooding for the city

Flooding is one of the most significant challenges for the city. The Delivery Plan includes a range of headline measures enable Southampton to progress towards being resilient to all but the most extreme floods and identify those in the city who are most at risk from the impacts of climate change and tailor our services appropriately. An update of each of the flood risk management measures is given in this section including a case study of best practice from the past 12 months.

Case study

Southampton Surface Water Management Plan (SWMP)

The Plan identifies the areas within the city which are at high risk from surface water flooding and identifies a number of recommendations to manage the risk. These actions will strategically manage surface water within the high risk hotspot areas throughout the city to reduce the potential impacts from surface water flooding to people, property and infrastructure. The Plan was adopted in November 2011.

Case study

Southampton Coastal Flood & Erosion Risk Management Strategy

The Coastal Flood & Erosion Risk Management Strategy sets a strategic approach to managing coastal flood risk from Woodmill to Redbridge over the next 100 years enabling the city to adapt to sea level rise. It sets a strategic approach to managing coastal flood risk will reduce the risk for existing communities and give confidence to future investors. The Strategy was adopted in July 2012

Key priority 4 – We will minimise the impact from flooding for the city

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
4.1	Put in place a major infrastructure programme to create flood defences and long term adaptation strategies	Southampton Development Tariff in place by 2011	Funding captured to reinvest in the city	2012	Amber	The USEA were commissioned to undertake a feasibility report which was completed in May 2012. The recommendations emerging from the report are in the process of being considered and an appropriate route for implementation is being agreed with development management.
		Southampton Coastal Flood Erosion Risk Management Strategy in place by 2012	Sign off by Environment Agency	2012	Green	Sign off due by end of 2012. The public consultation complete and preferred flood risk management options for development sites have been agreed.
		Put in place a surface water management plan for Southampton and implement a new Sustainable Urban Drainage Systems regime	Specific resource established within the Sustainability Team to deliver new legal responsibilities arising from the Flood and Water Management Act 2010	2011	Green	Surface Water Management Plan in place. Action plan being developed. SUDS awaiting decision from DEFRA regarding implementation dates.
		Collaborate with other agencies and councils on shared services provision in 2012/13	To be confirmed	2013	Green	Discussions in progress.
4.2	Ensure that new	Input to Southampton	Southampton Development	2015	Red	It is anticipated that the SDP

	developments are appropriately designed to adapt to the impacts of Climate Change and safeguard appropriate land for defences	Development Plan DPD for 2015 adoption	Plan DPD adopted			and future planning documents will be subsumed into a new Local Plan (2016), in line with the recently published National Planning Policy Framework.
		Input to City Centre Action Plan DPD for 2013 adoption	City Centre Action Plan DPD adopted	2014	Green	The CCAP is on schedule to be adopted in 2014. There is provision in CCAP to develop and grow community energy networks.
4.3	Raise individual and community level awareness of flooding and the measures they can undertake to reduce risks to become more 'adaptation aware' and able to manage the consequences of flooding	CCATCH project implementation of engagement strategies in Hampshire 2012-13	To be confirmed	2013	Green	1 st meeting of local engagement group held on the 26 April 2012 to commence the project. The project will run for a duration of 18 months finishing in December 2013.
4.4	Market the key development assets in the city and reassure investors that Southampton is a safe place to invest	Develop an urban design showcase in partnership with the EA which demonstrates managed adaptive approach to flooding in the city attracting prospective developers	A suitable site in Southampton is identified by 2011	2011	Green	The Royal Pier site has been put forward as a potential site to showcase resilience to flooding within site design.
			Number of stakeholders signed up to attend the event	2013	Amber	To be confirmed.
4.5	Reduce flood risk to the city's most critical assets and vulnerable	Identify and map existing vulnerabilities to flooding and climate impacts in terms of the potentially adverse health and	Climate Change Risks and Vulnerabilities Assessment Tool finalised and implemented through the city	2011	Green	The Climate Change Risks and Vulnerabilities Assessment Tool has been completed. Additional study has been

	communities	other consequences on people, property and essential infrastructure, taking critical thresholds and the extent of resilience into account	council emergency planning unit			undertaken to assess risk associated with heat waves in partnership with the University of Southampton.
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Key priority 5 – We will incorporate sustainability into all of our buying decisions

As a local authority we are a major consumer, spending over £240m each year. This budget brings with it the power to transform local markets and make a major contribution to driving the way in which local markets develop. When procurement is undertaken jointly with other local public sector organisations there is even greater influence over the supply chain. This section provides detail of the progress being made in the key measures included in the Delivery Plan to enable Southampton to buy its way to a better future. An update of each of the measures is given in this section including a case study of best practice from the past 12 months.

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
5.1	Mainstream sustainable procurement and asset management into all of our activities including those carried out at arm's length and through our strategic partnerships	Achieve sustainable outcomes through the City Council's procurement activity and reach our Flexible Framework targets	Achieved Level 5 by 2014	2011 to 2014	Green	Still work in progress. Work being undertaken with Denise Edghill, Senior Manager, Skills and Economy on job creation through SCC's contracts project, Vanessa Shahani, Manager-Communities Team on making SCC easier for the 3 rd Sector to deal with, and Planning and Sustainability (through European Pathway to Zero Waste) on the Sustainability tool-kit.
		Work with key city partners to develop an agreed approach to sustainable procurement, undertaking a benefits analysis for all key service areas	A shared local public sector procurement framework to coalesce the objectives of the City Council with other big purchasers in the city is fully developed by 2014	2014	Amber	This has taken a 'back seat'. Thought being given to what SCC wants to do and how it will be achieved.
		Develop a sustainable procurement toolkit for all staff	Toolkit adopted by March 2011	2011	Red	Currently awaiting a response from European Pathway to

		to enable them to make informed decisions about the goods and services they procure, and ensure major contracts get maximum gain for local communities through apprenticeships and use of local suppliers				Zero Waste based upon our spend data.
			All relevant staff trained March 2012	2012	Amber	This will be based upon the outcomes from the European Pathway to Zero Waste work and will also be considered as part of the centralised purchasing work which will enable SCC to gain more control over the less than £100k procurements.

Key priority 6 – We will strengthen biodiversity in the city

The more we understand about the natural environment, the more we realise that it supports us with 'ecosystem services' which may not be visible but which are fundamental for life; be it provision of food, water, good air quality, fuel, or building materials. Southampton City Council is committed to conservation and enhancement of green space to make sure the city has an integrated and accessible city-wide green network and that residents are able to benefit fully from the role the natural environment plays in making Southampton an attractive place to live. This section provides detail of the progress being made in the measures included in the Delivery Plan to improve the way we link together the living green spaces and tree-lined streets in the city. An update of each of the measures is given in this section including a case study of best practice from the past 12 months.

Case study

Green Space Factor

The Green Space Factor (GSF) is a conceptual tool for assigning value to elements of the urban environment in terms of the ecosystem services they provide. These services could include:

- biodiversity conservation
- water attenuation
- thermal regulation
- air quality improvement (dust binding)
- recreation
- aesthetics

The tool has been incorporated into the green infrastructure policy which forms part of the emerging Southampton City Centre Action Plan. The GSF can serve as a tool upon which to set targets and monitor progress, support decision making and set standards for new development. Southampton City Council (SCC) will use the GSF as a key tool in development planning. Initially a GSF would be calculated for the city centre, and later the whole city. The GSF scores for the city as a whole and for sub-regions of the city would be used as a basis upon which targets for maintenance or improvement could be set. The potential for improvement of the GSF could be quantified through activities such as identifying the potential surface available for green walls and green roofs within the city centre. The tool will be developed allowing exploration into the effects of decisions on the GSF of the city as a whole or areas within it. This will then be used in discussions between SCC and developers in agreeing responsibilities to provide ecologically effective areas as a part of development projects. The use of the GSF gives a simple numerical output to elucidate the effect of decisions on the ecological performance of the city and will be a useful tool for communicating ecological concerns to individuals that do not have a deep understanding of ecology. It may also be possible to use GSF as an indication of economic value, which could help building a strong economic case for ecological improvement within the city.

Key priority 6 – We will strengthen biodiversity in the city

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
6.1	The city has an integrated and accessible city-wide green network	Protect and manage existing green infrastructure (GI) in the city and achieve greater connectivity between areas	15 Green Space improvement projects will have improved facilities for residents by 2013	2011	Green	30 plus parks have been improved to date, with more programmed for 2013.
			Management and Maintenance Plans for the 5 City Parks and 4 District Parks are published	2011	Green	10 green flag criteria plans written to date, 40 plus management statements in development to include HLS prescriptions.
			Increased tree coverage in Southampton including street trees and woodland cover	2011 to 2014	Green	Production of Urban Canopy Layer using LIDAR data has been completed and held by UoS. This data will be used to identify areas for action. Small scale tree planting taking place Approx 100 large trees but this will stop in 2013/14 unless external funding can be found.
		Review and improve methods of green space master planning in development, including setting standards for the quality, accessibility and quantity of open space through the implementation of the Green Space Factor (GSF) tool	Baseline information gathered on urban form and land-cover across the city, including existing blue and green infrastructure (GI), as the basis for identifying adaptation opportunities and measures at the area-wide, neighbourhood and building	2011 to 2014	Green	Several dissertations undertaken to collect baseline information on urban form and land-cover across the city.

			scales			
			GSF tool implemented on trial site to assist in securing improved biodiversity levels in new development	2012	Green	The tool is included on the sustainability checklist as a non-mandatory requirement for developers. Case studies and a workshop developed. A workshop was run as part of HIPOG Sustainability training.
			Improved City Centre Green Space Factor score	2012 to 2013	Amber	Sample GSF scores for the City Centre and the rest of the city have been produced. Appropriate target scores are being decided upon.
			A 'Green Plaque' scheme is in place to market exemplar buildings that apply the GSF	2014	Amber	Options will be explored with willing developers with sites put forward as case studies. A longer timeframe is expected as accurate scoring needs to be delivered before assessing what an award scheme would be based on.
6.2	Residents have healthier lifestyles through access to and use of diverse open spaces for a range of activities	Improve functionality of Southampton's existing open spaces, sport and recreation facilities, and provide a network of diverse, multi-functional open spaces	Quality audit of all parks and open spaces based on Green Flag criteria completed to give clear understanding of what is required to sustain and improve green spaces in the city	2012	Green	Completed in 2010.
			Audit data is used to prioritise parks and green spaces for allocation of future funds with a prioritisation list developed by 2013	2013	Green	Completed in 2010.
			Increased installation of green roofs within the city,	2011 to 2014	Green	Green roofs installed at Centenary Quay, the University

			both on new developments and retrofitted to existing buildings			of Southampton, the Eastpoint Centre, student accommodation at Swaythling and other small sites throughout the city.
			Maximise the contribution of gardens and individual/household space to green infrastructure, including advice and training on wildlife friendly gardening, domestic composting and grow-your-own schemes	2011 to 2014	Green	Information to be made available to the public via SCC website and the Hawthorns Urban Wildlife Centre and to SCC officers via the Sustainability Bulletin. Next planned activity: Liaise with Natural Environment Team regarding information on wildlife friendly gardening and investigate with HIPOG opportunities for the planning system to support local food production
			Identify best practice in managing GI in response to climate change using international research as well as local planning and ecology experts through the GRaBS project	2011	Green	The GRaBS project has drawn to a conclusion having finished in August 2011. The project has since won the RegioStars Award. SCC has signed up to the national Green Infrastructure Partnership led by DEFRA.
			Develop management guidance for Southampton open spaces	2012	Green	Current management practices under discussion with open spaces officers.
		Map produced identifying potential amenity green space for alternative land use, based on its quantity and quality	Full map on corporate GIS by 2013	2013	Amber	Baseline information to be gathered once a Masters student has been identified. Data collected on urban form will lead to the development of

						a green grid which will then enable an assessment of green space available for alternative land use.
6.3	The city's biodiversity is enhanced and contributes to improving quality of life for the people of Southampton	Work with partners to secure investment and allocate land for strategic green infrastructure enhancement projects	Environment Agency de-culverting of Hollybrook on Municipal Golf Course	2011	Green	The scheme has been defined and will include biodiversity enhancements, flood management and visual amenity improvements including a weir and pond. It has received planning permission and is due to commence imminently (Nov 12)
			Riverside Park, Portswood Park and Weston Shore will be improved through capital funding, increased community involvement and other external grants	2011	Green	Completed end of 2010
			Portswood Park and Weston Shore will obtain Green Flag status by 2011	2011	Green	Weston Shore attained Green Flag in 2009 and 2010, Portswood Rec has gone through a number of changes including a new Friends of group and is currently not considered of a standard to go through Green Flag. However this is still a future target.
			Riverside Park and Southampton Common will maintain Green Flag status annually	2011 to 2014	Green	St James Park (New Green Flag 2011/12) Central Parks retained Green Flag 2011/12, Mansel Park, Hinkler Green, Weston Shore, Mayfield Park, Southampton Common all

						received Southampton Park Award.
			Southampton Common and sites of importance for nature conservation (SINCs) will be improved through Higher Level Stewardship Grant and England Woodland Forestry Grant capital funding and joint working with Natural England undertaken to obtain favourable status for SSSI by 2012	2012	Amber	The Higher Level Stewardship Grant has been secured. Finalising Prescriptions with Natural England will be in place by end of December 2012, work on sites ongoing to ensure HLS prescriptions are followed.
			Funding obtained for sub-regional green infrastructure improvement projects	2011 to 2014	Amber	Suitable funding sources to be identified.
			Open spaces projects identified through Surface Water Management Plan to provide additional storage capacity and create wetland habitat	2011	Green	SWMP approved and projects identified. Funding to develop the projects is being secured. £200k has been secured from highways to undertake feasibility work and bids are being prepared.
6.4	There is more green and blue infrastructure and urban tree cover and established habitat corridors	Work with Test Valley Borough Council and Forestry Commission to set up a forest park at Nursling/Rownhams	Increased sub-regional semi-natural infrastructure	2011 to 2014	Green	Limited progress to date but more work expected in the next 6-12 months.

Key priority 7 – We will increase low carbon travel and transport

Road transport is responsible for approximately a fifth of the emissions in the city. By encouraging smarter travel through a more efficient, intelligent and better organised transport system the city council has sought to establish a focussed approach towards addressing emissions within this sector. The Delivery Plan includes a range of measures to reduce the carbon intensity of transport in Southampton and to secure behaviour change across communities in the city. An update of each of the transport measures is given in this section including a case study of best practice from the past 12 months.

Case study

Southampton Sustainable Travel City

In June 2011, an allocation of £17m was awarded to Transport for South Hampshire (TfSH) from the Local Sustainable Transport Fund (LSTF) to facilitate the development of sub-regional Smart Cards and provide new cycling & public transport infrastructure. This is in addition to the £3.96m which was secured from the same source for Southampton's Sustainable Travel City proposal.

The basis of the bid was the establishment of a shared delivery unit which brings together the expertise of Southampton University, Sustrans and Southampton City Council to form a Centre of Excellence for Behaviour Change with the aim to achieve a 12% modal shift away from the private car, reducing congestion and greenhouse gas emissions.

The measures in the programme are about incentivising Smarter Travel through integrating travel planning and marketing to make people more aware of their travel options and encourage different choices. They will also assist socially excluded residents by helping them find convenient & affordable transport options that improve their access to employment and services. They include:

- Personalised Travel Planning for residents in the Southampton travel to work area
- Workplace Travel Plans
- School and College Travel Plans
- Active steps walking for health programme
- Limited infrastructure e.g. Brompton bike hire at Southampton Central Station

Key priority 7 – We will increase low carbon travel and transport

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
7.1	Review the City Council's use of transport and develop a programme of efficiency saving projects	Identify and deliver transport efficiencies	Agree work plan by 2011	2011	Green	Following the delivery of transport efficiency business cases from Peopletoo Ltd, an implementation plan to achieve passenger transport cost savings has been drafted. It covers SEN transport provision (school children and post 16), Escort provision, Independent Travel Training and Dial-a-Ride, all which will have a positive impact on CO2. The next step is to agree the plan and implement.
			Implement quick win projects by 2012	2012	Green	Fleet transport transformation to achieve cost and CO2 efficiency savings is on hold until a Fleet Manager is appointed. Cost efficiencies are being explored for Contact Services for Children in Care. The transport costs are a high cost to the service which could be significantly reduced by a voluntary driver scheme. The Travel and Transport Pages of the intranet are being updated

						to provide better guidance for staff regarding business travel to reduce travel costs and CO2, and to promote the journey planning service that will encourage cheaper forms of transport and a reduction in CO2.
		Improve the performance of the council's vehicle fleet, stimulating and supporting cleaner-fuelled vehicles, including service points, a formal fuel management programme, fuel economy training and mileage reduction strategy	Reduced carbon footprint measured through the EST's Motorvate accreditation	2011 to 2014	Amber	Green Fleet review undertaken identifying ways to improve efficiency and reduce carbon emissions for the council's fleet.
7.2	Invest in sustainable road transport including low emission alternative fuels; initiatives to increase the take up of electric and hydrogen vehicles; investment in a future electric vehicle network and the city car club	Explore conversion of city car club pool vehicles to EV following recharge point installation through the PFI contract	10 electric vehicle recharge points installed within council run car parks in the city centre	2011 to 2013	Green	Funding secured to pay for the use of an electric vehicle as a staff pool car. Sites for PFI funded recharge points identified. Additional EV recharge points delivered through Charge-master polar project.
		The Council has a clearer view on the working capabilities and the viability of hydrogen powered return-to-depot fleet vehicles	Trial of two hydrogen powered transit vans undertaken	2011	Green	Trial completed. Performance report being compiled to assess costs and benefits of the technology and its potential application in the council's fleet.
7.3	Promote smarter choices and sustainable modes of travel as an	Green the bus fleet, developing a range of initiatives to encourage improved emissions standards, including	Bus Quality Partnership established with the potential to explore vehicle quality conditions	2011	Green	The partnership has been established along with a bus purchasing task force to secure better buses to operate in

alternative to driving	contractual arrangements through a sub-regional Bus Quality Partnership				Southampton and the sub-region. The partnership has been successful in securing funding to retrofit 500 buses in South Hampshire with internal LED lighting. Accompanied with additional measures designed to improve bus efficiency the introduction of lighting improvements will save in the region of 4205 tonnes of CO2 per annum.
	Improve modal shift away from the car towards other modes on the main corridors	Bus patronage is increased by 5% year on year to 2020, making bus the mode of choice for many types of short to medium distance journeys between the city and the suburbs	2011 to 2014	Amber	There has been a slight drop in bus patronage from 18m to 17.9m although last quarter showed improvements on the corresponding passenger levels from the previous year.
		45% journeys made on alternative modes annually	2014	Amber	Little variance in mode of travel patterns between 2011 and 2012.
		Sub-regional LSTF bid made for smartcard scheme to make travel more straightforward and encourage people to use public transport	2011	Green	The business case has been formally approved by the DfT with TfSH in receipt of the full allocation bidded for.
	Invest in active transport such as a pedestrian and cycle routes; and interchange and storage facilities at public transport and cycling destinations	Gold Standard Work Place travel plan in place	2011	Green	64 businesses in Southampton now have a travel plan in place through the planning process. There are 6 additional organisations with volunteer travel plans (Red Funnel, University of Southampton and

						Southampton Solent University, and City College, Totton College and Itchen College). The breakdown between Gold, Silver and Bronze is still under development with the information to be collected through the LSTF process on an annual basis.
			Work completed on the National Cycle Network routes including cycle route on Cobden Bridge by July 2011	2011	Green	Completed.
			Installation of more Advanced Stop Lines	2011 to 2014	Green	Advanced stop signs installed on Prior Road, Cobden Bridge, Roberts Road, Lawn Road, Portswood Road and Thomas Lewis Way.
			Installation of new pedestrian crossing facilities in areas of demand	2011 to 2014	Green	No new pedestrian crossings were installed in 2011.
			Promote active travel through campaigns linked to key travel destinations and supported by interactive journey-planning information systems	2011	Green	'My Journey' sustainable travel campaign has been launched.
			Cycling strategy in place	2012	Amber	In progress with draft to be produced by the end of the calendar year.
			Programme of safe routes to school in place	2011	Green	Addressing routes to school is a component of School Travel Planning. When a school completes a school travel plan

						an audit of access is carried out. The review involves a scatterplot of the pupils and looking at specific routes. The School Travel Plan programme is due to be re-launched in the next academic year, hopefully making it better and easier to use.
			Erection of more cycle stands and development of more shared-use facilities with 30 cycle parking stands installed across the city by December 2011	2013	Green	Over 20 cycle stands have been installed across the city in 2011/12.
			Develop smarter choices centre of excellence to provide individual smart travel planning and make these available direct to individuals and through organisations to increase financial efficiency and promote sustainable travel	Bid by 2011	Green	Partnership established with Sustrans and the University of Southampton to deliver behaviour change and training programmes. A Sustainable Travel Roadshow has been delivered throughout 2012 attending over 25 events.

Key priority 8 – We will use less, waste less and recycle more

The City Council recognises the importance of resource efficiency in order to minimise environmental impact and eliminate waste. This section provides a breakdown of the progress that has been made in implementing the measures in the Delivery Plan over the past 12 months including a case study of best practice from the past 12 months.

Case study

Use of Resources programme

In 2011 the city council established a co-ordinated, organisation-wide programme to deliver efficiency and financial savings through a reduction in the council's use of natural resources. A target was set to deliver a corporate saving of £840,000 against the Environment and Transport Budget over the course of a 3-year period through more efficient use of energy, waste, water and transport.

Representatives from each Directorate, and from specialist advisory areas, were identified and attend monthly Programme Board meetings with the mandate to deliver the actions required to achieve the £840k savings target. These Project Managers act as a central resource to work with service areas to facilitate delivery of projects and to identify the associated savings. Any savings identified are counted towards the relevant Directorate's overall savings targets.

The programme encompasses a number of internal projects including:

- Energy management measures (e.g. monitoring of sites and meters, energy procurement contract management),
- Implementing soft operational measures (e.g. optimise plant and equipment operations, replacement of equipment with high efficiency rating equivalent etc),
- A programme of practical training courses for fleet drivers,
- Staff travel claims auditing,
- A reduction in taxi use in Children and Adult Care Services,
- Consolidating waste disposal contracts for confidential waste,
- And undertaking baseline data collection and auditing for waste disposal in all City Council buildings.

To date the programme has delivered a financial saving in excess of £410k and a total reduction of 220 tCO₂ through the implementation of a number of these measures and others.

Key priority 8 – We will use less, waste less and recycle more

Key:

Red – we are not meeting the target

Amber – progressing, but there is more work to do

Green – we are on track to meet the target

Ref	Aim	Action	Measure of Success	Timescale	Progress	Description
8.1	Reduce the corporate use of water, energy and materials in Council buildings and operations	An Environmental Management Systems approach to managing resource use is adopted promoting sustainable best practice in the Council's own administrative estate	Individual projects to reach financial targets up to 2014	2014	Green	Through delivery of a combination of the carbon reduction policy, improvements to our CRC reporting and rationalisation of buildings have achieved a reduction in reported emissions by 3,042 tonnes of CO ₂ . This equates to a 14% reduction in Council Buildings CO ₂ emissions.
			Achieve £840,000 savings through more efficient use of energy, water, waste and transport in SCC operations by 2014	2011 to 2014	Green	To date the programme has delivered cost avoidance and cashable savings in excess of £410k and a total reduction of 220 tCO ₂ through the implementation of a number of measures.
8.2	Monitor, report and set targets on our management of waste and the reduction of waste sent to landfill	Improve the quantity and quality of items collected for reuse or recycling	Increase tonnes of waste collected for reuse by 1% year on year from 2011/12 to 2013/14. Work with partner authorities to improve quality of dry recyclables collected at the kerbside	2011 to 2014	Green	Tonnes of domestic waste collected for reuse increased from 4347 tonnes in 2010/11 to 4820 tonnes in 2011/12 a 10.89% increase. As a % of overall waste the reuse % increased by 0.73% from 4.65% in 2010/11 to 5.38% in 2011/12. Work is on-going with partner authorities in improving

						the quality of dry recyclables collected at the kerbside.
		Introduce projects to reduce the amount of waste sent to landfill	Waste to landfill reduced by 3,000 tonnes from 2011/12 to 2013/14	2011 to 2014	Green	Tonnes of domestic waste sent to landfill reduced by 1745 tonnes or 1.14% in 2011/12 compared to 2010/11.
		Deliver landfill and recycling targets for 2014 and beyond to 2020	Reduce biodegradable tonnes of waste sent to landfill to below 12,000 tonnes by 2014 and 10,000 tonnes by 2020	2011 to 2014	Green	Tonnes of biodegradable waste sent to landfill reduced from 12,706 tonnes in 2010/11 to 11,400 tonnes in 2011/12.
8.3	Promote industrial symbiosis as a vehicle for carbon reduction in partnership with local business	Develop a business support programme with the National Industrial Symbiosis Programme (NISP) to enable local SME's to reduce their waste and identify 'synergy's' with other local businesses	NISP business workshop held	2012	Amber	Yet to take place
			Annual workshop creates new business synergies across the city year on year	2011 to 2014	Amber	Yet to take place
			Business waste streams across the city are mapped to demonstrate 'closed-loop' opportunities	2013	Amber	Yet to take place
8.4	The diversion of waste from disposal into re-use, recycling and composting is seen as a key economic opportunity supporting local businesses and jobs	Develop performance-related incentives for businesses to divert commercial and industrial waste from landfills to alternative waste management processes, particularly re-use and recycling	95% of commercial and skip waste collected by the council to be diverted from landfill by 2014	2014	Green	In 2011/12 9520 tonnes of commercial and skip waste was collected for disposal; of this 397 tonnes or 4.17% was sent to landfill.
		We have investigated a local scheme to incentivise improved waste management equivalent to business rate relief.	Benchmark for waste in the city established and landlords who pass this target are given a reduction in their business rates.	2012	Amber	Concept yet to be developed
8.5	Waste from the construction sector is minimal.	Develop a joint approach with the EA to conduct and regulate site waste management plans within the city	Site waste management plans reviewed in partnership with the EA	2011 to 2014	Amber	Arrangement not in place
			A joint resource to conduct	2011 to	Amber	Arrangement not in place

			the assessments and a planning tool to assess major sites	2014		
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Overall assessment of progress

Southampton has made solid progress in starting to prepare for a changing climate, by improving our understanding of climate impacts and establishing a firm evidence base to inform future decision making. The more information we have available to us either through our climate change risk and vulnerabilities assessment tool, or through the carbon emissions inventory developed in partnership with the University of Southampton, the better equipped we will be to manage future changes and identify opportunities. But along with developing the tools we need to assess the impacts of climate change and identify areas for effective mitigation, Southampton has made firm strides forward in implementing initiatives that have contributed to the total reduction in CO₂ emissions achieved in the last year.

- Since 2005, Southampton has made year on year reductions in total CO₂ emissions and by 2009 has achieved a 17% reduction on the 1990 baseline. Progress towards the 34% reduction by 2020 is good.
- Through delivery of a combination of the carbon reduction policy, improvements to our CRC reporting and rationalisation of buildings have achieved a reduction in reported emissions by 3,042 tonnes of CO₂.
- The Use of Resources programme has delivered a financial saving in excess of £410k and a total reduction of 220 tCO₂.
- Recent figures published by the Royal Institute for Chartered Surveyors in their 2011 report 'An Analysis of Low Carbon Plans and Strategies for UK cities' ranks Southampton as one of the top performing cities in the country when compared to the top 50 cities in the UK with both energy consumption and carbon emissions per capita figures are low when compared to cities of similar size and population density.
- Southampton Schools continue to be a hotspot for sustainability. With 4% achieving Ambassador/Gold Eco school accreditation and 22% Silver
- The completed district energy network at Centenary Quay in Woolston means there are now 6 separate district energy networks in the city.
- Cofely District Energy has produced a city-wide heat map to identify heat demand.
- Feasibility work for the establishment of a Carbon Offset Fund for the city has been completed.
- 2,600 measures have been or are scheduled to be installed in Southampton's private homes through the Cocoon and Heatseekers insulation discount schemes.
- Southampton is on target to be one of the first cities's in Europe to have its street lights replaced with LED technology with the Peartree, Bevois, Freemantle, and Redbridge wards the first to be lit up. The programme will save over 2700 tonnes of CO₂ per year by 2025.
- To date adaptation work has focussed strongly on green infrastructure enhancements and flood resilience work with both the Southampton Surface Water Management Plan (SWMP) and the Southampton Coastal Flood & Erosion Risk Management Strategy now adopted for the city. Additional study has been undertaken to assess risk associated with heat waves in partnership with the University of Southampton.
- 5 Green Spaces improved in 2011. 5 planned to be improved in 2012.
- Green roofs installed at Centenary Quay, the University of Southampton, the Eastpoint Centre and other small sites throughout the city.
- The GRaBS project (Green and Blue Space Adaptation for Urban Areas and Eco-towns) won the RegioStars award for Sustainable Growth: Investments in ecosystem services and green infrastructure leading to sustainable regional development.
- The Council successfully secured £3.96m from the Local Sustainable Transport Fund (LSTF) to establish a Centre for Excellence in Behaviour Change as part of its Sustainable Travel City proposal.

To tell us more about your views on what we do and/or to find out more information about our work towards becoming a low carbon city please contact us:

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Or visit:
www.southampton.gov.uk/lowcarboncity
www.southamptonlowcarbongroup.com