

# Gosport Borough Local Plan 2011-2029 Publication Version

## Sustainable Development and Climate Change Background Paper

June 2014



**GOSPORT**  
Borough Council

# **Sustainable Development & Climate Change**

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# Sustainable Development and Climate Change Background Paper

## 1.0 INTRODUCTION

- 1.1 This document is a background paper to the draft Gosport Borough Local Plan 2011-2029. It sets out the relevant national and local policy context and a summary of evidence and consultation responses related to sustainability and climate change issues.

## 2.0 POLICY CONTEXT

### National policy and guidance

#### National Planning Policy Framework (DCLG March 2012)

- 2.1 The National Planning Policy Framework (NPPF) contains a section on achieving sustainable development and provides an overall definition which is included in the Box below.

International and national bodies have set out broad principles of sustainable development. Resolution 42/187 of the United Nations General Assembly defined sustainable development as meeting the needs of the present without compromising the ability of future generations to meet their own needs.

The UK Sustainable Development Strategy *Securing the Future* set out five 'guiding principles' of sustainable development: living within the planet's environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly.

- 2.2 The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development which comprise of economic, social and environmental considerations. These roles are outlined below.

- an economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;
- a social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- an environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

- 2.3 These roles should not be taken in isolation and are mutually dependent. Policies in local plans should follow the approach outlined in the NPPF relating to the presumption in favour of sustainable development so that it is clear that development which is sustainable can be approved without delay.

- 2.4 The NPPF sets out 12 core planning principles all of which are relevant to achieving sustainable development including:
- be genuinely plan-led;
  - being creative in finding ways to enhance and improve places;
  - driving and supporting economic development;
  - seeking high quality design and a good standard of amenity;
  - recognising the intrinsic character of different places;
  - conserving and enhancing the natural environment and reducing pollution;
  - encouraging the effective use of land by reusing brownfield sites;
  - promoting mixed use developments;
  - conserving heritage assets;
  - managing patterns of growth to make the fullest possible use of public transport, walking and cycling and focus significant development in locations which are or can be made sustainable; and
  - taking account of local strategies to support health, social and cultural well-being for all.
- 2.5 The principle of particular relevance to climate change is set out below:
- supporting the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encouraging the reuse of existing resources, including conversion of existing buildings and encouraging the use of renewable resources (including renewable energy).
- 2.6 The NPPF includes detailed guidance relating to each of the principles which are included in the other relevant background papers reflecting the encompassing nature of sustainable development. In relation to the challenge of climate change the NPPF states that planning plays a key role in helping shape places to: secure radical reductions in greenhouse gas emissions; minimise vulnerability and providing resilience to the impacts of climate change; and support the delivery of renewable and low carbon energy and associated infrastructure.
- 2.7 Local planning authorities should adopt proactive strategies to mitigate and adapt to climate change. To support a move to a low carbon future, local planning authorities should:
- plan for new development in locations and ways which reduce greenhouse gas emissions;
  - actively support energy efficiency improvements to existing buildings; and
  - when setting any local requirement for a building's sustainability, do so in a way consistent with the Government's zero carbon<sup>1</sup> buildings policy and adopt nationally described standards.
- 2.8 New development should comply with local requirements for decentralised energy supply unless it can be demonstrated by the developer that it is not feasible or viable. Proposals should take account of design including orientation to minimise energy consumption.
- 2.9 To help increase the use and supply of renewable and low carbon energy local planning authorities should:

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<sup>1</sup> An explanation of Zero Carbon buildings is included in Appendix 1.

- have a positive strategy to promote energy from renewable and low carbon sources;
  - design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily including landscape and visual impacts;
  - consider identifying suitable areas for renewable and low carbon energy sources and supporting infrastructure, where this would help secure the development of such sources;
  - identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy systems and for co-locating potential heat customers and suppliers.
- 2.10 Local plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change including in areas of flood risk (see Flood Risk and Coastal Change Background Paper).
- 2.11 When new development is brought forward in areas which are vulnerable, care should be taken to ensure that the risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.
- 2.12 Local planning authorities should set out strategic policies to deliver climate change mitigation and adaptation.
- National Planning Practice Guidance (NPPG) (DCLG 2014)
- 2.13 The National Planning Practice Guidance (NPPG) supports the NPPF. It states that effective planning can have an important role in providing a successful response to climate change as it can influence the emission of greenhouse gases. Planning can also help increase resilience to climate change impact through the location, mix and design of development. Importantly the NPPG states that to be found sound Local Plans will need to reflect the core land use principles of the NPPF and enable the delivery of sustainable development. These include the requirements for local authorities to adopt proactive strategies to mitigate and adapt to climate change in line with the provision and objectives of the Climate Change Act 2008.
- 2.14 There is a statutory duty on local planning authorities to include policies in their Local Plan designed to tackle climate change and its impacts. Section 19 (1A) of the Planning and Compulsory Purchase Act 2004 requires local planning authorities to include in their Local Plan 'policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to climate change. This will be a consideration when the Local Plan is examined.'
- 2.15 The NPPG states that there are many opportunities to integrate climate change mitigation and adaptation objectives into the Local Plan. It recognises that sustainability appraisals can be used to help shape appropriate strategies.
- 2.16 Example of mitigating climate change by reducing emission include:
- reducing the need to travel and providing for sustainable transport;
  - providing opportunities for renewable and low energy technologies;

- providing opportunities for decentralised energy and heating;
  - promoting low carbon design approached to reduce energy consumption in buildings such as passive solar design.
- 2.17 Examples of adapting to changing climate include:
- considering future climate risks when allocating development sites to ensure risks are understood over the development's lifetime;
  - considering the impact of, and promoting design responses to flood risk and coastal changes for the lifetime of the development;
  - considering availability of water and water infrastructure for the lifetime of the development and design responses to promote water efficiency and protect water quality;
  - promoting adaptation approaches in design policies for developments and the public realm.
- 2.18 The NPPG adds that when preparing Local Plans attention should be given to integration adaptation and mitigation approaches, for example,
- by maximising summer cooling through natural ventilation in buildings and avoiding solar gain;
  - through district heating networks that include tri-generation (combined cooling heat and power); or
  - through the provision of multi-functional green infrastructure which can help reduce urban heat islands, manage flooding and help species adapt to climate change, as well as contributing to a pleasant environment which encourages people to walk and cycle.
- 2.19 The guidance requires that climate change needs to be taken into account in a realistic way. Local planning authorities should consider measures including:
- identifying no or low cost responses to climate risks that also deliver other benefits, such as green infrastructure that improves adaptation, biodiversity and amenity;
  - the potential vulnerability of a development to climate change risk over its whole lifetime.
- 2.20 In relation to the Government national standards for sustainable construction and zero carbon homes, the NPPG recognises that the Government's decisions on this matter are still being considered as part of the House Standards Review. The NPPG reiterates that when setting any local requirements for a building's sustainability a local authority needs to do so in a way consistent with the Government's zero carbon buildings policy and adopt nationally described standards. Local requirements will need to be based on robust and credible evidence and pay careful attention to viability.

### **Emerging national policy and consultations**

- House Standards Review: Consultation
- 2.21 The Government's Housing Standards Review: Consultation (DCLG Aug 2013) is considered relevant in the context of the policies of the emerging Local Plan including those relating to sustainable construction as it represents a change of position by the Government on what local authorities can include as part of their planning policies. The Review represents a simplification of the large and complex range of local and national standards, rules and codes that any developer has to use as part of a development scheme; this includes those standards included in local development plans.

- 2.22 Subject to the consideration of consultation responses the Government is considering implementing the review in one of two ways:
- To develop a set of nationally described standards; or
  - Through fully integrating the standards proposed in the review into building regulations.
- 2.23 The Government is clear that once the findings of the review are implemented by the above mechanisms it is important that there is not a local proliferation of standards and that any discretionary standards are limited to those set out by the Housing Standards Review.
- 2.24 Based on these parameters the Government is proposing to 'wind down' the Code for Sustainable Homes which featured in the earlier version of the Gosport Borough Local Plan. Instead the Government is proposing to deal with the issues covered by the Code in a variety of ways including in many instances to ensure particular elements are dealt with by Building Regulations.
- 2.25 Of particular relevance to the emerging Local Plan policies are those elements relating to the use of energy and water.

*Energy*

- 2.26 The Housing Standards Review recognises that the Government's Carbon Plan<sup>2</sup> made it clear that a key Government priority is to reduce the energy demand and carbon emissions created by both new and existing homes. The Government reaffirmed in the Budget 2013 its commitment to implement zero carbon homes from 2016 and in July 2013 amendments were made to Part L of the Building Regulations to strengthen requirements for energy performance in homes and other buildings.
- 2.27 The Building Regulations, and the statutory guidance which supports them (set out in Approved Document L) do not prescribe the measures developers should use to meet these carbon and energy targets, and therefore allow a combination of good fabric insulation, efficient fixed building services and/or building integrated renewables. The new energy demand target in the Buildings Regulations emphasises the need for robust fabric performance.
- 2.28 The relationship between Building Regulation targets and the Code for Sustainable Homes energy levels is set out in the following table. The latest changes to Part L regulations raise the national minimum requirements for all new homes to between Code levels 3 and 4.

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<sup>2</sup> The Carbon Plan: Delivering our low carbon future, HM Government, December 2011  
<https://www.gov.uk/government/publications/the-carbon-plan-reducing-greenhouse-gas-emissions--2>

<b>Code level category</b>	<b>Building Regulations Requirement</b>
1 - 10% improvement from 2006 Part L Building Regulations	No equivalent
2 - 18% improvement from 2006 Part L Building Regulations	No equivalent
3 - 25% improvement from 2006 Part L Building Regulations	Same requirement in 2010 Part L Building Regulations.
4 - 44% improvement from 2006 Part L Building Regulations	2013 Part L set between Code levels 3 and 4
5 - All emissions from regulated energy use (100% improvement from 2006 Part L Building Regulations)	From 2016 it is proposed that Building Regulations will require homes to be built to the zero carbon homes standards, which is equivalent to Code Level 5, although zero carbon homes includes the opportunity to use the 'allowable solution' mechanism.
6 - All emissions from all energy use	No equivalent proposed

- 2.29 The Planning and Energy Act (2008) enabled local authorities to set local plan policies for development in their area which set energy efficiency standards that exceed Building Regulations. Those standards have to be nationally recognised, and in practice the Code is the only such standard. Using the powers in the Act and the standards in the Code, a number of local authorities have local plan policies that govern how new homes should perform in relation to energy performance. Some have none at all – relying on Building Regulations as the minimum standard – some require levels consistent with the national standards set in the Code for Sustainable Homes
- 2.30 The Government considers that due to the progressive strengthening of Building Regulations alongside a national policy for zero carbon homes, the time is right for a review of the relationship between Building Regulations, the Code, the Planning and Energy Act 2008 and local standards. For new homes (and other buildings), the Government is now committed to Building Regulations as the way to drive up energy performance standards rather than the Code for Sustainable Homes. The Government also believes that an interim standard to 2016 would be unhelpful.
- 2.31 The Government also considers that the progressive strengthening of Building Regulations means it is no longer appropriate for local plan policies to specify additional standards for how much of the energy use from homes should come from on-site renewables.
- Water efficiency*
- 2.32 Standards on water efficiency, over and above the mandatory national Building Regulations standard set, can currently be required for new homes through the planning system, largely through requiring developers to build to a particular level of the Code for Sustainable Homes included in a relevant local authority planning policy.
- 2.33 The water efficiency element of the Code for Sustainable Homes is set out in the table below. The national standard of 125 litres per person per day set through Part G of the Building Regulations is equivalent to Code Level 1 (as



the Code Levels relate only to internal water use unlike Part G which includes a 5 litres per person per day allowance for external use).

Code level	Water efficiency standard (litre/person/day)
1 and 2	120
3 and 4	105
5 and 6	80

2.34 The Government believes that the existing Part G sets a reasonable level of water efficiency by ensuring that consideration is given to the water performance of fittings. However the Government is proposing that local planning authorities should be able to require a discretionary local water efficiency standard equivalent to 110 litres per person per day (including external water use) subject to a number of conditions. This local discretionary national standard would be equivalent to level 3 and 4 of the Code for Sustainable Homes as it includes 5 litres per person per day allowance for external use.

2.35 The Government proposes, therefore, that a requirement for a higher water efficiency standard within a local plan should follow on from consultation with the local water supplier, developers and the Environment Agency. For inclusion in a local plan a local planning authority must be able to demonstrate at examination of the plan that the standard is required to address a clear need and is consistent with a wider approach to water efficiency as set out in the local water undertaker's water resources management plan.

2.36 The Government proposes that no other different standard relating to water efficiency should be required (although housebuilders would be able to continue to provide higher standards voluntarily if they wished to). In particular, the Government now believes that achieving water efficiency equivalent to Code Levels 5 and 6 can impose significant costs (of several thousand pounds) that it no longer believes is justifiable to be required on new homes (although again voluntary provision would remain an option). How the Borough Council intends to address this particular issue is outlined in Section 5 of this Background Paper.

Next steps to Zero Carbon Homes –Allowable Solutions Consultation

2.37 The Government consultation document, 'Next Steps to Zero Carbon Homes: Allowable Solutions' (DCLG Aug 2013) outlines how the allowable solutions component of zero carbon homes could operate, particularly as the Government is committed to requiring all new homes from 2016 to meet the zero carbon standard (see Appendix 1 for further details). The Government proposes that housebuilders can achieve the zero carbon standard by mitigating the remaining emissions off-site in effect a kind of carbon off-setting known as allowable solutions.

2.38 Of particular relevance to the preparation of local plans is that building regulations will likely be the mechanism for securing allowable solution payments not planning policy Also developers will decide how to meet that obligation and so that there will be choice and flexibility in how to meet these obligations.

- 2.39 The guidance sets out a number of criteria for allowable solutions including that allowable solution projects should benefit UK citizens and take place in the UK.

**Sub-regional Policy**

- 2.40 The formulation of the draft Local Plan has been guided at the sub-regional level by a consortium of South Hampshire authorities, which came together to form the Partnership for Urban South Hampshire (PUSH). PUSH's latest South Hampshire Strategy provides: the framework for planning across the sub-region; a basis for fulfilling each local authorities' duty to cooperate; and guidance to inform the emerging Gosport Borough Local Plan 2011-2029.

South Hampshire Strategy (PUSH October 2012)

- 2.42 The Vision of the South Hampshire Strategy states that the sub region should be an area which is economically, socially and environmentally sustainable, and is resilient to climate change.

- 2.43 The key planning principles of the Strategy support sustainable development, including:

- prioritising sustainable development in the cities and major urban areas so as to support urban regeneration, reduce inequalities and minimise greenfield development; and
- encouraging and enabling South Hampshire to become more sustainable and resilient to climate change, by balancing economic growth with social and environmental considerations, by more prudent use of natural resources, and by reducing human impact on the environment.

- 2.44 Policy 17 of the Strategy states that PUSH and its partners should seek to reduce the level of flood risk to existing properties by providing and maintaining flood defences and ensure that new development is located and designed to minimise the risk of flooding.

- 2.45 PUSH should also seek to manage demand and over-abstraction of water from South Hampshire's rivers and aquifers through measures to secure more careful consumption of water with the target of reducing consumption to under 130 litres per person per day by 2030. It will also be necessary to ensure there is no deterioration to water quality by reducing the amount of water going to waste water treatment and by the upgrading of selected wastewater treatment works.

- 2.46 Policy 18 deals with energy and states that PUSH and its partners should reduce energy consumption by retrofitting energy saving measures of existing buildings. It aims that 20% of all electricity to be generated from renewable resources by 2020 across South Hampshire as a whole, by encouraging renewable energy generating installations/projects and adopting planning policies for renewable energy.

- 2.47 Policy 19 states that PUSH authorities should require planning applications to meet the following environmental standards:

- Application for new dwellings to meet the Code for Sustainable Homes Level 4 rising to level 6 from 2020 (subject to viability testing);

- Applications for multi-resident and non-residential development with a floorspace of more than 500 square metres to achieve BREEAM 'excellent' standard.

2.48 In addition Policy 14 relates to green infrastructure and recognises a number of benefits including addressing the issue of climate change in terms of mitigation (trees absorbing carbon dioxide) and adaptation (through shading, evaporative cooling etc).

**Local Policy/Strategy**

2.49 The Borough Council recognises that climate change poses a major threat to our long-term prosperity and well-being. In July 2008, the Borough Council signed up to the Nottingham Declaration and, also in the same year, worked with the Carbon Trust to reduce the carbon footprint from Council buildings and activities.

2.50 A climate change strategy, "*Gosport - A Sustainable Future - 'Doing our bit, and influencing others'*" (GBC 2008) has been produced, followed by "*A Climate Change Strategy for Gosport Borough Council – A Sustainable Future for Gosport*" (GBC January 2010)<sup>3</sup>. The Council recognises its role in mitigating the causes of climate change by reducing emissions of greenhouse gases and dealing with the impacts of climate change. It recognises it has a role to play as a service provider, estate manager, local planning authority, policy-maker, purchaser of goods and services and as a community leader.

2.51 The Strategy recognises that the local development framework should promote sustainable communities, low carbon lifestyles and encourage the development of buildings and infrastructure to a higher environmental standards with greater resilience to climate change. It states that the Council will promote access to public transport, energy efficient housing, renewable energy supply and avoid land subject to the risk of coastal flooding.

2.52 The Borough Council's Corporate Plan (GBC 2009a) sets out a number of strategic priorities including responding to the challenges of climate change. Most of the other priorities aim to tackle a number of social, economic and environment issues (regeneration, social inclusion, health, employment, quality of the environment) which will contribute towards sustainable development in Gosport.

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<sup>3</sup> <http://www.gosport.gov.uk/EasySiteWeb/GatewayLink.aspx?allId=16758>

## 3.0 EVIDENCE

### Overview

3.1 It is clear that most of the evidence produced for the emerging Gosport Borough Local Plan is in some way relevant when considering sustainability issues. To avoid duplication much of this evidence is considered in more detail as part of other specific background papers. This background paper provides a consideration of key evidence studies that will be particularly relevant for cross-cutting sustainability issues. The Sustainability Profile (GBC 2012) provides a useful overview of the economic, social and environmental issues affecting the Borough.

3.2 The section below outlines key evidence and other supporting information produced at a national level to justify the approach the Borough Council is taking on a number of issues relating to sustainability including climate change in the emerging Gosport Borough Local Plan.

### Climate Change

3.3 There is considerable evidence that human activity is changing the world's climate and that the impacts will be extremely significant to all life on this planet.

3.4 The Stern Review (HM Treasury 2006) commissioned by the Government assesses the economics of climate change. Climate change will affect the basic elements of life for people around the world including access to water and food production, and a decline in the quality of human health and the environment. Hundred of millions of people could suffer hunger, water shortages and coastal flooding as the world warms.

3.5 Future predictions affecting the UK include higher average temperatures, dryer summers, wetter winters, more extreme weather events, including stormier conditions, and the continued rise in sea level. The Government acknowledges that there will be permanent changes in the natural environment and increasing challenges to national prosperity and social cohesion.

3.6 The Review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year. If a wider range of risks and impacts is taken in to account, the estimates of damage could rise to 20% of GDP or more. In contrast, the costs of action, reducing greenhouse gas emissions to avoid the worst impacts of climate change, can be limited to around 1% of global GDP each year. The investment that takes place over the next 20 years will be crucial.

3.7 If no action is taken to reduce emissions, the concentration of greenhouse gases in the atmosphere could reach double its pre-industrial level as early as 2035, resulting in a global average temperature rise of over 2°C. In the longer term there would be more that a 50% chance that the temperature would exceed 5°C. This is equivalent to the change in average temperature from the last ice age to today. Such a radical change in such a small space of time will have tremendous consequences.

3.8 The Stern Report key conclusions are:

- There is still time to avoid the worst impact of climate change if strong action is taken now;

- Climate change demands an international response.
- Climate change could have very serious impacts on growth and development;
- The costs of stabilising the climate are significant and manageable: delay would be dangerous and much more costly;
- Action on climate change is required across all countries, and it need not cap the aspirations for growth of rich or poor countries; and
- A range of options exist to cut emissions and strong deliberate policy action is required to motivate their take-up. Measures include reducing emmissions:
  - through increased energy efficiency;
  - through changes in demand;
  - through adoption of clean power, heat and transport technologies;
  - through cuts in non-energy emissions such as those resulting from deforestation.

**Flood Risk**

3.9 A major local impact of climate change include sea level rise which will have significant social, economic and environmental consequences over the next 100 years. Sea level along the South East coast is projected to rise over the next 100 years which given Gosport’s coastal location is of particular significance (see Table 1).

**Table 1: Sea level rise allowances**

Area	Assumed Vertical Land Movement (millimetres per year)	Net Sea-Level Rise (millimetres per year)			
		1990-2025	2025-2055	2055-2085	2085-2115
South East England	-0.8	4.0	8.5	12.0	15.0

Source: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/296964/LIT\\_8496\\_5306da.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296964/LIT_8496_5306da.pdf) (published 2013)

3.10 The Borough Council as part of PUSH has undertaken a Strategic Flood Risk Assessment (Atkins for the Partnership of Urban South Hampshire 2007) for the sub-region as well as a more specific flood risk assessment of development sites within the Borough (GBC 2014).

3.11 The Study has demonstrated that there is not sufficient land available in Flood zone 1 to meet the housing requirements of the Borough in accordance with the sequential test set out in the NPPF. However certain development in flood zone 2 and 3 offer significant regeneration benefits that are not available elsewhere in the Borough and consequently it is necessary for development to meet the two parts of the ‘Exception Test as set out in NPPF. These issues are covered further in the Gosport Borough Local Plan 2011-2029: Strategic Flood Risk Assessment and the Flood Risk and Coastal Change Background Paper.

**Renewable Energy and Energy Efficiency**

3.12 PUSH commissioned ARUP to advise on an energy strategy and climate change strategy for the sub region. The findings are included in the Feasibility of an Energy and Climate Change Strategy for Urban South Hampshire (ARUP September 2008). The PUSH Joint Committee (18/11/08) has resolved to note the Report as the basis for ongoing sustainability work and that it would form the basis, where appropriate for a PUSH Climate Change Strategy. The PUSH

authorities have commissioned a further study to update these elements and the results are currently (as at June 2014) awaited and are likely to inform a review of the South Hampshire Strategy which the PUSH authorities have agreed to take place over the next two years.

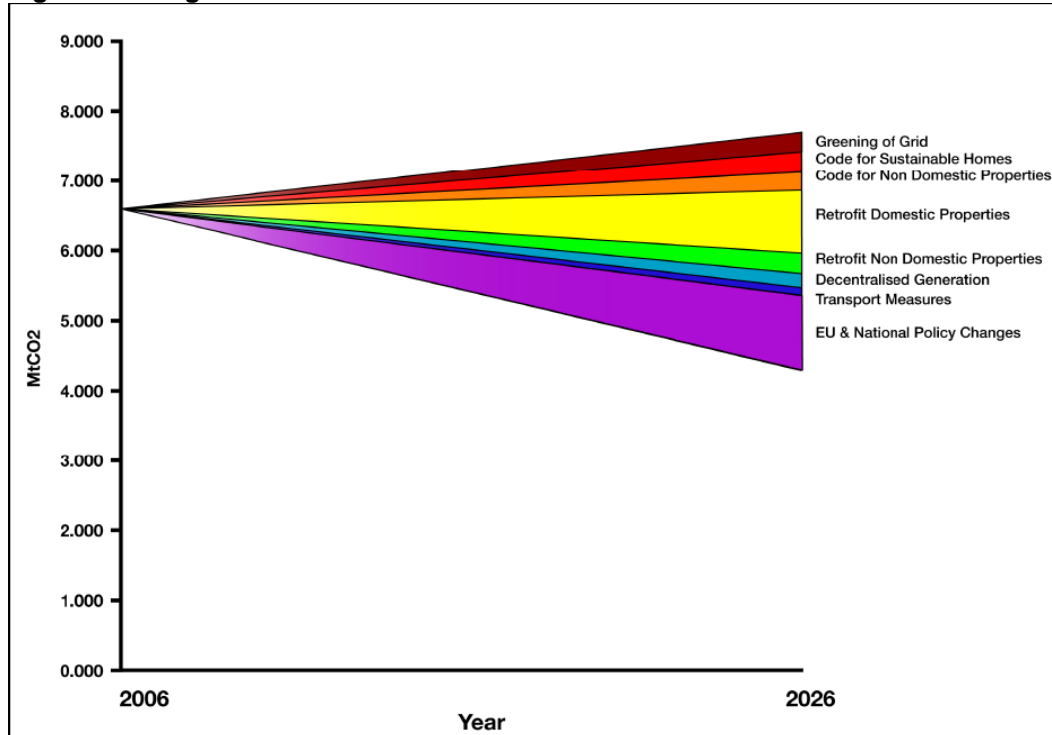
Findings of the Feasibility of an Energy and Climate Change Strategy for Urban South Hampshire Report

- 3.13 The ARUP Study (2008) includes the following:
- An underlying vision of how South Hampshire might look in terms of energy in 2026 based on achieving a local stewardship approach which focuses on reducing carbon emissions.
  - An evidence base for the South Hampshire area to understand how energy is consumed by different users within the area.
  - The consideration of a 'do nothing' approach and continuation of past trends.
  - Potential methods of reduction and the speed of reduction of carbon emissions.
  - A consideration of options for PUSH to reduce its carbon emissions and a number of recommendations relating to policy direction and implementation measures as well areas where further work is necessary.
- 3.14 The Study makes it clear for the need to reduce carbon emissions in accordance with Government targets and that some form of carbon reduction strategy is required to reduce energy consumption or substitute a less carbon intensive energy source for an existing fossil fuel source (ideally renewables).
- 3.15 The Study highlights the current dependence on fossil fuels accounting for 80% of South Hampshire's energy consumption and most of this supply comes from outside the UK.
- 3.16 It sets out the current other main sources of energy including waste to energy plants (either from landfill gas or incinerating waste). It highlights the significant potential for other forms of energy including combined heat and power, energy crops and renewables such as on-shore wind, solar and geo-thermal.
- 3.17 In 2004 a study of wind resources in Hampshire County Council concluded that on-shore wind resources was constrained by a combination of existing nature conservation designations and restraints arising from aviation and defence interests. The only area identified in the SE Hants area is a small area to the north of Junction 11 of the M27 with the potential to supply 12 Mega Watts (MW). No areas have been identified in Gosport. However the cost of wind technology is expected to fall over the plan period making exploitation more likely.
- 3.18 The Study highlights the significant potential for biomass to meet the sub-regions energy demand including energy crops on set-aside land, animal by-products, cereal crop residue, forestry by-products and growing energy crops in floodrisk areas. It highlights a number of issues including land requirements, transport costs, impacts on food production and the environment. It highlights that further investigation is required and that areas adjacent the sub region will need to be considered for growing energy crops.

3.19 Importantly the Study identifies a range of interventions that can help reduce CO2 emissions with a series of recommendations for PUSH to consider (Figure 1). These are:

- Greening the grid;
- Code for Sustainable Homes;
- Code for Sustainable Business;
- Retrofitting demand reduction measures to the existing housing stock;
- Retrofitting demand reduction measures to existing non domestic stock;
- Applying decentralised generation to existing urban areas;
- Traffic measures and demand management; and
- National and EU measures.

**Figure 1: Wedges of intervention to reduce CO2 emissions**



3.20 The Study includes a detailed consideration of each of these measures.

3.21 *Greening the Grid (potential CO2 reduction of 282,415 tonnes in S Hants):* Electricity secured from the national grid is important now and will continue to be important in South Hampshire over the next 20 years. South Hampshire can assist the process by ensuring that no blocks exist to stop major strategic low carbon sources are developed for the grid.

3.22 *Code for Sustainable Homes (potential CO2 reduction of 293,593 tonnes in S Hants):* The Government's Building a Greener Future policy document signals its intent to tighten carbon emission standards for new build housing. By 2016 zero carbon emissions will need to be secured for all new build housing. New standards will require new homes to require little heat energy with improved standards of insulation and glazing, water heating and the use of renewables.

3.23 *Code for Sustainable Businesses (potential CO2 reduction of 284,079 tonnes in S Hants):* In the 2008 Budget Statement the Government announced the aim to achieve zero-carbon non domestic new build by 2019.

- 3.24 *Retrofitting demand reduction measures to the existing housing stock (913,781 tonnes):* It is clear that the retrofitting of domestic properties could significantly reduce CO<sub>2</sub> emissions. Local authorities can assist with this process such as existing grant programmes but more assistance is required.
- 3.25 *Retrofitting demand reduction measures to the existing non-domestic stock (312,218 tonnes):* A number of buildings in South Hampshire could benefit from this particularly those built between 1940s and 1970s.
- 3.26 *Transport energy (90,588 tonnes):* The Study recognises that road transport forms a key part of any energy and climate change strategy as it uses 29% of energy and represents 26% of all CO<sub>2</sub> emissions. Car ownership has grown and there has been a significant increase in car usage over the last 25 years. In additional traffic can contribute significantly to air pollution.
- 3.27 Many of the measures to influence the consumption of transport energy lie outside the powers available to stakeholders in South Hampshire. These include fiscal measures, advancement of public transport infrastructure and development of new technologies. Nevertheless the ARUP study highlights that there are choices available to local stakeholders that can be aligned to the Transport for South Hampshire's (now known as Solent Transport) Reduce Manage and Invest Strategy.
- 3.28 In terms of 'reduce', planning strategies have a large role to play. This includes the objective of creating mixed use sustainable communities with facilities and employment located close to homes at sufficient densities together with good pedestrian, cycling and public transport links.
- 3.29 Specific transport related measures relating to the Solent Transport strategy are included in the Transport and Accessibility Background Paper.
- 3.30 *Decentralised generation in existing areas (154,717 tonnes):* Community/district heat and combined heat and power (CHP) across South Hampshire can make a considerable contribution to decarbonise local energy supplies. Established built-up areas offer the best long term prospects for this form. Complications exist for retrofitting in areas where potential customers are already connected to competitor systems. Such schemes are often associated with housing density over 60 per hectare.
- 3.31 The displacement of carbon will depend on the fuel used within CHP systems to supply need. Natural gas will often be preferred fuel at the early stages of the strategy where the carbon benefit comes from efficiency of extracting both heat and power from the same unit of primary fuel. Other fuel types include methane from anaerobic digestion of biodegradable waste or through combustion of non-recyclable waste. As households increase in South Hampshire waste is likely to increase although recycling rates are likely to increase. HCC is looking for opportunities for extracting energy from residual matter after recycling has taken place. In addition other decentralised generation has potential including micro-generation and community renewable attached to a distribution network.
- 3.32 *National and European Level measures (1,012,124 tonnes):* This category represents the largest potential reduction in CO<sub>2</sub> emissions. These measures are essentially the powers Government have to regulate the way the market



works in relation to price signals-tax, tariffs, quotas and caps –measures will influence the contribution of the other wedges mentioned above.

Recommendations from the PUSH Study relevant to the Local Plan

- 3.33 A number of recommendations based on the findings of the Report have been made and the PUSH authorities are currently undertaking actions based on a number of these recommendations. The following are particularly relevant to Gosport's Local Plan.

*Recommendation 1:- Adopt a carbon dioxide reduction target*

- 3.34 The Carbon reduction target in the Study were based on a 60% reduction by 2050 but the national target has now been increased to 80% by 2050 (37% by 2026). Consequently the PUSH authorities need to consider these latest national targets.

*Recommendation 2: New development is likely to be a major stimulus to the creation of new capacity*

- 3.35 Although emission reductions from new development (domestic and non domestic) represent only a small proportion of the total emission reduction potential, it is an area where the LPA partners in South Hampshire have the greatest leverage to affect change, particularly when considering the quantum of growth proposed in the sub region.

- 3.36 A significant share will need to be built to the zero carbon standard. The Study highlights the cost associated with delivering low to zero carbon performance.

- 3.37 The greatest scope for delivering viable solutions will be on the Strategic Development Areas (i.e. Welborne, North of Fareham) and the Urban Extensions where sufficient scale exists for economic delivery.

- 3.38 Locations unable to bring forward development at a scale capable of allowing site wide solutions risks loading significant costs onto development leading to either to the displacement of other policy requirements or a deferral of new development by developers and land owners.

- 3.39 Consideration should be given towards the flexible application of PUSH policy allowing areas reliant on small windfall sites to make commuted sum contributions towards energy infrastructure where consistent with Government guidance on developer contributions.

- 3.40 PUSH will need to regularly reassess the supplier market to assess whether new equipment makes site wide provision more feasible at a smaller scale.

*Recommendation 8: Integrate energy infrastructure needs into future district based infrastructure assessment*

- 3.41 This is required to support tariffs, Section 106 or future Community Infrastructure Levy policies and make explicit any trade-off between improved carbon performance and other types of infrastructure. Financing and delivering energy infrastructure is critical to securing low carbon communities. Competition with the demands for other types of infrastructure will be a key consideration.

*Recommendation 14: Establish a common monitoring framework across South Hampshire for the collection of data on new installed capacity and performance*

- 3.42 Monitoring progress will be essential. A consistent framework will need to be devised.

*Recommendation 16: Create a strategic link with work undertaken to adapt South Hampshire to the unavoidable effects of climate change*

- 3.43 A PUSH/Hampshire Climate Change Strategy is currently being prepared.

*Recommendation 23: Ensure the South Hampshire Energy Strategy is aligned with the Transport for South Hampshire Reduce Strategy*

- 3.44 This includes supporting measures that reduce the overall demand for travel and encourage a greater proportion of journeys by means other than the private car.

### **Green Infrastructure**

- 3.45 Green infrastructure has an important role in both helping to mitigate climate changes and assisting communities to adapt to it. Green infrastructure has been defined as:

*'the physical environment within and between our cities, towns and villages. It is a network of multi-functional open spaces, including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It comprises all environmental resources, and thus a green infrastructure approach also contributes towards sustainable resource management.'*  
European Union.

- 3.46 PUSH has produced a sub-regional Green Infrastructure Strategy (UE Associates 2010). A key aim of the Strategy is to identify sub-regional strategic initiatives and proposals to provide a high quality of life for the people who live and work in the sub-region. It seeks to maximise the multifunctional use of open space for a range of benefits including: ameliorating the impacts of climate change; providing opportunities for recreation; safeguarding the character of the landscape and townscape; supporting health and well-being; and enhancing biodiversity. One of the key themes of the Strategy is climate change mitigation and adaption and a number of benefits have been identified including:

- Greenspaces can provide an efficient and cost-effective 'soakaway' for rainwater and a reservoir for surface water storage thus helping in part with demand for accessible water features.
- Greenspaces and associated vegetative cover are important in providing a natural cooling effect to mitigate urban heat islands. This is especially important for the two cities and larger urban locations.
- An appropriate network of green infrastructure allows habitats and species to migrate and adapt to the effects of climate change.
- Suitable landscaping and vegetation can help reduce the effects of air pollution and store carbon.
- Green infrastructure features such as accessible corridors and increased greenspace can, at a local scale, encourage a reduction in motorised travel and facilitate movement on foot or by bike.

- 3.47 Issues and opportunities are identified including:

- A primary adverse effect associated with sea level rise in the sub-region is the loss of protected habitats, and feeding and roosting grounds for waders and wintering wildfowl which use the extensive

mudflats, saltmarsh and other estuarine habitats that are naturally exposed during the tidal ebb and flow of the Solent.

- The new homes and employment sites should be designed with appropriate green infrastructure to retain water and help reduce the effects of localised flooding, introduce greenspace with trees for cooling and consider networks of street trees.
- Building design that ensures new developments incorporate features such as green roofs, green walls and adequate space for future tree growth and naturalised watercourses

3.48 Further details are contained in the Green Infrastructure and Open Space Background Paper which includes details of potential schemes in the Borough.

## 4.0 CONSULTATION

### **Main Consultations to date including:**

- Consultation at each plan-making stage:
  - Gosport Borough Local Plan 2011-2029: Consultation Draft (Dec 2012-Feb 2013);
  - Core Strategy : Preferred Options (GBC December 2009);
  - Core Strategy: Issues and Option (GBC December 2006);
  - The Community Strategy and Local Development Framework: Make Your Mark December 2006 events (held in December 2006 Gosport Partnership); and
- On-going meetings with key stakeholders

4.1 Whilst there have been a number of various consultations over recent years on the emerging Local Plan, this section focuses primarily on the most recent consultation that took place between December 2012 and February 2013 as well as any subsequent liaison with relevant stakeholders.

4.2 As sustainability and climate change issues are far-reaching and cover virtually all aspects of the Local Plan this section focuses on those elements that are not addressed in particular detail in the other background papers. Issues such as flooding, green infrastructure and open space, biodiversity, sustainable transport and the location of development therefore are addressed elsewhere and this section focuses on consultation relating to:

- Use of the Code for Sustainable Homes and BREEAM standards for commercial buildings;
- Energy resources; and
- Water efficiency.

4.3 How the Borough Council has broadly addressed these issues is covered in Section 5 below. Importantly no comments have been received on the Borough Council's overall policy approach to the mitigation of, or adaptation to, climate change, although some detailed comments were received in relation to flood risk and these are dealt with separately in the Flood Risk and Coastal Change Background Paper.

Use of the Code for Sustainable Homes and BREEAM standards for commercial buildings

- 4.4 A developer considered that the use of the Code for Sustainable Homes was premature in the light of the on-going Housing Standards Review and three developers considered that the use of these codes could make development unviable.

Energy resources

One developer, whilst supportive of the hierarchy approach to securing energy efficiency including fabric first, was concerned that the policy was prescriptive in requiring connections to CHP and the use of on-site renewables sequentially before allowable solutions. There was concern that this sequential approach may not be technically feasible and that greater flexibility will enable higher quality design and delivery. The developer adds that a more flexible approach would be to remove the detail of this policy from the Local Plan, as many of the matters are covered by the Building Regulations.

Water efficiency

- 4.5 The local water company, Portsmouth Water raised strong concerns regarding the achievability of the higher level codes (5-6) and that the use of rain-water harvesting at a domestic level was inappropriate.

**5.0 Key issues addressed by the Local Plan**

- 5.1 The emerging Local Plan aims to help address a number of issues identified as a result of the available evidence, policy framework and comments received from consultation. The overall sustainability of policies in the Local Plan and options for site allocations including mitigation of, and adaptation to climate change is set out in the Council Sustainability Appraisal and companion documents that accompany the Publication version of the Local Plan.
- 5.2 It is clear that there is an overriding need for the Local Plan to assist with delivering sustainable development including reducing the use of resources, and limiting CO<sub>2</sub> emissions.

**Key policy changes since the publication of the consultation Local Plan (Dec 2012)**

- 5.3 Since the publication of the earlier consultation draft of the Local Plan (December 2012), as highlighted above, the Government has produced its consultation on the Housing Standards Review which proposes, amongst other things, to 'wind down' the Code for Sustainable Homes. As a result of this there has been a significant change in a small number of policies in the Plan particularly those relating to the Code for Sustainable Homes and BREEAM standards. The Borough Council therefore no longer proposes to use the Code or BREEAM standards and instead policies refer to the use of nationally described standards which in many instances, but not all, will be the relevant part of the Building Regulations. Whilst recognising the Housing Standards Review is only a consultation draft it is clear that this is the Government's preferred approach. The Borough Council therefore proposes to no longer include the Code for Sustainable Homes within the Local Plan and consequently removes the concerns raised by several developers regarding its impacts on viability. In order to provide some consistency it is also considered appropriate to no longer use the BREEAM standards for commercial buildings and again developers will need to build in relation to the relevant section of the Building Regulations. The Housing Standards Reviews does enable local

discretion on water efficiency standards and this is addressed later in this section.

- 5.4 The key issues addressed by the Local Plan are addressed below and are presented in a structure similar to the mitigation and adaptation measures proposed in the NPPG.

### **The need to mitigate the impact of climate change**

- 5.5 Government policy and supporting scientific evidence requires local planning authorities to plan in such a way that represents sustainable development and to reduce CO<sub>2</sub> emissions. The NPPG outlines a number of ways this could be done. The section below outlines the Local Plan assists with each potential measure.

- 5.6 ***Reducing the need to travel and providing for sustainable transport:*** One of the main functions of the Local Plan is to promote sustainable development including providing appropriate locations for new development. Consequently it is this particular mitigation measure in which the Local Plan is most influential and hence there are a significant number of policies that relate to reducing the need to travel and enabling people to use sustainable transport modes. The Borough itself is an urban area within the wider South Hampshire conurbation and consequently by developing sites within the urban area will ensure that new development is relatively close to existing employment, health, education and other community facilities as well as public transport services. Many of the proposed allocations are mixed use sites which will also help reduce the need to travel and ensure those visiting the site have the opportunity to make linked trips. Provision is also made to enhance local facilities where necessary to reduce the need to travel.

- 5.7 The Local Plan includes a number of objectives relating to this issue including Objective 1 which aims to promote sustainable development in accessible locations making the most effective use of land with an emphasis on the Borough's brownfield sites. The site specific objectives 2-6 are supportive of the intentions of Objective 1. Objective 9 aims to regenerate the local economy and amongst other things, reduce out-commuting. Objective 13 relating to transport and accessibility aims to plan the future use of land in the Borough so that the need to travel is reduced and the use of sustainable forms of transport is encouraged; Objective 14 relates to improving transport infrastructure including pedestrian and cycling routes. Objectives 15-20 aims at ensure housing and the facilities to serve residents are maintained and improved and thereby reduce the need to travel.

- 5.8 Key policies relating to this measure include:

LP2: Infrastructure - This requires that new development is served by adequate infrastructure, services and facilities and where necessary these are improved or provided to serve the needs of the development.

LP3: Spatial Strategy - This policy allocates new development including new homes and employment within the existing urban area in order to reduce the need to travel this includes the redevelopment of a number of key brownfield sites. The policy aims to protect and seek opportunities to enhance existing employment sites, community facilities and open space to serve existing and new development and therefore reduce the need to travel and offer the potential to use sustainable transport i.e. public transport, cycling and walking.

LP4-LP9:- These are site specific policies which aim to achieve sustainable development including reducing the need to travel by enabling the regeneration of urban sites. The policies also encourage residents, workers, and/or visitors to access these sites through sustainable modes.

LP10: Design – This policy aims to ensure new development is accessible for pedestrians and cyclists and is well-connected to local facilities via links with pedestrian and cycle routes. Development also needs to be well-connected to public transport routes. Good design including high quality public realm encourages cycling and walking.

LP16: Employment Land – This policy aims to ensure that there is sufficient local employment to reduce out-commuting and the reduce the need to travel as well as enabling greater opportunities to access employment via walking, cycling and public transport. The policy aims to develop new employment opportunities and brownfield land as well as safeguarding existing sites.

LP20: Information and Communication Technology- By promoting the development of ICT embedded sites and premises this policy can help reduce the need to travel as people can work from home and access services through technology.

LP21: Improving Transport Infrastructure- This policy aims to improve local transport infrastructure including public transport, and cycling and pedestrian routes.

LP22: Accessibility to New Development- This policy requires that a site is located where convenient public transport services exist, or where there is a commitment by the developer and public transport provider to deliver such service. It is necessary for the site to be accessible to pedestrians and cyclists. Gosport Borough has some of the highest commuting and leisure cycle rates in England and therefore is well-placed to extend opportunities for this mode of transport.

The policy requires transport statements or assessment to support planning applications to demonstrate that the needs of the development are being met and adverse impacts are mitigated. It also requires a travel plan to support certain proposals and this will need to include measures which reduce the dependence on the car, and encourage and facilitate the use of alternative modes of journeys to, and from, work. Such Plans shall include performance targets and details of measures and funding to deliver, monitor and review them.

LP23: Layout of sites and parking- This aims to ensure that there are safe and convenient routes for pedestrians and cyclists which link with the existing network and that within larger developments provision is made for bus access with suitably located bus stops. It includes detailed requirements regarding appropriate lighting and cycle parking.

LP24: Housing- This policy aims to ensure that the priority for new housing development should be the re-use of previously developed sites and built at a density which makes efficient use of land and relates to the context of the area. It requires that sites have very good access to facilities. Building at appropriate densities in urban areas help support existing facilities and reduce the need to travel further afield.

LP27: Principal, District and Neighbouring Centre- This policy helps to retain the important function of these centres as a hub to local communities providing day-to-day needs and thereby reducing the need to travel further afield and enabling greater opportunities for residents to walk or cycle or use public transport.

LP32: Community, Cultural and Built Leisure Facilities- This policy aims to protect existing facilities that serve local residents and ensure new facilities are appropriately located.

LP34 and LP36: Open Spaces- These policies aims to protect important open space facilities (including allotments) close to where people live and that new facilities are well connected to pedestrians and cyclists, or public transport in the case of more strategic provision.

- 5.9 ***Providing opportunities for renewable and low energy technologies:*** One of the key objectives of the Local Plan is to minimise energy requirements of development and require the use of renewable energy sources where appropriate to minimise CO<sub>2</sub> emissions. The Local Plan contains a small number of very specific policies relating to this issue which are outlined below:

LP10: Design- This policy includes criteria to ensure that new development is designed to ensure it is adaptable over its lifetime including that it minimises its impact on climate change and is resilient and adaptable to its effect, and that it meets nationally described standards. The supporting text states that development should maximise the use of renewable energy and low carbon technology.

Policy LP38- Energy Resources- This policy requires that new development meets at least the relevant national standards for energy use and CO<sub>2</sub> reduction. This could include the use of renewable energy technologies to produce required energy on-site. It could also include a contribution via 'allowable solutions towards other UK-based renewable energy schemes to deal with any remaining CO<sub>2</sub> emissions to meet zero carbon requirements.

The policy will also be used to grant planning permission for proposals for renewable energy and low carbon installations provided certain amenity and environmental considerations are met.

- 5.10 ***Providing opportunities for decentralised energy and heating:*** The Local Plan makes specific references to combined heat and power (CHP) and district heating/cooling networks as highlighted below. CHP is particular appropriate for Gosport Borough given its built-up nature and the characteristics of the proposed regeneration sites with opportunities for a mix of uses.

Policy LP38: Energy Resources - This policy states that new development should include measures set out in the zero carbon hierarchy, which could include connecting to existing combined heat and power and district heating/cooling networks or to contribute to their development. It could also include a contribution via 'allowable solutions' towards other UK-based renewable energy schemes to deal with any remaining CO<sub>2</sub> emissions to meet zero carbon requirements. It also enables proposals for CHP installation provided certain amenity and environmental considerations are met.

- 5.11 ***Promoting low carbon design approach to reduce energy consumption in buildings such as passive solar design:*** The design of new development can fundamentally improve a building's energy efficiency and reduce the demand for energy throughout the lifetime of the building and thereby dramatically reduce electricity and heating bills. Many techniques are also comparable in terms of cost to conventional methods. Key policies include:

Policy LP10- Design: This requires new developments to incorporate sustainable construction techniques. The text reiterates that the design of new houses and other buildings need to maximise energy efficiency and take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption and

CO<sub>2</sub> emissions. Developments should incorporate principles of solar passive design. This policy is supported by the Design SPD.

Policy LP38: This policy states that new development should include measures set out in the zero carbon hierarchy, which could include that building be designed to maximise energy efficiency and design out the need for energy use by means of scheme layout, and the orientation and design of individual buildings.

### **The need to adapt to the impact of climate change**

- 5.12 The NPPG outlines a number of ways that local planning authorities should consider measures to adapt to the effects of climate change. The section below outlines various policy measures that can assist.
- 5.13 ***Considering the impact of, and promoting design responses to flood risk and coastal changes for the lifetime of the development:*** As Gosport is a coastal Borough located on a peninsula the increasing potential impact of coastal flooding is a critical consideration when allocating new development and producing policies which will be used to determine future planning applications. The predicted rise in sea-level and the predicted increases in the number and intensity of storms will potentially affect large areas of the Borough as will the potential of surface water flooding caused by more intensive storms. Objective 26 reflects this issues and states that one of the objectives of the Plan is the ensure new development takes account of natural hazards such as flooding and coastal erosion including that it is safe, in the most appropriate location and contributes to a reduction in flood risk.
- 5.14 Importantly when allocating sites for development future climate risks, particularly in terms of coastal flooding have been considered to ensure risks are understood over the development's lifetime. This has included a Strategic Flood Risk Assessment (SFRA) which has been prepared in close liaison with the Environment Agency and the Eastern Solent Coastal Partnership. The preparation of the SFRA included a workshop to understand the risks of each allocated site and what mitigation measures are considered necessary.
- 5.15 The Plan includes a number of policies which aim to address these issues and ensure the Borough adapts to these potential impacts. The key policy is:
- Policy LP45: Flood Risk and Coastal Erosion- This is a very detailed and comprehensive policy relating to flood risk and includes a number of elements in accordance with Government guidance set out in the NPPF. It includes aspects such as: the sequential and exception tests; flood risk assessments; ensuring that there is no net increase of surface water run-off; the use of sustainable drainage systems; ensuring buildings and sewerage infrastructure is designed to incorporate flood resilience and flood resistance measures; and the need for developer contributions in certain instances towards flood defences and/or flood risk management measures.
- 5.16 Other relevant policies include:
- Policy LP2: Infrastructure – This policy requires that development is supported by adequate infrastructure which includes flood defences and other flood management measures.
- Policy LP4 -LP9: These site specific policies set out requirements for each site, where applicable, on the need to address specific flood risk issues and cross-refers to the detailed requirements of Policy LP45.



Policy LP10: Design- This policy requires development to be adaptable to climate change including dealing with issues such as increased surface water run-off (caused by heavier storms) and increased incidence of tidal flooding (caused by stormier conditions and sea-level rise)

Policy LP39: Water resources- This policy requires, where appropriate, the use of sustainable drainage systems (SuDS) subject to certain criteria. It is recognised the use of SuDS can help reduce flood risk. One of the stated reasons for this is that it can reduce the speed and amount of storm water and thereby reduce pressure on sewers and surface water flooding and prevent pollution of the local environment.

5.17 ***Considering availability of water and water infrastructure for the lifetime of the development and design responses to promote water efficiency and protect water quality:*** The Plan includes a number of policies which aim to address issues of how the Borough can adapt to climate change in relation to water resources including water supply and consumption issues, waste water and overall water quality.

5.18 In formulating these policies the Borough Council has considered the South Hampshire Strategy (PUSH 2012). It acknowledges that the sub region has a combination of water-related environmental constraints and challenges including: having some of the most vulnerable communities in terms of flood risk particularly coastal flooding; being an 'area of serious water stress'; and having limited capacity to deal with waste water due to environmental constraints such as internationally important habitats.

5.19 In the light of this the Local Plan includes a key objective to ensure natural resources are used in the most sustainable way including effective waste and water management systems and the protection and enhancement of water quality. Importantly the Borough Council has liaised with the relevant water companies to ensure development proposals are taken into account when preparing their various management plans.

5.20 The main policy relating to water issues including adapting to the effects of climate change are:

Policy LP39: Water Resources – It is recognised that climate change has the potential to exacerbate water stress, affect water quality, and increase surface water flooding. Policy LP39 includes a number of measures including: the need to ensure development proposals do not have an adverse effect on the quality of surface, ground or coastal water in accordance the Water Framework Directive; ensuring development is served by appropriate sewerage infrastructure and development can be phased to coincide with the provision of necessary wastewater infrastructure; and ensuring sustainable drainage systems are used where appropriate.

The policy also promotes water efficiency measures as part of new development and states that measures should reduce the consumption of water equivalent to 110 litres per person per day (including external water use). This is based on the Government's consultation document Housing Standards Review (see later in this section for further consideration of this issue).

5.21 Other relevant policies include:

Policy LP2: Infrastructure – This policy requires that development is supported by adequate infrastructure which includes water infrastructure measures relating to sewers and waste water treatment as well as water supply.

Policy LP4 -LP9: These site specific policies set out requirements for each site, including the need to address specific infrastructure issues such as increasing the capacity of sewerage systems, water supply and other water-related infrastructure to serve the development over its lifetime.

Policy LP10: Design- This policy requires development to be adaptable to climate change including the need to incorporate water efficiency measures.

- 5.22 As highlighted in the Housing Standards Review the issue of water efficiency standards has been subject to significant review by the Government. In the previous version of the draft Local Plan, published for consultation in December 2012-February 2013, the Borough Council included a policy which required developers to build to the relevant level of the Code for Sustainable Home. The relevant level would be phased over time culminating in Code Level 5 (with allowable solutions) in 2016. This approach was taken to accord with the overall intentions of the PUSH South Hampshire Strategy and what was considered to be the latest Government approach to the definition of zero carbon homes. The policy though different in some of the details to the South Hampshire Strategy reflected PUSH intentions that water efficiency is an important consideration as the sub-region is considered a water-stress area and that the reduction in water consumption would also ease pressures on internationally important habitats such as the reduction in abstraction from the region's chalk rivers.
- 5.23 However in the light of the Government Review it is clear that the Government proposes to 'wind down' the Code for Sustainable Homes and that local authorities should not adopt water efficiency standards equivalent to Code Levels 5/6. Building Regulations part G would be the appropriate national standard and would be approximately equivalent to Code Levels 1/2 on water efficiency. However the Government considers that a discretionary national standard 110 litres per person per day can be adopted by local authorities above the Buildings Regulations Level G if the local authority can: justify the need for it; is consistent with the wider approach to water efficiency as set out in the local water company's water resources management plan; and has been subject to consultation with the local water supplier and the Environment Agency.
- 5.24 The Environment Agency has identified the need for water efficiency measures in South Hampshire which can also maintain and enhance water quality within the Borough as well as reduce pressure on the Peel Common wastewater treatment works (operated by Southern Water). Similarly this approach accords with Portsmouth Water's overall objectives to increase water efficiency as set out in its latest Water Resources Management Plan.
- 5.25 The proposed 'local level' is approximately equivalent to Code Level 3-4 of the Code for Sustainable Homes and consequently the Borough Council has already sought views from developers, the water companies and the Environment Agency on the principle of water efficiency on previous consultations (most recently in February 2013) and at that time were seeking to introduce tighter water efficiency controls. As a result of this consultation as detailed in Section 4 above, particularly from the local water company, Portsmouth Water, it is considered acceptable for the Borough Council to introduce the 110 litres per person standard in the Local Plan as significant

concern was only previously highlighted for efficiency standards at level 5-6 of the Code for Sustainable Homes.

- 5.26 ***Promoting adaptation approaches in design policies for developments and the public realm:*** There are a number of elements which can be used to help new developments adapt to climate change. This includes taking an approach to more sustainable living and climate change adaptation through the use of green infrastructure. Objective 21 aims to protect and enhance the Borough's green infrastructure network and identify new opportunities which link with sub-regional initiatives. The key policy is:

Policy LP41: Green Infrastructure. This section of the Local Plan recognises the important role that green infrastructure can make towards climate change adaptation for example through flood alleviation and cooling urban heat islands as well as giving greater opportunities to fauna and flora to adapt to climate change through the provision of green corridors to overcome habitat fragmentation. The policy itself requires that development proposals: maintain and enhance the Borough's green infrastructure; secure a net gain of biodiversity; and incorporate sustainable drainage systems.

- 5.27 Other relevant policies include:

Policy LP2: Infrastructure- This policy requires that development is supported by adequate infrastructure which includes green infrastructure.

Policy LP3- Spatial Strategy- This policy aims to: protect and seek opportunities to enhance open spaces in the Borough; preserve the character and function of the settlement gap between Gosport/Fareham and Lee-on-the-Solent/Stubbington; and it identifies the Alver Valley as a regeneration area for green infrastructure including a Country Park which forms part of the Borough's strategic green infrastructure with Browndown, Stokes Bay and Lee-on-the-Solent seafront.

Policies LP4-LP9:- These are site specific policies which include elements relating to green infrastructure which can contribute to the adaptation of climate change by ensuring there is sufficient green infrastructure associated with the development.

Policy LP8 is of particular note as it relates to the Alver Valley Regeneration Area for Green infrastructure including proposals for a Country Park. The Country Park represents the largest element of green infrastructure in the Borough with potential linkages to other strategic open areas such as the coastal areas of Stokes Bay, Browndown and the Lee-on-the-Solent seafront. It will also be able to link to the wider countryside areas within Fareham Borough between Gosport, Fareham, Stubbington and Lee-on-the-Solent. The Alver Valley is identified by PUSH as being of sub-regional significance representing a strategic element of the South Hampshire green infrastructure network. It has the potential to store significant floodwater thereby reducing flood risk elsewhere including residential areas and a new balancing pond has been created to reduce flood risk within the new Cherque Farm residential development. There has been a major tree-planting programme and a number of reed beds have been created to help filter-out leachate from former landfill in order to improve the water quality of the River Alver.

Policy LP10: Design:- This policy promotes adaptation to climate change through the design of buildings and the public realm recognising the importance of green infrastructure within new developments to deal with issues such as increased surface water run-off (caused by heavier storms), increased incidence of tidal flooding (caused by stormier conditions and sea-level rise) and the need to provide more street trees and other planting (to ameliorate the effects of hotter summer temperatures). Green roofs and walls may also contribute. It recognises the importance of ensuring development is accessible to high quality open spaces and

that developments incorporate measures to protect and enhance biodiversity. Proposals will need to take into account the micro-climate and the predicted effects of climate change. This policy is supported by the Council's Design SPD.

Policy LP35-LP36: Open Spaces- These policies seek to protect and enhance open space provision in the Borough including improvements associated with new development. It recognises that proposals should incorporate elements of green infrastructure as set out in Policy LP41.

Policy LP39: Water resources- This makes provision of SuDS which can help developments adapt to climate change through flood attenuation and enhanced townscape quality,

Policies LP42-44: Nature Conservation- These nature conservation policies protect habitats that form an important element of the green infrastructure resource. These policies provide greater opportunities to ensure that biodiversity thrives and that ecosystems and habitats are resilient to climate change.

### **Conclusion**

5.28 The concept of sustainability requires the consideration of the linkages and interaction between social, economic and environmental issues. The emerging Local Plan includes a number of elements which together form a strategy to mitigate and adapt to climate change. Key elements include:

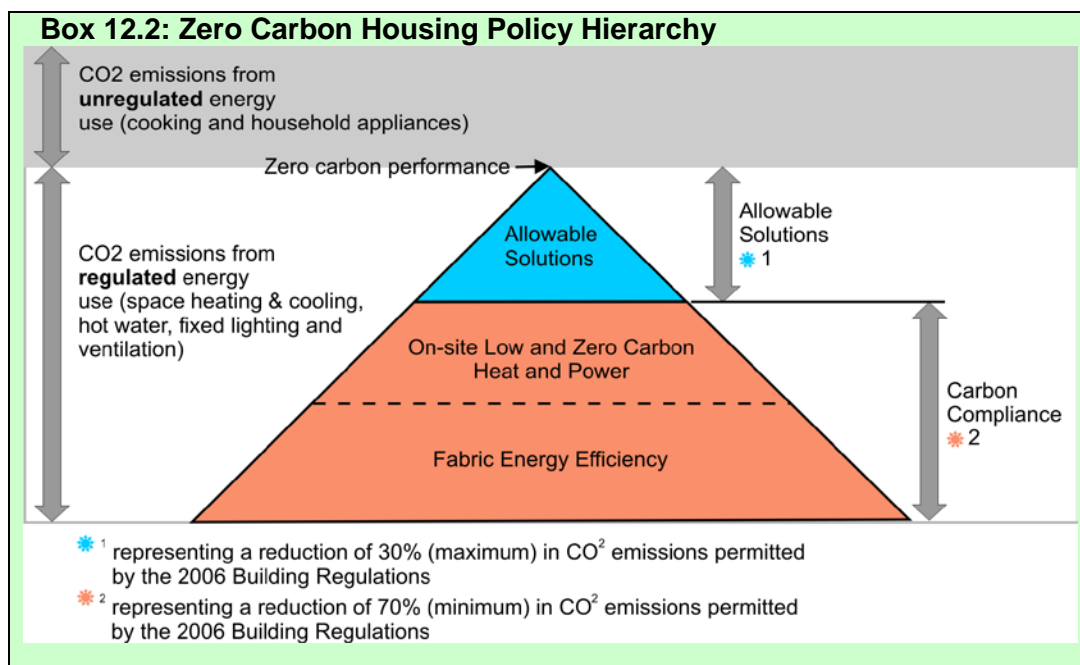
- regeneration of the Borough by re-using brownfield sites for a mix of uses. This will provide economic opportunities, help address social issues and protect and enhance the environment and possibilities for linked trips;
- such development will be located close to where people live or is easily accessible for pedestrians, cyclist or public transport users thereby reducing the need to travel by private car;
- ensuring development is built to the latest sustainable construction standards which will help minimise the use of resources such as energy and water and reduce waste;
- enabling the development of appropriate renewable and low carbon energy in suitable locations;
- ensure the risk of flooding is minimised for new development particularly in the light of rising sea levels and predicted stormier conditions as a result of climate change;
- protecting and enhancing green infrastructure to ameliorate the impacts of climate change.

## Appendix 1: Zero Carbon Buildings

### Zero Carbon Homes<sup>4</sup>

The NPPF states that local planning authorities should support the move to a low carbon future and when setting any local requirement for a building's sustainability, do so in a way consistent with the Government's zero carbon buildings policy and adopt nationally described standards. It is the Government's intention that all new homes should be zero carbon by 2016.

In 2011 the Government amended the definition of Zero Carbon Homes<sup>5</sup> to exclude 'unregulated emissions' (i.e. emissions from household plug-in electrical appliances) so that the definition only includes regulated energy as covered by Building Regulations. This includes energy used in the home for water heating, lighting and pumps. To meet the Government's proposed new zero carbon standard by 2016, a new home will be required to reduce its regulated emissions by 100%. A large element of this reduction (at least 70%) will need to be met through on-site measures through what is known as 'carbon compliance' with the remaining reduction (a maximum of 30%) to be achieved off-site through 'allowable solutions'. The zero carbon housing policy hierarchy is summarised in the Box below,



Source: Based on diagram in 'Allowable Solutions: Evaluating Opportunities and Solutions' (Zero Carbon Hub September 2012)

'Carbon compliance' includes measures such as the energy efficiency of the fabric, the performance of heating, cooling and lighting systems, and low and zero carbon technologies (such as photovoltaic and connected heat such as a community heating network). 'Allowable solutions' includes a payment to a provider who will take the responsibility and liability for a small, medium or large scale carbon-saving project. The Government is yet to confirm the exact nature of allowable solutions but it could include:

- exporting low carbon or renewable heat from a development;
- provision of energy efficient appliances or building controls to reduce energy demand;

<sup>4</sup> <http://www.communities.gov.uk/news/corporate/1905491>

<sup>5</sup> <http://www.zerocarbonhub.org/definition.aspx?page=1>

- contribution by the developer towards low or zero carbon infrastructure such as a local heat network;
- improving the energy efficiency of existing buildings in the vicinity;
- provision of off-site renewable energy is connected directly to the development.

In the Queen's Speech (May 2014), the Government announced further potential changes to the definition of zero carbon homes but the details are not yet known but is likely to allow greater potential for the allowable solutions element to off-set CO<sup>2</sup> emissions.

#### Zero Carbon for Non-Domestic

The standards for non-residential buildings are produced by the Building Research Establishment (known as the BREEAM standards). For non-domestic development, the Government's ambition is to achieve Zero Carbon is from 2019 onwards.

## **Appendix 2: Background Papers and References**

### **National Guidance**

Department of Communities and Local Government (DCLG)(2014) National Planning Practice Guidance (NPPG) <http://planningguidance.planningportal.gov.uk/blog/guidance/climate-change/>

Department of Communities and Local Government (DCLG)(August 2013) Housing Standards Review: Consultation  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/230250/1-Housing\\_Standards\\_Review\\_-\\_Consultation\\_Document.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/230250/1-Housing_Standards_Review_-_Consultation_Document.pdf)

Department of Communities and Local Government (DCLG)(August 2013) Next Steps To Zero Carbon Homes: Allowable Solutions: Consultation  
<https://www.gov.uk/government/consultations/next-steps-to-zero-carbon-homes-allowable-solutions>

Department of Communities and Local Government (DCLG)(2012) National Planning Policy Framework  
[www.gov.uk/government/publications/national-planning-policy-framework--2](http://www.gov.uk/government/publications/national-planning-policy-framework--2)

HM Treasury/Cabinet Office (2006) - Stern Review: the Economics of Climate Change & Executive Summary  
[http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/sternreview\\_index.cfm](http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm)

### **Sub Regional Planning Documents**

South Hampshire Strategy: A framework to guide sustainable development and change to 2026 (PUSH)

[http://www.push.gov.uk/south\\_hampshire\\_strategy\\_-\\_updated\\_dec\\_2012.pdf](http://www.push.gov.uk/south_hampshire_strategy_-_updated_dec_2012.pdf)

Partnership for Urban South Hampshire (PUSH) / ARUP (2008) - Feasibility of an Energy and Climate Change Strategy for Urban South Hampshire

[www.push.gov.uk/issue\\_to\\_client\\_final\\_push\\_report\\_09.09.2008.pdf](http://www.push.gov.uk/issue_to_client_final_push_report_09.09.2008.pdf)

### **Local Planning Documents**

Gosport Borough Council Annual Monitoring Reports  
[www.gosport.gov.uk/annual-monitoring-report](http://www.gosport.gov.uk/annual-monitoring-report)

Gosport Borough Council (2006) – Gosport Borough Local Plan Review  
[www.gosport.gov.uk/localplanreview](http://www.gosport.gov.uk/localplanreview)

Gosport Borough Council (2009) – Corporate Plan 2009-2012  
<http://www.gosport.gov.uk/sections/your-council/corporate-plan/>

Gosport Partnership (2007) - Gosport's 2026 Vision : Gosport's Sustainable Community Strategy  
<http://www.gosport.gov.uk/sections/community/gosport-partnership/sustainable-community-strategy/>

Gosport Borough Council (2008) ' Gosport- A Sustainable Future-'Doing our bit , and influencing others''

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