

Chapter 4: Climate Change

Paragraphs 4.1 – 4.5: Introductory Paragraphs	
Proposed Submission Representations Received	Total: 4 Support: 1 Object: 3
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Agree with paragraph 4.1. <p>Object</p> <ul style="list-style-type: none"> • The science quoted in this section is out of date and can be shown to be mostly if not entirely invalid. • Actions by the UK will not have a measurable effect on slowing climate change. • Gamlingay Community Turbine - Paragraph 4.4 should mention community renewable energy projects as a means of reducing carbon dioxide emissions.
Assessment	<p>The Planning Act 2008 and the National Planning Policy Framework require local planning authorities to address climate change.</p> <p>Paragraph 4.4 lists the integration of renewable and low carbon energy technologies within a building(s) as a measure that will contribute to reducing greenhouse gas emissions and protecting our residents and businesses from the consequences of climate change. Community renewable energy projects will also contribute to these aims, and therefore should also be listed.</p>
Approach in Submission Local Plan	<p>Minor change</p> <p>Amend the forth bullet point of paragraph 4.4 to read: '...integrating renewable and low carbon energy technologies within a building(s) <u>or delivering community renewable energy projects;</u></p>

Policy CC/1: Mitigation and Adaptation to Climate Change

<p>Issues and Options 2012 Issue 17</p>	<p>Mitigation and Adaption to Climate Change</p>
<p>Key evidence</p>	<p>South Cambridgeshire District Design Guide SPD (2010)</p>
<p>Existing policies</p>	<p>Development Control Policies DPD: Policy DP/1 Sustainable Development</p>
<p>Analysis</p>	<p>Our day to day activities and current lifestyles are releasing significant quantities of a range of greenhouse gases (predominantly carbon dioxide) into the atmosphere. This is causing our climate to change in ways that are threatening how we live both today and tomorrow. The effects of climate change include shifts in our seasons, heat-waves, drought, and other extreme weather events such as flash flooding and strong winds. Both reducing and being less vulnerable to these changes in our climate is an essential part of the environmental element of sustainable development. The Planning Act 2008 requires local planning authorities to include policies in their Local Plans designed to secure development and use of land that will contribute to the ‘mitigation’ of, and ‘adaptation’ to, climate change. This should be considered during the design, construction and occupation of any new development.</p> <p>Climate change mitigation describes the measures that can be taken to reduce our contribution to climate change, this includes locating, designing and constructing developments in ways that reduce carbon dioxide emissions. Climate change adaptation describes the measures that can be included within developments that will take account of the effects of climate change, this includes managing flood risk and using water efficiently.</p> <p>The UK is committed under the Climate Change Act 2008 to an 80% reduction in greenhouse gas emissions¹ by 2050 (from 1990 levels) and a 26% reduction in carbon dioxide emissions by 2020 (from 1990 levels). In 2009, South Cambridgeshire greenhouse gas emissions stood at 8.5 tonnes per person (the Cambridgeshire average is 7.6 tonnes per person). In order to contribute to an overall reduction, new development should ensure that resultant per person figures are markedly below the most recent dataset².</p> <p>The existing Local Development Framework policy for sustainable</p>

¹ Greenhouse gas emissions are the collective name for a range of gases that trap some of the sun’s warmth within the earth’s atmosphere. The most prevalent greenhouse gas at around 85% is carbon dioxide, others include methane (typically from agriculture and landfill), nitrous oxide (typically from agriculture), and fluorocarbons (often used as refrigerants).

² http://www.decc.gov.uk/en/content/cms/statistics/climate_stats/climate_stats.aspx

	<p>development already seeks to ensure that new development is sustainable, mitigates further impacts on climate change, and minimises the vulnerability to the effects of climate change through adaptation. However, given the increased emphasis on climate change adaptation and mitigation set out in the Planning Act 2008, it is important that this is reflected in the Council's planning policies.</p> <p>The Local Plan could therefore ensure that development will only be permitted where the principles of climate change mitigation and adaptation have been embedded within the proposal.</p> <p>To mitigate climate change, proposals could demonstrate:</p> <ul style="list-style-type: none"> • energy efficiency; • use and generation of renewable and low carbon energy; • promotion of sustainable forms of transport such as using buses, cycling or walking, and reduction of car use; • recycling and waste reduction both during construction and occupation; and • inclusion of communications infrastructure (e.g. broadband) to facilitate home working. <p>To adapt to the effects of climate change, proposals could demonstrate:</p> <ul style="list-style-type: none"> • water use management and conservation (e.g. rainwater recycling and greywater harvesting); • management of flood risk to acceptable levels; • open space and use of vegetation for shading, natural cooling, and to reduce flooding / surface water run-off; • use of sustainable drainage systems (SuDs); and • careful layout and orientation and the incorporation of design and material measures to minimise overheating. <p>Potential for Reasonable Alternatives: The Council considers that there are no reasonable alternatives other than to include a policy requiring the principles of climate change mitigation and adaptation to be embedded within all new development.</p>
<p>Which objectives does this issue or policy address?</p>	<p>Objective B: To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the area, and protect and enhance biodiversity.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>

	Objective F: To maximise potential for journeys to be undertaken by sustainable modes of transport including walking, cycling, bus and train.
Final Issues and Options Approaches	Question 17: Have the right issues for addressing climate change mitigation and adaptation been identified?
Initial Sustainability Appraisal Summary	An overarching policy option that would seek to integrate the principles of climate change mitigation and adaptation into development decisions. Such a policy clearly has potential to have a significant positive impact on a range of the sustainability objectives.
Representations Received	Support: 42, Object: 2, Comment: 15
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • Achieving reduction in car use is best addressed by locating new development on the edge of Cambridge or close to rapid transport routes. Seeking a reduction in car use is unlikely to be realistic – cars are important to people. • Developments should only be allowed if they provide good quality energy efficient homes. • The density of development should take account of the use of open space and vegetation for shading, cooling and detaining surface water run-off and the design of new development should consider orientation to allow solar panels to be fitted, to avoid overshadowing, to take advantage of solar gain and to minimise overheating. • In the next 10 years, energy efficiency and changing to more sustainable modes of transport are more important than the other issues. • In a rural area, it is surprising that encouraging sustainable agriculture is not mentioned. • Care must be taken to ensure that the Local Plan is flexible enough to take account of technological advances in the next 20 years. • Consideration needs to be given to how this will be implemented in smaller villages, especially issues such as sustainable transport and broadband provision. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Development in any area of flood risk is unacceptable. • The ‘promotion of sustainable forms of transport and the reduction in car use’ should not apply to rural areas and planning permission should not be refused in rural areas on the basis that the proposal does not meet this criteria. • The mitigation measures listed typically favour large developments. • Broadband will not seek to reduce transport requirements

	<p>because of the anti-social effects of homeworking.</p> <p>COMMENTS:</p> <ul style="list-style-type: none"> • Developers are reluctant to exceed minimum requirements because there are no marketable rewards. • The issues listed need separating out and elaboration (currently written in sufficiently vague terms). • The Local Plan needs to consider extremes of climate change – both cooling and heating. • Wildlife Trust: creation of larger and a better linked habitat network is a critical element of climate change adaptation and should be formally recognised in the policy. • Travel for Work Partnership: importance of sustainable travel should be emphasised and services such as cycle routes, CamShare.co.uk, travel discounts, Busway, travel discounts and tools available from Travel for Work should be promoted. • Climate change should not be given undue weight – be careful of something that only has limited scientific backing.
<p>Preferred Approach and Reasons</p>	<p>Include a policy requiring that the principles of climate change mitigation and adaptation are embedded within all development proposals, with all the issues in Question 17, but including the creation and enlargement of a better linked habitat network as an additional issue to consider. In the sustainable transport and infrastructure chapter acknowledge the challenge of reducing car use and promoting the use of sustainable forms of transport in a rural district.</p> <p>The principles of climate change adaptation and mitigation are embedded within policies throughout the Local Plan, and therefore to avoid repetition the climate change adaptation and mitigation policy is succinct and references are provided in the supporting text to the key principles that should be considered with references to the detailed policies.</p> <p>The Planning Act 2008 requires local planning authorities to include policies in their Local Plans designed to secure development and use of land that will contribute to the ‘mitigation’ of, and ‘adaptation’ to, climate change and there was general agreement that the right issues for addressing climate change mitigation and adaptation had been identified.</p> <p>In response to specific issues raised:</p> <ul style="list-style-type: none"> • The Local Plan will seek to ensure that all new developments are sustainable, and will include detailed policies setting out the spatial strategy for the district, the scale of development appropriate in each settlement, the promotion of sustainable

	<p>forms of transport, design principles and sustainable building standards.</p> <ul style="list-style-type: none"> • The list of options for demonstrating compliance with this policy is not exhaustive as the principles of climate change mitigation and adaptation are embedded in planning policies throughout the Local Plan, and the supporting text to this policy provides references to the detailed policies that should be considered. • The policies included in the climate change chapter of the Local Plan allow flexibility on the technologies that can be used to ensure that they are appropriate for the lifetime of the Local Plan.
Policy included in the draft Local Plan?	Policy CC/1: Mitigation and Adaptation to Climate Change

Issues and Options 2012 Issue 20	Community Energy Fund
Key evidence	Cambridgeshire Community Energy Fund (Element Energy, 2012)
Existing policies	
Analysis	<p>It is likely that the Government's zero carbon policy, which is due to be introduced for new homes from 2016 and for non-residential buildings from 2019, will require new developments to achieve zero carbon from 'regulated' emissions (essentially those arising from heating, lighting and ventilation) using a combination of onsite energy efficiency solutions, onsite renewable and low carbon energy generation and offsite 'allowable solutions'.</p> <p>'Allowable solutions' are offsite measures that developers can take to mitigate the residual carbon emissions. The Government has suggested the establishment of an 'energy fund' as one 'allowable solution'. This fund would use developer contributions to invest in energy efficiency and renewable and low carbon energy projects.</p> <p>An energy fund is not an additional cost on developers over the cost of achieving the zero carbon policy. If developers choose not to make a payment into an energy fund, they will be required to make investments into other eligible measures that deliver the same carbon reduction. While the zero carbon policy is likely to increase the cost of development, the energy fund has the benefit for developers in that it should provide certainty in what the cost of delivering 'allowable solutions' will be.</p> <p>Although Government has yet to make it clear exactly how an 'allowable solutions' mechanism would work in relation to the</p>

	<p>establishment and operation of an energy fund, the Local Plan is an opportunity for the Council to consider the establishment of a Cambridgeshire Community Energy Fund that will retain the investment within the local area.</p> <p>An evidence base study has been undertaken to investigate the potential of developing a Cambridgeshire Community Energy Fund. The study has focussed on identifying suitable collection mechanisms, governance arrangements and structures, investments to deliver carbon reduction (e.g. retrofitting photovoltaic panels on public buildings) and methodologies for measuring and verifying the carbon reduction achieved. The study concludes that further work is needed to develop a suitable collection mechanism for payments to the Cambridgeshire Community Energy Fund; however the basis for any mechanism must be established in the Local Plan.</p> <p>The study highlights that if the local planning authority does not establish such a mechanism to identify projects in the local area, then the money raised from local developments could be used to invest in projects anywhere in the country via a national database of 'allowable solutions' projects.</p> <p>Potential for Reasonable Alternatives:</p> <ul style="list-style-type: none"> • enable the setting up of a Cambridgeshire Community Energy Fund in the Local Plan; or • do not include a policy and rely on the national 'allowable solutions' framework.
<p>Which objectives does this issue or policy address?</p>	<p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
<p>Final Issues and Options Approaches</p>	<p>Question 20:</p> <p>A: Should the Local Plan enable the setting up of a Community Energy Fund that would allow developers to invest in offsite energy efficiency and renewable and low carbon energy projects to meet their carbon reduction targets?</p> <p>i: Yes? ii: No?</p> <p>B: Are there other alternatives?</p> <p>Please provide any comments.</p>
<p>Initial Sustainability Appraisal Summary</p>	<p>Offers a specific method of delivering renewable energy offsite, which has the potential to have a positive impact on delivery of renewable energy locally, and therefore climate change mitigation. Including the scheme (option i) could mean more</p>

	benefits are secured locally, and offer a higher degree of local control regarding how renewable energy is implemented. Scale of impact would depend on take up, as there are likely to be alternative schemes available.
Representations Received	A: Support: 24, Object: 15, Comment: 14 B: Support: 0, Object: 0, Comment: 11
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • Would be a good idea for SCDC to publish criteria for defining community renewable energy projects. • Suggest that this is dealt with as part of any policy developed to secure carbon reductions (to avoid a proliferation of policies). The appropriate level of contributions will need to be determined for each project. • Support as long as the fund is local and can be used as an educational tool to inspire and educate others. • Decision on whether to include onsite or offsite solutions should be left to the developer. • Maximum efficiency should be built in to all new developments. • Support particularly when a higher proportion (e.g. 10-20%) could be achieved by delivering offsite. • Supported by 11 Parish Councils. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Too much is already expected of developers. • Danger that developers would continue to build with inadequate energy standards justified by offsets in other places. • Unclear how this would work except through s106 agreements and would not accord with Community Infrastructure Levy Regulations. • Objected to by 5 Parish Councils. <p>COMMENTS:</p> <ul style="list-style-type: none"> • Should only be accepted if there is a clear benefit from the offsite provision to be gained by the development. Should only be used in exceptional circumstances as renewable energy should be directly linked to buildings as this drives behaviour change. • Cambourne Parish Council: an alternative option should be a more local energy fund, based on the Cambourne Parish Energy Fund model. • Offsite provision should only be allowed if onsite provision is not technically possible.
Preferred Approach and Reasons	Include a reference in the supporting text to the policy on Mitigation and Adaptation to Climate Change that if a Cambridgeshire Community Energy Fund is established, the Council's preference is for any 'allowable solutions' monies

	<p>secured to be paid into the fund and therefore spent locally.</p> <p>There is general support for the setting up of a Community Energy Fund. However, it has been suggested that it could be included as part of any policy developed to secure carbon reductions.</p> <p>In response to specific issues raised:</p> <ul style="list-style-type: none"> • It will be the developer's decision on how they deliver the Government's zero carbon requirement, which is anticipated to be introduced in 2016. • Contributing to a community energy fund is not an additional cost on developers; it is a possible 'allowable solution'. If developers choose not to make a payment into an energy fund, they will be required to make investments into other eligible measures that deliver the same carbon reduction. • The optimal approach for the delivery of sustainable buildings is to follow the energy hierarchy: i. reduction of energy use, ii. energy efficiency and iii. generation of renewable or low carbon energy. • It is anticipated that any Community Energy Fund would be separate from other developer contributions, such as s106 or the Community Infrastructure Levy. • The Cambourne Parish Energy Fund model is not appropriate for use district wide but it could be used in other new settlements.
Policy included in the draft Local Plan?	Policy CC/1: Mitigation and Adaptation to Climate Change
Policy CC/1: Mitigation and Adaptation to Climate Change (and paragraphs 4.6 – 4.12)	
Proposed Submission Representations Received	Total: 17 Support: 12 Object: 5
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Natural England – welcomes chapter and policies requiring development to demonstrate and embed principles of climate change and adaptation. • RES Group (UK and Ireland) – supportive of overall aims. • Oakington & Westwick Parish Council – support paragraph 4.12. • Essential if we are to slow climate change down and survive in future. Without strict measures we will be ill prepared for changes to our climate. • Crucial aspect of building sustainable developments. New

	<p>developments should absolutely be part of the solution, not contributing to the problem.</p> <ul style="list-style-type: none"> • Should help promote low energy housing and developments sympathetic to surrounding environment. • Design and transport policies are vitally important. All development must be linked to existing settlements by paths, cycleways, buses etc. not just roads. <p>Object</p> <ul style="list-style-type: none"> • Home Builders Federation – unnecessary because developers are required to meet Building Regulations. This is not a planning matter. • Environment Agency – support but needs more information on adaptation. Update plan’s assumptions with summary effects of climate change and include these in the justification. • Support requirement for Sustainability Statements but need for clarification of requirements to be included. Prepare an SPD for Sustainable Design and Construction. • Requirements for zero emissions by 2016 for residential and 2019 for commercial should be incorporated into Policy CC/4.
Assessment	<p>The Planning Act 2008 requires local planning authorities to include policies in their local plans designed to secure development and use of land that will contribute to the ‘mitigation’ of, and ‘adaptation’ to, climate change. The National Planning Policy Framework requires that local planning authorities adopt proactive strategies to mitigate and adapt to climate change. The Council has therefore included Policy CC/1 in the Local Plan.</p> <p>This chapter includes in paragraph 4.1 a brief summary of the effects of climate change and in paragraphs 4.10 and 4.11 lists the issues to be considered when mitigating and adapting to climate change. However, the Environment Agency has provided links to their published information on: ‘Climate Ready’ – a set of tools and information to help live with the changing climate; guidance on adaptation; and maps showing detailed climate change information for each river basin district. This information may be useful to applicants in developing their proposals and therefore the Local Plan should include a new paragraph (after 4.11) outlining that this information is available and providing links.</p> <p>Policy DP/1 in the adopted Development Control Policies DPD requires Sustainability Statements to be submitted with planning applications for major developments. The District Design Guide SPD includes guidance on what should be considered. The revised District Design Guide will therefore include updated guidance on what should be included in the Sustainability</p>

	<p>Statements that are required in Policy CC/1 for all planning applications. For clarity, explain in the supporting text of Policy CC/1 that the District Design Guide SPD will provide guidance on what should be included in Sustainability Statements.</p> <p>There are planned changes to Building Regulations that will progressively improve the energy efficiency requirements of new homes. The first change was anticipated to come into force in October 2013, and would have changed the requirement for energy efficiency to correspond roughly with the carbon reduction requirements of CfSH Level 4. This change is now expected to come into force in April 2014. A further change is anticipated in 2016 to change the Building Regulations requirement for energy efficiency to roughly correspond with the carbon reduction requirements of CfSH Level 5. Achieving increased energy efficiency standards beyond those included in Building Regulations would increase costs and could impact on the viability of the development. It is therefore considered that the changes to Building Regulations offer the most appropriate approach for the district for energy efficiency.</p>
<p>Approach in Submission Local Plan</p>	<p>Minor change</p> <p>Add to the end of paragraph 4.9: <u>'... Further guidance on what should be included in a Sustainability Statement will be provided in the review of the District Design Guide SPD.'</u></p> <p>Add a new paragraph after paragraph 4.11 to read (and renumber the remaining paragraphs): <u>'To help local authorities, businesses and other organisations to consider the impacts of climate change and appropriate adaptation, the Environment Agency has published 'Climate Ready' – a set of tools and information to help live with the changing climate, guidance on adaptation, and maps showing detailed climate change information for each river basin district (using data from the UK Climate Change Projections 2009).'</u></p> <p>Add the following to the list of documents in Appendix A: <u>Climate Ready</u> <u>Adaptation Planning</u> <u>Climate Change Information for each River Basin District</u> <u>UK Climate Change Projections 2009</u></p> <p>A minor change is proposed to recommend the use of BREEAM Communities Assessment as a means of assessing the</p>

	sustainability of new developments in Sustainability Statements, in a new paragraph after 4.11 in response to representations made to Policy HQ/1 in Chapter 5.
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Policy CC/2: Renewable and Low Carbon Energy Generation

Issues and Options 2012 Issue 18	Renewable and Low Carbon Energy Developments
Key evidence	<ul style="list-style-type: none"> • East of England Renewable and Low Carbon Energy Capacity Study (2011) • Cambridgeshire Renewables Infrastructure Framework (CRIF) (2012)
Existing policies	Development Control Policies DPD: Policy NE/2 Renewable Energy
Analysis	<p>Fuel poverty is affecting 13.5% of households in the district³. The National Planning Policy Framework states that local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable and low carbon sources and the UK Government has committed to sourcing 15% of its energy from renewable sources by 2020.</p> <p>This is a very necessary but challenging target and a range of policies have been brought forward or implemented to facilitate delivery including the Feed-in Tariff, Renewables Obligation, Renewable Heat Incentive, zero carbon buildings policy and Green Deal.</p> <p>The Overarching National Policy Statement for Energy (EN-1) (DECC, 2011) states that “the UK economy is reliant on fossil fuels, and they are likely to play a significant role for some time to come. ... However, the UK needs to wean itself off such a high carbon energy mix: to reduce greenhouse gas emissions, and to improve the security, availability and affordability of energy through diversification.”</p> <p>Renewable and low carbon energy uses natural sources such as the sun, wind, earth and sea to produce energy, and includes technologies such as photovoltaic panels, wind turbines, solar thermal panels, air or ground source heat pumps, anaerobic digestion plants, and biomass boilers.</p> <p>In South Cambridgeshire (as in the rest of the country) our principal source of energy to heat and power our buildings and businesses is fossil fuels. The vast majority is delivered to us through national grid systems that connect very large centralised plants and their suppliers – electricity from power stations using the national electricity cable grid, and heat from burning gas using</p>

³ Data is taken from the Department for Energy and Climate Change and based on data estimating levels of fuel poverty in 2008:

<http://atlas.cambridgeshire.gov.uk/Housing/FuelPoverty/atlas.html>

the national gas pipeline grid. Other heating fuels (typically oil) also play a big part and are delivered to individual properties via the national road 'grid'. Another area of infrastructure with less direct, but very significant implications, is the national network of petrol stations fuelling how we get around.

Switching to more renewable energy supplies and providing the delivery infrastructure that comes with them, is probably the greatest engineering, plant replacement and related social adjustment challenge of modern times. Fuel supplies for generating renewable energy are very different and require a very different infrastructure. Typically, renewable energy sources such as the sun, wind, earth and sea need to be converted to useable energy and the plant is far more extensive for every kilowatt of energy generated. This produces an infrastructure with a large proportion of often highly visible and dispersed or decentralised low output generators. These energy sources do not have the concentrated 'portability' of oil, coal or gas that allow for a relatively small number of huge centralised power stations that lie at the heart of fossil fuel derived energy infrastructure. Biomass and biogas are the exceptions but lengthy conventional road transportation can remove the benefits. Extending nuclear energy generation and the use of technologies to 'clean-up' fossil fuel fired power stations (such as carbon capture and storage) may have a significant role to play but delivery is probably at least 10-15 years away and we do not have that much time to spare.

The National Planning Policy Framework states that local planning authorities should deliver renewable and low carbon energy in their area by:

- designing planning policies to maximise provision while ensuring adverse impacts (including cumulative landscape and visual impacts) are satisfactorily addressed;
- considering identifying suitable areas for renewable and low carbon energy developments;
- supporting community led initiatives for the generation of renewable and low carbon energy; and
- identifying opportunities where new developments can use decentralised, renewable or low carbon energy supply systems, and where there are opportunities for co-locating potential heat customers and suppliers.

The Council's Climate Change Action Plan 2011-2013 identifies supporting community led renewable and low carbon energy initiatives as a key objective for the district. Planning permission for the first community wind turbine in the district, located on edge of Gamlingay, was granted in April 2012. Through the South Cambridgeshire Sustainable Parish Energy Partnership, the

	<p>Council is encouraging further community renewable energy projects.</p> <p>Renewable and Low Carbon Energy Developments</p> <p>South Cambridgeshire is currently producing a relatively low level of energy from local renewable and low carbon energy sources, compared to neighbouring districts. To help support the achievement of the national target and comply with the principles of the National Planning Policy Framework, the district will need to generate higher levels of renewable and low carbon energy from technologies.</p> <p>The Cambridgeshire Renewables Infrastructure Framework (CRIF, 2012) project sought to identify Cambridgeshire’s capacity to deliver renewably sourced energy and the pathways down which this might be achieved. This took the Government’s adopted national target of a 50% reduction in carbon emissions by 2025 (from a 1990 baseline) and transposed it on to Cambridgeshire where it implied a 43% CO_{2e} reduction between 2010 and 2025 through a combination of energy efficiency improvements, national electricity grid decarbonisation, local renewable energy deployment and transport measures. The Committee on Climate Change’s advice to Government proposes an 18% renewable electricity target and 35% renewable heat target for 2030. Taken together this equates to a 28% overall renewable energy target for Cambridgeshire (excluding transport) by 2030.</p> <p>The CRIF report estimates the theoretical capacity for renewable energy generation if all technically suitable locations were developed and identifies three scenarios which are considered alongside the overall target for Cambridgeshire by 2030. South Cambridgeshire is identified as having the second greatest potential for renewable energy generation in the county, behind Huntingdonshire. The study shows the district has a theoretical potential of providing over 5,000 GWh of renewable energy, however the calculations do not take any account of specific constraints and issues such as impact on landscape, townscape and heritage assets and are very much a maximum capacity across every part of the district.</p> <p>The visual impacts of renewable and low carbon energy generators vary with the scale of the landscape in which they are located. The South Cambridgeshire landscape is relatively fine-grained and includes villages that are particularly distinctive. The settlements occupy a variety of positions – hilltops, valley-sides and along spring lines. Within a predominantly medium to large-scale arable farmland landscape, the incremental historical</p>
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	<p>evolution of our settlements means that their structure often exhibits a complex mix of patterns, including linear, dispersed, nucleated, agglomerated and planned. It is a relatively sparsely occupied but very human-scaled landscape of smaller local settlements. Given the nature of the landscape and townscape of South Cambridgeshire it is not appropriate to identify suitable broad locations for renewable and low carbon energy developments and supporting infrastructure.</p> <p>In February 2011, the Council resolved that “this Council supports seeking energy from renewable resources. However, applications for wind farms (2 turbines or more) cause deep concerns to our residents by nature of their size, scale and noise. This Council believes that a minimum distance of 2 km between a dwelling and a turbine should be set to protect residents from disturbance and visual impact. If the applicant can prove that this is not the case a shorter distance would be considered. This will be addressed during the review of the Local Development Framework.”</p> <p>The Government received comments on its draft National Policy Statements for Energy Infrastructure that argued that a French study and Scottish regulations banned wind farms within 2 km of human habitation. In responding to these comments, the Government stated that these allegations are unfounded and therefore there is no rationale for imposing a ban as suggested⁴. The Government also concluded that such a ban would, for most purposes, be impractical in England as suitable sites are likely to be within 2 km of some form of human habitation.</p> <p>The Government also responded to comments that the standard noise measurement methodology set out in ‘The Assessment and Rating of Noise from Wind Farms’ (ETSU-R-97) was out of date by stating that there is currently no substantive evidence to demonstrate that the fundamental guidelines are unsound, and that they have commissioned a research project to investigate noise impacts from wind farms and establish best practice in assessing and rating wind turbine noise.</p> <p>Torrige District Council (May 2010) and Cherwell District Council (February 2011) have both adopted separation distances between wind turbines and residential properties, however the policy is not included within the development plan and therefore has not been tested by an independent planning inspector. Torrige District Council requires a separation distance of 600 m between a wind</p>
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<http://webarchive.nationalarchives.gov.uk/20110302182042/https://www.energynpsconsultation.decc.gov.uk/docs/GovernmentResponsetoConsultation-October2010.pdf>

	<p>turbine and any residential property, either isolated or part of a settlement. Cherwell District Council requires an indicative minimum separation distance of 800 m between a wind turbine and a residential property. One major planning application for two wind turbines (maximum height 100 m) has been considered by Torrington District Council (1/0311/2011/FULM). The nearest settlements were approximately 2 km and 4 km from the proposed wind turbines. The planning application was refused based on: the proposal creating an adverse visual impact on the character and appearance of the surrounding landscape including an Area of Outstanding Natural Beauty; insufficient information submitted to demonstrate that noise generation will be within the limits set by ETSU-R-97 and that there will be no adverse visual impact on the historic environment; absence of appropriate wildlife surveys; and unacceptable interference with military radars. The application was allowed on appeal as the Planning Inspector concluded that the development would contribute to the Government's commitment to renewable energy generation and would not result in unacceptable harm to the landscape and would not cause unacceptable living conditions. No planning applications for wind turbines have been determined by Cherwell District Council since the adoption of the policy, although some planning applications are pending determination.</p> <p>Milton Keynes Local Plan (Policy D5) requires that wind turbines should be sited at least 350 m from any dwellings. In July 2012, they adopted their Wind Turbines Supplementary Planning Document and Emerging Policy: Wind Turbines Planning Applications document which includes an emerging policy for the borough that requires a minimum separation distance of 350m for turbines of up to 25m, a distance of 1km for turbines of 100m in height, and a prorated distance for heights in between. RWE Npower renewables has launched judicial review proceedings against Milton Keynes Council over the adoption of its Supplementary Planning Document and revised separation distances. A judicial review hearing started in February 2013.</p> <p>Although we have not been able to identify any specific evidence to support 2 km as a minimum separation distance, an option including a separation distance of 2km should be included for consultation to reflect the Council's resolution.</p> <p>In considering proposals for renewable and low carbon energy developments including wind farms, the impact on residential amenity is only one of many material considerations.</p> <p>Supporting effective engagement should ensure that decisions made are as well-informed, evidence-based and timely as</p>
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possible, and that developments permitted reflect an understanding of local interests and opportunities for positive local gain. The Protocol for Public Engagement with Proposed Wind Energy Developments in England (2007) states that a high quality approach to public engagement can be achieved through five key principles:

1. access to information;
2. the opportunity to contribute ideas;
3. the opportunity to take an active part in developing proposals and options;
4. the opportunity to be consulted and make representations on formal proposals; and
5. the opportunity to receive feedback and be informed about progress and outcomes.

To ensure that the Local Plan maximises the generation of renewable and low carbon energy within the district, a criteria based policy could be developed identifying the issues that should be addressed when considering a proposed renewable or low carbon energy development.

Potential for Reasonable Alternatives:

- to develop a criteria based policy seeking to maximise the generation of renewable and low carbon energy and identifying issues that would need to be addressed; or
- to develop a criteria based policy seeking to maximise the generation of renewable and low carbon energy and identifying issues that would need to be addressed, but specifically requiring a separation distance of 2 km between a proposed wind farm (2 or more turbines) and any residential property to protect residents from disturbance and visual impact.

Use of Decentralised Renewable or Low Carbon Energy Supply Systems

Higher density housing schemes (40-120 dwellings per hectare) or groups of commercial buildings are the most appropriate and viable locations for decentralised renewable or low carbon energy supply systems such as district heating systems. The new Local Plan could identify future growth areas or new settlements as potentially suitable locations for the inclusion of renewable or low carbon district heating systems, such as biomass combined heat and power plants.

Experience from considering the North West Cambridge and Northstowe developments supports this assertion. For North West

	<p>Cambridge, studies have indicated that a gas-fired combined heat and power system in combination with micro-generation low carbon or renewable energy technologies for the lower density areas should return a 70% reduction on 'regulated' emissions. For Northstowe, a similar arrangement but using a biomass-fired combined heat and power system could deliver full carbon neutrality.</p> <p>Potential for Reasonable Alternatives:</p> <ul style="list-style-type: none"> • do not include a policy; or • identify future growth areas or new settlements as potentially suitable locations for the inclusion of renewable or low carbon district heating systems.
<p>Which objectives does this issue or policy address?</p>	<p>Objective B: To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the area, and protect and enhance biodiversity.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
<p>Final Issues and Options Approaches</p>	<p>Question 18:</p> <p>A: What approach do you think the Local Plan should take for the generation of renewable and low carbon energy?</p> <p>i. Include a criteria based policy seeking to maximise the generation of renewable and low carbon energy in the district and identifying the issues that would need to be addressed, and this would leave developers to make applications for their preferred areas.</p> <p>ii. Include a criteria based policy as set out in option i, but specifically requiring a separation distance of 2 km between a proposed wind farm (2 or more wind turbines) and any residential property, to protect residents from disturbance and visual impact. If the applicant can prove this is not the case a shorter distance will be considered.</p> <p>B: Should the Local Plan identify future growth areas and new settlements as potentially suitable locations for the inclusion of renewable or low carbon district heating systems?</p> <p>C: What type of renewable and low carbon energy sources should the Local Plan consider and at what scale?</p> <p>Please provide any comments.</p>

<p>Initial Sustainability Appraisal Summary</p>	<p>Both options seek to maximise the generation of renewable and low carbon energy in the district, contributing to the climate change mitigation objective, whilst seeking environmental protection, and therefore contributing to a range of other objectives. The criteria proposed includes impact on high grade agricultural land, and has therefore been scored as a positive impact, although given limited amount of previously developed land available in the district, if renewable energy is to be maximised, it could require use of greenfield land. The key difference is the 2km separation distance for wind farms (Aii). This could apply a greater level of protection to residential amenity and the built environment, but it could also rule out larger areas of the district from being suitable for wind farms. As the Cambridgeshire Renewable Infrastructure Framework identified wind as a major source of renewable energy in the district, it could impact on the ability to achieve the highest levels of renewable energy.</p> <p>Identification of future growth areas and new settlements as potentially suitable locations for the inclusion of renewable or low carbon district heating systems (B) could support delivery of renewable energy. Actual scale of impact would depend on implementation, and the opportunities created by the particular package of sites identified, but there is potential for significant positive impact on the climate change mitigation objective. Impact on air quality has been identified as uncertain, as it would depend on the form of renewable energy, and implementation. Impact biomass on air quality would need to be considered and managed. Some types of combined heat and power could reuse waste streams, and therefore have potential to support the re-use of waste. Supporting renewable energy also relates to the clean-tech sector, a developing cluster in the area, so there could be a positive impact on economic objectives.</p>
<p>Representations Received</p>	<p>A i: Support: 18, Object: 1, Comment: 5 ii: Support: 19, Object: 9, Comment: 4 Please provide any comments: Support: 0, Object: 2, Comment: 9</p> <p>B: Support: 27, Object: 3, Comment: 9</p> <p>C: Support: 11, Object: 0, Comment: 30</p>
<p>Key Issues from Representations</p>	<p>Question 18A</p> <p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • Renewable UK: the policy and criteria should identify the benefits as well as the matters that need to be addressed. • SCDC should do much more to support and maximise renewable energy generation and ensure development is as sustainable as possible, but this needs to be balanced

	<p>with the potential adverse impacts.</p> <ul style="list-style-type: none"> • A minimum separation distance would be too restrictive and to refuse planning permission simply because it is a wind turbine would be unacceptable. • No justifiable or scientific basis for a separation distance and the UK Government has rejected the idea. 2 km is an arbitrary distance and would probably exclude most, if not all, sites. • Wind turbines should be considered on a case by case basis against a list of criteria – there must not be artificial restrictions imposed and the criteria should not be so onerous that development is curtailed. • Proposals should be assessed based on need, the site and its surroundings, the scale of the turbines proposed, the potential for disturbance, local opinion, prevailing wind direction, type of landscape and whether there are other prominent features, and energy security. • Option i is supported by 4 Parish Councils and option ii is supported by 12 Parish Councils. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Object to the get out clause 'if the applicant can prove this is not the case a shorter distance will be considered'. • It is up to local residents to state the preferred areas not the developers and 2km is not far enough. • A separation distance should be applied to single turbines as well as groups. <p>COMMENTS:</p> <ul style="list-style-type: none"> • Cambridgeshire County Council: should identify broad locations for alternative energy generation. <p>Question 18B</p> <p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • This is a rare opportunity to build in infrastructure from the start and it should act as a catalyst for retrofitting existing communities. • Larger developments have the required density to benefit from the installation of larger scale renewable energy and heat generation systems. • A minimum size of development for this requirement should be defined. • Perhaps emphasis should be focussed on commercial developments such as retail and industrial uses where there are large roof areas for extensive arrays of solar panels. • Supported by 10 Parish Councils.
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	<p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Renewable UK: object as in the majority of cases identifying broad locations has been unsuccessful and problematic; therefore if this process is used clear methodology and criteria must be developed. • Reference to one specific type of energy infrastructure is unnecessary. Energy efficiency, energy generation and carbon reduction should be considered and evaluated in all proposals. <p>COMMENTS:</p> <ul style="list-style-type: none"> • Growth areas and new settlements already have many constraints, to identify them as sites for renewable or low carbon district heating systems could inhibit development altogether. • District heating systems seem to have many problems and the development has to be built around it, something more flexible would be better. • The Local Plan should not limit renewable energy projects to only these areas. <p>Question 18C</p> <p>COMMENTS:</p> <ul style="list-style-type: none"> • SCDC has a responsibility to support all appropriate forms of renewable energy technologies and the Local Plan should consider all possible options including solar panels, wind turbines, biomass technologies, waste straw power stations, and ground and air source heating systems. It is not necessary for the Local Plan to comment on the appropriateness of any renewable energy technologies. • The most suitable option for a development will depend on the location and the individual site characteristics. • Emphasis should be on energy saving rather than production. More constructive to require all buildings to be properly insulated and include efficient water and space heating systems. Additional support should be given to householders wishing to improve their insulation or energy efficiency. • SCDC should consider subscribing to a national nuclear power scheme. • Most of the district may not be appropriate for wind farms and therefore it would be appropriate to identify broad locations of acceptability. • No development should be permitted unless it includes provisions to generate enough energy to meet the needs of the development. • Any technologies used must be fit for purpose and not an
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	<p>eyesore within the development and / or on the surrounding areas.</p> <ul style="list-style-type: none"> • Wind turbines should not be allowed due to their adverse impacts on the landscape. • Policies that identify specific technologies are not appropriate as within 20 years there will be changes and advances in technologies.
<p>Preferred Approach and Reasons</p>	<p>Question 18A Include a criteria based policy identifying issues that would need to be addressed as listed in Question 18, such as impact on heritage, natural assets, agricultural land and nearby residents.</p> <p>General agreement that the Local Plan should include a criteria based policy seeking to maximise the generation of renewable and low carbon energy in the district and identifying the issues that would need to be addressed.</p> <p>There is support from Members, Parish Councils and local residents for the policy to include a separation distance between a wind farm and any dwelling to ensure that local residents are protected from disturbance and visual impact. To protect the amenity of local residents from unacceptable adverse effects, the policy includes the Council's resolution on wind farms as one of the criteria that must be considered in discussions relating to proposals for wind turbines.</p> <p>In response to specific issues raised:</p> <ul style="list-style-type: none"> • Given the nature of the landscape and townscape of the district it is not appropriate to identify broad locations for renewable and low carbon energy developments and supporting infrastructure in the Local Plan. <p>Question 18B Include as part of the policy for renewable and low carbon energy in new developments a requirement that growth areas and new settlements maximise onsite generation from these sources, but without specifying the type of technology to be used.</p> <p>General support that growth areas and new developments should be identified as locations for the inclusion of renewable and low carbon energy technologies. However, the comments received have highlighted that there should be more flexibility in the type of technologies provided rather than specifically identifying district heating systems.</p> <p>Question 18C Include a criteria based policy identifying issues that would need to be addressed as listed in Question 18, such as impact on</p>

	<p>heritage, natural assets, agricultural land and nearby residents.</p> <p>General support for all types of renewable and low carbon technologies, although there are objections to the Local Plan considering wind turbines.</p> <p>In response to specific issues raised:</p> <ul style="list-style-type: none"> • Requirements for micro-generation of renewable and low carbon energy within new developments and ensuring that new buildings are energy efficient are set out in the Local Plan in other policies within the Climate Change chapter. • Support for householders wishing to improve the energy efficiency of their home is provided through the Green Deal, which was launched by the Government in January 2013. This scheme allows homeowners to pay for improvements to the energy efficiency of their home through their electricity bill. • The policies included in the climate change chapter of the Local Plan allow flexibility on the technologies that can be used to ensure that they are appropriate for the lifetime of the Local Plan.
Policy included in the draft Local Plan?	<p>Policy CC/2: Renewable and Low Carbon Energy Generation</p> <p>Policy CC/3: Renewable and Low Carbon Energy in New Developments</p>
<p>Policy CC/2: Renewable and Low Carbon Energy Generation (and paragraphs 4.13 – 4.15)</p>	
Proposed Submission Representations Received	<p>Total: 21</p> <p>Support: 6 (including 1 from Parish Council (PC))</p> <p>Object: 15 (including 1 from PC)</p>
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Natural England – welcomes chapter and policies encouraging renewable and low carbon energy development. • English Heritage – supports protection given to heritage assets and their settings. • Oakington and Westwick PC – support bullet point 2. • Good effort as leaves door open to application for two or more wind turbines less than 2km from dwellings. Any modification to make planning approval more restrictive should be resisted. • Proof for a shorter separation distance must be stringent. <p>Object</p> <ul style="list-style-type: none"> • Cambridge Past, Present and Future – policy too weak in relation to community consultation. Propose change to (d) to read: “Developers have consulted effectively with the local

	<p>community and can demonstrate that they have responded positively by amending the proposed development appropriately.”</p> <ul style="list-style-type: none"> • Chancellor, Masters and Scholars of University of Cambridge – should allow renewable and low carbon generation as an off-site (allowable) solution with direct connection to associated development or community projects. Amend policy to: “b. The development can be connected efficiently to existing national energy infrastructure, or by direct connection to associated development or community project, or for onsite needs.” • Defence Infrastructure Organisation – concerns over implementation of biomass, solar heating, photovoltaic cells and wind turbines due to potential impacts on air traffic operations. Understand requirement to implement carbon neutral facilities to tackle climate change, therefore MOD wish to be consulted during the planning consultation process. • Engena Limited, Gamlingay Community Turbine, RES Group (UK and Ireland) and Gamlingay Environmental Action Group – no scientific or justifiable basis to implement arbitrary 2km separation distance. Contradicts NPPF. Planning Practice Guidance for renewable and low carbon energy (July 2013) rules out local government policies setting separation distances of this sort. Likely to prevent developments - would significantly constrain potential land available. Environmental Impact Assessments establish whether significant effects are likely and if so, acceptable. • RES Group (UK and Ireland) – decisions on decommissioning need to be made at end of project life having regard to circumstances at the time. • Home Builders Federation – policy too prescriptive, not consistent with proposed changes in Building Regulations and definition of Allowable Solutions. Delete 1(b). • Bourn PC – in favour of renewable energy generation as long as it does not lead to cumulative adverse impact on landscape. Add a criteria on the loss of high quality agricultural land. • The policy is too weak and does not give adequate protection to local communities from inappropriately sited developments. New wind farms should only be approved when the actual energy supply justifies the disruption and impact on local communities and the landscape. Amend policy and add an additional criteria: “Planning permission ... will be approved only when the development: a. can demonstrate that the actual amount of energy provided, as opposed to the theoretical maximum supply, justifies the impact of the development on local communities and on the landscape; ...” • Policy should be technology agnostic. Important not to be prescriptive, but ensure flexibility that enables greater use of
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	<p>allowable solutions to ensure that robust and secure energy generation is available to residents. Amend policy to seek detailed assessment of development proposals on a scheme by scheme basis, with decisions undertaken based upon the feasibility and viability of each development meeting nationally adopted standards – and not extended local standards.</p> <ul style="list-style-type: none"> • Not robust enough – default should be approval of renewable energy generation both large and small scale unless a very strong case can be made against it. • ‘Provision’ should include full cost allowance for decommissioning. Amend policy to: “c. Provision is made in the business plan that supports the proposed development for the full cost of decommissioning once the operation has ceased with the removal of all facilities and the restoration of the site, including a clear statement as to how the funds for the decommissioning are to be set aside during the productive life of the facility.” • Wind turbines are extremely inefficient and expensive ways of generating energy – completely unnecessary whilst creating audible and visual nightmare. Refuse all planning permissions for wind turbines.
Assessment	<p>The National Planning Policy Framework states that local planning authorities should deliver renewable and low carbon energy in their area by designing policies to maximise provision while ensuring adverse impacts are satisfactorily addressed. Policy CC/2 does this by stating that planning permission will be permitted provided that the development does not have unacceptable adverse impacts on heritage assets, natural assets, the landscape or the amenity of nearby residents. It also requires that the energy generated is used efficiently, provision is made for decommissioning, and that the local community have been engaged effectively. The Council’s adopted planning policy for renewable energy, included in the Development Control Policies DPD, has been revised to reflect the guidance in the National Planning Policy Framework.</p> <p>Agricultural land could be considered to be a natural asset and therefore the policy already protects it from unacceptable adverse impacts. Agricultural land is also protected under Policy NH/3. This policy therefore does not need to specifically mention the protection of agricultural land.</p> <p>To protect the amenity of local residents from unacceptable adverse effects, the policy includes the Council’s resolution on wind farms as one of the criteria that must be considered in discussions relating to proposals for wind turbines. However, the policy allows for a shorter distance to be considered if the applicant can prove that the proposal will not adversely affect local residents.</p>

	<p>The policy requires developers to engage with the local community and local authority in an effective way. It is not appropriate to require developers to demonstrate that they have responded positively to the comments received by amending the proposed development. However, developers should consult with local communities in a meaningful way, consider the comments received, and where appropriate amend their proposal. As part of the supporting documentation submitted with any planning application, the Council would expect the developer to demonstrate how their proposal has met the criteria outlined in the policy, including considering the comments received from the community or the local authority prior to the submission of the planning application.</p> <p>It is important that plans for decommissioning are made when the proposal is being considered to ensure that once the operation has ceased the redundant facilities are removed and the site is restored within an agreed timescale. The National Policy Statement for Renewable Energy Infrastructure (July 2011)⁵ requires that the Infrastructure Planning Commission includes a condition on any consent for on-shore wind farms to secure the decommissioning of the generating station after the expiration of its permitted operation to ensure that inoperative plant is removed (see paragraph 2.7.16). Planning practice guidance for renewable and low carbon energy (July 2013)⁶ states that local planning authorities should consider using planning conditions to ensure that redundant turbines are removed when no longer in use and land is restored to an appropriate use (see paragraph 45). The Local Plan is therefore consistent with this guidance by requiring in the policy that provision is made for decommissioning once the operation has ceased.</p> <p>The National Planning Practice Guidance sets out the statutory consultees for planning and heritage applications and also non-statutory consultees that are identified in national planning policy or guidance⁷. The Ministry of Defence (MOD) is listed as a non-statutory consultee and the requirements for when it should be consulted are</p>
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⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37048/1940-nps-renewable-energy-en3.pdf

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225689/Planning_Practice_Guidance_for_Renewable_and_Low_Carbon_Energy.pdf

⁷ <http://planningguidance.planningportal.gov.uk/blog/guidance/consultation-and-pre-decision-matters/table-1-statutory-publicity-requirements-for-planning-and-heritage-applications/>

	set out in 'Planning practice guidance for renewable and low carbon energy' (July 2013) ⁸ . It is not appropriate for new consultation requirements to be specified in the Local Plan; however new local consultation requirements for wind farms, solar farms and biomass proposals can be implemented with agreement of the Council by contacting the Development Control Manager.
Approach in Submission Local Plan	No change

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225689/Planning_Practice_Guidance_for_Renewable_and_Low_Carbon_Energy.pdf

Draft Final Sustainability Appraisal (March 2014)
Annex A – Audit Trail

Policy CC/3: Renewable and Low Carbon Energy in New Developments

Note: For audit trail up to Proposed Submission Local Plan see also audit trail for Policy CC/2: Renewable and Low Carbon Energy Generation

Issues and Options 2012 Issue 19	Renewables in New Developments
Key evidence	Review of Merton Rule-style Policies in four Local Planning Authorities in Cambridgeshire (2012)
Existing policies	Development Control Policies DPD: Policy NE/3 Renewable Energy Technologies in New Development
Analysis	<p>New developments, such as housing, employment and community uses, can generate their own renewable energy by incorporating micro-generation of renewable and low carbon energy into their design. This will also contribute to the achievement of national renewable energy targets.</p> <p>The Council's existing planning policy requires all development proposals of greater than 1,000 sqm or 10 dwellings to include renewable energy technologies that will provide at least 10% of their predicted energy requirements. Alongside supporting national targets for renewable energy generation, this 'Merton style' policy also plays an important role in delivering:</p> <ol style="list-style-type: none"> i. onsite carbon reduction levels beyond those achieved through building fabric and construction measures; ii. renewable energy as an increasingly standard response to concerns over rising 'grid-supplied' energy prices and security of supply; and iii. a strengthened supply chain (ideally locally) for the installation, service and maintenance of renewable energy technologies (providing a local economic benefit). <p>The District Design Guide SPD provides guidance on the methodology that should be used to calculate the carbon emissions generated by the building and the required amount of renewable energy required to meet the 10% requirement. It is important that the new Local Plan clearly sets out the methodology used to calculate the target to ensure that it is measured in terms of CO₂ emissions and also to ensure that it incorporates both 'regulated' and 'unregulated' carbon emissions.</p> <p>The progressive implementation of the Government's zero carbon building policy also has implications for the relevance of 'Merton style' policies. It is likely that at least until the policy is fully implemented for homes and public buildings from 2016 and for all other buildings from 2019, that it may well be possible to meet the</p>

	<p>Building Regulations standards for carbon reduction without the need to include technologies that generate low carbon or renewable energy. It is also recognised that a renewable energy policy will most likely be made redundant as the zero carbon requirement is implemented as applicants will almost certainly need to include onsite renewable energy technologies to meet the carbon compliance levels that will come with these new regulations, and there maybe value in going beyond this level to negate the need for what may, in certain situations, be more expensive ‘allowable solutions’ options. The tightening of the Building Regulations will already put some additional pressure, at least initially, on build costs.</p> <p>Heating demands are likely to reduce in future through continued improvements to the energy efficiency and air tightness of buildings, however electricity demands are likely to increase as we become more reliant on electrical devices and there will still be a demand for hot water. It must also be remembered that the nature of occupation has significant implications on the balance between the need for hot water and electricity – especially between non-domestic and domestic purposes – and it is therefore important that any onsite renewable energy policy is going to work well for the building occupier whilst both readily contributing to carbon reduction and being technically and economically viable.</p> <p>An evidence base study on the effectiveness of the Council’s existing planning policy for onsite renewable and low carbon energy generation has recognised the value and effectiveness of the existing policy but has also highlighted assessment, enforcement and monitoring concerns and inconsistency in delivery of the policy (in terms of securing the greatest benefit for building occupiers and owners). As a possible alternative to the existing policy, the study has suggested that all new dwellings and all buildings of 1,000 sqm or more should be required to install either solar thermal panels (which provide hot water) or photovoltaic panels (which generate electricity).</p> <p>Prioritisation of ‘solar’ technologies has been suggested as these are tried, tested and low maintenance technologies that if correctly installed continue operating without user intervention. Given the nature of ‘solar’ technologies, it is not reasonable to require more than 10% of a building’s predicted energy requirements to be provided from renewable energy technologies. To achieve more than 10% of a buildings predicted energy requirements from renewable energy would require a combination of ‘solar’ and non-‘solar’ sources.</p>
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	<p>This does not exclude the use of other technologies such as biomass boilers, heat pumps, wind turbines and micro-combined heat and power units but helps to simplify the delivery of the policy, as in the great majority of cases, ‘solar’ technologies will provide simple, straightforward and good-value onsite renewable energy options. The balance between the need for, and delivery of, hot water and electricity will vary depending on the occupiers of the building and most significantly between domestic (which favours the renewable generation of hot water) and non-domestic (which favours the generation of renewable electricity). This bias also aligns well with typical roof-space availability as solar hot water panels take up less roof space than solar photovoltaic panels for electricity to deliver comparable relative returns.</p> <p>Other benefits of a ‘solar’ first approach are that by simplifying the policy requirements to two very specific and dependable technologies applicants will not necessarily need to incur the expense of onsite renewable energy assessments, and the policy would also allow applicants to consider the inclusion of renewable energy technologies early in the design process therefore ensure orientation and layout of roof-space provision is suitable.</p> <p>The study also suggests that for landlord estates, such as universities or research institutes, the installation of a site wide renewable energy solution would deliver higher carbon savings for a lower cost. This could involve a full range of renewable energy technologies including an onsite biomass combined heat and power district heating system.</p> <p>Discussions at the Local Plan workshops in March and April 2012 and at the Council’s Climate Change Working Group in May 2012 suggested that the percentage requirement for the generation of renewable energy should be reviewed to ensure that it is appropriate and sufficient.</p> <p>Potential for Reasonable Alternatives:</p> <ul style="list-style-type: none"> • do not include a policy; • revised policy requiring all new developments to provide onsite renewable energy and specifying the percentage of a building’s predicted energy requirements to be provided from renewable energy sources; or • revised policy setting a site size threshold for the provision of onsite renewable energy and specifying the percentage of a building’s predicted energy requirements to be provided from renewable energy sources.
<p>Which objectives does this issue or policy address?</p>	<p>Objective B: To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the</p>

	<p>area, and protect and enhance biodiversity.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
Final Issues and Options Approaches	<p>Question 19: To what extent should new development provide for onsite renewable energy generation?</p> <p>i. All new developments should be required to provide onsite renewable energy? If so, should 10%, 15% or 20% equivalent provision be required?</p> <p>ii. Small scale developments of less than 5 dwellings or less than 500 m² of non-residential floor space should be exempt?</p> <p>iii. No requirements for renewable energy generation should be made.</p> <p>Please provide any comments.</p>
Initial Sustainability Appraisal Summary	<p>Seeking 10% or more on-site renewables (option i) has the potential to contribute significantly to the climate change objective given the scale of development options proposed. Given the majority of development is likely to come from larger sites, applying a size threshold (option ii) would reduce the overall scale of renewables achieved, but across the district it would still be significant. Uncertainty has been identified in the townscape and landscape and historic environment objective, due to the visual impact, but other options, such as securing good design would mitigate this. The evidence base suggests that going beyond 10% would require technologies in addition to solar water heating, and could cause issues regarding viability, which could impact on the delivery of housing objective. Not including a policy (option iii) would not secure these benefits.</p>
Representations Received	<p>i: Support: 33, Object: 1, Comment: 8 ii: Support: 5, Object: 7, Comment: 3 iii: Support: 11, Object: 8, Comment: 0 Please provide any comments: Support: 0, Object: 1, Comment: 15</p>
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> Renewable energy technologies should be considered in all new developments, but each scheme will need to be considered on its own merits. The target should consider the long term and be reviewed regularly to take account of technological changes. Should consider setting the target based on the level of energy

	<p>use or what is practical and viable.</p> <ul style="list-style-type: none"> • The cost of including these technologies in new developments is much lower than retrofitting existing properties. • Cambridgeshire County Council: should require no more than 10% of an individual building's energy requirements to be provided from these technologies; however site wide solutions could deliver more than 10%. • New dwellings should be required to have solar thermal panels and photovoltaic panels included as part of their design. • Wellcome Trust: recognition should be given for site wide renewable energy strategies as this would enable the most effective measures to deliver carbon savings are used. • All developments have a moral obligation to tackle climate change and need to maximise benefits for individual households. Developers should be incentivised. • Encourage but do not make it a requirement / mandatory. • Option i is supported by 11 Parish Councils and option iii is supported by 3 Parish Councils. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • University of Cambridge: policy should focus on carbon reduction rather than provision of on-site renewables. <p>COMMENTS:</p> <ul style="list-style-type: none"> • All the objections to option ii state that smaller developments should not be exempt. However, a lower target may be more appropriate as there are more physical constraints. • The planning system does not need to deal with this issue as the Government has already set a challenging timetable for delivering zero carbon homes through changes to Building Regulations. • An exemption should only be allowed if it can be proven that the provision of renewable energy is technically impossible.
<p>Preferred Approach and Reasons</p>	<p>In accordance within the recommendations included in the evidence base study include a policy requiring: all new dwellings to meet a minimum of 10% of their total emissions using renewable technologies; and all new non-residential buildings of 1,000 sqm or more to reduce their emissions of carbon dioxide by 10% through the installation of renewable technologies, and allowing the use of site wide renewable or low carbon energy solutions involving the installation of a system that is not integrated within the new building.</p> <p>Majority of respondents to this question supported the</p>

	<p>continuation of a policy seeking onsite renewable energy, although there was no general consensus on the target percentage that should be required. Support for site wide solutions, as these can deliver more effective solutions to reducing carbon emissions.</p> <p>The Council's evidence base document (Review of Merton Rule-style Policies in four Local Planning Authorities in Cambridgeshire) demonstrates that 10% remains an achievable and reasonable target.</p> <p>In response to specific issues raised:</p> <ul style="list-style-type: none"> Over time changes to Building Regulations will require the inclusion of renewable and low carbon energy technologies in all new developments; however the initial changes to require all developments to be zero carbon are likely to be achievable without the use of renewable and low carbon energy technologies.
Policy included in the draft Local Plan?	Policy CC/3: Renewable and Low Carbon Energy in New Developments
Policy CC/3: Renewable and Low Carbon Energy in New Developments (and paragraphs 4.16 – 4.17)	
Proposed Submission Representations Received	<p>Total: 20</p> <p>Support: 3 (including 2 from Parish Council (PC))</p> <p>Object: 17 (including 4 from PC)</p>
Main Issues	<p>Support</p> <ul style="list-style-type: none"> Natural England - welcomes chapter and policies encouraging renewable and low carbon energy development. Oakington and Westwick PC – support bullet point 3. <p>Object</p> <ul style="list-style-type: none"> Chancellor, Masters and Scholars of University of Cambridge – not consistent with Cambridge Local Plan which proposes change away from Merton-style policy to minimum standards. University supports in principle City's change in approach. Policy should be amended to be consistent with City. Defence Infrastructure Organisation - concerns over implementation of biomass, solar heating, photovoltaic cells and wind turbines due to potential impacts on air traffic operations. Understand requirement to implement carbon neutral facilities to tackle climate change, therefore MOD wish

	<p>to be consulted during the planning consultation process.</p> <ul style="list-style-type: none"> • Home Builders Federation – inconsistent with national policy and planned changes to Building Regulations. How developers meet these is a matter for them to decide. Delete policy. • Bourn PC – in favour of renewable energy generation becoming integral part of all new developments – scale should be decided on site by site basis rather than a specific policy. Should include criteria concerning standards of insulation. • Caldecote and Cambourne PCs – in light of NPPF, reduction in carbon emissions should be set at 20%. • Oakington and Westwick PC – larger scale development should have zero carbon standard (Code for Sustainable Homes Level 5). • Requirement to reduce emissions by 10% compared to Building Regulations is unworkable and not viable. To achieve only through on-site technologies is too restrictive. Policy inconsistent with energy hierarchy. Amend policy to delete reference to 10% reduction, and replace with reference to 'energy hierarchy' that also includes fabric efficiency and allowable solutions to ensure compatibility with evolving national policy. Also amend bullet point 3 to allow use of a range of technologies including on-site generation, subject to technical and economic viability. • Inconsistent with requirements in Northstowe AAP and DFD. Clarity is required in Council's intentions on whether policies in Local Plan will supersede those in older policies in AAP and DFD. • Approach is out of step with Government policy. Should be for industry to determine how best to comply with Building Regulations. Site wide solutions only work in city centres or metropolitan areas. • Policy is an unreasonable burden on development that is not justified by national policy. Housing Standards Review states that Government 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 of new homes should come from onsite renewables. • Need for flexibility is paramount as technology is moving rapidly and not all development will be able to achieve 10% having regard to site circumstances and financial viability. Amend bullet point 1 of policy to: "Proposals ... will be required wherever possible to reduce carbon emissions (over the requirements set by Building Regulations) by a minimum of 10% through the use of on-site renewable energy technology, unless evidence is presented to demonstrate in any individual
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	<p>case that this is not feasible."</p> <ul style="list-style-type: none"> • Appreciate that it is preferential for renewable energy technologies to be accommodated on site, however policy does not allow for offsite solutions that may be more appropriate in some cases. Need more flexibility in policy. Add an additional sentence to end of bullet point 1: "Where an on-site solution is not considered feasible an off-site solution may be considered more appropriate."
Assessment	<p>The National Planning Policy Framework states that to increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. The NPPF also recognises that small-scale projects provide a valuable contribution to cutting greenhouse gas emissions.</p> <p>The Council's adopted planning policy on renewable energy technologies in new developments (included in the Development Control Policies DPD where it was found sound through the examination) has been updated to take account of the recommendations in the Council's evidence base document (Review of Merton Rule-style policies in four Local Planning Authorities in Cambridgeshire, June 2012).</p> <p>The study states that there is a strong case to be made for retaining Merton rule-style policies in the run up to the zero carbon standard being introduced, especially as the reasons for encouraging renewable energy capacity have increased e.g. energy security, fuel poverty, reduction in carbon emissions. The study recommends a revised technology specific policy but demonstrates that 10% remains an achievable and reasonable target for South Cambridgeshire. Based on the recommendations in the study and having considered a range of options and their associated representations, the Council has chosen to take a different approach to that taken by Cambridge City Council. The South Cambridgeshire approach is to:</p> <ul style="list-style-type: none"> • include a Merton rule-style policy requiring new developments to generate a proportion of their energy required from onsite renewable or low carbon sources in the Local Plan; and • rely on planned changes to Building Regulations to progressively improve the energy efficiency requirements of new homes. Building Regulations also set out requirements for insulation. <p>The Local Plan in the strategic site allocation policies (see Chapter 3) requires Waterbeach New Town, Bourn Airfield New Village and Cambourne West to exceed the minimum sustainable</p>

	<p>design and construction standards set out in the climate change chapter of the Local Plan.</p> <p>The policy refers to site wide solutions, and gives renewable and low carbon district heating systems as an example. These are not the only site wide solutions and alternative site wide solutions would be considered by the Council.</p> <p>The National Planning Policy Framework states (in paragraph 96) that in determining planning applications, local planning authorities should expect new development to comply with adopted Local Plan policies unless it can be demonstrated that this is not feasible or viable. Additionally, evidence demonstrating that a policy would make a proposal not viable would be a material planning consideration when determining an application. It is therefore not necessary for this specific policy to include wording on viability.</p> <p>The Government is currently considering the responses to its consultation document: 'Housing Standards Review' (August 2013) and has not yet made any final decisions. The Council considers that its evidence base document justifies the inclusion of this policy.</p> <p>The National Planning Practice Guidance sets out the statutory consultees for planning and heritage applications and also non-statutory consultees that are identified in national planning policy or guidance⁹. The Ministry of Defence (MOD) is listed as a non-statutory consultee and the requirements for when it should be consulted are set out in 'Planning practice guidance for renewable and low carbon energy' (July 2013)¹⁰. It is not appropriate for new consultation requirements to be specified in the Local Plan; however new local consultation requirements for wind farms, solar farms and biomass proposals can be implemented with agreement of the Council by contacting the Development Control Manager.</p> <p>Clarity has been sought by the Homes and Community Agency as to the role the existing policies in AAPs have as opposed to the new renewable energy policies in the Local Plan. The Northstowe AAP remains part of the statutory development plan for South Cambridgeshire alongside the Local Plan. The Proposed</p>
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⁹ <http://planningguidance.planningportal.gov.uk/blog/guidance/consultation-and-pre-decision-matters/table-1-statutory-publicity-requirements-for-planning-and-heritage-applications/>

¹⁰

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225689/Planning_Practice_Guidance_for_Renewable_and_Low_Carbon_Energy.pdf

	Submission Local Plan clarifies at Appendix B that only Policy NS/3 (1g) is superseded by the Local Plan. The Local Plan will include more recently adopted policies and the Council will weigh the appropriate weight to give to individual policies in both plans in determining any applications for Northstowe.
Approach in Submission Local Plan	No change

Policy CC/4: Sustainable Design and Construction

Issues and Options 2012 Issue 21	Sustainable Design and Construction
Key evidence	
Existing policies	Development Control Policies DPD: Policy NE/1 Energy Efficiency
Analysis	<p>The National Planning Policy Framework states that planning should support the transition to a low carbon future in a changing climate, and to achieve this should seek ways to radically reduce greenhouse gas emissions, actively support energy efficiency improvements and use nationally described standards when setting any local requirements for a building's sustainability.</p> <p>To secure the reductions in greenhouse gas emissions required and to support the mitigation and adaptation to climate change, the Council could consider requiring buildings to be of a higher standard of design and construction than the national Building Regulations. The design of new buildings, including their orientation internal layout, and shading from adjacent buildings and vegetation, has a significant influence on the energy efficiency of the building. The fabric of a building also influences energy as high performance materials and construction methods can minimise energy, heat and carbon loss.</p> <p>The Code for Sustainable Homes and the Building Research Establishment Environmental Assessment Method (BREEAM) standard for non-residential buildings are nationally recognised standards for measuring the sustainability of buildings. Both standards require highly energy efficient buildings, but also assess wider sustainability considerations such as water use, waste and recycling, pollution, health and wellbeing, and construction materials. The additional considerations are not covered by Building Regulations but are integral to a holistic approach to sustainable development.</p> <p>The Code for Sustainable Homes allows any new dwelling to be scored against nine categories to calculate its overall sustainability performance, from Level 1 to 6. Level 6 is the highest rating and dwellings meeting this standard are seen to be exemplar dwellings as the building must be zero carbon. The BREEAM standard allows any new or refurbished non-residential building, including schools, offices, and hospitals, to be scored against ten categories to calculate its overall sustainability performance, from 'pass' to 'outstanding'.</p> <p>From April 2008, all new social houses are already required to achieve the complete Code for Sustainable Homes Level 3, and from</p>

<p>2010, all new dwellings were required to meet the equivalent of the Level 3 energy use requirement under Building Regulations.</p> <p>The Government has suggested that the Code for Sustainable Homes is due for revision to bring it up to date with the current policy background, including the zero carbon homes policy.</p> <p>Existing Local Development Framework policies have set specific requirements for the Code for Sustainable Homes in some locations, including:</p> <ul style="list-style-type: none"> • Code for Sustainable Homes Level 4 for any dwellings approved on or before 31 March 2013 (up to a maximum of 50 dwellings) and Level 5 for any dwellings approved on or after 1 April 2013 within the North West Cambridge Area Action Plan area; and • Code for Sustainable Homes Level 6 (or Level 5 in specific circumstances) for all new dwellings within the Fen Drayton Former Land Settlement Association Estate, involving the reuse or redevelopment of former agricultural buildings. <p>There are cost implications of achieving the higher levels of the Code for Sustainable Homes and BREEAM non-residential standard. These additional costs on the development could have implications for viability and also on the provision of infrastructure such as affordable housing, educational facilities, community facilities, and public open space, or a financial contribution towards off-site provision of such infrastructure.</p> <p>The Government's cost review of achieving the different levels of the Code for Sustainable Homes estimates the additional costs per dwelling for various house types (from a 2 bed flat to a 4 bed detached house) in various locations (from a small brownfield site of 10 dwellings to a strategic greenfield site of 2,000 dwellings). The costs for a 3 bed semi-detached house are¹¹:</p>					
		Level 3	Level 4	Level 5	Level 6
Date of change to energy efficiency requirements of building regulations		Now	2013	2016	
Small Brownfield (20 dwellings at 40 dph)	Energy	£120	£3,393	£12,673	£27,393
	TOTAL *	£1,160	£4,583	£19,998	£34,718
Edge of	Energy	£120	£3,393	£13,523	£28,388

¹¹ <http://www.communities.gov.uk/documents/planningandbuilding/pdf/1972728.pdf>

	Town (100 dwellings at 40 dph)	TOTAL *	£1,588	£5,361	£21,326	£36,191
	Strategic Greenfield (2,000 dwellings at 40 dph)	Energy	£120	£3,393	£13,523	£28,388
		TOTAL *	£1,571	£5,344	£21,309	£36,174
	<p>* These figures include the costs set out in Issue 24 necessary to achieve the water efficiency requirements.</p> <p>It should be noted that energy efficiency standards in Building Regulations are planned to increase over the next few years, bringing them in line with higher levels of the Code for Sustainable Homes.</p> <p>Although the Council is seeking Code for Sustainable Homes Level 6 for new dwellings within the Fen Drayton former Land Settlement Association estate, a requirement to achieve Level 6 in other locations within the district is not currently deemed a viable option.</p> <p>The Local Plan could require minimum levels of the Code for Sustainable Homes and the BREEAM non-residential standard to be achieved by all new developments.</p> <p>Higher standards could be set for specific types or sizes of development and flexibility could be written into the policy to enable the standards chosen to be increased over time.</p> <p>Potential for Reasonable Alternatives:</p> <ul style="list-style-type: none"> do not include a policy and rely on national Building Regulations standards for energy efficiency; require all new buildings to achieve sustainable building standards, such as Code for Sustainable Homes Level 4 and BREEAM non-residential 'very good'; or require new larger scale major developments (200 dwellings or more) to achieve zero carbon standards (Code for Sustainable Homes Level 5). 					
Which objectives does this issue or policy address?	Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.					
Final Issues and Options Approaches	<p>Question 21: What sustainable building standards should be required in new developments?</p> <p>i. Developments would only have to comply with Building Regulations requirements for energy efficiency.</p>					

	<p>ii. All new buildings would comply with sustainable building standards. If so, should all new dwellings meet at least Code for Sustainable Homes Level 4, and all non-residential schemes meet at least the BREEAM 'very good' standard?</p> <p>iii. The zero carbon standard (Code for Sustainable Homes Level 5) would be required in larger scale developments?</p>
Initial Sustainability Appraisal Summary	<p>The Code for Sustainable Homes and the BREEAM standard for non-domestic buildings set a range of requirements for the standard of development. The most significant differentiation of higher levels of the Code is higher standards for water and energy efficiency. Higher levels of the Code set more stringent standards, but also result in higher development costs, this uncertainty of the impact on developments is reflected against the housing and economy objectives. The impact of high Code levels may be particularly apparent on small developments. The sustainability appraisal has considered the impacts of requiring Code 4 (option ii), or Code 5 in major developments (option iii), and equivalent standards using the BREEAM rating for non-domestic buildings. The Code does not just address energy and water, but points are available for a range of other issues which would positively impact on a range of other sustainability objectives. Requiring Code 5 (option ii) would have the most potential for significant positive impacts, although it would depend on the development strategy, and how much development is planned at major sites.</p> <p>If the plan instead relied on building regulations (option i), there are already national plans to increase energy standards up to 2016, but as these would be achieved anyway, the impact has been scored as neutral.</p>
Representations Received	<p>i: Support: 9, Object: 6, Comment: 4 ii: Support: 25, Object: 3, Comment: 2 ii: Support: 14, Object: 4, Comment: 1 Please provide any comments: Support: 0, Object: 1, Comment: 15</p>
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • Developments should achieve the highest possible standards, as we only have one chance to build them and they are a good long term investment. • Environment Agency: the district is in an area of water stress and therefore higher standards should be sought. A combination of options ii and iii should be required. • Costs will go down as the market increases and it is cheaper to install from the start than through retrofitting. Reduced energy bills will help low income households. • The same standards should be applied to all tenures of dwellings. • Developments that are not sustainable in other ways (e.g. no

	<p>non-car transport options) should have an even higher standard.</p> <ul style="list-style-type: none"> • There is no excuse not to make all homes as energy and water efficient as is economically possible. Code for Sustainable Homes Level 5 should be required for all developments and should aim for Level 6 as soon as possible. • Cambridgeshire County Council: the issue of whole life costing should be introduced to inform building standards. • Should aspire to highest standards and only compromise in exceptional circumstances. Need to be practical. SCDC must enforce the highest standards as developers will always try to build to lower and cheaper standards. Lack of ambition and complacency among developers needs to be challenged. • Cambridge City Council: support option ii in principle where there are opportunities provided by the development that are not offered on smaller developments. • Zero carbon requirement is due to be introduced for all developments soon and so it makes sense to require it earlier in large developments so that they are not sub-standard in a few years. • A percentage of zero carbon dwellings should be included in all developments. • Option i is supported by 3 Parish Councils, option ii is supported by 14 Parish Councils, and option iii supported by 7 Parish Councils. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Sustainable building standards should be dictated by national policy and applied nationally. Standards in excess of Building Regulations would be unreasonable. Introducing local standards can have a significant impact on development costs, which may direct development to other areas. • This policy is not needed as the Local Plan is due to be adopted just before the Level 5 requirements come into force in 2016. Duplicating provisions required elsewhere is unnecessary. • Imposing higher standards will translate into additional building costs, which will be passed onto the consumer, and these costs are still unreasonably high. <p>COMMENTS:</p> <ul style="list-style-type: none"> • Cambridge City Council: no mention is made of seeking consequential improvements to existing dwelling's energy efficiency when undertaking extensions or loft conversions – consider developing a policy similar to Uttlesford District Council. • Milton Parish Council: suggest a new policy that exempts
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	<p>small changes that enhance the energy efficiency of a building from needing planning permission (some are already permitted development).</p>
<p>Preferred Approach and Reasons</p>	<p>Do not include a policy but use Building Regulations to determine the energy efficiency of new buildings.</p> <p>There are planned changes to Building Regulations anticipated to come into force in 2013 and 2016 that will progressively improve the energy efficiency requirements of new homes. These changes will mean that the Building Regulations requirements for energy efficiency in 2013 will correspond roughly with the carbon reduction requirements of the Code for Sustainable Homes (CfSH) Level 4 and in 2016 with CfSH Level 5.</p> <p>The majority of respondents support a policy that requires sustainable building standards beyond the requirements of Building Regulations. All the objections to options ii and iii state that higher standards should be required.</p> <p>Achieving higher code levels would increase costs, and could impact on the viability of development. On balance it is considered that the changes to Building Regulations offers the most appropriate solution for the district, balanced with the competing demands for developer contributions, including infrastructure and affordable housing.</p> <p>In response to specific issues raised: It is not considered that a consequential improvements policy should be included, as it would not be reasonable to determine a planning application on this basis.</p>
<p>Policy included in the draft Local Plan?</p>	<p>No policy.</p>

<p>Issues and Options 2012 Issue 24</p>	<p>Water Efficiency</p>
<p>Key evidence</p>	<p>Cambridge Area Water Cycle Strategy 2008 and 2011</p>
<p>Existing policies</p>	<ul style="list-style-type: none"> • Development Control Policies DPD: Development Principles Chapter • Development Control Policies DPD: Policy NE/12 Water Conservation
<p>Analysis</p>	<p>The National Planning Policy Framework states that local planning authorities should adopt proactive strategies to mitigate and adapt to climate change, taking full account of water supply and demand considerations. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change.</p>

	<p>In their Water Resource Management Plan (WRMP10)¹² Cambridge Water Company identified that forecast demand could be met and the company is predicted to maintain a positive supply-demand balance up to 2035, based on planned growth rates from the East of England Plan 2008. The company plans to achieve 88% of billed households having meters by 2035 through an enhanced metering programme.</p> <p>Despite this, there are a number of issues which warrant particular attention to greater efficiency in this area:</p> <ul style="list-style-type: none"> • The Cambridge Water area is in an area of serious water stress as designated by the Environment Agency. This provides an indication of the areas of England where planning authorities can demonstrate local need for water efficient development. • High levels of development will increase resource demands, and bring demand closer to the available resources in the future, as noted by the Environment Agency in examining growth levels for the review of the East of England Plan. • The existing risk of sustainability reductions in deployable output that may be invoked by the Environment Agency under its Restoring Sustainable Abstractions Programme reducing licensed abstraction capacity in the future. • The high environmental cost of treating and supplying water (in terms of energy and carbon footprint). • Any further abstraction will have an impact on groundwater levels or river flows, even though these levels have been determined to be 'environmentally acceptable' by the Environment Agency by virtue of granting a licence. <p>The average person in the UK uses around 150 litres per person per day. The current Building Regulations already require physical measures to be included in new development aimed at encouraging reductions in water use to 125 litres per person per day (equivalent to Code for Sustainable Homes Levels 1 and 2). These include dual flush toilets and water efficient taps, showers, fixtures and fittings. Higher levels of the Code for Sustainable Homes require greater levels of water efficiency.</p>
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¹² Cambridge Water Company Water Resources Management Plan (Cambridge Water Company 2010)

<http://www.cambridge-water.co.uk/customers/water-resources-management-plan>

The costs of achieving higher levels of the Code for Sustainable Homes were explored in the Cambridge Area Water Cycle Strategy 2011. Reducing water consumption to 105 litres per person per day (reflecting Code 3 or 4 of the Code for Sustainable Homes), adds minimal costs (£268 per property), and can be achieved by using alternative fixtures and fittings which use less water. Reducing water consumption to 80 litres per person per day (reflecting Code 5 or 6 of the Code for Sustainable Homes) requires further measures, potentially including rainwater or greywater recycling (for uses such as for flushing toilets). This can increase costs by £1,750 to £4,500 per dwelling, although this could be reduced by community scale schemes which serve a number of dwellings.

The development costs of seeking levels of water efficiency beyond Building Regulations needs to be balanced alongside other infrastructure priorities. It is also worth considering the implications for the occupiers of new housing. The Water Cycle Strategy estimates that achieving 80 litres per person per day would deliver savings to the end user of around £50 per person per year in water bills, and £20 per person per year for 105 litres, compared with the Building Regulations standard 125 litres.

Measures required to achieve Water Efficiency Standards in New Residential Developments

	Litres per person per day	Additional measures needed to achieve standard	Additional costs above current Building Regulations (Source: CLG 2011)
Building Regulations	125	Currently require: dual flush toilets and efficient taps, showers, fixtures and fittings	N/A
Code for Sustainable Homes 3 / 4	105	Low flush toilets and more water efficient taps, shower heads, washing machines and dishwashers	£268
Code for Sustainable Homes 5 / 6	80	Further efficiency in household taps; installation of lower fill baths; Greywater recycling (GWR) or rainwater harvesting (RWH)	£1,750 (for a flat) to £4,500

	<p>Source: Adapted from table 3-3 of Cambridge Area Water Cycle Strategy 2011. Cost savings based on formula from paragraph 3.3.17 of Water Cycle Strategy.</p> <p>Existing Local Development Framework policies have set specific requirements for water efficiency in the existing growth areas (by requiring compliance with specific levels of the Code for Sustainable Homes), including water consumption of up to 105 litres per person per day for any dwellings approved on or before 31 March 2013 (up to a maximum of 50 dwellings) and water consumption of up to 80 litres per person per day for any dwellings approved on or after 1 April 2013 within the North West Cambridge Area Action Plan area.</p> <p>Higher standards could be set for specific types or sizes of development and flexibility could be written into the policy to enable the standards chosen to be increased over time. In 2016, the energy efficiency standards set out in Building Regulations are planned to increase to the equivalent of Code for Sustainable Homes Level 5. The plan could require the higher equivalent water standards to coincide with this.</p> <p>Non-residential buildings, such as schools, community facilities, and offices, also have the potential to be more water efficient through installation of low flush toilets and urinals, aerated taps and showerheads, and through implementation of rainwater and greywater recycling systems.</p> <p>There is as yet no national equivalent for the Code for Sustainable Homes for non-domestic buildings, however the BREEAM (Building Research Establishment Environmental Assessment Method) includes an assessment of water efficiency, and offers a practical way of demonstrating efficiency. An assessment could demonstrate how a building has achieved as close to the “exemplary” standard as possible.</p> <p>In the absence of a BREEAM assessment, an alternative approach would be to require developers to provide evidence in their Design and Access Statement of how they have maximised water efficiency, clearly setting out the alternative means of achieving water efficiency that are appropriate to their development. In most cases where significant building work is being undertaken, it is expected that water reuse techniques will be incorporated. If this is not proposed, the reasons for not doing so should be set out in the Design and Access statement.</p> <p>Potential for Reasonable Alternatives:</p> <ul style="list-style-type: none"> do not include a policy and rely on national Building Regulations standards for water consumption;
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	<ul style="list-style-type: none"> • seek additional measures such as water efficient fixtures and fittings, subject to viability, to achieve water consumption of less than 105 litres per person per day (equivalent of Code for Sustainable Homes Levels 3 and 4); or • seek grey water recycling or rainwater harvesting, subject to viability, to achieve water consumption of less than 80 litres per person per day (equivalent of Code for Sustainable Homes Levels 5 and 6).
<p>Which objectives does this issue or policy address?</p>	<p>Objective C: To provide land for housing in sustainable locations that meets local needs and aspirations, and gives choice about type, size, tenure and cost.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
<p>Final Issues and Options Approaches</p>	<p>Question 24: What approach should the Local Plan take on water efficiency in new housing development? What are your views on the following options?</p> <ol style="list-style-type: none"> i. Rely on Building Regulations standards to reduce water use below the average existing levels. ii. Seek additional measures such as water efficient fixtures and fittings (to achieve equivalent of Code 3 or 4 of Code for Sustainable Homes), subject to financial viability. iii. Seek grey water or rainwater recycling (to achieve equivalent of code 5 or 6 of Code for Sustainable Homes), subject to financial viability. <p>Please provide any comments.</p>
<p>Initial Sustainability Appraisal Summary</p>	<p>Relying on building regulations (option i) offers some benefits over the average usage, but does not respond to the evidence base highlighted in the Scoping Report that the district sits within an area of serious water stress. Requiring 105 litres per day (option ii) offers additional savings at relatively low cost, but does not offer the water saving benefits of 80 litres per day (option iii). Requiring 80 litres per day would significantly reduce the water use of new dwellings, although actual usage will still be influenced by behaviour, i.e. how people choose to use water. The Water Cycle Strategy illustrated that there may be increased carbon emissions, due to pumping of water in water recycling measures, but using less water also means less water has to be supplied and heated in the home. Delivering higher standards would also have implications for development costs, which could impact on viability and achievement of the housing objective. Seeking water efficiency from non-domestic buildings offers benefits for water saving and therefore the adapting</p>

	to climate change objective.
Representations Received	<p>i: Support: 5, Object: 5, Comment: 2</p> <p>ii: Support: 26, Object: 1, Comment: 5</p> <p>iii: Support: 27, Object: 5, Comment: 7</p> <p>Please provide any comments: Support: 1, Object: 0, Comment: 14</p>
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • If you ask for the minimum, you will get the minimum. • Cambridge Water and Environment Agency: as the district is in an area of water stress, higher standards should be aimed for. More cost efficient to design higher water efficiency into dwellings at the time of construction than to make changes later. May be harder to achieve in smaller developments due to viability, but should be achievable in strategic development sites. Level 3 or 4 for water efficiency can be achieved cost effectively at the construction stage but Level 5 or 6 is the most environmentally beneficial. • Building Regulations are drawn up for the average situation, whereas Cambridgeshire is one of the driest areas and so is not 'average'. New developments should be as water efficient as possible so that developments create only a minimal additional demand on a scarce resource. • It may be more appropriate to have a higher standard for certain developments e.g. larger developments. • Level 3 or 4 is a reasonable level where there are some benefits realised in a shorter timescale. Further reductions may be necessary at a later date. • "Subject to viability" is a get out clause and should be reconsidered. Should be a requirement regardless of financial viability as the cost of excessive water use on the environment is far higher. • All new developments should be required to meet the highest level as minimising water use should be a high priority. If there are questions of viability in the short-term, it may be necessary to lesson other requirements but push for higher water efficiency. • Level 5 or 6 should be the optimum standard and Level 3 or 4 should be the fall back position. • For larger schemes at least 25% of the development should be required to meet Level 5 or 6. • Greywater recycling clearly represents the most sustainable use of resources and the Cambridge area should be leading in the adoption of these technologies. • The water problem is likely to put a stop to future development in the district not long after 2031 and therefore the Local Plan should take this into account. • Option ii is supported by 9 Parish Councils and option iii is supported by 4 Parish Councils.

	<p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Building Regulations reflect what is practical and viable, further requirements are not needed in policy. • You can't simply impose more and more costs on developers as it drives up house prices to unacceptable levels. • Greywater recycling and rainwater harvesting is not likely to achieve Level 5 or 6 in practice and cannot be applied to all types of building. • The water problem is likely to put a stop to future development in the district not long after 2031 and therefore the Local Plan should take this into account. • Option i supported by 1 Parish Council. <p>COMMENTS:</p> <ul style="list-style-type: none"> • All new homes should be fitted with water meters as standard – only this will ensure that water users pay for their water use. • Middle Level Commissioners: why is there no policy for non-residential buildings?
<p>Preferred Approach and Reasons</p>	<p>Include a policy on Water Efficiency, seeking the equivalent of code for sustainable homes level 4 (105 litres per person per day), and similar improvements based on the BREEAM standard for non-domestic buildings.</p> <p>The majority of respondents, including the Environment Agency and Cambridge Water, strongly support requirements for higher standards of water efficiency due to the district being within an area of water stress.</p> <p>In terms of balancing development viability with efficiency savings, the Code 4 equivalent offers a reduction in water use against building regulations of 20 litres per person per day, and can be achieved at low additional cost. The higher Code 5 standard, which requires water recycling, would have much higher cost implications, particularly for small developments.</p> <p>For non-domestic buildings, the BREEAM standard offers a measure of water efficiency, with credits for different levels achieved. Similarly to the Code for Sustainable Homes, 2 credits would require water efficient fixtures and fittings, without mandatory water recycling.</p>
<p>Policy included in the draft Local Plan?</p>	<p>Policy CC/4: Sustainable Design and Construction</p>
<p>Policy CC/4: Sustainable Design and Construction (and paragraphs 4.18 – 4.21)</p>	
<p>Proposed</p>	<p>Total: 13</p>

Submission Representations Received	Support: 2 Object: 11 (including 1 from Parish Council (PC))
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Natural England - welcomes chapter and policies requiring development to promote and ensure sustainable construction. • Needs careful monitoring. <p>Object</p> <ul style="list-style-type: none"> • Cambridge Past, Present and Future – should include clear immediate commitment to Level 5 in compliance with changes to Building Regulations. Amend policy to: “All new developments will accord with the changes to the Building Regulations with all new residential developments meeting CfSH Level 5 by 2016 and all new non-residential developments meeting CfSH Level 5 by 2019.” • Chancellor, Masters and Scholars of University of Cambridge – not consistent with Cambridge Local Plan which proposes policy linked to minimum standards for sustainable construction, carbon reduction and water efficiency. University supports in principle City’s change in approach. Policy should be amended to be consistent with City. • Environment Agency – support policy, but minor updating needed on water stress status. Amend first sentence of 4.20 to: "The Cambridge Water company is in an area of water stress as designated by the Environment Agency." • Home Builders Federation – as policy exceeds Building Regulations it is necessary for Council to assess cost to ensure does not jeopardise viability. Once forthcoming changes to Building Regulations are factored in viability becomes more precarious. Consider the case for a policy specifying Code 4 not been proven and unnecessary in light of planned changes to Building Regulations. • Oakington and Westwick PC – all new residential developments must achieve Level 5 or better water efficiency. • New policy on water neutrality. Area designated as water stressed and lowest rainfall in country. Must ensure that no more water is abstracted, treated and delivered for business and/or domestic use than before the new dwellings were built. • In ensuring development is as sustainable as possible, the Council should look to introduce a fixed percentage of ‘passiv’ design housing. Would like ‘exemplar’ schemes in each major development with at least 10% ‘passiv’ design. • Control of building sustainability should be restricted to national standards at time of application / decision making. Higher levels

	<p>of water minimisation could be achieved through an Allowable Solutions or water neutral concept, where existing homes in the neighbourhood could be upgraded to help mitigate the impact of the new development.</p> <ul style="list-style-type: none"> • Designated area of water stress – the need for appropriate and sufficient water supplies has not been given sufficient emphasis in the past and it is an issue of wider significance than within South Cambs alone.
<p>Assessment</p>	<p>There are planned changes to Building Regulations that will progressively improve the energy efficiency requirements of new homes. The first change was anticipated to come into force in October 2013, and would have changed the requirement for energy efficiency to correspond roughly with the carbon reduction requirements of CfSH Level 4. This change is now expected to come into force in April 2014. A further change is anticipated in 2016 to change the Building Regulations requirement for energy efficiency to roughly correspond with the carbon reduction requirements of CfSH Level 5. Achieving increased energy efficiency standards beyond those included in Building Regulations would increase costs and could impact on the viability of the development. It is therefore considered that the changes to Building Regulations offer the most appropriate solution for the district for energy efficiency. To reflect this change, update the references to 2013 in paragraph 4.19 to 2014.</p> <p>The policy does require water efficiency standards beyond those required by Building Regulations. The additional reduction in water use in residential developments necessary to achieve the policy requirement of 105 litres per person per day (equivalent to Code for Sustainable Homes Level 4) can be achieved at low additional cost. It is considered necessary and justified as the district is in an area of water stress being in the driest part of the UK. The policy also includes similar improvements based on the BREEAM standard for non-residential buildings. There are no planned changes to the water efficiency standards required by Building Regulations. The Council's adopted planning policy on water conservation (included in the Development Control Policies DPD where it was found sound through examination) has been updated to take account of nationally recognised assessment standards.</p> <p>The costs of achieving higher levels of water efficiency were explored in the Cambridge Area Water Cycle Strategy 2011. Reducing water consumption to 105 litres per person per day adds a minimal cost of £268 per property and can be achieved through the use of alternative fixtures and fittings that use less water. Costs for increasing the water efficiency of new non-residential buildings were</p>

	<p>not included in the Water Cycle Strategy, however, the policy requirement to achieve the BREEAM standard of 2 credits for water use can be achieved through the use of water efficient fixtures and fittings and therefore at minimal cost.</p> <p>After considering a range of options, and the significantly higher costs versus the benefits, South Cambridgeshire has chosen a different approach to water efficiency than that chosen by Cambridge City Council. The South Cambridgeshire approach balances costs with achieving higher standards than Building Regulations.</p> <p>The Local Plan in the strategic site allocation policies (see Chapter 3) requires Waterbeach New Town, Bourn Airfield New Village and Cambourne West to exceed the minimum sustainable design and construction standards set out in the climate change chapter of the Local Plan.</p> <p>Water neutrality would involve offsetting water demand of development through efficiency reductions elsewhere. Whilst there may be opportunities to explore the concept as part of major developments, through the opportunities to exceed standards referred to in the strategic site policies, it is not considered appropriate to apply this as a district wide requirement, due to the potential high costs, difficulties in implementation, and the overall availability of water supply during the plan period.</p> <p>To achieve the PassivHaus standard the building must have a low heating demand and this is achieved through the use of mechanical ventilation and by designing and constructing the building to have a high thermal performance and high levels of airtightness. The Local Plan does not prevent developers from delivering PassivHaus buildings. The Local Plan does not set a requirement for this standard in the same way that it does not include a requirement to achieve specific Code for Sustainable Homes or BREEAM standards. Achieving standards beyond those required by Building Regulations will increase the costs of the development and could impact on the viability of the development. The Local Plan only requires higher standards than Building Regulations for water efficiency as there is local justification for this.</p> <p>Amend wording in paragraph 4.20 to reflect the change in definition of water stress as suggested by the Environment Agency.</p>
<p>Approach in Submission Local Plan</p>	<p>Minor change</p> <p>In paragraph 4.19, amend the two references to 2013 to be 2014.</p>

	Amend the first sentence of paragraph 4.20 to read: 'The Cambridge Water Company area is in an area of serious -water stress as designated by the Environment Agency. ...'
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Policy CC/5: Sustainable Show Homes

<p>Issues and Options 2012 Issue 22</p>	<p>Sustainable Show-Homes</p>
<p>Key evidence</p>	
<p>Existing policies</p>	<p>n/a</p>
<p>Analysis</p>	<p>To encourage buyers to opt to purchase more sustainable dwellings on our new developments, it is important that they are made aware of how the sustainability of the building can be improved through the use of environmentally friendly alternatives to standard conventional options, and what the benefits will be for them when they are living in there. Many buyers like to see what something will look like before they make a decision, and therefore on developments that include show-homes it is possible to showcase these alternatives.</p> <p>The Council has secured the provision of sustainable show-homes as part of the s106 agreements for Trumpington Meadows and the Cambourne 950 development. The sustainable show-homes demonstrate environmentally sustainable alternatives for finishes, materials, fixtures and technologies as options that can be purchased when a dwelling is bought off-plan.</p> <p>Examples of options include:</p> <ul style="list-style-type: none"> • sustainably sourced and low embodied energy flooring and wall finishes, kitchens and furniture; • windows and doors from sustainably sourced materials, with significantly improved ‘u’ values; • water efficient toilets and other sanitary ware fixtures or fittings; • white goods with high energy efficiency ratings and low water consumption; • low energy internal and external light fittings; • renewable technologies such as solar panels (where not installed as standard); • rainwater harvesting and greywater recycling devices; and • smart metering (where not installed as standard). <p>A requirement is that the sustainability options are fully functional in the show-homes and that they are positively marketed. Purchasers should be clear on where alternatives are available, why it is more sustainable, and the cost of including the alternative. It must be as practical as possible for the purchaser to buy the sustainable alternatives as to purchase the standard options and unreasonable premiums should not be added for the environmentally friendly options.</p>

	<p>Show homes are provided on a range of sizes of developments, including on developments as small as five dwellings. For local housebuilders providing small developments it would not be viable for them to provide a sustainable show-home or provide bespoke homes including a mixture of options.</p> <p>The Local Plan could require all developments that provide a show-home to include a sustainable show-home that will demonstrate environmentally sustainable alternative finishes, materials, fixtures and technologies that could be purchased when a dwelling is bought off-plan. Alternatively, the Local Plan could set a site size threshold at which a sustainable show-home would be required.</p> <p>Potential for Reasonable Alternatives:</p> <ul style="list-style-type: none"> • rely on negotiating their provision on an individual site basis; • require all developments that include a show-home to provide a sustainable show-home; or • require developments of over 15 dwellings to provide a sustainable show home.
<p>Which objectives does this issue or policy address?</p>	<p>Objective C: To provide land for housing in sustainable locations that meets local needs and aspirations, and gives choice about type, size, tenure and cost.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
<p>Final Issues and Options Approaches</p>	<p>Question 22: What approach to sustainable show-homes should we take?</p> <ul style="list-style-type: none"> i. Rely on negotiating their provision on an individual site basis? ii. Require all developments that include a show-home to provide a sustainable show-home? iii. Require developments of over 15 dwellings to provide a sustainable show-home?
<p>Initial Sustainability Appraisal Summary</p>	<p>Requiring sustainable show homes (option ii) could have a positive impact on climate change mitigation and adaption objectives. Scale of benefit would depend on uptake of additional sustainability measures, but it is likely to be minor compared with options that would require higher standards in the construction process. Setting a size threshold (option iii) would mean smaller sites would not be required to provide sustainable show home, but the low threshold would still mean the majority of development would be supported by a sustainable show home.</p>

Representations Received	<p>i: Support: 10, Object: 4, Comment: 0 ii: Support: 17, Object: 2, Comment: 3 iii: Support: 14, Object: 1, Comment: 6 Please provide any comments: Support: 0, Object: 4, Comment: 3</p>
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • It is better to have one rule and allow exceptions, than to negotiate each time. • Sensible option and someone will want to buy the sustainable show-home so the developer will not lose out. • Sustainable show homes will not stop developers building but will encourage uptake of environmentally friendly technologies. • Buyers should be aware of the additional costs and it should include a whole life costing. • Option ii is supported by 6 Parish Councils and option iii supported by 7 Parish Councils. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Requiring a sustainable show home would be an unreasonable burden on development and should be left to homeowners to decide. • Negotiating on a site-by-site basis will provide greater flexibility to respond to particular site circumstances and marketing preferences. • Policy would be superfluous as if all buildings meet Building Regulations, all homes will include all required measures. The features shouldn't be add-ons, they should be provided anyway. • No need for the Local Plan to deal with this issue as Code for Sustainable Homes Level 5 will be required for all homes from 2015. • Option i is supported by 3 Parish Councils. <p>COMMENTS:</p> <ul style="list-style-type: none"> • A show home demonstrating sustainable options should be made available to small scale developers.
Preferred Approach and Reasons	<p>Include a policy requiring developments that are providing a show home to provide a sustainable show home (either separately or instead of the show home) demonstrating environmentally sustainable alternatives beyond those already provided to achieve the standard agreed for the development.</p> <p>The majority of respondents support a policy that requires sustainable show homes to be provided, as it will encourage the uptake of environmentally friendly options.</p>
Policy included in the draft Local Plan?	Policy CC/5: Sustainable Show Homes

Policy CC/5: Sustainable Show Homes (and paragraphs 4.22 – 4.23)

Proposed Submission Representations Received

Total: 10
 Support: 4
 Object: 6 (including 1 from Parish Council (PC))

Main Issues

- Support**
- **Natural England** – welcomes chapter and policies requiring development to promote and ensure sustainable construction.
 - Vital if people are to be encouraged to include Green Options when they buy a house. Will require agents to be well trained and fully informed.
- Object**
- **Home Builders Federation** – cost implication has not been assessed. Ambiguous how might be applied. Unlikely to be feasible and safe to provide all these in one dwelling. How developers choose to achieve carbon reduction targets is matter for them. Unclear how bullet point 3 would be enforced.
 - **Oakington and Westwick PC** – all developments over 15 dwellings should provide sustainable show home with costs displayed.
 - No policy basis, no justified need and policy will have no material effect in reducing climate change. Measures to secure sustainably designed homes should be secured through Code for Sustainable Homes or successor standards. Delete policy.
 - Building Regulations approach is sufficient. Special show homes not required and not viable. Other approaches including marketing materials and a virtual green home can be used. Favour the use of Allowable Solutions to provide greater sustainability benefits – a local Allowable Solutions SPD should be produced. Customers wanting to go beyond national standards have other ways forward.
 - Unreasonable to build a sustainable show home, however reasonable for show home to include details of options to purchasers.
 - Amend bullet point 1 of policy to: “On developments where a show home is being provided, this should include demonstrating environmentally sustainable alternatives beyond those provided to achieve the standard agreed for the development.”
 - Amend bullet point 2 of policy to: “The sustainable alternatives can be purchased when a dwelling is bought off-plan and full details of the options must be made available in the show home and positively

	<p>marketed. Purchasers should be clear on where alternatives are available, why it is more sustainable, and the cost of including the alternative.”</p>
<p>Assessment</p>	<p>New homes can be designed to achieve higher levels of sustainability than will be achieved through meeting Building Regulations and policies in the Local Plan. The Council has introduced this new policy requiring the provision of sustainable show homes as it recognises the benefits of achieving higher standards of sustainability even though the Local Plan does not specify higher standards in its policies except for in the policies on water efficiency and the generation of onsite renewable energy. A sustainable show home demonstrating sustainable alternatives will encourage home buyers to improve the sustainability of their new home by choosing more environmentally sustainable finishes, materials, fixtures and technologies. Many buyers like to see what something will look like or how it will work before they make a decision and including these alternative options in a sustainable show home will allow them to do this. Virtual sustainable show homes will not allow this possibility in the same way.</p> <p>The Local Plan does not include a requirement for new homes or non-residential buildings to be designed to achieve a specific Code for Sustainable Homes or BREEAM standard. Instead the Council is relying on planned changes to Building Regulations to progressively improve the energy efficiency requirements of new homes and Policy CC/4 which sets out a water efficiency standard for new homes and non-residential developments beyond that required by Building Regulations. The Local Plan also includes Policy CC/1 that requires all proposals to embed the principles of climate change mitigation and adaptation and Policy CC/3 which sets out a requirement for renewable energy to be generated onsite in new developments.</p> <p>The Government’s zero carbon policy is likely to require new developments to achieve zero carbon for regulated emissions using a combination of onsite and offsite ‘allowable solutions’. The sustainable show homes policy will not prevent developers from using ‘allowable solutions’ to achieve the requirements of Building Regulations or any policies in the Local Plan. ‘Allowable solutions’ will provide sustainability benefits to the community, whereas increasing the environmental sustainability of your home by opting for alternative finishes, materials, fixtures and technologies will provide benefits to the home owner e.g. reduced water use or heat loss, lower heating or electricity bills. Although buyers of new homes can make changes to their properties after they have been built, some environmentally sustainable options will be easier to</p>

	<p>provide during the construction process.</p> <p>The Government has recently consulted on a set of design principles for allowable solutions (Next steps to zero carbon homes - Allowable Solutions, August 2013). It will only be possible for the Council to develop its own guidance on allowable solutions once the Government has established national guidance.</p> <p>The Council recognises that it will not be viable for some local housebuilders delivering small developments to provide a sustainable show home or provide bespoke homes including a mixture of options, however, where developers would already be providing a show home, the policy requires them to provide a sustainable show home either in addition to or instead of the show home.</p> <p>The Council has secured the provision of a sustainable show home at Trumpington Meadows and on the Cambourne 950 development through their s106 agreements. Both these agreements set out that the measures must be offered at a price (including cost of delivery and/or installation) that reflects the same profit margin to the developers as other standard buyer's options or extras. The Council undertakes monitoring of its s106 agreements, and the sustainable show homes at Cambourne and Trumpington Meadows are working well.</p>
<p>Approach in Submission Local Plan</p>	<p>No change</p>

Policy CC/6: Construction Methods

<p>Issues and Options 2012 Issue 23</p>	<p>Construction Methods</p>
<p>Key evidence</p>	<p>South Cambridgeshire District Design Guide SPD (2010)</p>
<p>Existing policies</p>	<p>Development Control Policies DPD: Policy DP/6 Construction Methods</p>
<p>Analysis</p>	<p>The construction process for any new development utilises a significant amount of resources, generates construction waste and spoil, and can adversely affect the amenity of surrounding occupiers and the local natural environment, through the generation of noise, smells and dust.</p> <p>Soil is an important natural resource and is vital in supporting ecosystems, facilitating drainage and providing green spaces (which support biodiversity, absorb rainwater and improve drainage, control pollution, regulate temperatures and reduce noise pollution). During the construction process soil is at risk of erosion from wind and rain, becoming compacted by construction machinery which can lead to increased run-off and surface water flooding, and becoming contaminated with waste building materials which can harm its ability to support ecosystems.</p> <p>The National Planning Policy Framework states that the planning system should protect and enhance soils and use natural resources prudently, including through the reuse of existing resources.</p> <p>It is important that the principles of sustainable development are taken account of during the construction process, and that any adverse impacts are minimised through the use of haul roads, restrictions on hours of operation, and the appropriate siting of storage.</p> <p>To minimise the adverse impacts generated by the construction process, the Local Plan should ensure:</p> <ul style="list-style-type: none"> • careful management of materials already onsite (including soils) or brought to site to reduce the amount of waste produced and maximise the reuse or recycling of materials either onsite or locally; and • contractors are considerate to neighbouring occupiers, including through the application of restrictions on the hours of noisy operations, the provision of haul roads, and the siting of storage compounds to avoid impacts on existing businesses and residents. <p>Potential for Reasonable Alternatives:</p>

	<ul style="list-style-type: none"> continue to include a construction methods policy in the Local Plan; or construction methods should not be specified in the Local Plan.
Which objectives does this issue or policy address?	<p>Objective B: To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the area, and protect and enhance biodiversity.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
Final Issues and Options Approaches	<p>Question 23: What approach should the Local Plan take to construction methods:</p> <ol style="list-style-type: none"> Continue to include a construction methods policy? Not specify construction methods in the Local Plan?
Initial Sustainability Appraisal Summary	<p>Including a policy (option i) has the potential to provide greater protection to amenity and health, and would seek to protect soils, contributing to achievement of the land objective. If the issues were not addressed in the plan (option ii) there could potentially be negative impacts on achievement of the objectives.</p>
Representations Received	<p>i: Support: 38, Object: 0, Comment: 2 ii: Support: 6, Object: 3, Comment: 0 Please provide any comments: Support: 0, Object: 1, Comment: 3</p>
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> Not all developers are considerate and this obliges developers to consider the impacts of their development. Worthwhile now, so why would you discontinue it? A policy is needed to maintain consistency of approach and it is important that neighbours are protected. Should not be too prescriptive as construction methods are likely to advance during the plan period. Having a policy is supported by 13 Parish Councils. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> Construction methods are primarily controlled through legislation and guidance outside the planning system, therefore they should not be dealt with as part of the planning process. <p>COMMENTS:</p> <ul style="list-style-type: none"> Construction methods should only be constrained by high level functional requirements on sustainability, environmental issues and neighbourhood issues.

Preferred Approach and Reasons	<p>Include a policy requiring that development which by its nature or extent is likely to have some adverse impact on the local environment and amenity during construction and / or generate construction waste proposals must carefully manage materials to reduce the amount of waste produced and maximise the reuse or recycling of materials and that constructors are considerate to neighbouring occupiers.</p> <p>There is general agreement that the Local Plan should continue to include a policy on construction methods as this ensures a consistency of approach.</p>
Policy included in the draft Local Plan?	Policy CC/6: Construction Methods
Policy CC/6: Construction Methods (and paragraphs 4.24 – 4.26)	
Proposed Submission Representations Received	<p>Total: 6 Support: 3 Object: 3</p>
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Cambridge Past, Present and Future – support policy. • Environment Agency – support need for CEMP given that construction is a major potential source of pollution in watercourses. • Natural England – welcomes chapter and policies requiring development to promote and ensure sustainable construction. <p>Object</p> <ul style="list-style-type: none"> • Cambridge City Council – City Local Plan makes reference to the need to comply with County Council's RECAP Waste Management Design Guide. To ensure consistent approach to waste management across sub-region, appropriate to make reference to it in this policy. • Unduly prescriptive and inflexible. The requirement that all applications should submit supporting documents in relation to construction matters including a CEMP is unnecessary, unjustified and not proportionate to the scale and nature of proposals. The requirement will not be relevant to all planning applications and impacts and issues will vary. Policy should be amended to include threshold for provision of information. Amend policy to: “Applications for developments of 10 or more dwellings or non-residential developments of 1,000 m2 or more must submit supporting documents ...”.

<p>Assessment</p>	<p>The Council's adopted planning policy on construction methods (included in the Development Control Policies DPD where it was found sound through examination) has been updated.</p> <p>The RECAP Waste Management Design Guide SPD addresses the issue of waste management in new residential, commercial or mixed use developments. It provides guidance to ensure effective segregation, storage and collection of waste materials is provided for the new occupiers, it does not provide guidance on waste management during the construction process. Policy HQ/1 requires new developments to provide facilities for waste management, recycling and collection integrated within the development. A reference to the RECAP Waste Management Design Guide SPD would be more appropriately included in the supporting text to Policy HQ/1.</p> <p>The nature and extent of a new development will have an effect on the level of impact its construction will have on the local environment and amenity of neighbouring properties and also on the generation of waste. To ensure that this policy is considered when determining any planning application, no threshold is included, however, the level of information required to be submitted will depend on the nature and extent of the development.</p>
<p>Approach in Submission Local Plan</p>	<p>Minor change</p> <p>Amend the last sentence of paragraph 5.9 in Chapter 5: Delivering High Quality Places to read: '...; and Car parking what works where (English Partnerships); and RECAP Waste Management Design Guide SPD (Cambridgeshire County Council, 2012).'</p>

Policy CC/7: Water Quality

<p>Issues and Options 2012 Issue 25</p>	<p>Water Quality</p>
<p>Key evidence</p>	<ul style="list-style-type: none"> • Cambridge Area Water Cycle Strategy (Cambridgeshire Horizons 2011) • Cambridge and South Cambridgeshire Strategic Flood Risk Assessment (2010)
<p>Existing policies</p>	<ul style="list-style-type: none"> • Development Control Policies DPD: Policy NE/8 Groundwater • Development Control Policies DPD: Policy NE/9 Water and Drainage Infrastructure • Development Control Policies DPD: Policy NE/10 Foul Drainage – Alternative Drainage Systems
<p>Analysis</p>	<p>The EU Water Framework Directive requires all inland and coastal waters to achieve ‘good ecological status’ by 2015 or, where this is not possible, by 2021 or 2027. In South Cambridgeshire the majority of rivers are currently of moderate or poor ecological status.</p> <p>South Cambridgeshire District Council has a statutory duty to have regard to the Water Framework Directive, and to ensure there is no deterioration in water body quality due to any policy or action.</p> <p>The National Planning Policy Framework requires planning to prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of water pollution.</p> <p>New developments require water supply and foul water infrastructure. It is important that infrastructure is available when it is needed to serve development, in order to protect health and the environment.</p> <p>In much of the south east of the district the underlying geology is chalk, providing a significant source of groundwater which is used for public drinking water supply. It is particularly important that the quality of this water is protected from pollution in these areas.</p> <p>Development needs to include measures to address pollution from surface water run off. Depending on the source, this may require multiple treatment stages.</p> <p>In rural areas, some development takes places where there is no access to main sewers. It is important that development includes appropriate plant to treat effluent, in order to protect the water environment.</p>

	<p>Potential for Reasonable Alternatives: Policies are needed to protect and seek to enhance water quality.</p>
Which objectives does this issue or policy address?	Objective B: To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the area, and protect and enhance biodiversity.
Final Issues and Options Approaches	<p>Question 25: A: Have the right approaches to managing, protecting and enhancing water quality been identified? B: Are there any other issues which should be included?</p> <p>Please provide any comments.</p>
Initial Sustainability Appraisal Summary	Option proposes to support achieving requirements of the Water Framework Directive. This is an important issue in the district given the existing water quality issues identified in the Scoping Report. It aims to ensure appropriate infrastructure is in place, to avoid water pollution and protect water quality, but improvements to hydromorphology could impact positively on habits and species, and also improve the appearance of places.
Representations Received	Support: 34, Object: 5, Comment: 9
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • Planning should ensure water quality is maintained. • Special consideration should be given to protecting the chalk aquifers south of Cambridge and well field protection zones are in place to protect Cambridge Water Company's boreholes. • All developments should embrace SuDs principles. • Environment Agency: support as need to ensure the district adheres to the principles of the European Water Framework Directive by ensuring that new development does not result in the deterioration of water quality. • Supported by 14 Parish Councils <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • Fen Ditton Parish Council: the Local Plan should be separate from Environment Agency responsibilities for consenting and Water Framework Directive but should simply reference it. <p>COMMENTS:</p> <ul style="list-style-type: none"> • Cambourne Parish Council: a policy should be included requiring the inspection and signing off of drainage systems to mitigate against combining foul and surface water drains. • The effect of new development on surface water run-off should be considered and provision made to reduce the impacts of reduced infiltration that occurs from urbanisation of

	previously green areas.
Preferred Approach and Reasons	<p>Include a policy requiring that new development does not result in the deterioration of water quality, including all the approaches in Question 25.</p> <p>There was strong support for inclusion of a policy. In the main objections were concerned that it was not the role of the district council to address water quality issues, however, the Council has a duty to ensure that there is improvement to water body quality through its policies and actions, including planning. The inspection and signing off of drainage systems is a Building Control matter rather than a planning matter.</p>
Policy included in the draft Local Plan?	Policy CC/7: Water Quality
Policy CC/7: Water Quality (and Paragraphs 4.27 to 4.30)	
Proposed Submission Representations Received	Total: 8 Support: 3 Object: 5
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Natural England – welcome policy which seeks to enhance water quality. • RSPB – support the objective to protect water quality. <p>Object</p> <ul style="list-style-type: none"> • Environment Agency – support the water quality and river renaturalisation policy. To ensure that the development management process progresses smoothly, we suggest some flexibility in CC/7 such that only major development proposals should comply with all aspects of CC/7. • Cambourne and Caldecote PCs – a policy should be included in relation to inspection and signing off of drainage systems to mitigate against combining foul and surface water drains. • There is a historical failure to address water issues. Responsibilities must be agreed with all developers and water authorities BEFORE development. • The policy should include a commitment by the Council to improve the 'ecological status' of the rivers in the South Cambs area.
Assessment	This policy is needed to ensure water quality is appropriately considered through the planning process. It can be applied as appropriate to the planning application being considered,

	<p>depending on the scale and issues arising.</p> <p>Some representors emphasise that drainage issues should be addressed before development takes place. Many matters are addressed at the application stage, and the policies in this section of the plan seek to ensure this takes place. However, the inspection and signing off of drainage systems is a Building Control matter.</p>
Approach in Submission Local Plan	No change

Policy CC/8: Sustainable Drainage Systems

Issues and Options 2012 Issue 26	Sustainable Drainage Systems
Key evidence	<ul style="list-style-type: none"> • Cambridge Area Water Cycle Strategy 2008 and 2011 • Cambridge Area Green Infrastructure Strategy (Cambridgeshire Horizons 2011)
Existing policies	Development Control Policies DPD: Policy DP/1 Sustainable Development
Analysis	<p>The National Planning Policy Framework requires development to give priority to the use of sustainable drainage systems.</p> <p>Sustainable Drainage Systems (SuDS) make use of techniques, such as infiltration and retention, which mimic runoff from the site in its natural state. Rainwater should be managed close to its source and on the surface where possible. As a result the water is stored and released slowly, reducing flood risk and improving water quality. Less surface runoff frees up capacity in our sewers, whilst more natural materials improve biodiversity and amenity. Examples of SuDS techniques include permeable paving, soakaways, green roofs, swales and ponds.</p> <p>In accordance with the findings of the Green Infrastructure Study¹³ and the National Planning Policy Framework, surface water management should be integrated into natural spaces (green infrastructure), existing water bodies (blue infrastructure) and our built environment (grey infrastructure).</p> <p>SuDS are often seen as additions to development, and therefore do not fully realise their multi-functional benefits. The key to successful management of surface water within a development is to have it integrated within the development and to think about this at the earliest possible opportunity in the design process. (Planning for SuDS CIRIA C687).</p> <p>Schedule 3 of the Flood and Water Management Act (2010) requires SuDS in new and redeveloped sites in England. The Act establishes a Sustainable Drainage Systems Approving Body in unitary or county councils. This body must approve drainage systems in new developments and re-developments before construction begins. National Sustainable Drainage System Standards are being introduced, together with a greater role for Lead Flood Management Authorities (for this area Cambridgeshire County Council) in approving drainage schemes. Cambridgeshire is</p>

¹³ http://www.cambridgeshirehorizons.co.uk/our_challenge/GIS.aspx

	<p>also producing local guidance regarding the implementation of SuDS.</p> <p>This policy proposed is a manifestation of the recommendation with the Water Cycle Strategy Phase 2 (July 2011) REC SWM 114: Planning policy recommendations: Surface water management:</p> <ul style="list-style-type: none"> • Development should achieve 100% above ground surface water drainage except where this is not feasible due to housing densities, land take, ground conditions, topography, or other circumstances outlined within the development proposals. • Where 100% above ground drainage is not feasible due to the size of development (i.e. windfall and non-strategic developments) or proposed high densities, the development proposals should maximise opportunities to use SUDS measures which require no additional land take, i.e. green roofs, permeable surfaces and water butts. • Development proposals should ensure that surface water drainage is integrated within the built environment. In addition, surface water drainage proposals should maximise opportunities to create amenity, enhance biodiversity, and contribute to a network of green (and blue) open space, in tandem with the Cambridgeshire Green Infrastructure Strategy to 2031. • Surface water drainage should be considered at an early stage of the master planning process, to allow maximum integration of drainage and open space, and to minimise the additional land take required by above ground drainage. <p>Potential for Reasonable Alternatives: It is important that the Local Plan seeks to ensure that the design of development manages surface water in the most sustainable way, and the wider benefits for biodiversity, amenity, and water quality and secured.</p>
<p>Which objectives does this issue or policy address?</p>	<p>Objective B: To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the area, and protect and enhance biodiversity.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
<p>Final Issues and Options</p>	<p>Question 26: A: Have the right approaches to managing water and drainage</p>

Approaches	<p>sustainably been identified?</p> <p>B: Are there any other issues which should be included?</p> <p>Please provide any comments.</p>
Initial Sustainability Appraisal Summary	<p>Given the scale of new planned development, implementation of SuDS could have significant positive impacts. There is a clear positive contribution to achieving the climate change adaptation objective by managing water effectively, but as described in the option, SuDS can offer a host of benefits to biodiversity, and providing amenity. There is an uncertain impact on land objective because SuDS could require more space than piped systems, but with good design and dual use of space this could be minimised.</p>
Representations Received	<p>Support: 37, Object: 0, Comment: 25</p>
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • Environment Agency: support and would be happy to provide additional information and assist in the production of the policy. • Anglian Water Services Ltd: surface water disposal should follow the drainage hierarchy. A sustainable solution (SuDS) should be investigated and implemented where possible and if this is not viable then drainage to a surface water sewer will be considered. • Vital to mitigating the impact of the proposal. If determined at an early stage, SuDS can be designed as an intrinsic part of the scheme. • Supported 14 Parish Councils and the Conservators of the River Cam and the Wildlife Trust. • Cambridgeshire County Council: support the inclusion of references to the national and Cambridgeshire SuDS manuals. • Middle Level Commissioners: generally agree that SuDS are the preferred option in certain situations but infiltration devices do not work unless there is sufficient space to install them and current housing density does not allow this. <p>COMMENTS:</p> <ul style="list-style-type: none"> • Upkeep of systems is a vital issue. • Mitigation measures should be in place in advance of development. • Should also include measures for managing drought. • If the local drainage board requires run-off at a greenfield rate, it would be proactive if all steps are taken to achieve, exceed and maintain this long term. • Middle Level Commissioners: a holistic approach will require considerable masterplanning, together with the resolution of funding and maintenance issues. Given that the area is water stressed, it would be appropriate to allow SuDS to form part of a hydrological train where the retained water could be used for

	irrigation or water harvesting.
Preferred Approach and Reasons	<p>Include a policy requiring that sustainable surface water drainage is integrated within new developments, including all the approaches identified in issue 26.</p> <p>There is strong support for inclusion of the policy, with no objections registered.</p> <p>In response to specific issues raised:</p> <ul style="list-style-type: none"> • A surface water drainage hierarchy is referenced in Building Regulations, and the draft national SuDs standards. Reference has been added to it in the policy. • Reference to securing whole life management and maintenance of SuDs infrastructure has been added. • Achieving greenfield run-off rates is addressed in the managing flood risk policy. • Responding to drought can be addressed in the climate change mitigation and adaptation, but SuDS measures could also assist in retaining water e.g. water butts, swales.
Policy included in the draft Local Plan?	Policy CC/8: Sustainable Drainage Systems
Policy CC/8: Sustainable Drainage Systems (and Paragraphs 4.31 to 4.33)	
Proposed Submission Representations Received	Total: 9 Support: 4 Object: 5
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Environment Agency – strongly support policy. • Natural England – support policy which promotes multifunctional SuDS. • RSPB – SuDS can provide habitat for biodiversity and can have important local and cumulative benefits for the wider water environment. <p>Object</p> <ul style="list-style-type: none"> • English Heritage – include a reference in the supporting text to the need to evaluate the potential impact on archaeological remains. • Homes and Communities Agency – further supporting text should be included to confirm the arrangements for future management of SuDS for large scale new settlements and urban extensions. In this regard the HCA consider it sensible for the Council to undertake responsibility for management and

	<p>maintenance of SuDS.</p> <ul style="list-style-type: none"> • Cambourne and Caldecote PCs – a policy should be included in relation to inspection and signing off of drainage systems to mitigate against combining foul and surface water drains. Consider creative use of balancing lakes e.g. watersports. • There is a historical failure to address water issues. Responsibilities must be agreed with all developers and water authorities BEFORE development.
Assessment	<p>Sustainable Drainage Systems (SuDs) provide a method of managing flood risk and drainage whilst securing other benefits, such as for biodiversity or amenity.</p> <p>The policy seeks to ensure drainage measures are appropriately managed and maintained.</p> <p>The HCA are concerned with the adoption process. The Flood and Water Management Act envisages County Councils having a role in adopting SuDS, although this has yet to be implemented. Currently the policy seeks for an appropriate management and maintenance regime to be established, without identifying a specific body, as this will vary depending on the site.</p> <p>It would not be appropriate for the local plan to commit the local authority to adopting SuDs schemes.</p> <p>Policy NH/14 (Heritage Assets) protects archaeological remains; however a minor amendment to the supporting text is suggested to refer to the consideration of heritage and wildlife assets when considering drainage systems.</p>
Approach in Submission Local Plan	<p>Minor change</p> <p>Amend the last sentence of paragraph 4.32 to read: ‘They should be considered from the beginning of the design and masterplanning process- <u>taking account of all opportunities and constraints, including heritage and wildlife assets.</u>’</p>

Policy CC/9: Managing Flood Risk

<p>Issues and Options 2012 Issue 27</p>	<p>Flood Risk</p>
<p>Key evidence</p>	<ul style="list-style-type: none"> • Cambridge Area Water Cycle Strategy (Cambridgeshire Horizons 2008 and 2011) • Cambridge and South Cambridgeshire Strategic Flood Risk Assessment (2010) • Cambridgeshire Surface Water Management Plan (2011)
<p>Existing policies</p>	<p>Development Control Policies DPD: Policy NE/11 Flood Risk</p>
<p>Analysis</p>	<p>The National Planning Policy Framework states that ‘inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. Local Plans should be supported by a Strategic Flood Risk Assessment and develop policies to manage flood risk from all sources, taking account of advice from the Environment Agency and other relevant flood risk management bodies, such as lead local flood authorities and internal drainage boards. Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change, by:</p> <ul style="list-style-type: none"> • applying the sequential test; • if necessary, applying the exception test; • safeguarding land from development that is required for current and future flood management; • using opportunities offered by new development to reduce the causes and impacts of flooding; and • where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to facilitate the relocation of development, including housing, to more sustainable locations.’ <p>The Local Plan needs to include a policy on managing flood risk, to require the application of the risk based sequential approach to flood risk established through the National Planning Policy Framework and supporting Technical Guidance.</p> <p>As well as avoiding increasing flood risk elsewhere, some development sites will also offer opportunities to reduce flood risk, such as by reducing runoff rates. It is important these opportunities are secured.</p> <p>Policy needs to require consideration of all sources of flooding, and to require applicants to consider available sources of</p>

	<p>information, in particular the Strategic Flood Risk Assessment, and the Surface Water Management Plan.</p> <p>South Cambridgeshire District Council, in partnership with Cambridge City Council, commissioned a Strategic Flood Risk Assessment, which explores the nature and extent of flood risk across the area, taking account of the anticipated impacts of climate change. In addition, Cambridgeshire County Council, now the lead local flood management authority, has prepared a Surface Water Management Plan. These have been used to assess options for development for allocation in the local plan, and should be used to support the consideration of planning applications.</p> <p>Potential for Reasonable Alternatives: The Local Plan needs to include appropriate policies for the management of flood risk.</p>
Which objectives does this issue or policy address?	<p>Objective B: To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the area, and protect and enhance biodiversity.</p> <p>Objective D: To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.</p>
Final Issues and Options Approaches	<p>Question 27: A: Have the right approaches to managing flood risk been identified? B: Are there any other issues which should be included?</p> <p>Please provide any comments.</p>
Initial Sustainability Appraisal Summary	<p>Managing flood risk is a key element of climate change adaptation, but there are consequential benefits to other objectives, including human health. Given the scale of issues identified in the Strategic Flood Risk Assessment, the impact of ensuring flood risk is properly assessed is a significant positive impact on the climate change adaptation objective.</p>
Representations Received	<p>Support: 50, Object: 1, Comment: 29</p>
Key Issues from Representations	<p>ARGUMENTS IN SUPPORT:</p> <ul style="list-style-type: none"> • Environment Agency: highly supportive of a policy to address this issue and we would be happy to provide additional information and assist in the production of the policy. • Support from 18 Parish Councils and Cambridgeshire County Council: support the inclusion of a policy that should include a reference to the Surface Water Management Plan (SWMP)

	<p>and welcome the consideration of the SWMP in assessing development options. It should also be used in assessing planning applications.</p> <ul style="list-style-type: none"> • Support and a robust and comprehensive approach to flood risk must be taken at the outset of any potential scheme. • The NPPF should be followed to ensure that developing land will not increase flooding on neighbouring land or downstream • Support and should require that standards at the time of development (e.g. greenfield rates) are maintained long term. • Provision for flood water storage which benefits biodiversity and reduces flood risk should be integrated into new developments. • Support as it is important that flooding and drainage are identified at the earliest opportunity is that appropriate mitigation can be included. • Wildlife Trust: flood risk management approaches can also provide opportunities for the enhancement of the natural environment and biodiversity, and this should be explicitly recognised in the policy. <p>OBJECTIONS:</p> <ul style="list-style-type: none"> • The sequential approach makes little sense as each planning application is judged on its merits. You cannot steer a developer to develop on land they do not own. Would be better to say 'no development lower than 5m contour'. • Flooding is covered by the NPPF and therefore it is not considered that a policy is necessary. <p>COMMENTS:</p> <ul style="list-style-type: none"> • It is important that climate change is taken into account. • Maintenance is vital as flood risk can increase markedly from failures of upkeep. • The effect of the proposed new developments on flood risk of the surrounding areas has not correctly been assessed. • Cambourne Parish Council: a policy should be included requiring the inspection and signing off of drainage systems to mitigate against combining foul and surface water drains. • Middle Level Commissioners: should promote early consultation on development briefs and planning applications where the proposal has material drainage considerations and / or is: within or adjacent to the Boards watercourse or drain and / or any other flood defence structure; within an ordinary watercourse; proposing direct discharge of surface water or treated effluent; affecting more than one watercourse; within an area of actual flood risk; and / or within maintenance access strips.
<p>Preferred Approach and</p>	<p>Include a policy to manage development and flood risk, including all the approaches in Issue 27.</p>

Reasons	<p>There is strong support for inclusion on a policy, and that the right approaches to managing flood risk have been identified.</p> <p>A policy is needed in the Local Plan to provide local context. There is considerable flood risk in parts of the district, and it is of significant concern to residents.</p> <p>Responding to issues raised:</p> <ul style="list-style-type: none"> • The sequential approach is required to be applied at all stages of planning, including within sites. • It would not be sufficient to rely on the 5m contour, as flood risk can be present on higher land. • The impact of climate change has been referenced in the policy, and considered in the Strategic Flood Risk Assessment. • Maintenance of flood management infrastructure is an importance issue, and reference has been included in the policy; • Reference to the multifunctional benefits of water management infrastructure, including biodiversity, has been included in the surface water management policy. • The inspection and signing off of drains is a Building Control matter rather than a planning matter. • Reference to early consultation with Internal Drainage Boards has been included in the supporting text.
Policy included in the draft Local Plan?	Policy CC/9: Managing Flood Risk
Policy CC/9: Managing Flood Risk (and Paragraphs 4.34 to 4.37)	
Proposed Submission Representations Received	Total: 32 Support: 6 Object: 26
Main Issues	<p>Support</p> <ul style="list-style-type: none"> • Natural England – welcomes policy regarding managing flood risk. • Cottenham Parish Council – support elements of the policy. <p>Object</p> <ul style="list-style-type: none"> • Environment Agency – support the thrust of the policy. There are some small but critically significant gaps with respect to setting out the need for development to be safe, and how this might be achieved for a range of flood risks. A Flood and Water Management Supplementary Planning Document would

	<p>be a helpful way to clarify role of different stakeholders, and complement policies with more complex guidance.</p> <ul style="list-style-type: none"> • Anglian Water – pleased to see the inclusion of the drainage hierarchy in dealing with surface water. Text should clarify that re-development sites (brownfield) are required to take the same approach to surface water drainage as new undeveloped (greenfield) sites. • Middle Level Commissioners – care needs to be taken in respect of floor levels to consider impact on surface water flow routes. Board will require an FRA in a range of circumstances set out in national guidance. • Ely Group of Internal Drainage Boards – Internal Drainage Boards should be included in list of responsible bodies in paragraph 4.37. • Bourn and Cambourne PCs – does not apply sufficiently stringent criteria to guard against flood risk to settlements downstream of any proposed new development. New settlements should include mitigation (e.g. via balancing lakes) against a 1-in-250 rather than a 1-in-100 year event. A policy should be included in relation to inspection and signing off of drainage systems to mitigate against combining foul and surface water drains. • Cottenham PC – SFRA should be updated to reflect latest guidance. Paragraph 4.35: refers to the EA and its maps and available web-site. The policy would be better served if it were to include the specifics of flood zones 1, 2 and 3 as detailed in national policy documents. There should be specific reference to individual internal drainage boards to be consulted. • In part 1a, proposed floor levels should be based on flood levels, not on existing site infrastructure and roads. • In part 1c, the text as currently drafted would have the effect of seeking to restrict the surface water run off rates for new developments on all sites, including brownfield sites, to below the equivalent greenfield run off rates for an undeveloped site. This is not appropriate and may well not be feasible. • There is a historical failure to address water issues. Responsibilities must be agreed with all developers and water authorities BEFORE development.
Assessment	<p>The policy provides a framework for addressing flood risk, adding detail to the policy approach established by the National Planning Policy Framework (NPPF).</p> <p>Regarding part 1a, the starting point for consideration of proposals is the application of the sequential and exception test that are central to the NPPF . Only when this has been applied would the second part of part 1a be applied. It would be helpful if this formed</p>

	<p>a separate paragraph in the policy, and this would address the concerns of Cottenham Parish Council.</p> <p>The second sentence of part 1a is based on Environment Agency advice and good practice, and is a sound policy requirement. Ensuring safe floor levels is a sensible precaution in all areas. Impact on flow routes would be an issue to be considered through a Flood Risk Assessment.</p> <p>Regarding part 1b, a change is proposed reflecting the Environment Agency concerns, reflecting paragraph 102 of the NPPF, to ensure safe occupation, access and egress.</p> <p>Regarding paragraph 1c, it is appropriate for the policy to seek to achieve greenfield run off rates, as development can offer an opportunity to reduce flood risk where higher run off rates are taking place on brownfield sites, and avoid increasing risk from development of greenfield sites. If it cannot be achieved, or is not appropriate for biodiversity reasons, this can be taken into account, but it should remain the starting point.</p> <p>A Supplementary Planning Document, prepared in consultation with stakeholders, would usefully assist implementation of flood management policies. In particular the County Council as lead flood management authority can assist its preparation. An amendment is proposed to reference this.</p> <p>The requirement to ensure that flood risk to downstream property is not caused or exacerbated as a result of development is included within the NPPF (para's 102, 103) and NPPF Technical Guidance (Paragraph 6) to which the Policy CC/9 refers. This incorporates the requirement for predicted impacts of Climate Change to be factored into the calculations for balancing facilities / mitigation measures. There is no evidence to support planning specifically for a 1 in 250 year return event referenced in one objection.</p> <p>The Strategic Flood Risk Assessment will be periodically updated. There is sufficient flexibility in the policy, which refers to the current document and successor documents.</p> <p>Amendments are proposed to provide further clarification regarding the role of Internal Drainage Boards.</p>
<p>Approach in Submission Local Plan</p>	<p>Minor change</p> <p>Amend criterion 1a to split it into two sections - a separate policy</p>

element for each sentence.

Amend the first sentence of criterion 1b:

‘Suitable flood protection / mitigation measures are incorporated as appropriate to the level and nature of risks, and which can be satisfactorily implemented **to ensure safe occupation, access and egress.**’

Amend criterion 1c:

‘There would be no increase to flood risk elsewhere, and opportunities to reduce flood risk elsewhere have been explored and taken **(where appropriate)**, including limiting discharge of surface water (post development volume and peak rate) to natural greenfield rates or lower.’

Add to the end of paragraph 4.36:

‘A flooding and water management Supplementary Planning Document will be prepared in liaison with stakeholders to assist developers and key stakeholders with the effective delivery and implementation of the policy.’

Amend the first sentence of paragraph 4.37:

‘The appropriate responsible bodies including the Environment Agency, Anglian Water, **Internal Drainage Boards**, and Cambridgeshire County Council should be consulted, as appropriate.’

Add to end of paragraph 4.29:

‘Maps showing the area covered by individual Internal Drainage Boards can be found in the Council’s Strategic Flood Risk Assessment.’