MILTON KEYNES COUNCIL

Plan:MK Topic Paper - Issues Consultation
Climate Change and Sustainability

September 2014

www.milton-keynes.gov.uk/PlanMK

Plan:MK

Plan:MK Topic Papers - Issues Consultation

Introduction

Plan:MK, a new Local Plan for Milton Keynes, will set out a development strategy for Milton Keynes up to 2031 with a range of detailed policies to guide development over this period.

It will replace the Core Strategy, adopted in 2013 and the existing Local Plan (2005) which together currently form the part of development plan for the Borough.

Once complete, Plan:MK and any Neighbourhood Plans, will be the starting point for planning advice, (other than for Minerals and Waste) and decisions made by the Council. It will set out how much development is expected over the plan period and the location of development sites across the Borough. It will also include detailed policies to ensure that all development is of high quality and respectful to the character of Milton Keynes, and that unplanned development only occurs where it is appropriate.

Plan:MK has to be prepared within the context of national planning policy and within the legislative framework set out by the Government. This Topic Paper is part of the first stage in the process where we are seeking initial view of the public and other interested parties on what should be in Plan:MK.

What is the purpose of the Topic Papers?

This is one of a series of Topic Papers published by the Council at this time. In total there are twelve Topic Papers covering:

- Growth in Housing
- Employment and Economic Development
- Town Centres and Retail
- Transport and Travel
- Rural Issues
- Provision of Physical and Social Infrastructure
- Quality of Place
- Culture, Recreation and Quality of Life
- Open Space and the Natural Environment
- Climate Change and Sustainability
- Duty to Cooperate
- The Way Forward: Preparing a Vision and Development Strategy for Plan:MK

Each of the Topic Papers is available on the Council website at http://www.milton-keynes.gov.uk/planmk

The aim of the papers is to engage everyone with a stake in the future growth and development of Milton Keynes in the preparation of Plan:MK. They cover a range of topics, sometimes interlinked, which the Council have identified as being key to the development of the Plan.

Each paper summarises the background to the topic, setting out data and policy context, before highlighting key issues and posing questions for the reader – the responses to which will help the Council in the development of Plan:MK.

The final topic paper, "The Way Forward" draws together issues raised in the preceding papers and considers what they mean for the Vision and Development Strategy.

When we produce the final version of Plan:MK, the Vision and Development Strategy will be at the start of the Plan, setting the scene for the policies that will follow.

These Topic Papers are being published for consultation in accordance with Regulation 18 'Preparation of a local plan' of the Town and Country Planning (Local Planning) (England) Regulations 2012.

How to respond

The Council would appreciate any feedback you have on the Topic Papers. In particular, if you can focus on the questions posed it will help with the development of the plan. Feedback can be submitted:

- Online via our consultation portal: http://miltonkeynes-consult.objective.co.uk
- Via email: PlanMK@milton-keynes.gov.uk
- In writing: Development Plans, Civic Offices, 1 Saxon Gate East, Central Milton Keynes, MK9 3EJ

All comments should be received by **5pm on Wednesday 3rd December 2014.**

How will the feedback be used?

The next stage of the process will be to develop a Preferred Options document, which will set out the Council's initial draft of Plan:MK.

Feedback from this Issues consultation will help to shape the options considered as part of the development of the Preferred Options. These options will evolve through further focused consultation with key stakeholders.

The Council expects to publish the Preferred Options document for consultation in 2015.

The overall aim is to get a final plan prepared by early 2016, at which time it will be submitted to the Government and be subject to independent examination.

Introduction

1 Sustainability is increasingly important as the accumulation of carbon dioxide in the atmosphere is already disrupting the global climate. National policy is clear that planning plays a key role in helping to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy. Climate change and sustainability is something that needs to be considered as an integral part of planning as our present decisions will impact on the future and the way people live, work and travel. This Topic Paper covers sustainable construction, renewable energy, and flood and water management issues. However, since climate change is a cross-cutting issue it is also considered in our other topic papers related to infrastructure, transport networks, open space and natural environment issues.

2 While there is a lot of debate about the amount and rate of climate change, it is nevertheless a major national and international issue, which needs to be considered at every scale and within all aspects of planning. A recent report[1] confirmed that global mean surface temperature has increased since the late 19th century, and that each of the past three decades has been successively warmer at the Earth's surface than any of the previous decades on record.

3 A Local Climate Impact Profile report[2], produced in 2010, shows that the future warmest day temperatures in Milton Keynes are very unlikely to decrease and that in the 'worst case scenario' they may increase by 12.8°C in the 2080s.

4 Accompanying rising temperatures will be many other changes to the Earth system, affecting food and water supplies, human health, biodiversity and the economy and causing more extreme weather events, like flooding and heatwaves.

5 Adapting to, and mitigating against the effects of climate change is a government priority and an issue that can be addressed through planning policy and the development management system.

"Development plan documents must (taken as a whole) include policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change"[3].

1 The AR5 Report is available at: www.ipcc.ch/report/ar5/
2 The Local Climate Impact Report is available at: http://www.usea.org.uk/images/news_images/Milton%20Keynes%20LCLIP.pdf
3 The Planning and Compulsory Purchase Act 2004 is available at: http://www.legislation.gov.uk/ukpga/2004/5/contents

6 Spatial planning should therefore provide a clear local planning framework to ensure we deliver sustainable new development, including infrastructure that minimises vulnerability and provides resilience to the impacts of climate change[4].

7 Plan:MK through its strategy and policies should ensure that new development can contribute to minimising vulnerability and providing resilience to the impacts of climate change. This will include thorough policies relating to sustainable construction so that new development minimises the use of energy and other resources throughout the building's life cycle; policies that consider the generation of energy from renewable and low carbon sources; and policies that ensure that we are resilient to the rise of future flooding and the impacts of climate change.

4 The National Adaptation Programme, Making the country resilient to a changing climate (DEFRA, 2013): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/209866/pb13942-nap-20130701.pdf

Sustainable Construction & Renewable Energy - Introduction

8 Milton Keynes is a New Town with a history of innovation in sustainable construction and environmental design. Milton Keynes has always been open to try and test new approaches in the field of sustainability. Over the decades this has included:

- 1971 – the introduction of the UK's first solar powered house in Bradville;
- 1981 –'Home World' exhibition, showcasing innovation in energy efficient homes;
- the Pennyland and Great Linford projects 1981/1982 – the Pennyland projects focused on passive solar gains and improved thermal insulation of the houses. Also, the Great Linford project focused on detailed and sophisticated monitoring of the energy consumption[5]
- 1986 – Shenley Lodge energy management demonstration project for Energy World – an international showcase of energy efficient housing;
- 2005 – adoption of the Local Plan with policy that introduced requirements for significantly higher energy standards in new buildings
- 2008 – the Milton Keynes Carbon Offset Fund, the first local carbon reduction fund of its kind;
- 2011 – Milton Keynes was chosen as one of three initial Plugged in Places ((PiP) a government project to encourage the installation of electric vehicles charging points) by the Office for Low Emission Vehicles.
- 2012 – the Wolverton E-Car Club is the UK's first entirely electric pay-per-use car club.

9 We live in an age of rapid technology innovation, which will help us to deal with the impacts of climate change and Milton Keynes is well-placed and adept to embrace it.

10 Milton Keynes benefits from its central geographical location; in the midpoint between London, Birmingham, Oxford and Cambridge. The Milton Keynes' scientific and technological milieu (e.g. Cranfield University's Energy Technology Centre; The OU's Energy and Environment Research Unit; also motor sports and high performance engineering etc) should create a positive stimulus for sustainable construction and renewable energy industries locally and beyond.

11 The Collaborative Centre for the Built Environment, which brings together expertise from University Centre Milton Keynes, Moulton College and the University of Northampton, offers a wide range of courses in urbanism, sustainable construction and natural, built recreational environments.

5 For more information please see Energy Projects in Milton Keynes: Energy Consultative Unit Progress Report 1976-1981 available at http://oro.open.ac.uk/19946/1/EPMK_Aug_09.pdf

12 Also, within the SEMLEP area there are 36 Innovation Centres ranging from the i-Con in Daventry specialising in sustainable construction to the i-Lab in Bedford and the already mentioned Innovation Centre at Cranfield, which offer small units for start-up businesses.

13 Sustainable construction is listed as one of the sectors alongside creative industries and business services where growth is forecast to 2021 (MKSM report, 2009 see para 13.8 of the CS). The Core Strategy states that these sectors should be encouraged to grow and a sufficient choice of sites is important to prevent the frustration of such growth.

Policy Background

International

14 Directive 2010/31/EU (EPBD recast) Article 9 requires that "Member States shall ensure that by 31 December 2020 all new buildings are nearly zero-energy buildings; and after 31 December 2018, new buildings occupied and owned by public authorities are nearly zero-energy buildings".

National

15 The Climate Change Act (2008) is the UK's legally binding commitment to reduce carbon dioxide emissions by 80% by 2050, from a 1990 baseline. The Government expects each local authority to contribute to meeting the targets and reducing overall demand for energy.

16 Planning and Energy Act 2008. Currently The Act provides local authorities with the ability to set specific carbon, renewable energy and energy efficiency targets for new build properties.

17 National Planning Policy Framework (NPPF, 2012), paragraph 12 Core Planning Principles

- *Always seek to ensure high quality design and a good standard of amenity for all existing and future occupants of land and buildings;*
- *Support the transition to a low carbon future in a changing climate, taking full account of flood risk…and encourage the reuse of existing resources…and encourage the use of renewable resources (for example by the development of renewable energy);*
- *Contribute to conserving and enhancing the natural environment and reducing pollution…; and*
- *Promote mixed use developments, and encourage multiple benefits from the use of land in urban and rural areas, recognising that some open land can perform many functions (such as…flood risk mitigation, carbon storage…).*

18 The NPPF states that when setting local requirement for the sustainability of buildings, local authorities should do so in a way which is:

- Consistent with the Government's zero carbon buildings policy and adopt nationally described standards;
- Have a positive strategy to promote energy from renewable and low carbon sources.
- Section 10 (paragraphs 93 – 108) deals specifically with meeting the challenge of climate change and flood risk.

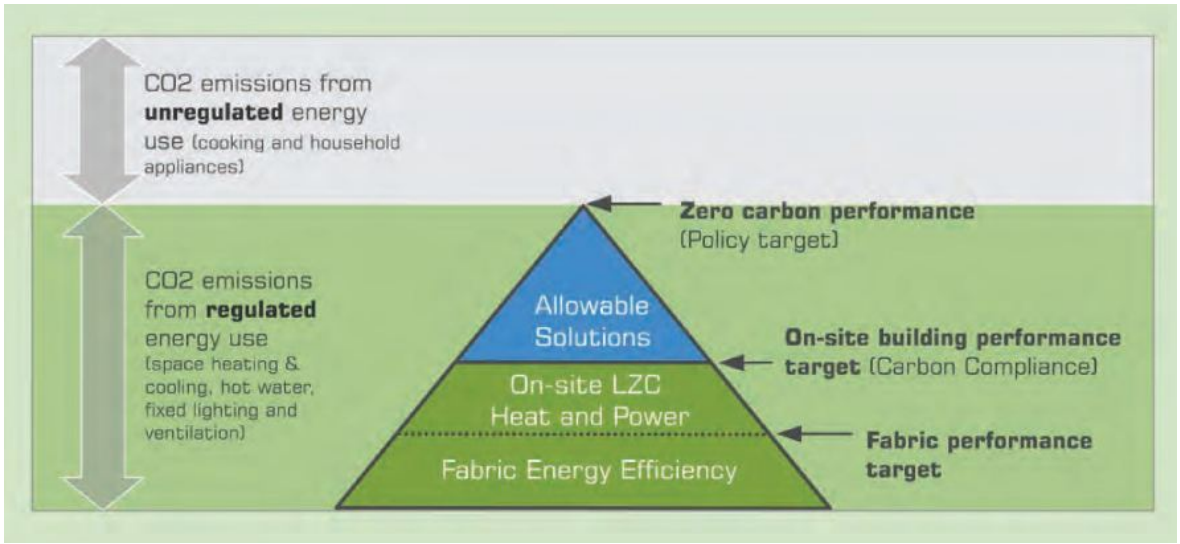
Building Regulations

19 The proposed definition of zero carbon changed in the 2011 Budget – the more relaxed zero carbon definition is equal to Code for Sustainable Homes (CfSH) Level 5 (energy requirements), which does not include unregulated CO_2 emissions from development i.e. emissions from plug-in appliances e.g. computers, TV sets washing machines etc.

20 The Building Regulations with zero carbon requirements should be introduced in 2016 (in advance of the 2020 deadline of the near zero carbon in EPBD).

21 Meeting the zero carbon requirements will be achieved partly through fabric energy efficiency (through good insulation and building's air tightness), carbon compliance i.e. on-site renewable energy (LZC – low or zero carbon) and Allowable Solutions. Figure 1 'The Zero Carbon Housing Policy hierarchy' shows the zero carbon housing policy hierarchy that will influence developers' decisions in selecting specific methods leading to the achievement of zero carbon buildings. It shows that most of the way of getting to 'zero carbon' is through the building fabric, then on-site renewables, and then topped up with Allowable Solutions (or in other words 'carbon offsetting schemes').

Figure 1 The Zero Carbon Housing Policy hierarchy



Source: Allowable Solutions Evaluating Opportunities and Priorities, Zero Carbon Hub, 2012

22 In August 2013, the government issued a consultation called "Next Steps to Zero Carbon Homes – Allowable Solutions", which explains the proposed delivery options for zero carbon, including:

- 100% on-site or connected measures
- Developer free to choose and develop off-site actions. This could include the renovation of existing stock in the near vicinity or investment in offsite renewable energy or heating schemes.
- Contracting with third party Allowable Solutions provider to provide the CO_2 savings required
- Payment to a fund investing in abatement projects ("funder of funds" mentioned below)

23 The logic behind allowable solutions is that zero carbon cannot be achieved economically through building fabric and on-site generation alone, so developers should be 'allowed' to deliver the

equivalent carbon benefits via payments for offsite zero carbon generation projects. This is similar to the Carbon Offset fund already used in Milton Keynes through policy D4 of the Local Plan, which invested in local carbon reduction schemes e.g. cavity wall insulations of older houses.

Review of Housing Standards 2014

24 The government has confirmed, following the Housing Standard Review, that the standards will cover:

- **Access**: Minimum access standards in Part M will be retained. An optional level of accessibility will be introduced which will set out criteria for age friendly, wheelchair-accessible and adaptable housing.
- **Security**: A single minimum security standard for new homes, based on best practice that could be applied to all new homes, as a Building Regulation or applied on a local basis.
- **Water**: Current level of 125 litres/person/day (lpd) retained with a new, optional tighter level of water efficiency into the Building Regulations, set at 110 (lpd) and only applied in areas with specific local needs.
- **Energy**: A "Building Regulations only" approach, with no optional additional local standards in excess of the provisions set out in Part L of the Regulations.
- **Space**: A new (optional) national standard – not a Building Regulation – which will offer a consistent set of requirements with regard to the internal area of new homes.

25 Key requirements will now be assessed in building control inspections rather than through multiple assessment processes, aiming for a rationalised and simpler compliance regime. Some of the existing standards' requirements will be absorbed into the building regulations. The draft regulations and technical standards are expected to be published in the summer and then it will be possible to more thoroughly assess their impact on our future policy framework in Plan:MK. However, it is worth noting that the proposed water efficiency standards are below of our minimum requirement (105 lpd) included in Policy D4 of the Local Plan.

Local policy

26 Encouraging sustainability is a major objective for the Council and has been fed through into planning policy. As in para 1.6 in the Core Strategy, one of the key issues addressed by the objectives is around setting high principles and standards for new development including renewable energy and sustainable design, to help tackle climate change.

27 Also, MKC Corporate Plan (2012-16)[6] seeks to establish exemplar projects to position Milton Keynes as a leading Smart City and low carbon economy (Priority 2).

6 The Plan is available at: http://www.milton-keynes.gov.uk/your-council-and-elections/council-information-and-accounts/strategies-plans-and-policies/corporate-plan-2012-16

28 The Milton Keynes Local Plan (adopted 2005) included policy D4 (Sustainable Construction) with the objective of reducing the resource consumption of new development and achieving zero carbon growth. A Supplementary Planning Document that includes the details on how policy D4 could be implemented was adopted in 2007. It should be noted that in many respects policy D4 is similar to other "sustainable construction" or "Merton style" policies that had started to be introduced by a number of local planning authorities around that period. However, there is one aspect of the Milton Keynes policy that was innovative at the time when the Local Plan was adopted, and that is the introduction of the first local carbon reduction fund of its kind. Developers in Milton Keynes pay a flat rate for CO_2 emissions over and above the minimum requirements set by the Borough for their developments. The payments are made by developers to the local carbon offset fund at a rate of £200 per tonne of CO_2. The carbon offset money can be spent anywhere within the Council area on projects that result in significant and cost-effective reductions in CO_2 emissions from existing housing stock (retrofit measures in social and private housing). The proposed national approach to achieve zero carbon housing (allowable solutions) indicates that the carbon offset payments are still the most cost-effective method of achieving zero carbon development.

29 Adopted Milton Keynes Core Strategy Policy CS14 provides strategic guidance in respect of renewable energy schemes, setting a framework for more detailed development control policies which can be used to consider individual renewable energy proposals requiring planning permission within the Borough.

30 Saved Policy D5 of the adopted Milton Keynes Local Plan is the current development plan policy setting out the considerations that will be taken into account when assessing proposals for new renewable energy developments in Milton Keynes.

Low Carbon Living Strategy 2010 and Action Plan 2012

31 In 2010 the Council committed to reducing carbon emissions per person in the MK area by 40% by 2020, from a 2005 baseline. The Low Carbon Living Strategy identifies that the renewable energy will play a vital role in reaching this target, whilst the Low Carbon Action Plan (2012) advises the Council to utilise the planning system to encourage the provision of renewable energy.

Context and Issues

Do we need local sustainable construction standards?

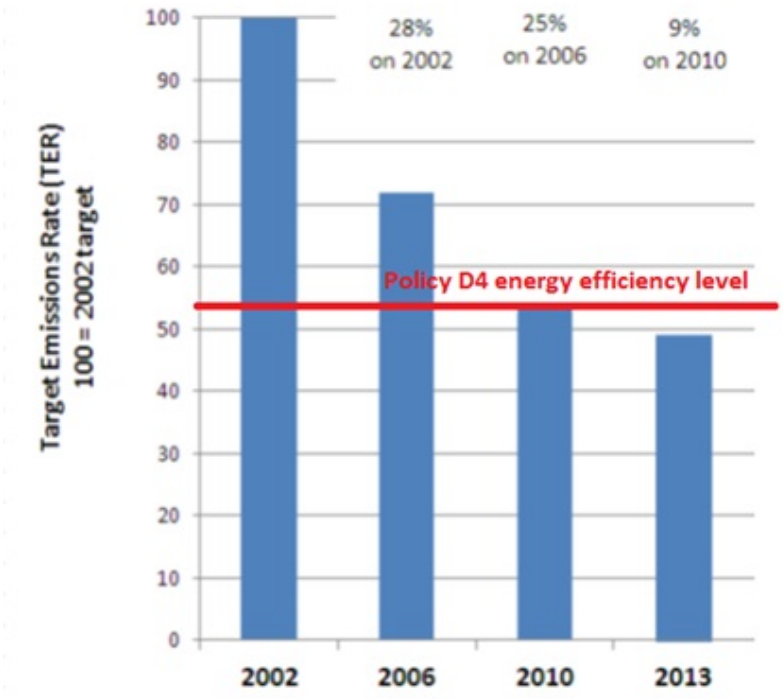
32 As mentioned earlier in this paper policy D4 of the Local Plan sets out the requirements for sustainable construction in residential schemes that consist of more than five dwellings and other buildings above 1,000 sqm of floorspace. When policy D4 was being developed for the current Local Plan (between 2002 and 2004) the Building Regulations for energy efficiency were significantly below those in the proposed local plan policy. For that reason policy D4 was seen as progressive and innovative.

33 There have been local examples where the Code for Sustainable Homes (CfSH) level 4 has already been used as a route to meeting the policy, including Oakgrove (1,100 homes just starting construction) and Bracken Lodge in Beanhill (11 of 15 supported living homes).

34 Figure 2 'Building Regulations 2002-2013 energy requirements compared to Policy D4' shows how building regulation standards have developed since 2002 (non-residential developments).

35 The level of energy efficiency in policy D4 is equal to level 3 of the Code for Sustainable Homes (CfSH), but both policy D4 and CfSH include some standards not covered by the Building Regulations e.g. on construction materials or levels of recycled or re-used materials. There are however some elements of the Code standards that duplicate policies set out under other regulatory regimes, the National Planning Policy Framework or Planning Practice Guidance which was published on 6 March 2014 (March, 2014).

Figure 2 Building Regulations 2002-2013 energy requirements compared to Policy D4



Source: UK Green Building Council, February 2014

36 The Government intends to require zero carbon standards from new homes from 2016, and non-domestic buildings from 2019 through the Building Regulations regime. The Prime Minister confirmed this in his announcement of 27 January 2014. This commitment has been demonstrated through the progressive tightening of Part L of the Building Regulations en route to this goal, through improved standards in 2010 and 2013. Though it should be noted that the 2013 Building Regulations (that came into force in April 2014), introduced lower than expected carbon targets (between 31% and 33% above Part L of the 2006 Building Regulations or 11% below energy efficiency standards of level 4 of the CfSH), meaning that the schedule for implementing full Zero Carbon standards in 2016 (100% better than Part L1A of the 2006 Building Regulations) is becoming even more challenging.

37 Nationally described standards will therefore become the principal method to ensure that new buildings meet the government's zero carbon aspirations. Requiring Code level 4 or higher in Plan:MK would mean imposing a heightened local standard would be contrary to the government's zero carbon policy and NPPF guidance. However, it appears that it could still be possible to set specific local standards for on-site renewables, as long as they do not exceed the overall target of achieving zero carbon development, and there are local circumstances and justification to require it.

38 Detailed technical requirements, in the form of building regulation approved documents and standards, are scheduled to be drafted and made available for review by the industry in the summer 2014. The new regulatory regime is due to be introduced early in 2015.

On-site renewable energy

39 The 2008 Planning and Energy Act – the proposed amendments to the current Deregulation Bill will constrain local planning authorities from including voluntary standards for the technical performance of new homes in local plans. They will not be able to dictate voluntary standards as a condition of planning permission. However, new limited "optional building regulations" will allow councils to set standards higher than the national baseline as long as they can provide evidence of need and demonstrate that the requirements would not have an unreasonable adverse impact on development viability when considered alongside all other requirements.

40 The 2008 Act will still allow Councils to require:

a. a proportion of energy used in development in their area to be energy from renewable sources in the locality of the development;
b. a proportion of energy used in development in their area to be low carbon energy from sources in the locality of the development

41 Currently policy D4 of the Local Plan requires at least 10% of the total energy requirement (this includes both regulated and unregulated energy requirements) from new developments to be provided through on-site renewable energy.

Question 1

On-site renewable energy

- Should Plan:MK introduced specific requirements for on-site renewable energy in new housing and commercial developments?
- Should there be any thresholds that would trigger this requirement e.g. similar to policy D4 thresholds of more than 5 dwellings or 1000 m2 in cases of commercial developments?
- If setting a local on-site renewable energy requirement was a preferable way forward then what proportion of the energy requirement should be offset e.g.: 10%, 20% or higher? Should that include both regulated (included in the Building Regulations) and unregulated emissions (from electrical appliances and cooking)?
- Should Plan:MK include policies requiring no fossil fuel developments?

Local Carbon Offset Funds and Allowable Solutions

42 The Government has yet to make a detailed policy announcement on the delivery structure and scope of allowable solutions. Some local authorities are already exploring the use of carbon off-set funds and community energy funds as a way of delivering the concept of allowable solutions in their areas.

43 In Milton Keynes it has been shown that retrofitting energy efficiency measures in social housing can be successfully delivered by a local carbon offset fund. The Milton Keynes Carbon Offset Fund delivered significant CO_2 savings through loft and cavity wall insulation and installation of new boilers to around 7,000 homes in the Borough.

44 Also, improvements of existing local housing that would result as a consequence of Allowable Solutions could provide an important additional incentive for local communities to support housing growth.

Energy Mapping, District Heating and Combined Heat and Power

45 Milton Keynes Council has commissioned the production of a multi-layered, GIS-based Energy Map. The Energy Mapping Report (2012)[7] aims to document sustainable sources of energy and their use within Milton Keynes along with the various low and zero carbon technologies currently in place and the scope for their wider implementation, and identify assessments opportunities for energy efficiency in buildings, renewable energy generation and district heating.

46 This will enable us to identify Energy Character Areas which aim to explore the way in which sustainable energy resources and opportunities are spatially distributed across the Borough and how they may interact.

47 There are significant opportunities in any new development areas for an area-wide approach to low or zero carbon development and renewable energy provision. This is based on the potential to comprehensively plan energy efficient layouts in new neighbourhoods and the economies of scale provided by the size of the developments. This has already been achieved in Central Milton Keynes where a combined heat and power system supplies many housing and office developments.

48 The Core Strategy encourages all larger residential to consider the use of community energy networks in their development. The Strategy also says that where an existing local energy network is established, developments will be expected to connect to the network, if feasible.

Question 2

Allowable Solutions

Could the allowable solutions monies be used by the local authority for investment in local renewable (or low carbon) energy infrastructure projects and on projects that result in reductions in CO2 emissions from existing housing stock?

7 The Energy Mapping Report is available at: http://www.milton-keynes.gov.uk/environmental-health-and-trading-standards/low-carbon/energy-mapping-report

Renewable energy schemes

49 Planning practice guidance for renewable and low carbon energy (2013 PPG[8]) recognises that increasing the amount of energy from renewable and low carbon technologies will have multiple benefits to the UK as it will help us to secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses.

50 The Guidance (2013 PPG) also acknowledges that whilst increasing the proportion of energy from renewable sources is a responsibility of all communities this does not mean that the need for renewable energy automatically overrides environmental protections and the planning concerns of local communities.

51 Therefore, matters such as site selection and design should be considered at the very early stages of any renewable energy project as they could mitigate some negative impacts in the local circumstance. The Council will comprehensively review the environmental, economic and social benefits of renewable energy schemes when determining planning applications, in the context of local considerations such as landscape and visual impact and effects on residential amenity.

52 The 2013 PPG urges local planning authorities to first consider what the local potential is for renewable and low carbon energy generation. In considering that potential, the matters local planning authorities should think about include:

- the range of technologies that could be accommodated and the policies needed to encourage their development in the right places
- that the costs of many renewable energy technologies are falling, potentially increasing their attractiveness and the number of proposals
- that different technologies have different impacts and the impacts can vary by place
- the UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver

53 The Guidance confirms that where Local Planning Authorities have identified suitable areas for onshore wind or large scale solar farms, they should not have to give permission outside those areas for speculative applications involving the same type of development when they judge the impact to be unacceptable (para 10). This

8 PPG is available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225689/Planning_Practice_Guidance_for_Renewable_and_Low_Carbon_Energy.pdf

means that Plan:MK should have policies that would help identify and assess suitable sites.

54 The Council has recently commissioned a piece of work that will seek to finalise our Draft Landscape Character Assessment and, in addition, include a landscape capacity study. This Assessment will assist Milton Keynes Council in developing the landscape and visual impact elements of its policy approach towards wind turbines and solar photovoltaic developments, and to help identify suitable locations. It is anticipated that the Council will run a separate consultation on this document in the autumn of 2014 and will actively engage with the Borough's residents, our neighbours and the energy industry to produce the Assessment.

55 The Department of Energy and Climate Change (DECC) Solar Photovoltaic Strategy highlights the ambition towards deployment of PV solar panels in the existing built environment targeting the roofs of commercial, industrial and larger public buildings as well as individual houses.

56 The Strategy recognises that as the costs of solar PV come down and new financing options become available, installing solar PV is likely to become a viable option for increasing numbers of households, businesses, communities and organisations. The Strategy includes a number of interesting case studies showing how solar PV schemes could be integrated in urban environments for example as integrated parts of the buildings or photovoltaic noise barriers erected alongside road verges.

57 In Milton Keynes there are also numerous examples where renewable energy schemes were integrated into the city fabric. The examples include PV solar systems ranging from very large PV installations on public and commercial buildings (IKEA - 6,000 solar panels, Former Bus Station in CMK – 800 panels) to small installations on individual houses, but also some small scale wind turbine schemes and energy from waste installations within the city's industrial estates. The latter includes the Milton Keynes Waste Recovery Park that was granted planning permission in July 2013. When the new facility opens in 2016 it is estimated will convert residual non-renewable waste into gas sufficient to power the equivalent of 11,000 homes.

58 The Government's aim is to encourage more community energy and this is set out in its Community Energy Strategy[9] that was published in January 2014. This confirms that the renewables industry has committed to substantially increase shared ownership of new onshore renewables

9 The Community Energy Strategy is available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/275163/20140126Community_Energy_Strategy.pdf

developments and that by 2015 it should be the norm for communities to be offered the opportunity of some level of ownership by commercial developers.

59 In May 2014 the Government consulted on possible changes to Feed-in Tariff rules specifically for community energy schemes. This looked, in particular at the detail of how grant funding can work alongside feed in tariff for community projects. Once financial hurdles are overcome it is often the case that local renewable energy projects can provide much-needed cash to enable a community to develop other local enterprises.

Question 3

Renewable Energy

- Should Plan:MK support all types of renewable energy schemes provided they are acceptable in terms of their environmental, economic and social impacts?
- How could Plan:MK support local community energy schemes?
- Could Plan:MK require more renewable energy schemes on the council owned land/buildings

Flood and Water Management - Introduction

60 Flooding is a natural process which plays an important role in shaping the environment, but also threatens life and can have severe social, economic and environmental impacts. With climate change predicted to impact on flood risk, the increased frequency and scale of flooding that has been witnessed in areas of Britain in recent years could become a more regular occurrence.

61 Whilst the Borough of Milton Keynes is currently considered relatively low risk in terms of major flooding events, there are still homes and key infrastructure at risk from various sources of flooding and it is expected that, even with no further development, the impacts of climate change are likely to result in an increasing number of properties being placed at risk.

62 Aside from the potential impacts of climate change, the effects of weather events can be increased in severity as a consequence of past decisions about the location, design and nature of development. New development which does not take flood risk into account has the potential to interfere with existing drainage systems, decrease floodplain storage, reduce permeable surface areas and increase the volume and speed of runoff through a catchment. Ultimately these can lead to dramatic changes to river catchment characteristics and subsequently increase flood risk.

63 While flooding cannot be prevented entirely, its impacts can be avoided and reduced through good planning and management. It is therefore essential, that, with future development having the potential to further increase the frequency and consequence of flooding, planning policy recognises the positive contribution that avoidance and management of flood risk can make to the development of sustainable communities.

64 In planning the New Town of Milton Keynes, it was recognised that its development could create an additional flood risk. A primary objective in the original design of the town was therefore that its development should not increase flooding more than that which would have been experienced had development not taken place. To achieve this, the early masterplan developed an innovative approach based on a strategic water management system and planned open space provision.

65 Firstly, through the provision of a strategic system of linear parks along the main watercourses flowing through Milton Keynes, development within areas of flood risk was largely avoided. Secondly, the development of a number of large balancing lakes and smaller features along the River Ouzel and the Loughton and Broughton Brooks provided compensation for the increased runoff from the newly developed urban areas and recreated the storage that was lost as a result of floodplain development, allowing the flow

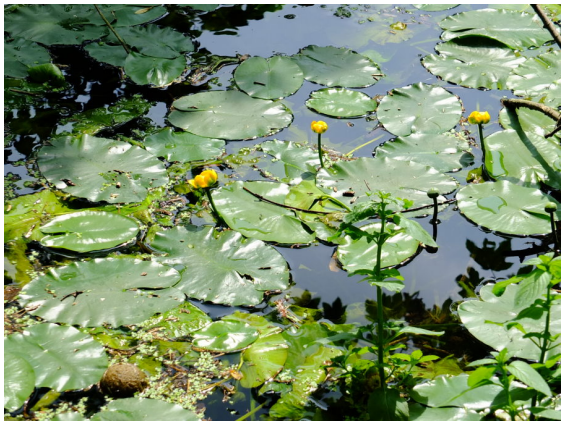
of water into the River Great Ouse to be attenuated. By designing the balancing lakes not just with individual sites of development in mind, but on a strategic level with a view to the future development potential of Milton Keynes, the flood control measures have ensured that the risk of flooding has been reduced whilst providing one of the first examples of sustainable drainage. Furthermore, as well as providing flood storage, the balancing lakes and linear parks system have also provided the city with recreation, wildlife and amenity value.

66 This approach has been successfully continued throughout the development of the New Town, both in the form of local planning policy to guide developers on the specific aspects of drainage and flood risk in Milton Keynes and more recently through the development of new balancing structures and extensions to the linear parks system into the Eastern and planned Western Expansion Areas to expand the existing strategic flood risk management system to account for the growth outside of the original designated area.

67 The existing principal spatial plan for the Borough, the Core Strategy (2013), also recognises the innovative strategic flood risk management system and its role in reducing the risk of flooding to the city and settlements downstream and outlines its continued future extension into major new development areas as a key driver of change so as to continue the water management and leisure benefits. To support this, the Core Strategy outlines a number of policies to further continue the principles of the strategic, integrated flood risk management system (i.e. Policies CS13 and CS19).

Milton Keynes as a Lead Local Flood Authority

68 The aim of reducing flood risk has also been recognised at national level for some time now, especially through the planning system with the National Planning Policy Framework containing clear policies on flood risk and development that have been continued from the previous Planning Policy Guidance Note 25 and Planning Policy Statement 25. However, the importance of reducing flood risk has recently been recognised more widely by government through the implementation of the Flood and Water Management Act (2010) which implemented recommendations from Sir Michael Pitt's Review of the 2007 floods in the UK.



69 Under the Act, Milton Keynes Council was designated as a 'Lead Local Flood Authority' (LLFA) and given a series of new responsibilities to coordinate the management of local flood risk from surface water, ground water and ordinary watercourses (Watercourses that are not classified as Main River).

70 Whilst the majority of these responsibilities are not directly related to planning and fall under legislation that is separate to that of planning (e.g. Flood and Water Management Act (2010) and Flood Risk Regulations (2009)), this increased importance of flood risk management and the additional responsibilities at a local level should be recognised through appropriate planning policies that manage and reduce flood risk and support the Council with the responsibilities it has in relation to the Flood and Water Management Act (2010).

Policy Background

National Policy

National Planning Policy Framework

71 The NPPF outlines the Government's objective that planning should take full account of flood risk. It sets out that this should be done by avoiding inappropriate development in areas at highest risk of flooding, but where development is necessary making it safe without increasing flood risk elsewhere.

72 It is expected that Local Plans should be supported by Strategic Flood Risk Assessments and should develop policies to manage flood risk from all sources, ensuring that a sequential, risk-based approach to the location of development is applied to avoid, where possible, flood risk to people and property and enable any residual risk to be managed, whilst taking into account the impacts of climate change.

73 The NPPF outlines, that this should be achieved by:

- applying the Sequential Test (aims to steer development to areas of lowest flood risk);
- if necessary, applying the Exception Test (aims to ensure that development which cannot be located in low probability flood zones, provides wider sustainability benefits and will be safe for its lifetime, without increasing flood risk elsewhere and, where possible, reducing flood risk overall);
- 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.

74 For further detail, the key policy areas, in the NPPF, with regard to flooding are included in Chapter 10 "Meeting the Challenge of Climate Change, Flooding and Coastal Change", Paragraphs 100 – 104.

Other Relevant Policy and Guidance

Great Ouse Catchment Flood Management Plan (CFMP)

75 Catchment Flood Management Plans are Environment Agency led documents which provide an overview of all types of inland flooding across a river catchment, taking into account the likely impacts of climate change, the effects of how we use and manage the land, and how areas could be developed in the most sustainable manner. They then recommend the most effective ways of managing the flood risk in the future.

76 Milton Keynes falls within the Great Ouse Catchment and is part of the Cambridge, Godmanchester and Milton Keynes/the Stratfords/Newport Pagnell sub-area.

77 The CFMP preferred policy outlined for this sub-area states that; *"in areas being developed and redeveloped, policies should be put in place to create green corridors and to incorporate flood resilience measures into the location, lay-out and design of development. Any new development should not increase the risk to existing development. For example, a strategic Sustainable Drainage System should be adopted in Milton Keynes."*

78 Furthermore one of the key messages for the sub-area is; *"the need to ensure that urban development does not increase flood risk. Opportunities should be taken to link flood risk management planning with development and urban regeneration so that the location, layout and design of the development can help to manage flood risk."*

Issues and Context

79 As has been outlined above, whilst previous instances of fluvial and surface water flooding have been experienced within Milton Keynes and indeed there are properties within the Borough that remain at risk from flood events, perhaps the biggest issue is the potential that future development has to increase the frequency and consequence of such flooding. It is therefore essential that, in developing a new Local Plan for the Borough, these potential increases are addressed and planning policy assists the Council in carrying out the statutory duty it has, under the Flood and Water Management Act (2010) to manage flood risk.

80 To this end, it is proposed that a locally specific strategic flood risk management policy is developed that promotes an integrated and sustainable approach to flood risk management, setting out principles relating to all flood risk, drainage and water environment matters that should be embedded into all development proposals in Milton Keynes, whilst taking account of the impacts of Climate Change. Further detailed guidance will also be provided through an update to the Milton Keynes Drainage Strategy - Development and Flood Risk (SPG).

81 The following sections outline proposed criteria that can be incorporated to form the basis of a strategic flood risk management policy.

Flood Risk

Avoiding Flood Risk Areas

82 To mitigate against the Borough's impact on climate change and to ensure development does not increase flood risk, the Council will continue, and develop, its existing policy that new development should be located to avoid areas of high flood risk unless the development meets the sequential approach or exception test as set out in the NPPF and associated technical guidance.

83 The Council are currently updating their Strategic Flood Risk Assessment (SFRA), which assesses and maps all forms of local flood risk, and will employ this as an evidence base to assist in directing future development to low flood risk areas. This is to be utilised both in allocating future development sites and in assessing planning applications.

84 Where sites, which are adjacent to flood risk areas, or contain elements of flood risk themselves, are found to be acceptable for development, the Council

will utilise the updated SFRA, alongside a more detailed site specific flood risk assessment, to inform the site's layout and design considerations to ensure that development is only located on parts of the site with lowest probability of flooding and any residual risk is mitigated against.

Flood Water Management

SuDS and Integrated Water Management

85 Under the Flood and Water Management Act (2010), sustainable drainage systems, designed in line with set national standards, will soon be required of all developments, primarily to ensure no increases in runoff as a result of the development. Unlike many areas, which have often viewed SuDS as additions to a development to solely deal with surface water drainage, Milton Keynes has a successful history of utilising the full, multi-functional benefits of sustainable drainage.

86 To continue the success of Milton Keynes, the original principles of the City's approach to flood risk management should be continued. It is therefore intended that The Council should maintain its policy of strategic, integrated flood management, ensuring that the management of surface water is planned at the largest appropriate scale for the new development and incorporated into the development at the earliest possible opportunity in the design process. Wherever possible it should also be designed as multi-purpose green infrastructure and open space, therefore providing further environmental, biological, social and amenity value alongside its flood risk reduction purposes.

Flood Risk Management for Potential Expansion Areas

87 The City's drainage infrastructure was only designed to incorporate development within the original Urban Development Area (UDA) and did not extend into potential future expansion sites. When development was proposed beyond the original UDA it was recognised that developers would need to provide new drainage infrastructure to ensure the peripheral expansion of the City did not have an adverse impact on flood risk. Subsequently, the Northern, Western and Eastern Expansion Areas of the City have all been designed with new strategic drainage infrastructure based on the existing flood management principles of the City and integrated into the drainage infrastructure of the UDA.

88 If further growth of the city is to be proposed, beyond the current urban development area, it is anticipated that new expansion sites should continue the

strategic drainage philosophy outlined above, extending the existing City's multi-purpose green infrastructure network to provide development free corridors along watercourses and to integrate new drainage infrastructure features.

Water Quality

89 Aside from flood risk and drainage, consideration must also be given to other elements of the water environment, in particular the issue of water quality. The Council has a statutory duty, as set out in the Water Framework Directive, to ensure that there is improvement to water body quality through its policies and actions. It is therefore intended that either a separate water quality policy is developed or water quality criteria are incorporated into flood risk management policies, outlining principles that should be embedded into any development proposals to ensure that development does not detrimentally affect water quality and where possible helps the Council meet its legal duty in improving water body quality.

Water Cycle Study

90 The Council will also be producing an updated Water Cycle Study (WCS) as further background evidence for the continuing development of Plan:MK. The WCS will identify the existing capacity of the current water environment and water cycle infrastructure (including water resources and water supply infrastructure, wastewater treatment, water quality, sewerage and flood risk) and assess the demands of any potential future levels of growth on this infrastructure.

91 The WCS will assess if there are any issues which could overload existing infrastructure, potentially constraining growth or causing delays to development. This will enable any such issues to be resolved at the earliest possible stage and ensure that any new water services infrastructure, necessary to facilitate growth, is identified and planned for in a strategic manner and implemented in time to meet the needs of new development and support the delivery of sustainable growth to the end of the plan period.

92 The WCS will be produced once there is a better understanding of how Milton Keynes could grow and the levels of growth that could be experienced during the Plan:MK period up to 2031. It will then provide a key background evidence document to be utilised in further developing Plan:MK.

Question 4

Flood and Water Management

- Do you agree that a locally specific strategic flood risk management policy, incorporating the elements outlined above, should be developed as part of Plan:MK?
- Are there any of the elements outlined above that you disagree with or feel could be dealt with differently within Plan:MK?
- Are there any additional elements that you feel have not been included and could be covered by a strategic flood risk management policy for Milton Keynes?

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