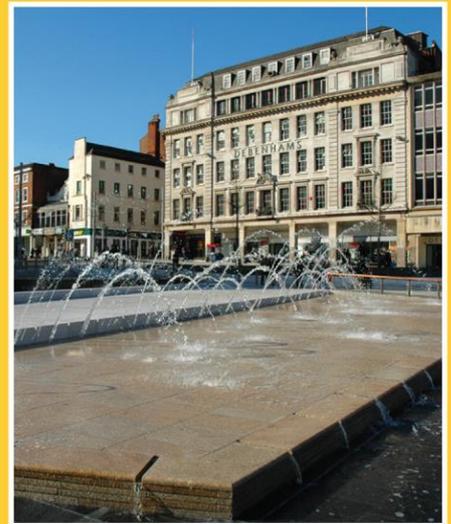


Nottingham City

land and planning policies

Development Plan Document
Local Plan Part 2



**Climate Change
Background Paper**
January 2016



Nottingham
City Council

Quick Guide to the Climate Change Background Paper to the Land and Planning Policies Development Plan Document Publication Version of the Land and Planning Policies (LAPP) document (Local Plan Part 2) (see www.nottinghamcity.gov.uk/localplan)

Purpose of this document:

The Land and Planning Policies (LAPP) document (Local Plan Part 2) forms part of the Local Plan for Nottingham City along with the Core Strategy which guides future development in Nottingham City.

The Local Plan Part 2 contains development management policies against which planning applications will be determined and also includes site allocations for future development.

Following a consultation period on the Local Plan Part 2 which will run from 29 January to 5pm on 11th March 2016, the Plan will be submitted for independent examination, where its soundness will be tested.

This background paper provides information on factors which have informed the development of Climate Change policies within the Local Plan Part 2 covering issues such as sustainable design, energy, water resources and flood risk. It sets out the National policy context and local information such as the nature of local water resources and flooding which have informed the scope of the policies.

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1. Introduction

- 1.1 Climate change can be described as changes to long term trends of normal weather patterns as a result of human action – particularly industrialisation, use of fossil fuels and the resultant increase in greenhouse gases. The time scale for climate change can be observed over periods of around 30 years, scientifically and spatially from a specific location.
- 1.2 The impacts of climate change can include extreme weather, flooding and altered habitats. Local Plan policies can play a key role in helping to mitigate and adapt to the effects of climate change through sustainable approaches to building design, supporting low and zero carbon energy generation, creating and maintaining habitats and open space and addressing and mitigating against flood risk.
- 1.3 The purpose of this background paper is to provide background information for the Publication Version Local Plan Part 2, and to examine what the potential scope of policies relating to Climate Change should be.
- 1.4 The key planning issues and challenges relating to climate change across Nottingham are:
 - Supporting reductions in the emission of greenhouse gases;
 - Reducing the use of fossil fuels;
 - Reducing the need for energy;
 - Supporting the move to a low carbon economy;
 - Increasing the use and generation of low carbon energy;
 - Reducing, mitigating and adapting to flood risk.

2. National Context

Climate Change Act (2008)

- 2.1 The Climate Change Act (2008) puts in place a legally binding target to reduce green house gas emissions by at least 80% by 2050.
- 2.2 The main provisions of the Act are:
 - Carbon targets and carbon budgeting: in addition to the long term target of at least 80% reduction in Greenhouse Gas Emissions by 2050, there is also a carbon budgeting system, which caps emissions over five year periods.
 - The Committee on Climate Change: The Act created an independent body to advise Government of the level of carbon budgets and where cost effective carbon savings can be made.

- Trading schemes: It introduced emissions trading schemes to reduce green house gas emissions.
- Impact and adaptation to climate change: The Government must report at least every five years on the risks to the UK from climate change, and publish a programme setting out how these impacts will be addressed. Powers for Government to require public bodies to carry out their own climate impact risk assessment and make plans to address those risks were also introduced.

Planning and Energy Act (2008)

2.3 This Act enabled Local Planning Authorities to set reasonable requirements for:

- A proportion of energy used in development to be from renewable sources in the locality of the development;
- A proportion of energy used in development to be low carbon energy from sources in the locality of the development; and
- Development to comply with energy efficiency standards that exceed the energy requirements of building regulations (see also updated position regarding new dwellings set out in the section on National Standards).

National Planning Policy Framework (2012)

2.4 The National Planning Policy Framework (NPPF), which was published in March 2012, sets out a number of requirements for planning and climate change. It requires Local Planning Authorities (LPAs) to adopt proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations.

2.5 Paragraph 95 sets out that, to support the move to a low carbon future LPAs should:

- plan for new development in locations and ways which reduce greenhouse gas emissions;
- actively support energy efficiency improvements to existing buildings; and
- when setting any local requirement for a building's sustainability, do so in a way consistent with the Government's zero carbon buildings policy and adopt nationally described standards.

2.6 In order to increase the use and supply of renewable and low carbon energy, LPAs should recognise the responsibility on all communities to contribute to energy generation from these sources. In accordance with Paragraph 97 they should:

- have a positive strategy to promote energy from renewable and low carbon sources;
- design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;
- consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;
- support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning; and
- identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

2.7 The NPPF also sets out specific guidance with regards planning for flooding. Paragraph 100 states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. Local Plans should apply a sequential, risk based approach to flooding, taking into account the impacts of climate change by:

- 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.

2.8 Further to this, Paragraph 102 states that, if, following application of the Sequential Test, it is not possible, consistent with wider sustainability objectives, for the development to be located in zones with a lower probability of flooding, the Exception Test can be applied if appropriate. For the Exception Test to be passed:

- it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk, informed by a Strategic Flood Risk Assessment where one has been prepared; and
- a site-specific flood risk assessment must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

2.9 Both elements of the test will have to be passed for development to be allocated or permitted.

National Renewable Energy Action Plan (2009)

2.10 The United Kingdom is legally committed to achieving 15% of the UK's energy demand from renewable sources by 2020. The action plan intends to achieve the 15% target through domestic action. It states that the UK could deliver about 30% of electricity, 12% of heat, and 10% of transport energy from renewable sources by 2020.

Housing Standards Review 2015

2.11 In March 2015 the Government launched its new approach to streamlining and rationalising house building standards. From 1st October 2015 Local Authorities can no longer apply locally derived standards for new homes relating to space, energy performance, accessibility, water consumption or security. The introduction of national standards relating to energy and water consumption has a direct impact on the scope of the Council's Climate Change policies.

2.12 The National Standards introduce a single mandatory standard for the energy performance of new homes which will be implemented through the Building Regulations. This replaces other local energy standards including the Code for Sustainable Homes which has been withdrawn.

2.13 In terms of water consumption, in areas of water stress, Council's may choose to adopt the Government's optional higher standard for water consumption via Local Plan Policies (subject to evidence of need and viability). This optional higher water consumption standard is described within the Building Regulations but implemented via the application of planning conditions.

Fixing the foundations: creating a more prosperous nation July 2015

- 2.14 Issued in July 2015, this paper sets out Government's ambitions to increase productivity and support business growth. As part of the Government's proposals to improve the planning process and reduce regulation on house builders, the Government has confirmed that it does not intend to proceed with changes to the Building Regulations to require zero carbon homes in 2016 or the Allowable Solutions carbon offsetting scheme.

The Water Framework Directive (Directive 200/60/EC)

- 2.15 The Water Framework Directive is a European Union Directive which commits European Union member states to protect and prevent deterioration in the status of aquatic ecosystems and progressively improve the ecological condition of waters including reduction of pollution and mitigating the effects of floods and droughts.

Flood and Water Management Act 2010

- 2.16 The Government introduced the Flood and Water Management Act in 2010. The Act clarified the roles and responsibilities of different flood risk management authorities and made Upper Tier and Unitary Authorities the Lead Local Flood Authority (LLFA) for their area. Nottingham City is the Lead Local Flood Authority.

National Planning Policy Changes relating to SuDS

- 2.17 In December 2014 a Written Ministerial Statement was presented to parliament which set out a requirement for all major developments to include SuDS. The Statement outlines the expectation that the policies and decisions of LPAs will ensure that SuDS are used for the management of surface water runoff in all new developments. DCLG is not proposing to change the NPPF to reflect the change but the Statement should be read alongside the NPPF.

- 2.18 The change in national policy came into force on 6th April 2015. DCLG and Defra have released the following technical documents and updated the NPPG to support the change in policy including:

- [Sustainable Drainage Systems: Non-statutory technical standards](#) (March 2015)
- [Planning Practice Guidance: Reducing the causes and impacts of flooding](#) (March 2015)

- 2.19 The Written Ministerial Statement outlined that LLFAs will be a statutory consultee for surface water drainage matters in all major developments. By consulting the LLFA, the LPA should be satisfied that the proposed minimum standards of operation of the proposed

SuDS are appropriate and that through the use of planning conditions or planning obligations that there are clear arrangements in place for ongoing maintenance over the lifetime of the development. Schedule 4 of the Development Management Procedure Order has been updated to reflect the new consultation requirement, which took effect from 15 April 2015.

3. Local Context

3.1 The following regional and local documents and initiatives are relevant to the consideration of climate change in Nottingham:

- Nottingham City Aligned Core Strategy (adopted September 2014)
- Sustainable Community Strategy – The Nottingham Plan to 2020
- The Nottingham Growth Plan
- Low Carbon Pioneer City
- Energy Strategy
- Community Climate Change Strategy
- Local Transport Plan
- Greater Nottingham and Ashfield Outline Water Cycle Study 2010
- Humber River Basin Management Plan 2009
- Low Carbon Opportunities Report March 2011
- Nottingham District Heating System

The Nottingham City Aligned Core Strategy (2014)

3.2 The Nottingham City Aligned Core Strategy was adopted in 2014. This document, alongside more recent Government guidance and announcements, sets the strategic policy context for the Council's approach to Climate Change.

Policy 1: Climate Change sets out the following requirements:

1. *All development proposals will be expected to mitigate against and adapt to climate change, to comply with national and contribute to local targets on reducing carbon emissions and energy use unless it can be demonstrated that compliance with the policy is not viable or feasible.*

Sustainable Design and Adaptation

2. *Development, including refurbishment where it requires planning permission, will be expected to take account of the following:*
 - a) *how it makes effective use of sustainably sourced resources and materials, minimises waste, and water use. For residential development, planned water use should be no more than 105 litres per person per day;*

b) how it is located, laid out, sited and designed to withstand the long and short term impacts of climate change, particularly the effect of rising temperatures, sustained periods of high temperatures and periods of intense rain and storms;

c) that the building form and its construction allows for adaptation to future changes in climate; and

d) that the building form and its construction permits further reduction in the building's carbon footprint, where feasible and viable.

Reducing Carbon Dioxide Emissions

3. Development should demonstrate how carbon dioxide emissions have been minimised in accordance with the following energy hierarchy:

a) Using less energy through energy efficient building design and construction, including thermal insulation, passive ventilation and cooling;

b) Utilising energy efficient supplies – including connecting to available heat and power networks; and

c) Maximising use of renewable and low carbon energy generation system.

4. Further guidance on how development should contribute to reducing carbon dioxide emissions will be set out in part 2 Local Plans, where appropriate.

Decentralised Energy Generation

5. The extension of existing or development of new decentralised renewable and low-carbon energy schemes appropriate for the plan area will be promoted and encouraged, including biomass power generation, combined heat and power, and micro generation systems. In line with the energy hierarchy, adjacent new developments will be expected to utilise such energy wherever it is feasible and viable to do so.

Flood Risk and Sustainable Drainage

6. Development will be supported that adopts the precautionary principle, that avoids areas of current and future flood risk, which, individually or cumulatively does not increase the risk of flooding elsewhere and, where possible, reduces flood risk.

7. Where no reasonable site within Flood Zone 1 is available, allocations in Flood Zone 2 and Flood Zone 3 will be considered on a sequential basis.

8. Where it is necessary to apply the Exception Test, the following factors will be taken into account when considering if development has wider sustainability benefits to the community that outweigh flood risk:

a) there are exceptional and sustainable circumstances for locating the development within such areas, including the necessary re-use of brownfield sites; and

b) the risk can be fully mitigated by engineering and design measures.

9. Where appropriate, further guidance on the application of the sequential and Exception Test will be set out in part 2 Local Plans.

10. All new development should incorporate measures to reduce surface water runoff whilst managing surface water drainage in a sustainable manner, and Sustainable Drainage Systems should be incorporated into all new development unless it can be demonstrated that such measures are not viable or technically feasible.

- 3.3 In addition to Policy 1, the Core Strategy includes a range of policies which support sustainable development and help to positively address climate change. The following policies are particularly relevant:

Policy 2: The Spatial Strategy

Policy 7: Regeneration

Policy 8: Design and Enhancing Local Identity

Policy 14: Managing Travel Demand

Nottingham Plan to 2020

- 3.4 The Nottingham Plan to 2020 is the City's Sustainable Community Strategy. It has three cross-cutting aims – green (which includes climate change), aspiring, fair – and six strategic priorities.

- 3.5 Under strategic priority 1, one of the headline targets is to reduce the City's carbon emissions by 26% of 2005 levels by 2020. The 2005 baseline was 6.5 tonnes of CO₂ per capita.

The Nottingham Growth Plan (2012)

- 3.6 The Nottingham Growth Plan was launched in 2012. It sets out the strategy for economic growth within the City. One of the key sectors identified for delivery in the future is 'clean technology', which includes companies providing technologies, goods and services that will enable the UK's transition to a low-carbon economy.

Low Carbon Pioneer City

- 3.7 Nottingham has been recognised by the Department of Energy and Climate Change as a Low Carbon Pioneer City. This is in recognition of Nottingham's ambitious plans and investment in green infrastructure and technologies, generation of low carbon jobs, and accelerated reductions in emissions as well as its due to its role as one of the UK's leading cities in low / zero carbon generation. Being recognised as a Low Carbon Pioneer City means that Nottingham will have access to Government Funding streams to trial initiatives before they become national schemes.
- 3.8 Nottingham so far has been successful in securing funding via the Low Carbon Pioneer Cities programme for Heat Strategy Master Planning, which assesses the feasibility of district heating networks in the Southern Gateway, Boots Enterprise Zone, and the Creative Quarter. This funding is also looking at feasibility to develop pricing mechanisms that offer incentives to develop and connect to heat networks.
- 3.9 Nottingham has also secured funding for Green Deal go early, which has seen Nottingham deliver solid wall insulation, and Green Deal type assessment and measures in social housing in Nottingham, as well as workshops for the non-domestic sector to outline opportunities available through Green Deal.

Energy Strategy (2010)

- 3.10 The Energy Strategy (2010-2021) provides an overarching framework for the City's plans, programmes and initiatives relating to sustainable energy supply and use to 2021: cutting emissions, maintaining energy security, maximising economic opportunities and protecting the most vulnerable citizens.
- 3.11 The Action Plan prioritises the delivery of:
- A 26% reduction of carbon dioxide emissions against 2005 levels,
 - 20% of the City's own energy generated from low or zero carbon sources by 2020.
- 3.12 To meet the national and local targets for heat and power, the strategy sets out that the following will be required:
- More than doubling the size of the City district heating network;
 - Development of a local biomass processing and transfer site;
 - Significant capacity of new biomass CHP plant with associated district heating;
 - Consideration of a City anaerobic digester;
 - Increase in low or zero carbon energy measures installed in the domestic and commercial sector.

3.13 The strategy sets out the following energy vision for Nottingham:

- A city insulated against high energy prices;
- Secure, low carbon energy supply and services available for businesses, public and domestic sector;
- A City prepared for climate change and peak oil;
- A City leading on growth in low carbon jobs, industries, services and training;
- A City exemplar of integrated low carbon heat, power and transport;
- An exemplar of neighbourhood community energy solutions; and
- A smart City where energy flows are planned, mapped and monitored.

3.14 A detailed action plan sets out a significant number of actions through which to meet the targets and aims. One of these actions is the establishment of an Energy Park to support new and relocating energy related businesses to base their operations here. Planning permission was granted in July 2014 for an Energy Park off Blenheim Lane including an Energy from Waste Facility with research and development facilities.

Nottingham Community Climate Change Strategy (2012)

3.15 The Nottingham Community Climate Change Strategy (2012-2020) has the following vision:

- A City where there is access to secure, affordable local energy, where buildings make the most of the natural environment and are adaptable to our future climate;
- A City with little congestion and vehicle use, and excellent public transport, and where vehicles are fuelled by renewable energy;
- A City where you can buy local affordable food, where you have a place to breathe and enjoy the best of what nature provides; and
- A City where you have a secure career at the forefront of the low carbon technology, within a thriving green economy.

3.16 The document recognises the links with other City Council strategies, including planning policy and the Core Strategy / Local Plan. It also recognises Nottingham City's plans for investing in the low carbon economy and, in particular, the existing Science City designation and the emerging Energy Park in Bulwell.

Local Transport Plan (LTP)

3.17 The Nottingham Local Transport Plan outlines the City Council's long term transport strategy and three-year rolling investment programme.

The current LTP came into effect on 1 April 2011 and is formed of two documents.

- **Local Transport Plan 3: 2011-2026 Strategy**
This Plan forms the strategy and investment proposals for delivering transport improvements across Nottingham City Council's administrative area from 2011 to 2026.
- **Local Transport Plan 3: Implementation Plan 2015-2018**

3.18 The Implementation Plan identifies the potential funding sources for improving public transport and sets out how the programme will be delivered and managed to achieve value for money through key programme governance and risk management processes.

3.19 The LTP aims to support modal change to sustainable forms of transport, improve air quality and achieve reductions in carbon emissions.

Greater Nottingham and Ashfield Water Cycle Study 2010

3.20 The report considers in detail the likely water related constraints and impacts of the development levels proposed across Greater Nottingham and Ashfield. The study considers a number of development scenarios and assessed the impact on clean water, waste water, water resources, water quality and flood risk with a 'traffic light' approach. The report confirms that many areas of Nottingham are at risk of flooding and sensitive to both fluvial and other sources of flooding. The River Leen and Day Brook river corridors and catchments require particularly careful management to ensure that new development does not increase flood risk.

3.21 Potential mitigation and intervention measures to facilitate sustainable development are identified at a strategic level. Consultation with key stakeholders during the preparation of the Local Plan Part 2 have confirmed that the conclusions of the study remain relevant for the proposed policies, particularly the approach to water consumption which sets out an aspiration to achieve a rate of 105 litres per person per day. This requirement was taken forward by the Core Strategy.

Humber River Basin Management Plan 2009 (currently under review consultation closed April 2015)

3.22 In line with this Directive, River Basin Management Plans have been developed across England and Wales in order to protect and improve the water environment (including the hydromorphology of water bodies). They contain the main issues for the water environment, as well as the actions needed to be taken. The Humber River Basin Management Plan applies to Nottingham City, specifically the elements surrounding the Erewash and Lower Trent.

Low Carbon Opportunities Report March 2011

3.23 The Low Carbon Opportunities (LCO) report commissioned by the East Midlands Councils assesses the technical potential for renewable and low carbon energy technologies across the East Midlands. The report does not provide guidance on specific sites but looks at the theoretical potential for renewable energy. The key conclusions of the report as regards Nottingham are included in the assessment below.

- Solar Energy - The LCO report concludes that all areas have considerable potential for solar thermal and solar photovoltaic renewable energy.
- Wind - May be suitable depending on local characteristics but Nottingham potentially limited possibility.
- Ground/Air - There is considerable potential for air source heating and heat pumps (subject to site specific ground conditions).
- Water - The report sets out that there is limited potential for hydro generation across the area. However the report makes little comment on the potential for water source heat pumps which may be appropriate in the area (such as the development at River Crescent in Nottingham for example).
- Waste/Biomass - Nottingham is identified as having particular potential for the generation of energy from municipal and commercial/industrial waste and waste wood.

District Heating System

3.24 Nottingham City currently has an extensive district heating network, which is run by EnviroEnergy via heat received from the Eastcroft Energy from Waste facility. The existing district heating network runs into St Ann's and the Lace Market, and was recently extended to the south of the City Centre with capacity at many locations along the network.

4. Local Plan Part 2 Approach to Climate Change

4.1 The Local Plan Part 2 proposes a range of measures to help address and mitigate the impacts of Climate Change and to contribute to national policy and local strategies for sustainable development. The policies address the following areas:

- Supporting reductions in the emission of green house gases;
- Reducing the use of fossil fuels;
- Reducing the need for energy;
- Supporting the move to a low carbon economy;

- Increasing the use and generation of low carbon energy;
- Reducing, mitigating and adapting to flood risk.

4.2 The themes are cross cutting and the relevant Local Plan policies address one or several of the above themes. The policy areas and the broad approach are set out below:

Policy CC1: Sustainable Design and Construction

4.3 Planning policy can have a positive impact on the materials, design, location and construction techniques used for new buildings. This can support the use of recycled materials, energy efficiency, use of low carbon energy and measures to reduce water consumption. Well-designed space around buildings can support SuDS or other flood management features (such as swales) which may also provide benefits for wildlife or open space provision.

4.4 Therefore Policy CC1 seeks to ensure that new development is designed, located and orientated to maximise sustainability to help meet national and local targets where practicable and viable.

4.5 The council also proposes to adopt the Government’s optional higher standard for water consumption (of 110lpd) as this is broadly equivalent to the current local standard adopted via the Nottingham Aligned Core Strategy (which follows the recommendations of the Greater Nottingham and Ashfield Water Cycle study). This approach is supported by the Environment Agency and Severn Trent due to the constrained nature of water supply in the area. This standard will be applied by planning condition.

4.6 Whilst the energy performance of new homes is now dealt with by the Building Regulations, the Local Plan sets out sustainable design standards for non-domestic dwellings. The most widely accepted standard for non-domestic development is the Building Research Establishment Environmental Assessment Method (BREEAM). BREEAM scores are defined as – outstanding, excellent, very good, good, pass and unclassified. For newly constructed non-domestic buildings (which include office, industrial, retail, education, healthcare, prisons, law courts and residential institutions), BREEAM looks at the following categories:

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Pollution
- Innovation

- 4.7 Low emission vehicles can make a significant contribution to reducing the UK's greenhouse emissions and Government is encouraging councils to facilitate the provision of infrastructure to support the transition to this new but growing technology. This will assist in moving the UK towards compliance with its legal obligation with regards to air quality.

Policy CC2: Decentralised Energy and Heat Networks

- 4.8 The NPPF sets out that Local Authorities should identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and that in determining planning applications local authorities should expect new development to comply with local requirements for decentralised energy unless no viable or feasible.
- 4.9 Nottingham City Centre has an extensive District Heating System which provides a low carbon source of heat for many residents and businesses and this is shown on the Policies Map. Policy CC2 sets out expectations regarding connection to the system subject to the capacity of the network and viability and feasibility of connection. The City Council has worked closely with EnviroEnergy to define where connection to the network may be possible in terms of heat consumption and proximity.
- 4.10 The Low Carbon Opportunities Report (see above) outlines opportunities for other decentralised and low carbon energy networks and sources in the East Midlands. The report identifies solar and biomass as particularly relevant to Nottingham. Policy CC2 seeks to support the creation of decentralised energy and heat networks provided that any adverse impacts of development can be avoided or mitigated.

Policy CC3: Water

- 4.11 Sustainable drainage systems (SuDS) can play an important role in managing surface water runoff and reducing flood risk. These management and control systems are designed to drain surface water in a more sustainable way than conventional systems. Reducing the amount of surface water run-off helps to manage water resources more sustainably and helps meet national planning policy which promotes the control of surface water run-off as near to the source as possible. SuDS also have a role in improving the quality of the run-off from a development and enhancing nature conservation/biodiversity, particularly in densely built up urban areas.
- 4.12 SuDS schemes can vary in size and composition and can be used in most developments where the flow of water would be large enough to be readily reduced. Preventative measures, such as basic good

housekeeping, are always the first stage of the SuDS approach to avert or reduce pollution and run-off quantities. Techniques which can be incorporated in developing SuDS vary from the relatively straightforward such as soakaways and reducing areas of impervious surfaces on a site through to green roofs and using swales, basins, infiltration trenches, filter drains and drainage ponds to collect and store water.

- 4.13 Government policy requires that all major developments incorporate SuDS and Policy 1 of the Nottingham City Aligned Core Strategy sets out that all new development should incorporate measures to reduce surface water run-off and reduce the risk of flooding. SuDS should also be implemented unless it can be demonstrated that such measures are not viable or technically feasible. Policy CC3 therefore requires SuDS on all developments and appropriate arrangements for maintenance and management.
- 4.14 Policy CC3 seeks to ensure that where possible, development delivers betterment in managing flood risk and that surface water run off rates are as close to greenfield rates as possible. This may not always be practicable or feasible but should be the starting point for all developments. Technical evidence will be required to demonstrate that the approach to surface water run off is reasonable and acceptable.
- 4.15 National Policy on managing flooding is based on a sequential risk based approach to flood risk, firstly locating development and more vulnerable uses in the areas of least risk. Policy 1 of the Aligned Core Strategy applies this sequential approach and, where necessary, the exception test.
- 4.16 Policy CC3 accordingly sets out that new development should not increase the risk of flooding elsewhere and should where possible reduce flood risk and be accompanied by site specific flood risk assessments where appropriate. The site allocations Development Principles also set out where flood risk assessments are required.

Supporting Policies

- 4.17 Sustainability is a theme which runs through all of the policies of the Local Plan. In addition to policies specifically addressing climate change, elements of the following policies make a direct positive contribution to reducing and mitigating adverse impacts.

Transport Policies – TR1, TR2 and TR3

- 4.18 The location and accessibility of new development has an impact on the type and level of transport journeys undertaken and in turn the likely energy use and carbon emissions indirectly arising from that development. The provision of attractive sustainable modes of travel (including low emission vehicles) supports modal shift and reductions

in greenhouse gas emissions. Policies TR1, TR2 and TR3 seek to maximise opportunities for the most sustainable forms of transport and encourage modal shift.

Design Policies – DE1, DE2

- 4.19 Complementary to CC1, design policies DE1 and DE2 set out criteria for assessing new development in relation to the principles of sustainable design and maximising opportunities for sustainable construction.

Open Space Policies - EN1, EN2, EN5

- 4.20 Policies EN1 and EN2 seek to retain and protect existing open spaces and create new open space as part of development proposals. Open spaces play an important role in absorbing surface water runoff. Policy EN5 links closely to policies on flood risk and seeks to avoid loss of open waterways and remove culverting where possible.

5. Viability and Feasibility

- 5.1 Placing additional requirements on development can add to the cost of a scheme and, in some cases, may make it unviable. Similarly, it may not be technically feasible to provide some measures onsite.
- 5.2 In order to ensure the deliverability of Local Plans, undue burdens should not be placed on development in accordance with the NPPF. In order to ensure compliance with the NPPF and to ensure the City's approach is deliverable, a plan-wide viability assessment has been undertaken which has considered the impacts of additional statutory measures (SuDS and energy requirements of the Building Regulations) and optional policy requirements such as water consumption and sustainable design.
- 5.3 The assessments conclude that the plan wide viability is not unduly affected by these requirements although careful assessment will be required on a site by site basis as part of the Development Management process. The policy approach acknowledges that some flexibility is required to address instances where the inclusion of sustainable measure is demonstrably unviable or impractical. Further information is set out within the Infrastructure Delivery Plan.

6. Conclusions

- 6.1 The LAPP policies set out within this background paper are consistent with national guidance set out in the NPPF and NPPG, and are in accordance with the strategic policies set out within the ACS. The approach taken within the Local Plan will support national and local objectives for sustainable development.

- 6.2 Nottingham has embraced sustainable development and has led a number of high level successful low carbon initiatives. It is a founding member of the Nottingham Declaration on Climate Change and is recognised as being a Low Carbon Pioneer City, due to its role as one of the UK's leading cities in low / zero carbon generation.
- 6.3 Nottingham also has a number of unique assets, including, an extensive existing district heating network and the Nottingham Energy Park which provide opportunities for further development of low carbon energy generation and supply.
- 6.4 Whilst many areas of the City are at flood risk, many of the proposed development sites are located on brownfield land where there are positive opportunities to address and manage flood risk and provide betterment particularly in terms of surface water run off.

Documents Referred to within the Climate Change Background Paper:

- Ministerial Statement on SuDS December 2015
<http://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2014-12-18/HCWS161/>
- Non-statutory technical standards for sustainable drainage systems March 2015
<https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards>
- Climate Change Act 2008
- Planning and Energy Act 2008
- National Renewable Energy Plan 2009
- Housing Standards Review 2015
- Fixing the Foundations: creating a more prosperous nation July 2015
- Flood and Water Management Act 2010
- Nottingham Growth Plan
- Nottingham Energy Strategy 2010
- Nottingham Community Climate Change Strategy 2012
- Local Transport Plan
- Water Cycle Study 2010
- Low Carbon Opportunities Report March 2011
<http://www.emcouncils.gov.uk/write/Emids-low-carbon-energy-opportunities-Final-Report-07-2011-update.pdf>
- Humber River Basin Management Plan for the Erewash and Lower Trent;
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297488/gene0910bsqr-e-e.pdf
- European Water Quality Framework Directive