

8 Core Policies - Environmental Improvement

8.1 Managing Hillingdon's natural environment and improving local air quality especially in areas currently above both national and European limits is one of the main challenges for this Hillingdon Local Plan: Part 1- Strategic Policies. Hillingdon has a considerable network of green spaces as well as rivers and canals. These natural environments are essential to the diversity of the borough as well as promoting a healthy way of life and helping to mitigate the effects of climate change.

8.2 Hillingdon's population is expected to grow over the life of this Hillingdon Local Plan: Part 1- Strategic Policies, and there will be increasing pressure on the natural environment to accommodate growth, and to manage the increasing human impacts.

8.3 Hillingdon's natural environment is highly important to the attractiveness and performance of the Borough and its protection and enhancement is an essential element of the Hillingdon Local Plan: Part 1- Strategic Policies. This chapter sets out the way that Hillingdon will protect and enhance the environment over the period of the Hillingdon Local Plan: Part 1- Strategic Policies. The Environmental Improvement chapter is organised into five parts:

1. Climate change adaptation and mitigation;
2. Open spaces, rivers and canal corridors;
3. Biodiversity and geological conservation;
4. Land, water, air and noise; and
5. Minerals and waste management.

Climate Change Adaptation and Mitigation

Strategic Objectives

- SO8: Protect and enhance biodiversity to support the necessary changes to adapt to climate change. Where possible, encourage the development of wildlife corridors.
- SO10: Improve and protect air and water quality, reduce adverse impacts from noise including the safeguarding of quiet areas and reduce the impacts of contaminated land.
- SO11: Address the impacts of climate change and minimise emissions of carbon and local air quality pollutants from new development and transport.
- SO12: Reduce the reliance on the use of the car by promoting safe and sustainable forms of transport, such as improved walking and cycling routes and encouraging travel plans.

Related policies: EM1, EM7, EM8, BE1, T1

8.4 Climate change is a global problem that requires local action as well as national. The Climate Change supplement to PPS1 acknowledges that the UK is likely to see more extreme weather events, including hotter and drier summers, flooding and rising sea-levels. The 2006 Stern Review assessed the impacts of climate change on the UK population and concluded that there will be profound and rising costs for global and national prosperity as well as severe effects on people's health and the natural environment. Responding to this challenge, the Government has set a legally binding target of reducing CO2 emissions by 80% by 2050 with the Mayor of London setting a regional target of 60% for London by 2025 ⁽³⁸⁾.

8.5 However, reducing emissions is only part of the climate change challenge and we also have to ensure that we can adapt to the changing climate. The more extreme changes in weather pattern could lead to water shortages and conversely, an increased risk of flooding and hotter summers will require greater consideration of urban heat islands and the need for cooling in new development. In addition, the natural environment will come under threat from the changing climate as well as from increasing development pressures.

Main Challenges

8.6 Table 3.1 in Chapter 3 identifies six main challenges relating to climate change adaptation and mitigation:

- Pressure to balance the demands of growth and the impacts of flood risk with minimal harm on the environment.
- The need to maintain and improve the current water resources and quality.
- The need to control, reduce and mitigate noise, especially around Heathrow and the major road network.
- The need to mitigate air quality impacts especially around the strategic road network and Heathrow Airport, in order to work towards achievement of both national and European Union standards at relevant locations and improve the local air quality for communities.
- National and EU requirements to meet Climate Change and Carbon Dioxide emission targets.
- Threats to the biological and geological interests of the borough from development pressures and climate change.

8.7 The Borough is committed to ensuring that new development will address the climate change challenge. However, this challenge should not be seen as a radical change in an approach with new demands being placed on developers, instead it should be viewed as an opportunity to help deliver against a number of Borough wide aspirations. Responding to the challenge should result in a higher quality development for the Borough that as well as mitigating and adapting to climate change has the added benefit of:

- Reducing annual energy consumption and costs for existing and future generations.
- Reducing the pressures on water resources.
- Providing a greater interaction between built and natural environment and making more space for wildlife.
- Promoting a healthier way of life.

38 London Plan (2011), Greater London Authority

- Improving local air quality.
- Exploiting the opportunities from the 'green economy' and associated employment prospects.
- Helping development to be ready for future changes now, and not locking in the need for future generations to alter buildings to address climate change.

8.8 Many of the buildings that will be in use at the end of the plan period and beyond are already built. The Local Plan will be able to set standards for new development that are far more advanced than have been seen in recent years, but a more innovative approach is required to ensure the existing building stock can be upgraded.

8.9 Energy prices in the UK are forecasted to continue to rise making newer more energy efficient buildings more appealing. However, this will result in a gulf in building quality from modern build to those still in use from the past century. The Council will need to work with developers to identify opportunities to help upgrade the existing building stock. In some instances, it might be more appropriate to relax standards to the minimum required for building regulations for new development in order for developers to contribute to upgrading the existing stock. This could help reduce the energy consumption for whole communities whilst still realising a good quality of new development. There will also be a requirement to address the need to conserve the historic environment when implementing climate change mitigation and adaptation measures taking a balanced approach between the extent of the mitigation of climate change involved against the potential harm to the significance of the heritage asset or its setting.

8.10 The London Heat Mapping exercise revealed several areas within the Borough have concentrated areas of high heat demand. These areas represent opportunities to deliver district heating networks that can provide an efficient form of delivering the heating demands of large areas. Heating networks are developed around a central location that produces heat, either directly through gas fired heat and power, or from waste heat from large scale power stations. These networks can provide a resource efficient method of supplying heat to residential and commercial units. This saves energy, money and importantly helps to reduce carbon emissions. The PPS1 Climate Change Supplement consultation includes requirements for Councils to investigate potential for district heating networks. The Borough intends to complete a heat mapping exercise similar to the London wide approach. Developers will be required to follow the policies that emerge from the exercise and these will be laid out in the development management document.

8.11 Climate change is a very broad subject and cannot be tackled by an isolated policy issue. For example, a policy on reducing the reliance on private car use is included within the transport section (see Policies T1, T2, T3 and T4), and matters for sustainable design are included within the built environment section (see Policy BE1). Climate change is not a separate topic that needs addressing but is integrated within the Hillingdon Local Plan: Part 1- Strategic Policies framework. Policy EM1 below includes criteria that need to be considered throughout the development of the Local Plan. The subsequent Hillingdon Local Plan: Part 2 -Site Specific Allocations LDD and Development Management Policies LDD along with any future SPD's must accord with the overarching principles of this policy.

Policy EM1: Climate Change Adaptation and Mitigation

The Council will ensure that climate change mitigation is addressed at every stage of the development process by:

1. Prioritising higher density development in urban and town centres that are well served by sustainable forms of transport.
2. Promoting a modal shift away from private car use and requiring new development to include innovative initiatives to reduce car dependency.
3. Ensuring development meets the highest possible design standards whilst still retaining competitiveness within the market.
4. Working with developers of major schemes to identify the opportunities to help provide efficiency initiatives that can benefit the existing building stock.
5. Promoting the use of decentralised energy within large scale development whilst improving local air quality levels.
6. Targeting areas with high carbon emissions for additional reductions through low carbon strategies. These strategies will also have an objective to minimise other pollutants that impact on local air quality. Targeting areas of poor air quality for additional emissions reductions.
7. Encouraging sustainable techniques to land remediation to reduce the need to transport waste to landfill. In particular developers should consider bioremediation⁽³⁹⁾ as part of their proposals.
8. Encouraging the installation of renewable energy for all new development in meeting the carbon reduction targets savings set out in the London Plan. Identify opportunities for new sources of electricity generation including anaerobic digestion, hydroelectricity and a greater use of waste as a resource.
9. Promoting new development to contribute to the upgrading of existing housing stock where appropriate.

The Borough will ensure that climate change adaptation is addressed at every stage of the development process by:

10. Locating and designing development to minimise the probability and impacts of flooding.
11. Requiring major development proposals to consider the whole water cycle impact which includes flood risk management, foul and surface water drainage and water consumption.
12. Giving preference to development of previously developed land to avoid the loss of further green areas.

39 Bioremediation can be defined as any process that uses microorganisms or their enzymes to return the environment altered by contaminants to its original condition. Source: http://www.bionewsonline.com/w/what_is_bioremediation.htm

13. Promoting the use of living walls and roofs, alongside sustainable forms of drainage to manage surface water run-off and increase the amount of carbon sinks⁽⁴⁰⁾.
14. Promoting the inclusion of passive design⁽⁴¹⁾ measures to reduce the impacts of urban heat effects.

Implementation of Policy EM1- how we will achieve this

- The Council will implement policy EM1 through the topic policies in the Hillingdon Local Plan: Part 1- Strategic Policies.
- The above criteria are essential to ensure that this Hillingdon Local Plan: Part 1- Strategic Policies and future Local Plan plans and programmes can help the Borough respond positively to climate change. The implementation of the criteria is embedded within most of the Hillingdon Local Plan: Part 1- Strategic Policies.
- In addition to the above, there will be a requirement to include the criteria in the development of the Hillingdon Local Plan: Part 2- Heathrow Area Policies Local Development Document. This will ensure that this highly important growth area is fully considerate of the environmental challenges alongside the social and economic matters.
- All the above criteria will be fed into the preparation of the Hillingdon Local Plan: Part 2- Development Management Policies Local Development Document (LDD). This LDD will provide further details which development proposals must follow.
- A separate Heat Mapping Exercise will be undertaken by the Council in accordance with the London Plan requirements. This will build on the work in the London Heat Mapping exercise which has revealed possible opportunities for district heat networking to provide a more efficient approach to community heating needs. Policies in the Hillingdon Local Plan: Part 2- Development Management Policies LDD will require developers to investigate and link into identified networks.

Flexibility

Figures for reducing CO2 emissions in Hillingdon take account of national targets and regional targets in the London Plan (2011).

40 A carbon sink is a natural or man-made reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period. The natural environment works as a carbon sink absorbing Carbon Dioxide and generating oxygen.

41 Passive design is about ensuring that the fabric of the building and the spaces within it respond effectively to local climate and site conditions in order to maximise comfort for the occupants. Source: <http://www.level.org.nz/passive-design/>

Monitoring of Policy EM1- how we will measure success

Monitoring of the policy EM1 will be through the Annual Monitoring Report with specific links to:

- **E1 (Core) Indicator:** Number of planning permissions granted contrary to the advice of the Environment Agency on either flood defence grounds or water quality. **Target:** No planning permission will be granted contrary to the advice of the Environment Agency on either flood defence grounds or water quality (or any other targets set by Government).
- **E2 (Core) Indicator:** Change in areas of biodiversity importance. **Target:** i) Preserve the area of wildlife habitats; and ii) Minimise loss of designated areas to development (or any other targets set by Government).
- **E3 (Core) Indicator:** Renewable energy generation. **Target:** 20% of energy needs from renewable sources for larger applications (or any other targets set by Government).
- **LO16 (Local) Indicator:** The average standard assessment procedure (SAP) rating of local authority owned dwellings. **Target:** BV63 Increase energy efficiency of local authority owned dwellings. Target for 2006/07 was 71.5. Targets for, 2007/08, 2008/09 and 2009/10 are 67.5, 68 and 68.5 respectively.
- **LO17 (Local) Indicator:** Annual average concentrations of nitrogen dioxide (NO₂) in specific parts of the Borough. **Target:** 40 µg/.m³.

Open Spaces, Rivers and Canal Corridors

Strategic Objectives

SO3: Improve the quality of, and accessibility to, the heritage value of the borough's open spaces, including rivers and canals as areas for sports, recreation, visual interest, biodiversity, education, health and well being. In addition, address open space needs by providing new spaces identified in Hillingdon's Open Space Strategy.

SO9: Promote healthier and more active lifestyles through the provision of access to a range of sport, recreation, health and leisure facilities.

Related policies: EM2, EM3, EM4, EM5

8.12 Open spaces, including its network of green spaces, woodlands, river and canal corridors are among the borough's most valuable assets and a fundamental part to the borough's character that is appreciated by residents and visitors alike.