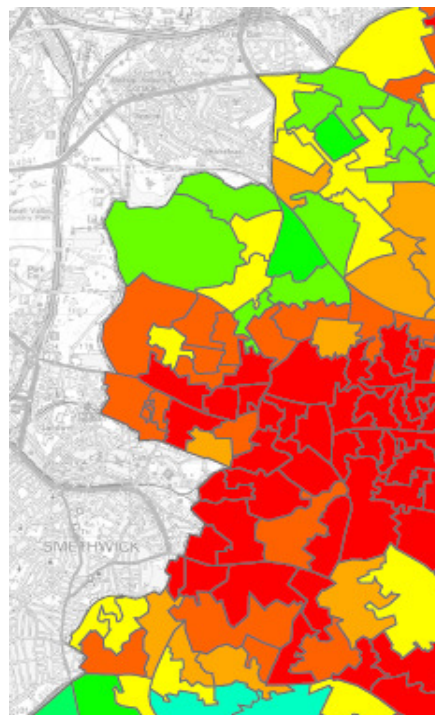
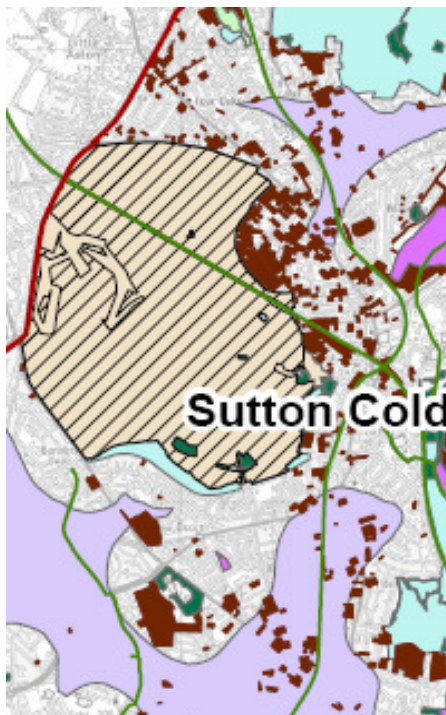


Birmingham City Council

Sustainability Appraisal of the Birmingham Development Management DPD

Scoping Report



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Birmingham City Council

Sustainability Appraisal of the Birmingham Development Management DPD

Scoping Report

AMEC Environment & Infrastructure
UK Limited

December 2014

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Executive Summary

Purpose of this Report

AMEC Environment & Infrastructure UK Ltd (AMEC) was appointed in 2014 to undertake the Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA) of the Birmingham Development Management Development Plan Document (DM DPD), being an important part of the statutory planning framework to guide Birmingham's development into the future.

This Scoping Report documents the first main stage (Stage A) of the SA (incorporating SEA) process for the Birmingham DM DPD, and complements SA/SEA work undertaken for the Birmingham Plan. It will assist in the development and appraisal of the DPD, and enable the performance of the policies to be monitored against the existing baseline conditions.

The Scoping Report is to be consulted upon for a minimum period of five weeks with the statutory environmental consultees (Environment Agency, Natural England and English Heritage), and other relevant organisations. This will allow consultees to consider the contents of this report, and to make any comments where necessary.

Sustainable development is one of the core principles of planning. The general thrust of the National Planning Policy Framework (NPPF) is aimed at contributing towards sustainable development through the planning system. There is a presumption in favour of sustainable development "*which should be seen as a golden thread running through both plan-making and decision-taking.*" There are three dimensions as to how the government aims to achieve sustainable development which gives rise to the need for the planning system to perform in a number of roles. The *three roles, as set out in the NPPF, are as follows:*

- ***“Economic role*** - *contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;*
- ***Social role*** - *supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and*
- ***Environmental role*** - *contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.”*¹

¹ Communities and Local Government (2012) **National Planning Policy Framework** p. 2

The NPPF makes reference to the UK Sustainability Strategy *Securing the Future*² which sets out the five ‘guiding principles’ of sustainable development. They are as follows:

- Living within the Environmental Limits;
- Ensuring a Strong Health and Just Society;
- Achieving a Sustainable Economy;
- Promoting Good Governance; and
- Using Sound Science Responsibly.

The Birmingham DM DPD should be based on these sustainable development principles.

Sustainability Issues Affecting the City

The following sustainability issues were identified as particularly important in advancing the environmental, economic and social progress of the City.

Sustainability Theme	Key Sustainability Issues
1. Resource Use	New additional water management measures or water resources needed to ensure there is sufficient water for new housing proposed in the current and revised Regional Spatial Strategy. Resource Use is linked to issues related to water quality.
2. Sustainable Design, Construction and Maintenance	There are several examples of good design in Birmingham, but more could be done in the future to regenerate certain parts of the City. Sustainable Design, Construction and Maintenance is linked to issues related to energy efficiency, climate change mitigation and adaptation and housing.
3. Renewable Energy	Use of renewable energy could be significantly improved. Renewable Energy is linked to issues related to climate change mitigation and adaptation.
4. Energy Efficiency	Recent developments have shown evidence of energy efficiency, but the large number of old properties in the City will need improving to make them more energy efficient, building on current initiatives. Energy Efficiency is linked to issues related to renewable energy, sustainable design construction and maintenance, housing and social and environmental responsibility.
5. Sustainable Transport	Although the city has good public transport infrastructure, it needs expanding and upgrading to help minimise the high level of car use in Birmingham. A commitment is set out to achieve this. Emphasis will be placed on ‘smarter travel’, discouraging unnecessary journeys and encouraging people to use public transport. Congestion is a significant issue at certain times on both road and rail. Sustainable Transport is linked to issues related to air quality, reducing the need to travel, health, climate change mitigation and adaptation.

² Defra (2005) **Securing the Future – UK Government Sustainable Development Strategy**

Sustainability Theme	Key Sustainability Issues
6. Reducing the Need to Travel	<p>A very small proportion of people who work and live in the city (one tenth) work from home and therefore avoid travelling to work. There is little evidence of people being actively encouraged to work from home. More emphasis needs to be placed on 'smarter travel', discouraging unnecessary journeys and encouraging people to use public transport.</p> <p>Reducing the need to travel is linked to issues related to sustainable transport, air quality, health, climate change mitigation and adaptation and noise.</p>
7. Waste Reduction and Minimisation	<p>Landfill diversion rates are increasing in the City, and past targets for recycling have been met.</p> <p>The percentage of waste sent to landfill within the City has decline to one third of its level ten years ago, whilst recycling has trebled. Given European and National targets it is likely these trends will continue.</p> <p>Waste Reduction and Minimisation is linked to issues related to air quality, soil quality, natural landscape and built and historic environment.</p>
8. Efficient Use of Land	<p>Good use is being made of previously developed land as a very high proportion of new housing and office development has taken place on previously developed land.</p> <p>Efficient Use of Land is linked to issues related to soil quality, natural landscape, built and historic environment, biodiversity culture, sport and recreation and sense of place.</p>
9. Reducing Climate Change	<p>CO₂ emissions across the City</p> <p>Reducing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.</p>
10. Managing Climate Change	<p>Birmingham City Council has a good record of taking on board Environment Agency comments in terms of permitting development in flood risk areas. There is limited information on this objective although it is recognised by the City Council that measures will need to be put in place to manage the unavoidable impacts of climate change.</p> <p>Managing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.</p>
11. Sense of Place	<p>Birmingham people are positive about their city; according to the Community Cohesion Strategy, opinion polls show that three quarters of people think it is a good place to live. No public open space is currently being lost, and environmental improvements have been made and continue to be made to various parts of the City.</p> <p>Sense of Place is linked to issues related to built and historic environment, natural landscape, housing, health, biodiversity, culture, sport and recreation and crime.</p>
12. Built and Historic Environment	<p>Birmingham has a large amount of land designated as Conservation Areas, some of which are nationally recognised such as the Jewellery Quarter and Bourneville. The City also has an extensive number of archaeological remains Listed Buildings and Registered Parks & Gardens.</p> <p>Built and Historic Environment is linked to issues related to sense of place, housing, sustainable design, construction and maintenance, crime and poverty.</p>
13. Natural Landscape	<p>Although much of Birmingham is built up, there is a significant amount of open land within the City including areas of agricultural land to the north east and south west of the City. The City falls within the National Character Areas (NCAs) of Arden to the south and Cannock Chase and Cank Wood to the north. The assessment of these areas for the Countryside Quality Counts project for Natural England indicates that they are subject to a high rate of change. Most of Birmingham is built up, but 15% of the City is designated as Green Belt.</p> <p>Natural landscape is linked to issues related to biodiversity, health, soil quality, sense of place, culture, sport and recreation, climate change mitigation and adaptation.</p>
14. Biodiversity and Geodiversity	<p>The City has 2 SSSIs and a number of other designated sites which cover approximately 10% of the City.</p> <p>The West Midlands Biodiversity Partnership has developed a number of area based projects which look at different ways of protecting biodiversity by reducing fragmentation of habitats and species. These areas are known as Biodiversity Enhancement Areas. In such areas biodiversity should improve.</p> <p>There is one Local Nature Reserve designated in order to protect its geodiversity.</p> <p>Biodiversity is linked to issues related to air quality, soil quality, water quality, natural landscape, health).</p> <p>Geodiversity is linked to issues related to water quality, soil quality and natural landscape.</p>

Sustainability Theme	Key Sustainability Issues
15. Air Quality	<p>Air quality is an issue as the whole City is designated as an Air Quality Management Area (AQMA); the main source pollutant being nitrogen dioxide as a result of pollution from vehicle emissions. There is a strong correlation between traffic congestion and poor air quality. Given the allocation of an AQMA, air quality should improve within the City.</p> <p>Air Quality is linked to issues related to biodiversity, health, sustainable transport reducing the need to travel, climate change mitigation and adaptation).</p>
16. Water Quality	<p>The chemical and biological quality of rivers and waterways in Birmingham is generally poor compared to the West Midlands and England as a whole.</p> <p>Water Quality is linked to issues related to resource use, soil quality, health, biodiversity, climate change mitigation and adaptation).</p>
17. Soil Quality	<p>There is very little high quality soil due to the built-up nature of Birmingham; however there are some small areas of Grade 3 agricultural land in the north of the City. The history of land use within the City including landfill sites, extensive manufacturing and transport leads to the potential for land contamination.</p> <p>Soil Quality is linked to issues related to biodiversity, waster quality, natural landscape, and health.</p>
18. Noise	<p>Noise pollution is a problem in some parts of the city, with Birmingham airport and traffic being the principal sources. It is anticipated this trend will continue.</p> <p>Noise is linked to issues related to sustainable transport and housing.</p>
19. Social and Environmental Responsibility	<p>No information has been identified on this topic.</p> <p>Social and Environmental Responsibility is linked to issues related to equality, community involvement, learning and skills, economy and equality, waste reduction and minimisation.</p>
20. Economy and Equality	<p>Birmingham is the major employment centre for the West Midlands Recent trends show an increase in service sector jobs, a continued decline in manufacturing jobs and an increase in unemployment.</p> <p>Birmingham still has a high proportion of economically inactive people e.g. students, people caring full-time for relatives. Unemployment is higher than the national average. The economic activity rate for Black and Minority Ethnic residents is far higher than that for white residents.</p> <p>There is significant disparity in terms of average household income between Birmingham's constituencies.</p> <p>Economy and Equality is linked to issues related to poverty, learning and skills, equality, housing and community involvement.</p>
21. Learning and Skills	<p>The proportion of people in Birmingham with few or no qualifications is above the national average, but improvements are being made in educational achievement. The percentage of Birmingham residents with a NVQ level of 3 or above has been increasing since 2002³.</p> <p>The percentage of residents on Job Seekers Allowance has increased significantly since November 2007. Whether this trend will continue is likely to depend on wider national economic trends.</p> <p>Learning and Skills is linked to issues related to economy and equality, community involvement, equality, poverty and social and environmental responsibility</p>
22. Community Involvement	<p>Birmingham experiences very varied election turnouts from constituency to constituency, ranging from a 44.2% in Ladywood, to a 60.4% in Sutton Coldfield. The Sustainable Community Strategy indicates that in 2006, 40% of people agreed that they can influence decisions that affect their local area, an improvement of 22% from 2004.</p> <p>Community Involvement is linked to issues related to economy and equality, learning and skills, poverty, sense of place and housing.</p>

³ https://www.nomisweb.co.uk/reports/lmp/la/2038431965/subreports/quals_time_series/report.aspx

Sustainability Theme	Key Sustainability Issues
23. Equality	<p>Birmingham has a relatively youthful population composed of people from a wide variety of national, ethnic and religious backgrounds. There are inequalities relating to access to services such as to jobs and health services, which is partly to do with geographical location, but partly to do with social and economic disadvantage. There is generally good accessibility in most places at most times for those households without a car, due to the extensive bus network. Two particular problems have been identified with access for unemployed people to attend job interviews and with access to major NHS hospitals by public transport.</p> <p>Equality is linked to issues related to economy and equality, learning and skills, community involvement, poverty, crime and housing.</p>
24. Poverty	<p>About 40% of Birmingham's residents live in areas that are in the most deprived 10% in England. Concentrations are very high in wards to the east, north and west of the City Centre and also in Tyburn and Kingstanding Wards to the north of the M6 motorway. Unemployment rates are above the national average.</p> <p>Poverty is linked to issues related to health, crime, community involvement, learning and skills and equality.</p>
25. Health	<p>The number of residents feeling in poor health is higher than the national average, and people in Birmingham have generally less healthy lifestyles than the English average. Life expectancy in Birmingham is below the England average.</p> <p>Health is linked to issues related to air quality, water quality, biodiversity, natural landscape, culture, sport and recreation, equality and crime.</p>
26. Crime	<p>Birmingham has the lowest overall crime rate of the eight major English cities. There have been over 5,300 less victims of crime based on figures for April to June 2012, compared to the same period in 2009.</p> <p>Crime is linked to issues related to poverty, equality, learning and skills and housing.</p>
27. Housing	<p>Birmingham faces several issues relating to housing: there are large numbers of homeless people, social housing is in need of updating and relocating, and the number of households is increasing.</p> <p>House prices in Birmingham peaked in January 2008 and sharply declined through to 2010, and now have stabilised. Clearly however sales volumes have declined by over 50% since October 2006. This suggests that the affordability of housing for poorer families and first-time buyers has declined due to other national economic conditions.</p> <p>Housing is linked to issues related to poverty, equality, built and historic environment, natural landscape, sense of place, resource use, energy efficiency and sustainable design, construction and maintenance.</p>
28. Culture/Sport/Recreation	<p>Birmingham has many strengths in this area and is internationally recognised for sports and exhibitions. The City's popularity amongst international visitors has increased and is now the fourth most popular city in the UK.</p> <p>Culture/Sport/Recreation is linked to issues related to health, poverty, community involvement, biodiversity, natural landscape, sense of place and efficient use of land.</p>

Sustainability Objectives

A range of sustainability objectives were developed in light of the baseline data, key sustainability issues identified for the City and reference to the sustainability objectives developed for the SA/SEA of the Birmingham Development Plan. These will be used to indicate the outcomes that the Birmingham DM DPD should be seeking to achieve, and to check whether the Plan objectives, policies and proposals are sustainable.

Topic Area(s)	Proposed Sustainability Objectives
Material assets	1. ENV1 Encourage development that optimises the use of previously developed land and buildings
Material assets	2. ENV2 To promote the application of high standards of design, construction and maintenance of buildings
Material assets	3. ENV3 To encourage the use of sustainable methods of transport and reduce the need to travel
Landscape & townscape, cultural heritage, biodiversity & geodiversity	4. ENV4 To encourage high quality development which protects and enhances Birmingham's cultural and natural heritage
Climatic Factors	5. ENV5 To promote development which anticipates and responds to the challenges associated with climate change, particularly floodrisk
Water resources, air quality, material assets	6. ENV6 To promote development which helps to reduce pollution of air, land, and water, including waste management
Population and health	7. ECON1 To help improve the performance of the local and City-wide economy to provide opportunity for all
Population and health	8. ECON2 To help promote the vitality of local centres
Population and health	9. ECON3 To promote the regeneration of areas across the City through appropriate development
Population and health	10. ECON4 To encourage investment in learning and skills development
Population and health	11. SOC1 To help ensure equitable access to community services and facilities
Population and health	12. SOC2 To help provide decent and affordable housing for all, of the right quantity type, tenure and affordability to meet local needs
Population and health	13. SOC3 To encourage development which promotes health and well-being
Population and health	14. SOC4 To encourage development which helps to reduce crime, the fear of crime and antisocial behaviour
Population and health	15. SOC5 To enable communities to influence the decisions that affect their neighbourhoods and quality of life
Material assets	16. ENV1 Encourage development that optimises the use of previously developed land and buildings
Material assets	17. ENV2 To promote the application of high standards of design, construction and maintenance of buildings, where possible exceeding the requirements of Building Regulations
Material assets	18. ENV3 To encourage the use of sustainable methods of transport and reduce the need to travel

This Scoping Report presents the findings of the initial tasks (Stage A) undertaken for SA/SEA of the DM DPD. It follows closely the advice and guidance provided by the UK Government and has been prepared to meet the requirements outlined within the Quality Assurance Checklist within the ODPM (2005) SA/SEA Guidance (see above).

Responses to the following questions are invited:

- Do you agree with the scope of the proposed assessment?;
- Do you agree with the main issues identified?; and
- Do you agree that the objectives cover the breadth of issues appropriate for assessing the effects?

The consultation will run from Friday 12th December 2014 until Friday 22nd January 2015. You can post or e-mail your responses to:

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Comments from consultees will be considered and the information in this report will be amended, as appropriate, in advance of its use during the next stages of the SEA process.

The next stage of the SA/SEA process (Stage B) involves considering and assessing options for the DM DPD, and then predicting and evaluating the effects of the objectives and proposed interventions of the DM DPD as they emerge. This assessment will consider ways of mitigating adverse effects and maximising beneficial effects. The assessment process will be reported within an Environmental Report which will be published for consultation alongside the draft DM DPD.

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1. Introduction

1.1 Context

Birmingham City Council is producing a Development Management Development Plan Document (hereafter DM DPD) intended to guide the detailed implementation proposed development across the City. The Plan is a partner to the Birmingham Development Plan which sets out the strategy for growth across the City. The DM DPD will set out objectives for managing development proposals submitted to the Council and the detailed policies intended to realise these objectives.

Strategic Environmental Assessment (SEA) is a statutory requirement for plans and programmes that could have significant environmental effects. The SEA process identifies, describes and evaluates potential effects, proposing where appropriate, mitigation and/or enhancement measures and through Sustainability Appraisal (SA) extends beyond environmental considerations into social and economic considerations. The DM DPD for Birmingham has been identified as a plan which could give rise to significant environmental effects. The Council has appointed AMEC to prepare the scoping stage of the SA/SEA.

1.2 Purpose of this Report

This Scoping Report represents the first formal output of the SA/SEA of the DM DPD for Birmingham. The purpose of the report is to provide sufficient information to consultees to enable them to comment on the proposed scope of the SA/SEA, including:

- An overview of the DM DPD;
- Significant policy topics or objectives, appropriate to the assessment of the DM DPD, identified following a review of relevant plans, policies and programmes;
- Baseline information for each of the SEA topics, with an indication of the source of the data and its relevance to the DM DPD;
- Key economic, social and environmental issues relevant to the assessment of the DM DPD based on the review of relevant plans, policy and programmes and baseline information;
- Any SEA topics that are proposed to be scoped out of the assessment and explicit justification for this;
- A draft assessment framework (comprising of assessment objectives, guide questions and assessment matrix);
- The intended approach to undertaking the cumulative assessment of the effects of the DM DPD; and
- The proposed structure of the Environmental Report (to present the findings of the SA/SEA).

1.3 The Development Management DPD

1.3.1 Aims and Objectives

The DM DPD will provide detailed policy guidance on a range of planning matters, whether they are environmental, social or economic, and will be a material consideration in the determination of planning applications. This DPD will be applicable to any location in the City.

The policies within the DM DPD reflect national planning policy and are in accordance with guidance set out within the National Planning Policy Framework (NPPF) and policies in the Birmingham development Plan. The aims of the DPD are to ensure that:

1. Development makes an overall positive contribution to the delivery of sustainable communities, the economy and the environment;
2. Development contributes to the needs of local communities; and
3. Development is well designed, and relates well to the natural and built environment.

To confirm and clarify the DM DPD a series of objectives have been prepared and it is expected that the principles of all development should seek to achieve these in so doing:

1. Ensuring that development makes a positive contribution to community safety, health and well-being;
2. Ensuring that development makes a positive contribution to environmental considerations;
3. Strengthening the vitality and viability of centres;
4. Enabling business development in appropriate locations and on a scale which helps to provide local jobs, minimises the need to travel, and avoids adverse environmental impacts;
5. Ensuring that housing meets local needs; and
6. Ensuring that new development is designed to integrate effectively with its setting, promote local distinctiveness, and be accessible to all.

2. Strategic Environmental Assessment and Habitats Regulations Assessment

2.1 Strategic Environmental Assessment

SEA is a methodical process for assessing the environmental impacts of plans and strategies to ensure that environmental issues are integrated and considered at the earliest possible opportunity of the decision making process whilst also ensuring that sustainable development is central to the plan making process.

European Directive 2001/42/EC⁴ (the ‘SEA Directive’) requires SEA to be carried out on all plans and programmes “*which are subject to preparation and/or adoption by an authority at national, regional or local level.*” The aim of SEA is to identify significant environmental effects created as a result of the implementation of the plan or programme on issues such as “*biodiversity, human health, fauna, flora, soil, water, air, climatic factors, material assets including architectural and archaeological heritage, landscape and the interrelationship between the above factors*” (Annex 1(f)). The Directive was transposed into English legislation by the Environmental Assessment of Plans and Programmes Regulations 2004⁵ (the ‘SEA Regulations’). Under these regulations⁶, SEA is a compulsory requirement for certain plans/programmes which are likely to give rise to significant environmental impacts and which are prepared for water management plans (regulation 5(2)). Accordingly SEA is required for the DM DPD under these regulations. SEA

This Scoping Report documents the first main stage (Stage A) of the SA (incorporating SEA) process for the Birmingham DM DPD, and complements SA/SEA work undertaken for the Birmingham Plan. It will assist in the development and appraisal of the DPD, and enable the performance of the policies to be monitored against the existing baseline conditions.

This Scoping Report follows and sets out the requirements of the SEA and has been developed in accordance with the following guidance:

- Planning Practice Guidance (CLG, 2014);

⁴ European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, Article 1

⁵ The Environmental Assessment of Plans and Programmes Regulations, 2004, S.I. No.1633, Parts 3 and 4

⁶ regulation 5 which defines which plans and programmes should be subject to SEA:

a plan or programme which -

(a) is prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use; and .

(b) sets the framework for future development consent of projects listed in Annex I or II to Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, as amended by Council Directive 97/11/EC(1). .

(3) The description is a plan or programme which, in view of the likely effect on sites, has been determined to require an assessment pursuant to Article 6 or 7 of the Habitats Directive

- Towards a more efficient and effective use of Strategic Environmental Assessment and Sustainability Appraisal in spatial planning (DCLG, 2010); and
- Practical Guide to the Strategic Environmental Assessment Directive (OPDM, September 2005).

The SA/SEA is a fundamental component of the DM DPD to ensure that the Birmingham's environmental obligations are adequately addressed throughout the strategy development and implementation process.

2.2 SA/SEA Stages

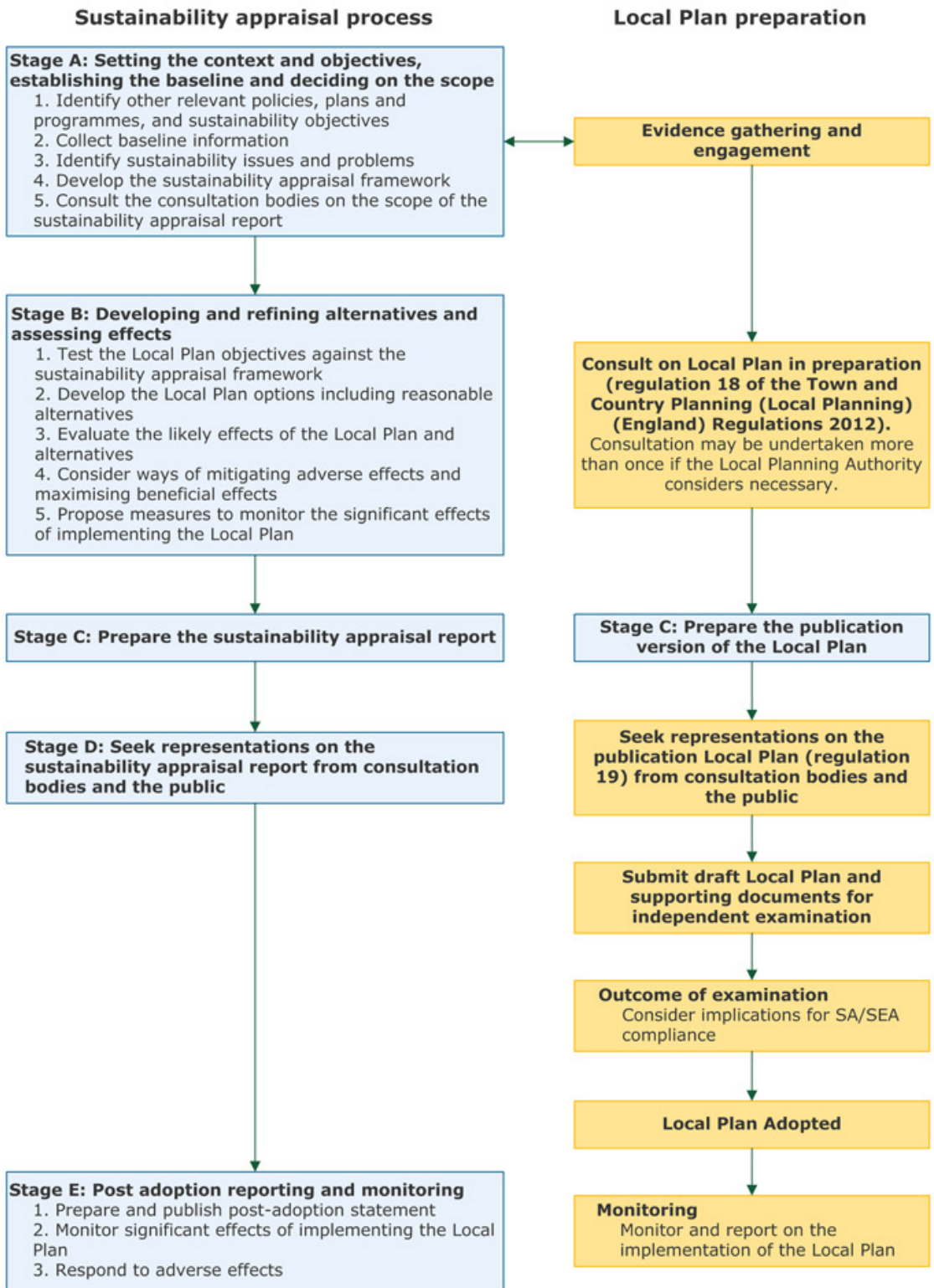
The assessment of the DM DPD is an integral part of the plan preparation and has five sequential stages. The main stages and the tasks for each stage are listed in Table 2.1.

Table 2.1 Stages in the SA/SEA Process

Stage	Tasks	
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	A1: Identifying other relevant policies, plans and programmes, and environmental protection objectives	Chapter 2 of this report
	A2: Collecting baseline information	Chapter 3 of this report
	A3: Identifying environmental issues and problems	Chapter 4 of this report
	A4: Developing the SEA objectives and framework	Chapter 5 of this report
	A5: Consulting on the scope of the SEA	
Stage B: Developing and refining options and assessing effects	B1: Testing the plan objectives against the SEA objectives	Not applicable at scoping stage
	B2: Developing strategic alternatives	Not applicable at scoping stage
	B3: Predicting the effects of the plan, including alternatives	Not applicable at scoping stage
	B4: Evaluating the effects of the plan, including alternatives	Not applicable at scoping stage
	B5: Mitigating adverse effects	Not applicable at scoping stage
	B6: Proposing measures to monitor the environmental effects of implementing the plan	Not applicable at scoping stage
Stage C: Preparing the Environmental Report	C1: Preparing the Environmental Report.	Not applicable at scoping stage
Stage D: Consulting on the draft DM DPD and the SEA Report	D1: Consulting on the draft DM DPD and Environmental Report with the public and Consultation Bodies	Not applicable at scoping stage
	D2: Assessing significant changes	Not applicable at scoping stage
	D3: Making decisions and providing information	Not applicable at scoping stage
Stage E: Monitoring the significant effects of implementing the DM DPD	E1: Developing aims and methods for monitoring	Not applicable at scoping stage
	E2: Responding to adverse effects	Not applicable at scoping stage

This report presents the findings of Task A1 to A4 of Stage A. Planning Policy Guidance offers a summary of the relationship between the stages of the SA/SEA process and those of Local Plan preparation (in this case the DM DPD). This is shown in Figure 2.1.

Figure 2.1 The relationship between the SA process and Local Plan preparation



Source: http://planningguidance.planningportal.gov.uk/wp-content/uploads/2014/02/sea1_013.jpg

2.2.1 Habitats Regulations Assessment

The potential impact of the DM DPD against the conservation objectives of designated European conservation sites⁷ also needs to be assessed. This is known as Habitats Regulations Assessment (HRA)⁸. Regulation 102 of the *Conservation of Habitats and Species Regulations 2010* (as amended) (the ‘Habitats Regulations’) requires that competent authorities assess the potential impacts of land use plans on the Natura 2000 network of European protected sites.

The HRA determines whether there will be any ‘likely significant effects’ (LSE) on any European site as a result of the Plan’s implementation (either on its own or ‘in combination’ with other plans or projects) and, if so, whether these effects will result in any adverse effects on the site’s integrity.

As the SA/SEA progresses, the results of the HRA will be included in the assessment of effects against the biodiversity topic and objectives.

2.3 Structure of this Report

This Scoping Report is the first step in the SA/SEA process and presents the proposed aims, structure and background for the assessment. The remainder of this report is structured as follows:

- Chapter 2 identifies other policies, plan and programmes which are relevant to the DM DPD;
- Chapter 3 sets out the baseline information which is used to help develop the assessment framework for the DM DPD;
- Chapter 4 identifies key environmental issues and problems to be addressed;
- Chapter 5 sets out issues and problems relevant to the DM DPD;
- Chapter 6 sets out the proposed Sustainability Objectives and Assessment Framework for use in the assessment;
- Chapter 7 sets out how the assessment will be completed and recorded;
- Chapter 8 sets out the proposed structure of the Environmental Report; and
- Chapter 9 details the arrangements for consultation and next steps.

⁷ A European Site is any classified Special Protected Area (SPA) and any Special Area of Conservation (SAC) from the point where the European Commission and the Government agree the site as a Site of Community Importance. SPAs and SACs have been created under the EC Birds Directive and Habitats Directive. In the UK they form part of a larger European network called Natura 2000. HRA is also required, as a matter of Government policy, for potential SPAs (pSPAs), candidate SACs (cSACs) and listed Ramsar Sites for the purpose of considering development proposals affecting them (National Planning Policy Framework para. 118). As such, pSPAs, cSACs and Ramsar Sites must also be considered by any HRA. Within this report “European site” is used as a generic term for all of the above designated sites.

⁸ ‘Appropriate Assessment’ has been historically used as an umbrella term to describe the process of assessment as a whole. The whole process is now more accurately termed ‘Habitats Regulations Assessment’ (HRA), and ‘Appropriate Assessment’ is used to indicate the specific stage of HRA.

3. Review of Policies, Plans and Programmes

3.1 Introduction

The relationship between various policies, plans, programmes and environmental protection objectives may influence the DM DPD. The relationships are analysed to help:

- Identify any external social, environmental or economic objectives that should be reflected in the SA/SEA process;
- Identify external factors that may have influenced the preparation of the plan; and
- Determine whether the policies in other plans and programmes might lead to cumulative or synergistic effects when combined with policies in the plan.

This process enables the DM DPD to take advantage of any potential synergies and to respond to any inconsistencies and constraints. The plans and programmes to be considered include those at the international, national, regional and local scale.

The review aims to identify the relationships between the DM DPD and these other documents i.e. how the strategy could be affected by the other plans' and programmes' aims, objectives and/or targets, or how it could contribute to the achievement of any environmental and sustainability objectives. An understanding of the plans and programmes alongside which the DM DPD sits is important in developing a baseline approach to the assessment. It is also a valuable source of information to support the completion of the social, economic and environmental baseline and aid the determination of the key issues. The completed review of plans and programmes will also be used to provide the policy context for the subsequent assessment process and help to inform the development of objectives that comprise the assessment framework.

The principal documents which form the legislative context for the DM DPD are as follows:

3.1.1 European level

The SEA Directive is a European Union requirement that seeks to provide a high level of protection of the environment by integrating environmental considerations into the process of preparing certain plans and programmes.

The aim of the Directive is “to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.”

The Strategic Environmental Assessment Directive is implemented through the Environmental Assessment of Plans and Programmes Regulations 2004, which apply to a plan or programme related solely to England (or part of England), or to England (or part of England) and any other part of the United Kingdom. Where the Directive applies there are some specific requirements that must be complied with and which, in the case of Local Plans, should be addressed as an integral part of the sustainability appraisal process.

3.1.2 The National Planning Policy Framework (NPPF) (2012)

Section 19 of the Planning and Compulsory Purchase Act 2004 requires a local planning authority to carry out a sustainability appraisal of each of the proposals in a Local Plan during its preparation. More generally, section 39 of the Act requires that the authority preparing a Local Plan must do so “with the objective of contributing to the achievement of sustainable development”.

Sustainability Appraisals incorporate the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004 (commonly referred to as the ‘Strategic Environmental Assessment Regulations’), which implement the requirements of the European Directive 2001/42/EC (the ‘Strategic Environmental Assessment Directive’) on the assessment of the effects of certain plans and programmes on the environment. Sustainability appraisal ensures that potential environmental effects are given full consideration alongside social and economic issues.

Government guidance set out in paragraph 165 of the NPPF states that:

“A sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors.”

Throughout this document, where reference is made to SA, it denotes SA incorporating the requirements of the SEA Directive. The SA has been carried out taking account of *A Practical Guide to the Strategic Environmental Assessment Directive (2005)*⁹ which provides guidance on SEA in the UK from the former ODPM and devolved administrations. SAs are an effective way to ensure that sustainable development principles are taken into account during the plan making process. By assessing the plan policies against a broad range of sustainability objectives, the appraisal process exposes sustainability strengths and weaknesses of the plan, which can help to develop recommendations for its improvement. As well as helping to enhance the plan, the appraisal process also provides a basis for informed discussion between stakeholders around a shared set of objectives.

3.2 Links with other Plans and Programmes

The purpose of reviewing plans and programmes as part of the SA is to ensure that the relationship with these other documents is fully explored and to ensure that the relevant environmental protection and sustainability objectives are taken on board throughout the SA and plan-making process. Reviewing plans and programmes can also provide appropriate information on the baseline for the plan area and the key sustainability issues. Table 3.1 sets out the key documents the key documents relevant to the SA/SEA of the DM DPD, whilst a description of these documents together with their relevance to Sustainability Objectives for the DM DPD is set out at Appendix A.

⁹ ODPM (2005) *A Practical Guide to the Strategic Environmental Assessment: Practical guidance on applying European Directive 2001/42/EC “on the assessment of the effects of certain plans and programmes on the environment”*

Table 3.1 Plans, Programmes and Strategies Relevant to the SA/SEA of the DM DPD

International
EU (1992) Conservation of Natural Habitats and Wild Fauna and Flora (92/43/EEC, Habitats Directive)
EU (1996) Ambient Air Quality Assessment and Management (96/62/EC, Air Quality Framework Directive)
EU (2000) Directive on Establishing a Framework for Community Action in the Field of Water Policy (2000/60/EC, The Water Framework Directive)
EU (2005) Clean Air Strategy
EU (2008) Directive on Waste (2006/12/EC, Waste Framework Directive)
UNFCCC (1997) Kyoto Protocol to the UN Framework Convention on Climate Change
UNFCCC (2009) Copenhagen Accord (Climate Change)
Council of Europe (2006) European Landscape Convention
Council of Europe (1985) Convention on the Protection of the Architectural Heritage of Europe
EU (2007) Floods Directive
EU (1991) Urban Waste Water Treatment Directive
European Commission (1999) The Landfill Directive
EC (2007) Together for Health: A Strategic Approach for the EU 2008-2013
The Pan-European Biological and Landscape Diversity Strategy (1995)
National
CLG (2012) National Planning Policy Framework (NPPF)
CLG (2012) National Planning Policy Framework Technical Guidance
CLG (2011) The Localism Act
CLG (2011) The Community Infrastructure Levy Regulations
DECC (2008) UK Climate Change Act 2008
DCMS (2007) Heritage Protection for the 21 st Century
Defra (2003) The Water Environment (Water Framework Directive) (England and Wales) Regulations
Defra (2007) Guidance for Local Authorities on Implementing Biodiversity Duty
Defra (2011) Biodiversity 2020: A Strategy for England's wildlife and ecosystem services
Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 2)
Defra (2011) Government Review of Waste Policy in England
Defra (2008) Future Water, the Government's Water Strategy for England (Feb 08)
Defra (2009) Safeguarding our Soils: A Strategy for England
Defra (2011) Natural Environment White Paper; The natural choice: securing the value of nature
Defra (2011) Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services
Defra & HM Government (2011) Water White Paper; Water for Life
Defra and Environment Agency (2011) National Flood and Coastal Erosion Risk Management Strategy for England

Table 3.1 (continued) Plans, Programmes and Strategies Relevant to the SA/SEA of the DM DPD

National
<p>HM Government (2010) The Air Quality Standards 2010</p> <p>HM Government (2010) Flood and Water Management Act, 2010</p> <p>HM Government (2012) Draft Water Bill</p> <p>DfT (2008) Delivering a Sustainable Transport System (DaSTS).</p> <p>English Heritage (2008) Conservation Principles, Policies and Guidance</p> <p>English Nature: Climate Change Space for Nature (2006)</p> <p>Environment Agency (2009) Water for people and the environment - Water resources strategy for England and Wales.</p> <p>Forestry Commission (2005): Trees and Woodlands Nature's Health Service</p> <p>HM Government (2006) Climate Change The UK Programme</p> <p>HM Government (2010) The Conservation of Habitats and Species Regulations 2010</p>
Regional
<p>Severn Trent Water Resources Management Plan (2010)</p> <p>Severn Trent Water Sewage Management Plan (2009)</p> <p>Environment Agency Humber River Basin Management Plan (2009)</p> <p>Environment Agency Trent Catchment Flood Management Plan (2010)</p> <p>The Greater Birmingham and Solihull Local Enterprise Partnership Strategy (2013)</p> <p>The 7 Authorities of the West Midlands Metropolitan Area (2011) West Midlands Local Transport Plan</p> <p>Environment Agency (2009) A Water Resources Strategy Regional Action Plan for the West Midlands Region</p> <p>Forestry Commission (2004) West Midlands Regional Forestry Framework</p>
Local
<p>Birmingham City Council (2014) Birmingham Development Plan (emerging)</p> <p>Birmingham City Council (2012) Aston, Newtown and Lozells Area Action Plan</p> <p>Birmingham City Council & Bromsgrove District Council (2009) Longbridge Area Action Plan</p> <p>Birmingham City Council (1997) Nature Conservation Strategy for Birmingham</p> <p>Birmingham City Council (1999) Regeneration Through Conservation: Birmingham Conservation Strategy</p> <p>Birmingham City Council (2004) Archaeology Strategy</p> <p>Birmingham City Council (2005) Developing Birmingham: An Economic Strategy for the City 2005-2015</p> <p>Birmingham City Council (2006) Air Quality Action Plan</p> <p>Birmingham City Council (2006) Municipal Waste Management Strategy.</p> <p>Birmingham City Council (2007) Sustainable Management of Urban Rivers and Floodplains SPD</p> <p>Birmingham City Council (2010) The Birmingham Area Investment Prospectus</p>

Table 3.1 (continued) Plans, Programmes and Strategies Relevant to the SA/SEA of the DM DPD

Local
Birmingham City Council (2008) Birmingham Private Sector Housing Strategy 2008+ (updated 2010)
Birmingham City Council (2008) Contaminated Land Inspection Strategy for Birmingham Second Edition
Birmingham City Council (2010) Birmingham Climate Change Action Plan 2010+
Birmingham City Council (2012) Level 1 & 2 Strategic Flood Risk Assessment
Birmingham City Council (2011) Birmingham Multi Agency Flood Plan
Birmingham City Council (2013) Green Living Spaces Strategy (draft)

4. Key Sustainability Issues for Birmingham

4.1 Introduction

The baseline information identifies current environmental issues and problems in the area which should be addressed in the DM DPD and provides a basis for predicting and monitoring the effects of implementing the Strategy. The baseline may need to be updated during the SEA process as new information emerges and/or as additional issues come to light. To ensure the data collected was relevant and captured the full range of environmental issues it was categorised under nine thematic topics which cover the topics referred to in Annex 1(f) of the SEA Directive. These are outlined in the Table 4.1.

Table 4.1 Key SEA Topics Covered by the DM DPD Scoping Report

SEA Topic Area	Scoping Report Topics
Material Assets and Resource Use	Material Assets (including: housing; economy; minerals, waste and water; and transport infrastructure)
Climatic Factors	Climatic Factors Flooding (including flood risk)
Biodiversity	Biodiversity and Geodiversity
Human Environment (including population and health)	Population and Human Health
Geology and Soils	Biodiversity and Geodiversity
Water	Water
Air Quality	Air Quality
Cultural Heritage	Cultural Heritage
Landscape	Landscape and townscape

An essential part of the SA process is the identification of current baseline conditions and their likely evolution. It is only with a knowledge of existing conditions, and a consideration of their significance, that the issues which a plan or programme should address (in this case the DM DPD) can be identified and its subsequent success or otherwise be monitored.

Evidence to support the issues has been identified from the most recent Birmingham LDF Annual Monitoring Report¹⁰, and the websites/reports of a number of organisations, such as the Birmingham City Council, Birmingham Strategic Partnership, Environment Agency, Natural England, Audit Commission, and Department of Health.

There is a wealth of information available on sustainability issues for Birmingham and the purpose of this report is not to duplicate it unnecessarily, but to ensure that sufficient information exists to inform the appraisal of the

¹⁰ Birmingham City Council (2012) **Birmingham Local Development Framework: Annual Monitoring Report 2011**

policies and to identify key information that may be considered appropriate. It should also identify gaps where they may exist.

4.2 Key Sustainability Issues and Baseline Data

The following sections set out a summary of the baseline environmental, social and economic conditions in Birmingham. The SEA Directive also requires that the evolution of the baseline conditions of the plan area (that would take place without the plan or programme) are identified. This is useful in informing assessments of significance, particularly with regard to the effect that conditions may already be improving or worsening and the rate of such change. Where information on these trends is available it has been included in the following section. The information has been arranged in topic headings that will also be used for the SA objectives (see section 4), but starts by giving a general introduction to Birmingham as a whole. Some information crosses into more than one topic. Where this is the case, the information has been put in the section considered to be of most relevance.

Birmingham is the United Kingdom's second largest urban conurbation and neighboured by several other large conurbations, such as Solihull, Wolverhampton, and the towns of the Black Country. It is situated just to the west of the geographical centre of England on the Birmingham Plateau - an area of relatively high ground, ranging around 150-300 metres above sea level. With the Clent, Waseley and Lickey Hills towards the south-west of the City, Birmingham slopes gently to the east of the conurbation. Birmingham is at the heart of the West Midlands Region which also contains the city of Coventry and the Black Country city region. It is the major centre for economic activity and is the major contributor to the regional economy. The City has a vibrant city centre, a strong cultural mix and contains many prosperous areas. The continued urban renaissance of Birmingham, as the regional capital, has been crucial to the Region. This period of renaissance has brought about the successful delivery of key infrastructure projects such as the development of extended public transport networks. These have been vital to improving the City's local, regional and national accessibility. The city also has an international airport acting as a key gateway to the region and is well served by the M5, M6 and M40 providing access to a number of key cities across the UK.

4.3 Material Assets

4.3.1 Resource Use

There are no active mineral workings in Birmingham, and no extant planning permissions for mineral extraction. This is due to the lack of naturally-occurring minerals in Birmingham for which there is a demand. As a result, Secondary Aggregates are derived from a very wide range of materials that may be used as aggregates. Secondary aggregates include by-product waste, synthetic materials and soft rock used with or without processing. According to the Study¹¹, in 2003, about 4.29 million tonnes of recycled aggregate and about 0.65 million tonnes of recycled soil were produced in the West Midlands.

¹¹ Communities and Local Government (2007) Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005: Construction, Demolition and Excavation Waste

Most of Birmingham is in the area served by Severn Trent Water with a small area to north served by the South Staffordshire Water Company. In 2004 domestic water consumption was 137 litres/head/day¹². This was lower than the national average in 2007/08 of 14 litres/head/day (Audit Commission¹³).

The current Water Resources Plan¹⁴, prepared by Severn Trent Water for the Birmingham Water Resource Zone includes the development of four significant new water resources. These developments mean that the growth identified in the Water Resources Plan can be accommodated without the zone going into deficit. This zone requires new water resource developments to keep the zone in surplus. Without the necessary resource development the zone will go into a significant deficit by 2030. New additional water management measures or water resources will be needed to ensure water is available to meet the needs of new housing.

4.3.2 Sustainable Design, Construction and Maintenance

Environmental improvements by the City Council during the late 1980s and early 1990s have improved the overall quality of the environment within the City Centre. There have been notable successes in relation to improving the quality of design and the environment, particularly in the City Centre. This was recognised by the award to the city of the RTPI Silver Jubilee Cup in 2004. Good design continues to be evident in recent and ongoing developments, such as the Birmingham High Performance Centre at the Alexander Stadium, the Attwood Green Area and Brindley Place.

A number of developments in Birmingham City Centre have implemented sustainable building strategies. These include a joint venture between the City Council and energy company Utilicom to install a new Combined Heat and Power (CHP) network in the Convention Centre Quarter. CHP increases energy efficiency significantly by reducing the amount of energy lost in transmission, reducing energy waste. Furthermore the Broad Street Network delivers shared heating and cooling to the ICC, NIA, Council House, Town Hall, Rep Theatre, Paradise Circus and Hyatt Regency Hotel. CHP networks are also planned for Attwood Green and Eastside.

Eastside was conceived as a demonstration of sustainable development principles. In addition to the CHP network, renewable energy technology like wind and solar power will be placed on site along with green roofs and sustainable urban drainage systems. Several large building schemes in Birmingham have achieved high BREEAM Buildings and Ecohomes/Code for Sustainable Homes ratings, exemplifying sustainable building practice. Commercial buildings include 19 George Road (Excellent), Calthorpe House (Excellent) and Baskerville House (Excellent). The homes at Attwood Green received Excellent Ecohomes standard.

¹² <http://www.defra.gov.uk/sustainable/government/progress/regional/summaries/16.htm>

¹³ <http://www.defra.gov.uk/sustainable/government/progress/national/16.htm>

¹⁴ Severn Trent Water (2013) Water Resources Management Plan

4.3.3 Renewable Energy

Birmingham imports in the region of 22,800GWhr of energy per year costing the City's population and businesses over £1.5bn, with costs predicted to rise along with fuel prices over the coming years.¹⁵

The Climate Change Strategic Framework¹⁶ identifies that 46% of Birmingham's CO₂ emissions come from industry, 33% from domestic energy and 21% from road transport. The Framework outlines that Birmingham has limited scope for large-scale renewable energy projects; however energy users can support developments elsewhere through their purchasing decisions. Furthermore it is acknowledged in the Annual Monitoring Report¹ that the City Council currently does not monitor the provision of new renewable energy capacity although consideration is being given by the Council to ways of monitoring additional renewable energy capacity installed through new development.

Photovoltaic panels are currently fitted to some buildings as part of the 'Birmingham Energy Savers Scheme'. The total amount installations that this scheme has produced is 468 (October 201).

The largest renewable energy scheme currently operating in Birmingham is the Tyseley Energy from Waste Plant facility which produced a total of over 95,030.50 tonnes of ash between April 2010 and March 2011 and generates 25MWh per annum, from the thermal treatment of waste. A total of 80,241.22 tonnes of bottom ash that was produced was sent for recycling in Castle Bromwich where metals are removed and recycled with the remaining material used within the construction industry. This is substantially short of the target for renewable energy to account for 15% of energy produced by 2020 in the Climate Change Strategy and Action Plan Consultation 2007. The City has a number of operational 'Combined Heat and Power' (CHP) facilities, such as Birmingham Children's Hospital and Aston University which are part of an award winning CHP scheme, which are able to generate and supply heat and electricity for local consumption. The connection of Birmingham Children's Hospital to the CHP scheme has allowed for the supply of heat to Lancaster Circus. Developers have also shown an interest in bring forward Anaerobic Digestion (AD) energy generating schemes. As set out in the AMR 2013, the Council will work positively with developers to realise the opportunities that AD hold and emphasise the potential of AD technology for use within Birmingham City Centre as it is a technology seen by the Government as a sustainable and viable waste management solution which utilises waste as a valuable resource.

4.3.4 Energy Use

There are 100,000 dwellings in the city which are more than 80 years old according to the Birmingham Sustainability Strategy and Action Plan 2000-2005. As a result the construction form is intrinsically energy-poor. Recent developments, such as the Birmingham High Performance Centre at the Alexander Stadium, have incorporated innovative, energy-efficient design. Although they are not referred to as 100% sustainable energy systems, CHP can be a more efficient energy system generating and supplying heat and electricity for local consumption.

¹⁵ Birmingham City Council website 'Renewable Energy'

¹⁶ Birmingham City Council (2009) Cutting CO₂ for a Smarter Birmingham Strategic Framework

Heating is by far the largest domestic use of energy in Birmingham. Space heating accounts for 62% of use, while water heating accounts 22%. This is exacerbated by a large number of homes that do not meet Decent Homes standards, including 49,250 Council-owned homes and an estimated 35,000 private sector dwellings.

Only a very small fraction of Birmingham's building stock is built new each year, so new building standards will take decades to have a significant impact on resource use across the city, making the condition of the existing building stock very important. There are no indicators of the age or quality of the building stock as a whole in Birmingham, but energy use data suggest there are a large number of homes of poor quality that contribute to high energy usage.

The Sustainable Community Strategy sets out a vision for Birmingham in 2026 to become the first sustainable global city in modern Britain. The strategy envisages that in 2026 Birmingham will lead on Climate Change with local energy generation from CHP and cooling schemes will reduce CO₂ emissions. If Birmingham is to become the first sustainable global city it needs to dramatically increase deployment in low carbon energy generation technologies. The UK has signed up to the European Renewable Energy Directive, which sets a target of 15% of all energy generated to be sourced from renewable sources by 2020.

The Climate Change Framework aims that by 2026 Birmingham will provide an improved quality and choice of housing and 'decent' standard for virtually all housing, with efficient heating systems and insulation in line with the best UK cities. Birmingham supports the national commitment that all new homes will be zero carbon by 2016.

4.3.5 Sustainable Transport

Rail and Metro

Birmingham New Street Station is a major rail interchange offering direct services to cities across England, Wales and Scotland. There is also a network of suburban and freight rail services and one light rail line. The Sustainable Community Strategy identifies the major improvements planned for New Street Station and further extensions of the Metro. There are plans to extend the Metro from Snow Hill to Five Ways through the City Centre. Furthermore the Strategy indicates that plans have been announced to extend Birmingham International Airport's runway.

The Midland Metro is a tram line linking Birmingham Snow Hill to Wolverhampton, via West Bromwich, Wednesbury and Bilston. A two mile extension route is under construction from Snow Hill, through the City Centre via Upper Bull Street, Corporation Street, Stephenson Street, Pinfold Street, past the Town Hall and on to Broad Street before terminating at Hagley Road.

Road

Birmingham has a complex road network with around 12 major radial roads and ring roads traversing the city. There are also three busy motorways: the M5, M6 and M42, located towards the west, north and east of the city respectively. Although there has been a recent rise in the use of the car, there has been a reduction in average travel speeds. Much of this is due to outward migration of people, which has in turn led to longer car journeys; there have also been a number of out-of-town developments in recent years which have encouraged additional car journeys to be made. Increased congestion has however resulted in lower average vehicle speeds.

Congestion is a significant issue and demand exceeds available capacity at certain times and in some locations, both on road and rail. Congestion has indirect and cumulative effects on the economy, on people's health and well being and on air quality. Congestion can make deliveries less reliable and deter investment. Congestion also

affects the wider transport of goods and services via the M5 and M6 and whilst the opening of the M6 Toll has provided an alternative for some trips, there are still significant peak hour demands that require management.

The Highways Agency (HA) Midlands Motorway Box (MMB) Route Management Strategy highlights a number of problems and issues that affect both the HA and the local authority networks. The MMB network caters for a mixture of commuter and long distance strategic traffic, the M5 and M6 form part of the Trans-European Network, with a peak hour period of around 18 hours. The route has a high regularity of junctions, 13 miles of the route is elevated making it difficult to plan and carry out maintenance and the MMB is sensitive to changes in demand and flow when large scale events are held such as those at the National Exhibition Centre (West Midlands Local Transport Plan 2006).

Road Safety is important because of the pain, suffering and costs that accidents cause. Casualties are disproportionately higher in deprived areas. The West Midlands Metropolitan Area is on course to reduce the number of people killed or seriously injured by 2010 by 40%, reduce the number of children killed or seriously injured by 50%. This good progress is reflected in the area's designation as a Centre of Excellence for Integrated Transport specialising in road safety.

Bus and Coach

Approximately 85% of all public transport trips in Birmingham are handled by the city's buses. The bus network is operated by a number of companies, with services along the main radial routes providing good coverage to the City Centre. There are priority measures in place on a number of these routes, such as Digbeth High Street, while others are planned. Pedestrianisation limits bus traffic to a few key corridors in the City Centre, which reduces capacity and creates significant environmental problems along these routes.

Coach travel is also important, particularly in providing an inexpensive means of longer distance travel for those on low incomes. The city has a number of on-street coach set down and pick up points around the City Centre. The Brewery Street Lorry and Coach Park has capacity for up to 32 18.5/14m vehicles.

Travel Behaviour

Birmingham has a relatively high percentage of households without a car – 35.8% compared to the English average of 25.6%¹⁷. However, despite this fact, just over half of people who both live and work in the City use their car to get to work, only a fifth use the bus, and a tenth walk or work from home¹⁸. In contrast, over three quarters of people commuting into the city use a car, about a tenth use the train, and a further tenth travel by bus. Table 4.2 shows statistics for people travelling to work in Birmingham.

¹⁷ Birmingham City Council (2014) Annual Monitoring Report 2013

Table 4.2 Means of Travel to Work in Birmingham, 2001 (Census 2001)

Travel to Work - Method	% of those working		
	Live in Birmingham, works outside	Live and work in Birmingham	Work in Birmingham, live outside
Work at/from home	0	9.5	0
Train	2.9	2.4	10.3
Bus	12.8	22.1	10.2
Car	78.3	52.4	75.5
Walk	2.7	10.4	1.2
Other	3.3	3.2	2.8
Total (100%)	79,000	288,000	162,000

Source: ONS 2001 Census

According to the Birmingham Cordon Surveys, the total number of car trips entering Birmingham City Centre during the morning peak hours (07:30-09:30 hrs) has decreased in the past ten years. However, the number of bus trips remained relatively constant with a slight decrease since 2005, while the number of rail trips has increased since 2001.

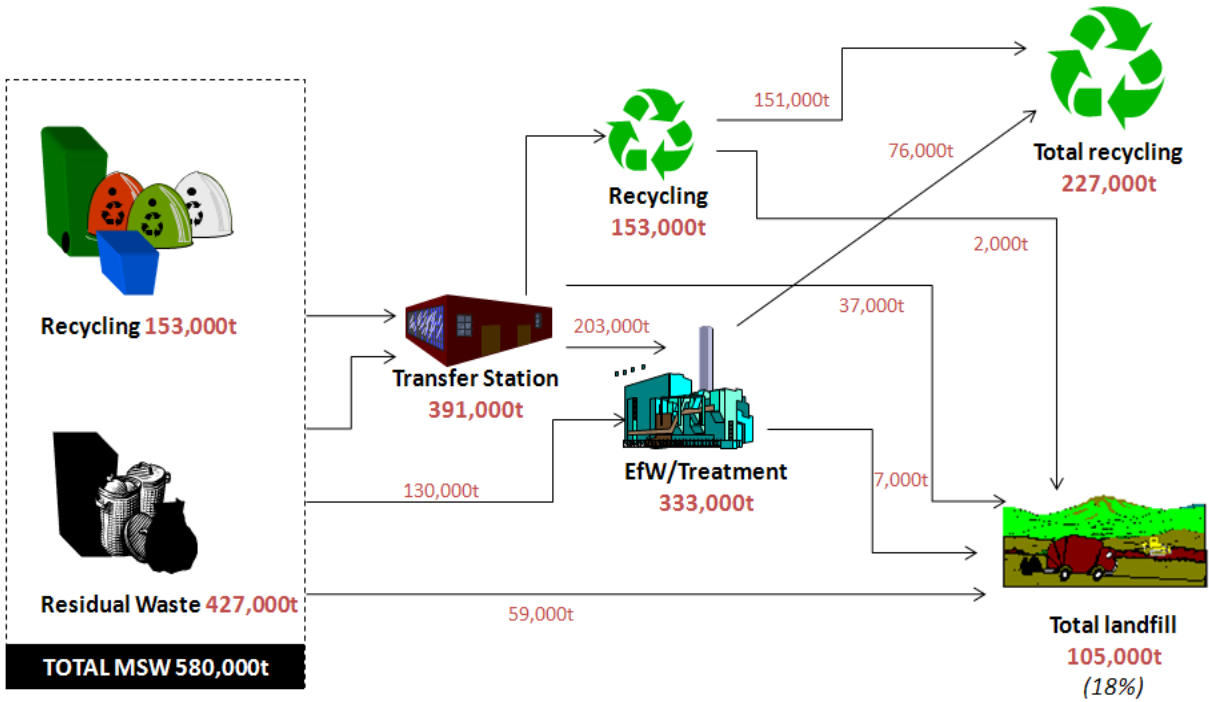
In 2006/7 some 62.7% of bus users in the West Midlands metropolitan areas were satisfied with services which already exceeds the target of 60% by 2009/10 (West Midlands Local Transport Plan Delivery Report 2006-2008). Bus punctuality¹⁸ in 2006/7 was about 65%, marginally below the target. Performance has tended to vary from year to year and from corridor to corridor (West Midland Local Transport Plan Delivery report 2006-2008). The Transportation and Street Services Overview and Scrutiny Committee set a target of 83% by 2010/11.

4.3.6 Waste Management

In 2012/13 there was 488,867 tonnes of municipal waste collected of which 70.48% was used to recover heat and power from the Tyseley EfW facility. Municipal waste is a significant part of the waste stream, but only represents a small proportion of the total amount of waste produced in Birmingham (Figure 4.1).

¹⁸ Birmingham City Council (2007) Building Bus Use: A Report from Overview & Scrutiny

Figure 4.1 Destination of Birmingham’s Waste Stream



Note: Tonnage figures are rounded to nearest ‘000 & are based on calendar year 2008 in order to cross match figures with data in the Environment Agency waste data interrogator 2008

Source: http://www.bebirmingham.org.uk/documents/Birmingham_Total_Waste_Strategy_Final_Report_24.11.10.pdf

Birmingham recycling and composting rates have been improving over the past ten years and the current performance (for 2012/13) is 32%. The percentage of waste sent to landfill is 7.48% for the 2012/13. Both rates represent a significant improvement in performance over the past decade (Table 4.3).

According to the Municipal Waste Management Strategy, the amount of household waste generated per person is lower in Birmingham than in other metropolitan authorities, and its rate of growth has also been lower than the national growth. Birmingham City Council recovers energy from the majority of its ‘residual’ municipal waste through the Tyseley Energy from Waste Plant (EfW)¹⁹. This reduces reliance on landfill as a disposal option. The Strategy identifies that the City Council has sufficient municipal waste treatment capacity up to 2019.

¹⁹ Birmingham City Council (2006) Municipal Waste Management Strategy 2006-2026

Table 4.3 Municipal Waste Arising in Birmingham and Methods of Management 2002 - 2013

Year	Waste Arising (tonnes)	Waste Recycled/Composted		Waste Recovered EFW		Waste sent to Landfill		% of 2001 level sent to landfill
		Tonnes	%	Tonnes	%	Tonnes	%	
2002/3	536,191	50,519	9.42	352,535	72.80	123,347	23.00	63.08
2003/4	551,691	58,442	10.70	337,491	61.20	126,778	22.97	64.83
2004/5	568,035	69,924	12.30	340,127	59.87	112,726	19.84	57.65
2005/6	557,810	77,744	13.93	338,605	60.70	102,588	18.39	52.46
2006/7	570,591	96,929	18.39	313,775	47.92	101,372	17.76	51.82
2007/8	565,548	123,572	26.43	325,167	51.96	107,699	19.04	55.05
2007/8	543,645	140,541	30.59	335,346	61.68	77,763	14.30	39.75
2008/9	527,207	138,589	31.78	334,409	63.47	64,748	12.28	33.10
2010/11	508,884	131,001	32.00	341,684	67.15	52,800	10.37	26.94
2011/12	484,099	124,537	31.28	348,157	71.92	23,804	4.92	12.18
2012/13	488,867	130,035	32.31	344,526	70.48	36,584	7.48	18.72

Source: BCC AMR 2013

4.3.7 Efficient Use of Land

Since 2002/03, the proportion of new housing developed on previously developed land (pdl) has been high (at over 90%) and generally increasing with the exception of 2008/9 when slightly less housing completions (89%) took place on pdl. No housing completions taking place on greenfield land in 2009/10. The density of new housing completions over the decade to 2011/12 has been 65% for 50+ dwellings per ha, 28% for 30-50 dph and 7% for less than 30 dph. The average density of development over the decade to 2011/12 is 59.6 dph, falling from a peak of 80dph in 2008/09 reflecting the fall in apartment development.

4.3.8 Soil Quality

As most of Birmingham is built-up, there is very little soil of a high quality. There is agricultural land situated to north-east of the City at Sutton Coldfield and a lesser amount is to be found at Woodgate Valley to the south-west. In terms of agricultural land classification, almost the whole of Birmingham is classified as Urban and just a small area in the north and north east are classified as Grade 3 agricultural land (MAGIC website, 2009).

There are a number of sites which could be subject to land contamination within Birmingham. This includes a total of 67 former known landfill sites that have been identified in the City since the 1960s although risk and remediation schemes have already been carried out on many of these sites. The majority of identified landfill sites are situated next to housing and some are located on Birmingham's major aquifer. Public open space within the city, except for the 85ha that former landfills, this land is not likely to be affected by contamination²⁰.

²⁰ Birmingham City Council (2008) Contaminated Land Inspection Strategy for Birmingham Second Edition

Historically, Birmingham has had a very broad spectrum of manufacturing industries. Many of these have the potential to leave a legacy of land contamination. As with many industrial cities, energy requirements have changed as new technologies have become available. Birmingham is no exception. The production of energy from coal to produce town gas or electricity has obvious contamination issues and there are several areas of Birmingham where historically such activities have been undertaken. At the heart of the United Kingdom's road and rail network Birmingham has considerable areas of land which may be contaminated due to transportation activities. These include roads, canals, railways and airports.

Waste disposal activities in Birmingham range from complex waste treatment plants dealing with highly hazardous waste to waste transfer stations handling inert building waste and soil. The potential land contamination issues in respect of landfill sites have been considered previously, but all waste disposal activities will be the subject of assessment.

The Council is required under Section 78R of Part IIA of the Environmental Protection Act 1990 to maintain a Public Register of Contaminated Land of which there are 121 entries.

4.3.9 Influence of the DM DPD on Material Assets

The DM DPD is likely to have a mixed and indirect influence on material assets through the granting of planning permission which will entail additional resource use. However, the requirements for increasingly demanding standards of energy efficiency and waste management in the construction and running of buildings will bring about improved resource use overall as will the maintenance of the preference for the use of previously developed land. Detailed design requirements and conditions associated with the granting of planning permission could also be influential in encouraging more sustainable travel, for example in restricting parking spaces.

4.4 Climatic Factors

4.4.1 Climate Change

UK Climate Change Projections (UKCP09)²¹ suggest that mean summer temperatures could rise by 2.6°C, summer rainfall could decrease by 17% and winter rainfall could increase by 13% in the West Midlands by the 2050s. These are the central estimates for a medium emissions scenario. By the 2050s central England could have irrigation needs similar to those currently seen in central and southern Europe. Mean monthly river flows could decrease by 50% to 80%. However, by the 2080s, the latest UK climate projections (UKCP09) are that there could be around three times as many days in winter with heavy rainfall (defined as more than 25mm in a day). It is plausible that the amount of rain in extreme storms (with a 1 in 5 annual chance, or rarer) could increase locally by 40%²². The impact of wetter winters and more of this rain falling in wet spells may increase river flooding. More intense rainfall causes more surface runoff, increasing localised flooding and erosion. In turn, this may increase pressure on drains, sewers and water quality. Storm intensity in summer could increase even in drier summers.

²¹ UKCP09 <http://ukclimateprojections.defra.gov.uk/content/view/515/499/>

²² Birmingham City Council (2011) Preliminary Flood Risk Assessment

More generally, according to the UK's Climate Change Risk Assessment²³ the following key impacts associated with climate change are likely:

- Flood risk is projected to increase across the UK. Expected annual damages increase from a current baseline of £1 billion to between £1.8 and £5.6 billion by the 2080s for England (not including the effects of projected population growth);
- Risk of increased pressure on the country's water resources. The current public water supply surplus of around 900Ml/day on average is projected to turn into a water supply deficit of around 1,250Ml/day by the 2020s and 5,500Ml/day by the 2050s, with large regional variations;
- Potential health risks related to hotter summer conditions, but potential benefits from milder winters;
- There are projected to be between 580 to 5,900 additional premature deaths per year by the 2050s in hotter summer conditions. Conversely, between 3,900 and 24,000 premature deaths are projected to be avoided per year with milder winters by the 2050s;
- Sensitive ecosystems that have already been degraded by human activity may be placed under increasing pressure due to climate change. The main direct impacts relate to changes in the timing of life-cycle events, shifts in species distributions and ranges, and potential changes in hydrological conditions. While some species would benefit from these changes, many more would suffer; and
- Some climate changes projected for the UK provide opportunities to improve sustainable food and forestry production. Some agri-businesses may be able to increase yields of certain types of crops and introduce new crops in some parts of the country, as long as pests and diseases are effectively controlled and sustainable supplies of water are available.

The UK is at risk of both water supply deficits (too little water) and greater risk of flooding (too much water). While this can seem counterintuitive, it arises due to changes in the timing and extent of when rain falls. Water supplies (groundwater and reservoirs) need sustained rainfall over a period of time, particularly in winter, to remain at required levels. The intense rain that can lead to flooding from rivers and surface water does not necessarily replenish these large stores, as the water may flow rapidly downstream before it is captured, and not fall in sufficient quantity over a prolonged period.

Birmingham imports in the region of 22,800GWhr of energy per year costing the city's population and businesses over £1.5bn, with costs predicted to rise along with fuel prices over the coming years²⁴. The Climate Change Strategic Framework²⁵ identifies that 46% of Birmingham's CO₂ emissions come from industry, 33% from domestic energy and 21% from road transport. Between 2005 and 2011, there was a 12.5% decrease in per capita carbon emissions (Figure 4.2). The Birmingham Climate Change Framework provides a key target to produce a 60% reduction in carbon dioxide (CO₂) emissions produced in the City by 2026. The overall actual and projected reduction in CO₂ emissions is illustrated in Figure 4.2 where a halving of emissions over the next ten years is anticipated.²⁶

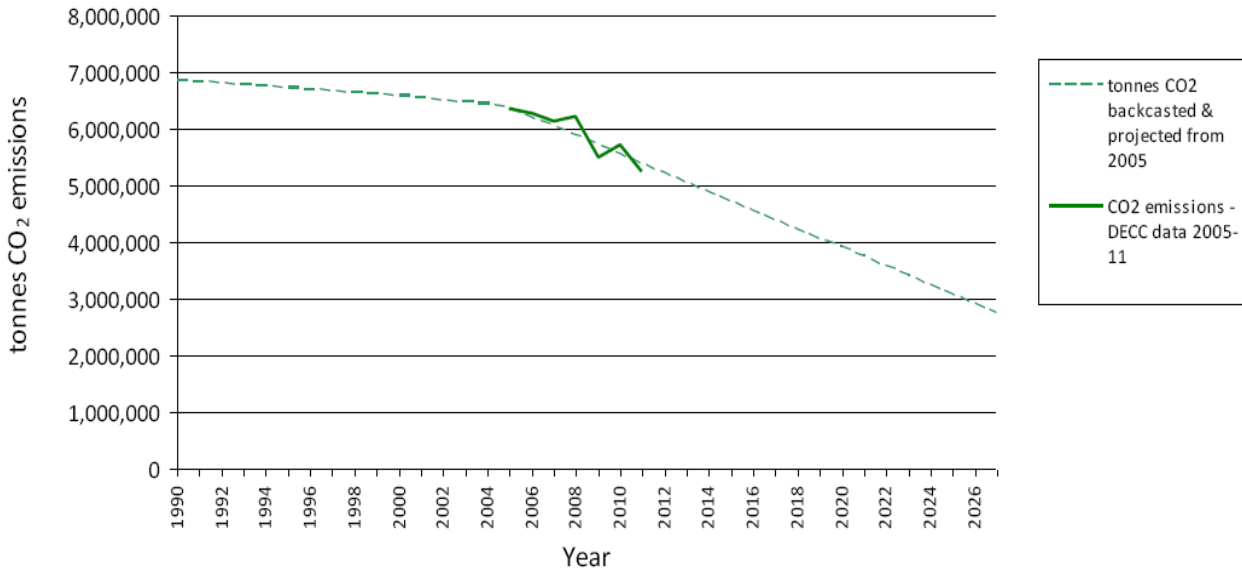
²³ http://www.sustainabilitywestmidlands.org.uk/media/resources/adaptation_sub-committee_report.pdf

²⁴ Birmingham City Council website 'Renewable Energy'

²⁵ Birmingham City Council (2009) Cutting CO₂ for a Smarter Birmingham Strategic Framework

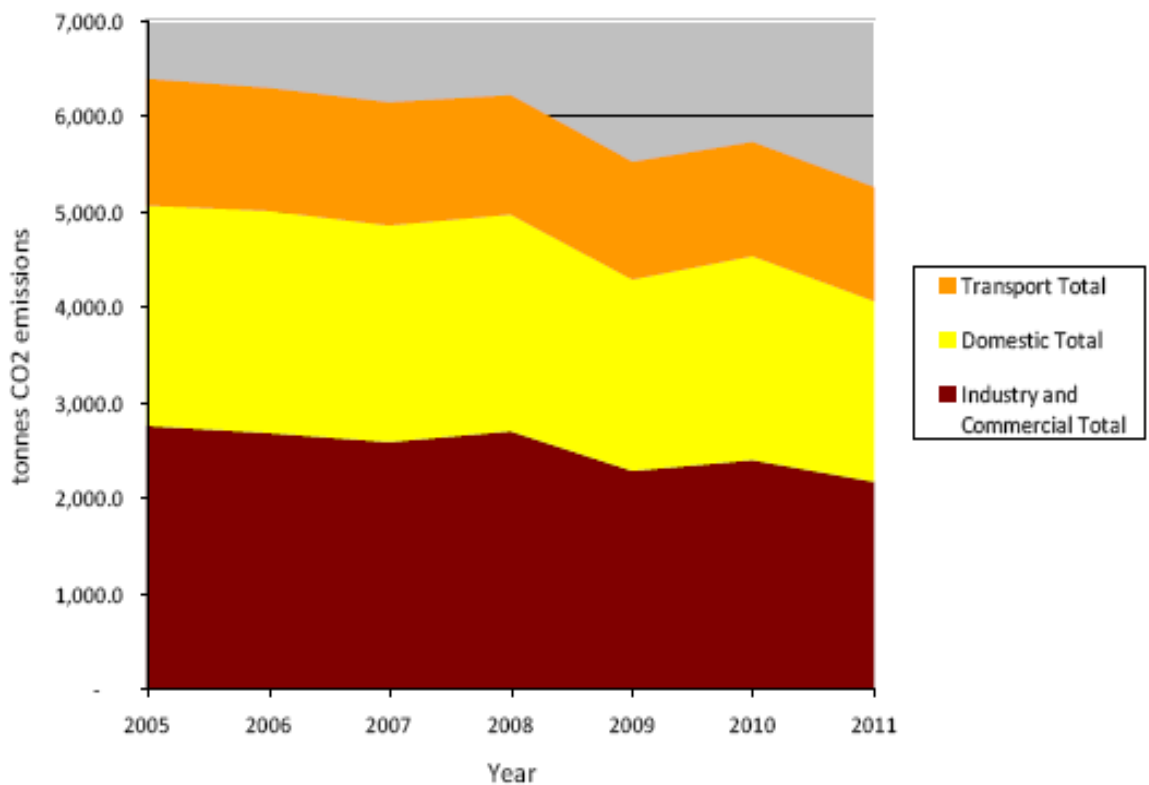
²⁶ Birmingham's Green Commission (September 2013) Report on Birmingham's Carbon Emissions Progress <http://greencity.birmingham.gov.uk/wp-content/uploads/2013/11/Birmingham-CO2-Emissions-Progress-September-2013.pdf>

Figure 4.2 CO2 Emissions Progress and Required Reduction Path



In terms of sectoral emissions (Figure 4.2), the clearest contributions to overall reductions are associated with the industrial and domestic sectors, with transport proving to be more stubborn.

Figure 4.3 Birmingham's CO2 Emissions by Sector 2005- 2011



Birmingham's CO2 Framework suggests that the City has limited scope for large-scale renewable energy projects; however energy users can support developments elsewhere through their purchasing decisions. The largest renewable energy scheme currently operating in Birmingham is probably the Tyseley Energy from Waste Plant facility which produced a total of over 95,030.50 tonnes of ash between April 2010 and March 2011 and generates 25MWh per annum, from the thermal treatment of waste. A total of 80,241.22 tonnes of bottom ash that was produced was sent for recycling in Castle Bromwich where metals are removed and recycled with the remaining material used within the construction industry. This is substantially short of the target for renewable energy to account for 15% of energy produced by 2020 in the Climate Change Strategy and Action Plan Consultation 2007. The City has a number of operational 'Combined Heat and Power' (CHP) facilities, such as Birmingham Children's Hospital and Aston University which are part of an award winning CHP scheme, which are able to generate and supply heat and electricity for local consumption. The connection of Birmingham Children's Hospital to the CHP scheme has allowed for the supply of heat to Lancaster Circus.

Whilst it is acknowledged in the Annual Monitoring Report¹ that the Birmingham City Council currently does not monitor the provision of new renewable energy capacity, it is understood that further consideration is being given by Birmingham City Council to ways of monitoring additional renewable energy capacity installed through new development.

There are 100,000 dwellings in the city which are more than 80 years old according to the Birmingham Sustainability Strategy and Action Plan 2000-2005. As a result the construction form is intrinsically energy-poor. Recent developments, such as the Birmingham High Performance Centre at the Alexander Stadium, have incorporated innovative, energy-efficient design. Although they are not referred to as 100% sustainable energy systems, CHP can be a more efficient energy system generating and supplying heat and electricity for local consumption.

Heating is by far the largest domestic use of energy in Birmingham. Space heating accounts for 62% of use, while water heating accounts 22%. This is exacerbated by a large number of homes that do not meet Decent Homes standards, including 49,250 City Council-owned homes and an estimated 35,000 private sector dwellings. The Climate Change Framework aims that by 2026 Birmingham will provide an improved quality and choice of housing and 'decent' standard for virtually all housing, with efficient heating systems and insulation in line with the best UK cities. Birmingham supports the national commitment that all new homes will be zero carbon by 2016.

The Sustainable Community Strategy sets out a vision for Birmingham in 2026 to become the first sustainable global city in modern Britain. The strategy envisages that in 2026 Birmingham will lead on Climate Change with local energy generation from CHP and cooling schemes will reduce CO₂ emissions. If Birmingham is to become the first sustainable global city it needs to dramatically increase deployment in low carbon energy generation technologies. The UK has signed up to the European Renewable Energy Directive, which sets a target of 15% of all energy generated to be sourced from renewable sources by 2020.

4.4.2 Managing Climate Change

Many of Birmingham's rivers and streams are susceptible to flooding (whether due to climate change or otherwise) and Birmingham City Council is required to consult the Environment Agency on all planning applications within

the floodplain zones defined by the Agency. During 2011/12 Birmingham City Council received 17 responses on full planning applications from the Environment Agency. Only two of these applications were approved with an outstanding Environment Agency objection, and in these cases it was felt that the Agency's concerns could be adequately addressed through conditions.

The Level 1 revised Strategic Flood Risk Assessment was published in January 2012 by the City Council which assesses and maps all known sources of flood risk including fluvial, surface water, sewer, groundwater and impounded water bodies, taking into account future climate change predictions, to be used as an evidence base to locate future development, primarily in low flood risk areas. The Level 2 Strategic Flood Risk Assessment (April 2012) assesses possible development locations identified in the Strategic Housing Land Assessment in terms of flood zones and the sequential test. The results of the SFRA should be incorporated into the SA process once they become available.

One factor that can help to manage and adapt to the impact of climate change is the development and enhancement of Green Infrastructure (GI). GI is the interconnected network of open spaces and natural areas, such as greenways, wetlands, parks, forest preserves and native plant vegetation, that can help naturally manage storm water, reduce flooding risk and improve water quality, helping to reduce the City's 'heat island effect'.

4.4.3 Flooding

Flood Risk

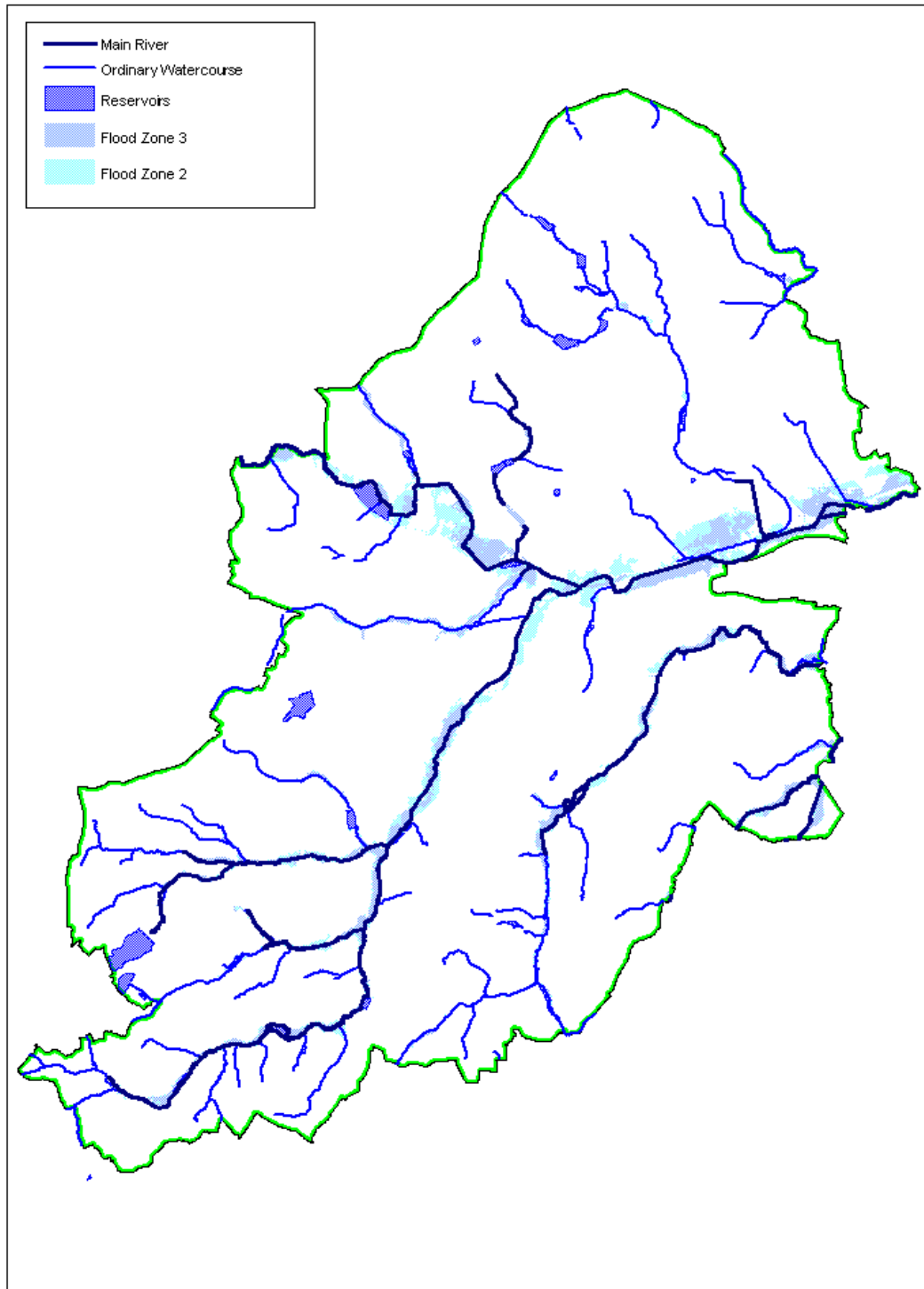
Birmingham is at risk of flooding from Main Rivers, ordinary watercourses, surface water, sewer flooding and groundwater. There is also the potential for canal and reservoir breach and overtopping. It is estimated that there are 11,365 at risk of fluvial flooding and 24,600 properties at risk of surface water flooding.

The Level 1 revised Strategic Flood Risk Assessment (SFRA) was published in January 2012 by Birmingham City Council. The SFRA assesses and maps all known sources of flood risk including fluvial, surface water, sewer, groundwater and impounded water bodies, taking into account future climate change predictions, and these are to be used as an evidence base to locate future development, primarily in low flood risk areas. The Level 2 Strategic Flood Risk Assessment (April 2012) assesses possible development locations identified in the Strategic Housing Land Assessment in terms of flood zones and the sequential test.

Fluvial Flood Risk

Fluvial flooding occurs when water draining from the surrounding land exceeds the capacity of a watercourse. The Environment Agency produced Flood Zones show the areas potentially at risk of flooding from rivers, ignoring the presence of defences. Figure 4.4 shows the flood zones in Birmingham showing 1 in 100 and 1 in 1,000 year risks associated with Birmingham's rivers and their tributaries.

Figure 4.4 Flood Zones across Birmingham



Surface Water Flooding

Surface water flooding describes flooding from sewers, drains, small watercourses and ditches that occurs during heavy rainfall in urban areas. It includes:

- Pluvial flooding - flooding as a result of high intensity rainfall when water is ponding or flowing over the ground surface (surface run-off) before it enters the underground drainage network or watercourse, or cannot enter it because the network is full to capacity;
- Sewer flooding²⁷ - flooding which occurs when the capacity of underground systems is exceeded, resulting in flooding inside and outside of buildings. Normal discharge of sewers and drains through outfalls may be impeded by high water levels in receiving waters;
- Flooding from small open-channel and culverted urban watercourses²⁸ which receive most of their flow from inside the urban area; and
- Overland flows from the urban/rural fringe entering the built-up area, including overland flows from groundwater springs.

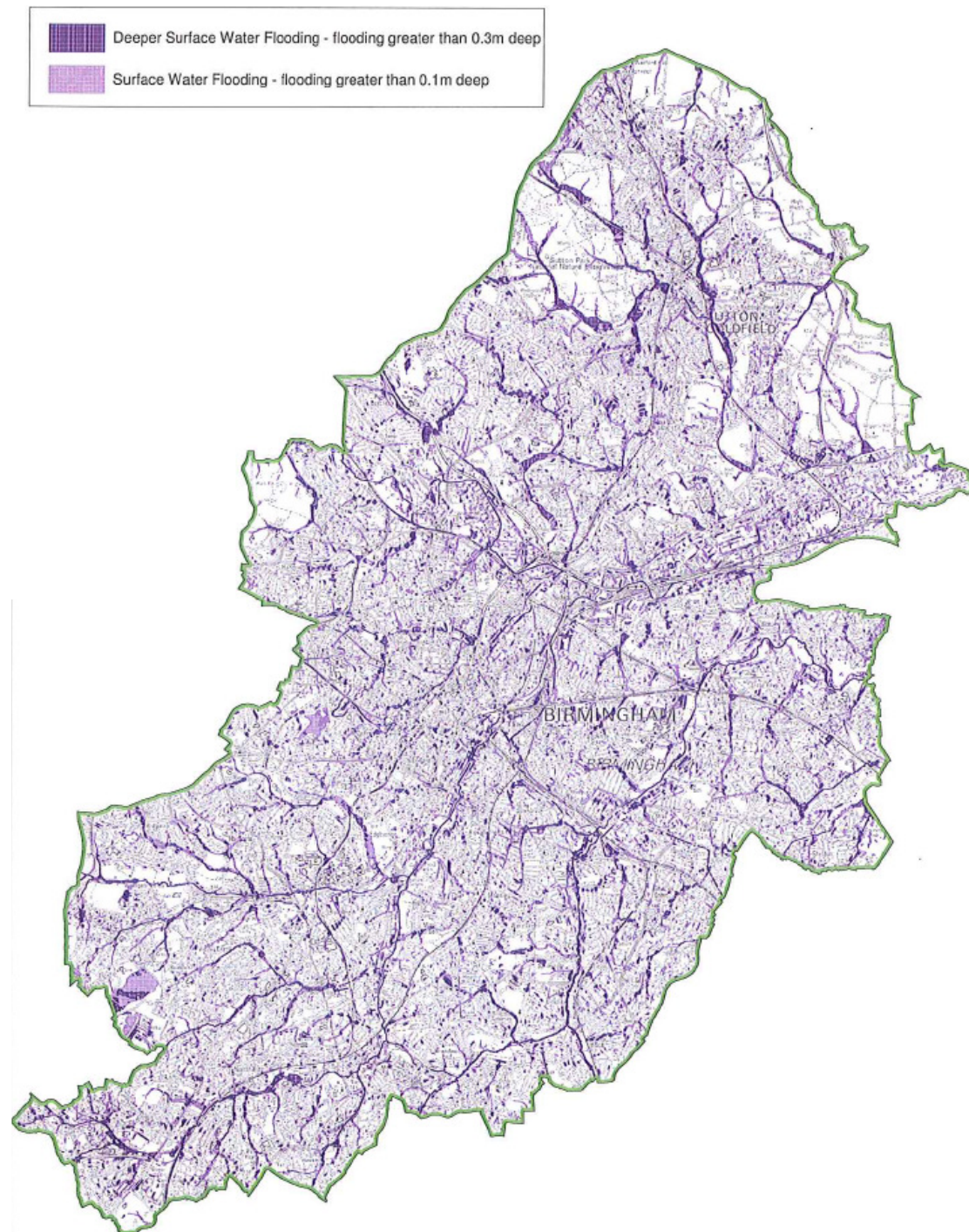
Birmingham City Council is currently developing a Surface Water Management Plan. The SWMP process is a framework through which key local partners with responsibility for surface water and drainage in their area work together to understand the causes and effects of surface water flooding and agree the most cost effective way of managing surface water flood risk for the long term. The process of working together as a partnership is designed to encourage the development of innovative solutions and practices. The purpose is to make sustainable urban surface water management decisions that are evidence based, risk based, future proofed and inclusive of stakeholder views and preferences.

Figure 4.5 illustrates the areas susceptible to surface water flooding across the City.

²⁷ Consideration of sewer flooding in 'dry weather' resulting from blockage, collapse, or pumping station mechanical failure is excluded from SWMPs as this is for the sole concern of the sewerage undertaker

²⁸ Interactions with larger rivers and tidal waters can be an important mechanisms controlling surface water flooding

Figure 4.5 Areas Susceptible to Surface Water Flooding



Source: Birmingham City Council (May 2011) Preliminary Flood Risk Assessment

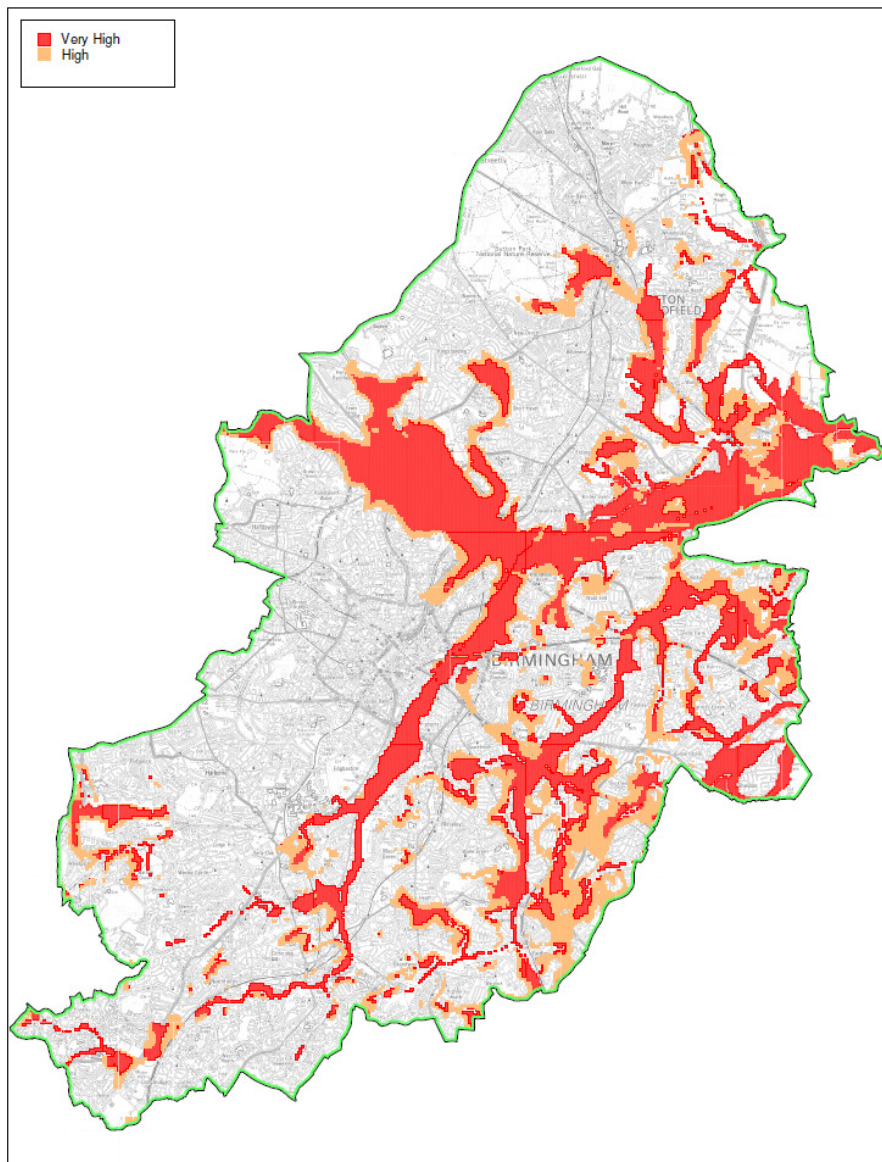
Groundwater Flood Risk

In response to the need for more information on groundwater flooding, the British Geological Society (BGS) has produced the first national hazard or susceptibility data set of groundwater flooding. The data is based on geological and hydrogeological information and can be used to identify areas where geological conditions could enable groundwater flooding to occur and where groundwater may come close to the ground surface.

Although this is not a risk data set in that it does not provide information about the likelihood of a groundwater flood occurring, it can be used to provide an understanding of groundwater flooding.

Areas susceptible to groundwater flooding are shown Figure 4.6.

Figure 4.6 Areas Susceptible to Groundwater Flooding



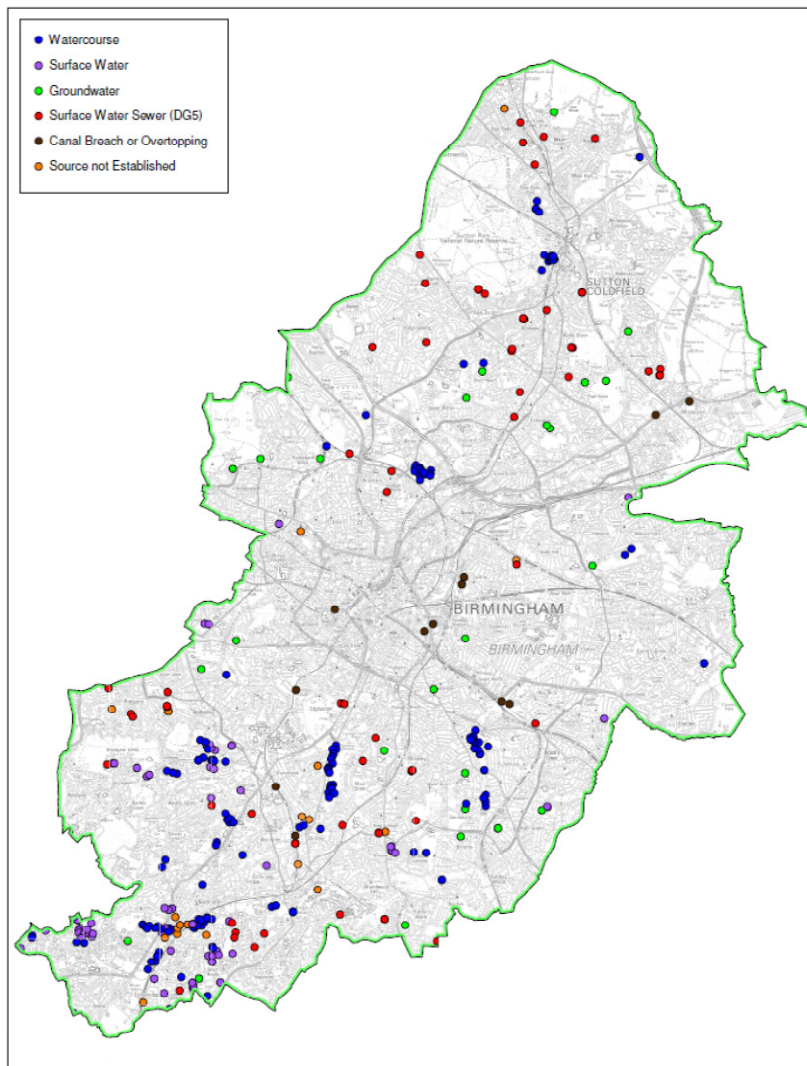
Source: Birmingham City Council (May 2011) Preliminary Flood Risk Assessment

Historic Flood Risk in Birmingham

A number of datasets have been collated to assess the local historic flood risk in Birmingham; this includes flooding from watercourses, surface water and groundwater. However due to the urbanised nature of the Birmingham catchment there are often significant interactions between sources of flooding and it is not always possible to ascertain the source of the flooding.

Historical flooding records provide a source of data that directly indicates both areas and sources of flooding. Recent years have seen a number of flooding events affecting Birmingham (September 1998, April 1999, June 1999, July 2000, June 2005, June 2007, July 2007 and September 2008), all historical flooding data has been collected from BCC, Severn Trent Water and British Waterways. The PFRA mapped historic flood locations across the City, shown in Figure 4.7.

Figure 4.7 Historic Flood Locations across Birmingham by Flooding Source



Source: Birmingham City Council (May 2011) Preliminary Flood Risk Assessment

4.4.4 Influence of the DM DPD on Managing Climate Change

There are opportunities to adopt more sustainable approaches to directly address potential increases extreme weather events which may arise through climate change. Scrutiny of building design could include climate-proofing measures such as passive ventilation and opportunities to enhance energy efficiency which will indirectly assist in mitigating climate change. The DM DPD will directly influence where development takes place through guiding development away from flood risk areas and requiring appropriate adaptation measures where this is not possible.

4.5 Biodiversity and Geodiversity

The City has a number of areas that are protected for their nature conservation value. The City's nature conservation sites include two Sites of Special Scientific Interest (SSSIs): Sutton Park and Edgbaston Pool. Sutton Park is also designated as a National Nature Reserve (NNR). There are 10 Local Nature Reserves (LNRs), over 50 Sites of Importance for Nature Conservation (SINCs) and 58 Sites of Local Importance for Nature Conservation (SLINCs) covering various ancient woodlands, grasslands, lakes, streams, and other important wildlife habitats or examples of natural landscape. Within the City Centre there are a number of sites of local importance for nature conservation (SLINCs), essentially the canal network and the River Rea. These areas, as well as the linear corridors along main rail and Metro lines, are key wildlife corridors. Table 3.2 shows the total area covered by different types of nature conservation sites, Figure 4.8 maps these assets.

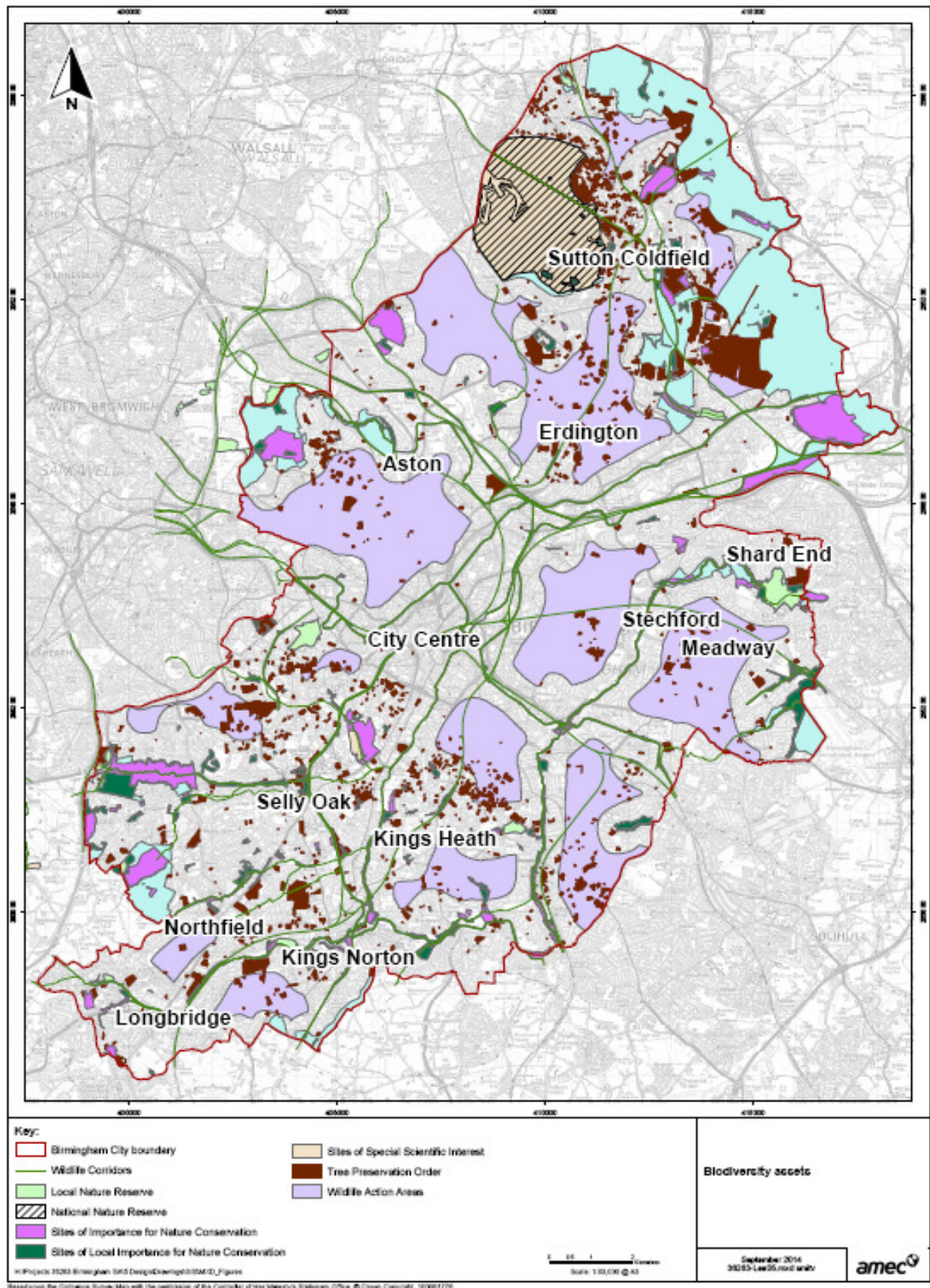
Table 4.4 Birmingham's Designated Nature Conservation Sites

Type of Area	Number of Sites	Total Area (Hectares)	% of City's Area
SSSIs	2	893.31	3.33
NNRs	1	811.73	3.03
LNRs	10	147.78	0.55
SINCs	58	824.68	3.08
SLINCs	118	707.99	2.64

Source: Birmingham City Council, AMR (2013)

The 2013 AMR reports only very limited changes to designated sites as a result of planning applications, with no applications approved for development within designated sites of national importance (SSSIs or NNRs). Some 52 applications for development were approved for development in 2012-13 adjacent to SINCs, although no adverse impacts on sites' nature conservation interests were anticipated.

Figure 4.8 Birmingham's Biodiversity Assets



The West Midlands Biodiversity Partnership has developed a number of area based projects which look at different ways of protecting biodiversity by reducing fragmentation of habitats and species. The Cannock Chase to Sutton Park Project encompasses an area of approximately 670 square km extending from the edge of Birmingham northwards into Staffordshire. The Project area is characterised by two core areas of semi-natural habitat: Cannock Chase and Sutton Park. These areas support significant amounts of lowland heath habitat along with a range of additional habitats including acidic and neutral grasslands, scrub, woodland and wetlands.

Since the project began a number of developments have been made including;

- Research undertaken to identify priorities for habitat restoration and re-creation at a landscape scale,
- Engagement with biodiversity stakeholders and with a wider group of land management and land use planning professionals with knowledge of the BEA area using research; and
- Development of the project with key partners (RDS, CA and local authorities) has led to integration of BEA biodiversity objectives into existing schemes, plans and policies e.g. Environmental Stewardship Higher Level Scheme, Local Planning Authorities' Local Development Frameworks.

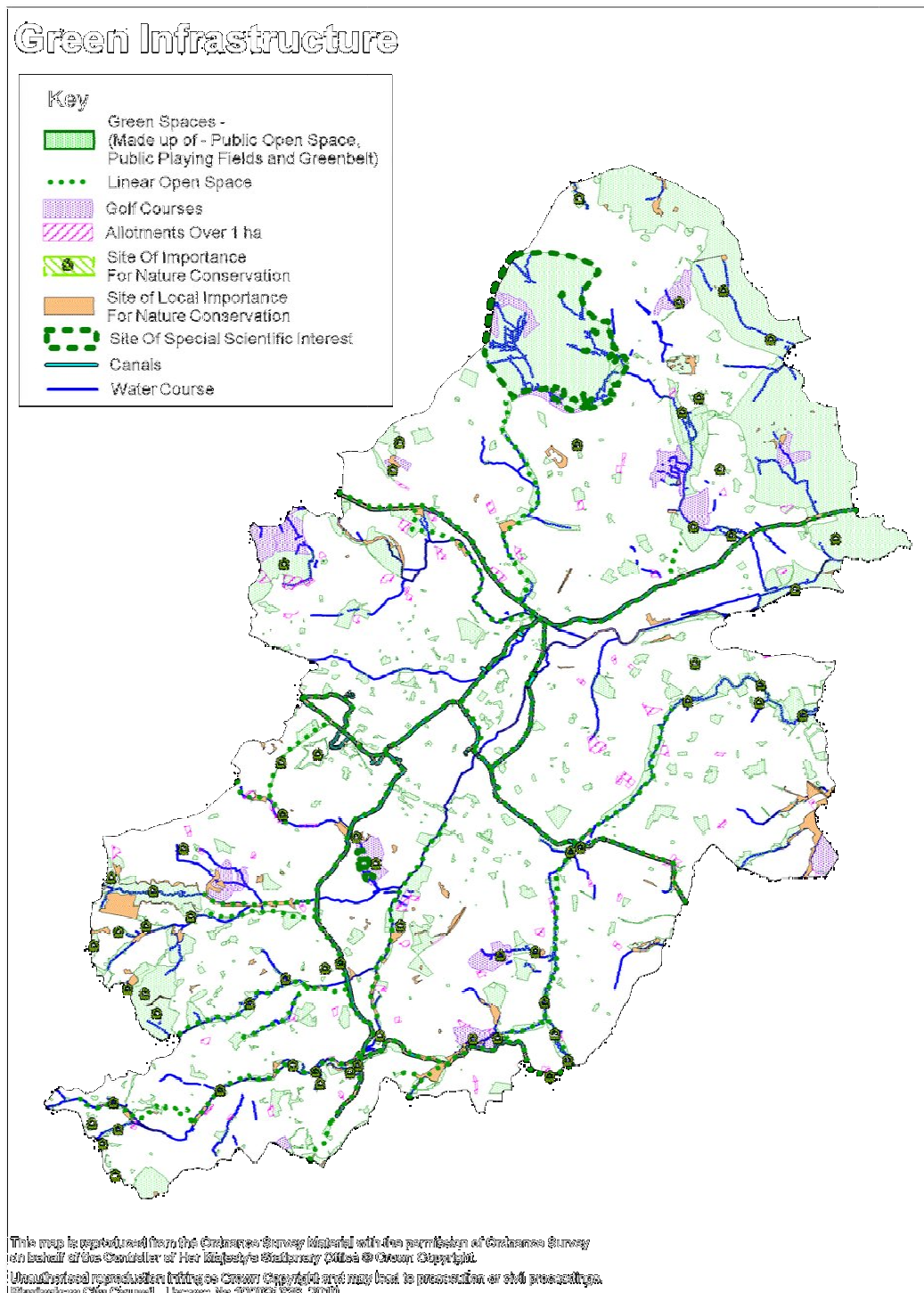
Green Infrastructure (GI) refers to the living network of green spaces, water and other environmental features in both urban and rural areas. It is often used in an urban context to cover benefits provided by trees, parks, gardens, road verges, allotments, cemeteries, woodlands, rivers and wetlands²⁹. GI can provide a number of benefits including:

- Increasing property and land values;
- Attracting and retaining people ensuring stable populations and labour supply;
- Creating a focus for social inclusion, education, training, health and well-being;
- Developing landscape character and local distinctiveness, grounded in the principles of Landscape Character Assessment;
- Safeguarding and enhancing natural and historic assets; and
- Increasing contact between people and nature.

Figure 4.9 illustrates the City's GI network.

²⁹ Defra (2011) The Natural Choice: securing the value of nature.

Figure 4.9 Birmingham's Green Infrastructure Network



Source: <http://consult.birmingham.gov.uk/portal/ps/csd/csdraft?pointId=d2670232e7333>

Birmingham is characterised by a large number of well-established parks, many of which were created in the 19th century. The City's greenspace is supplemented by a large linear open space network, which is based primarily on the Rivers Cole and Rea and the City's extensive canal network. The extent of green spaces (excluding areas designated for nature conservation) is shown in Table 4.5.

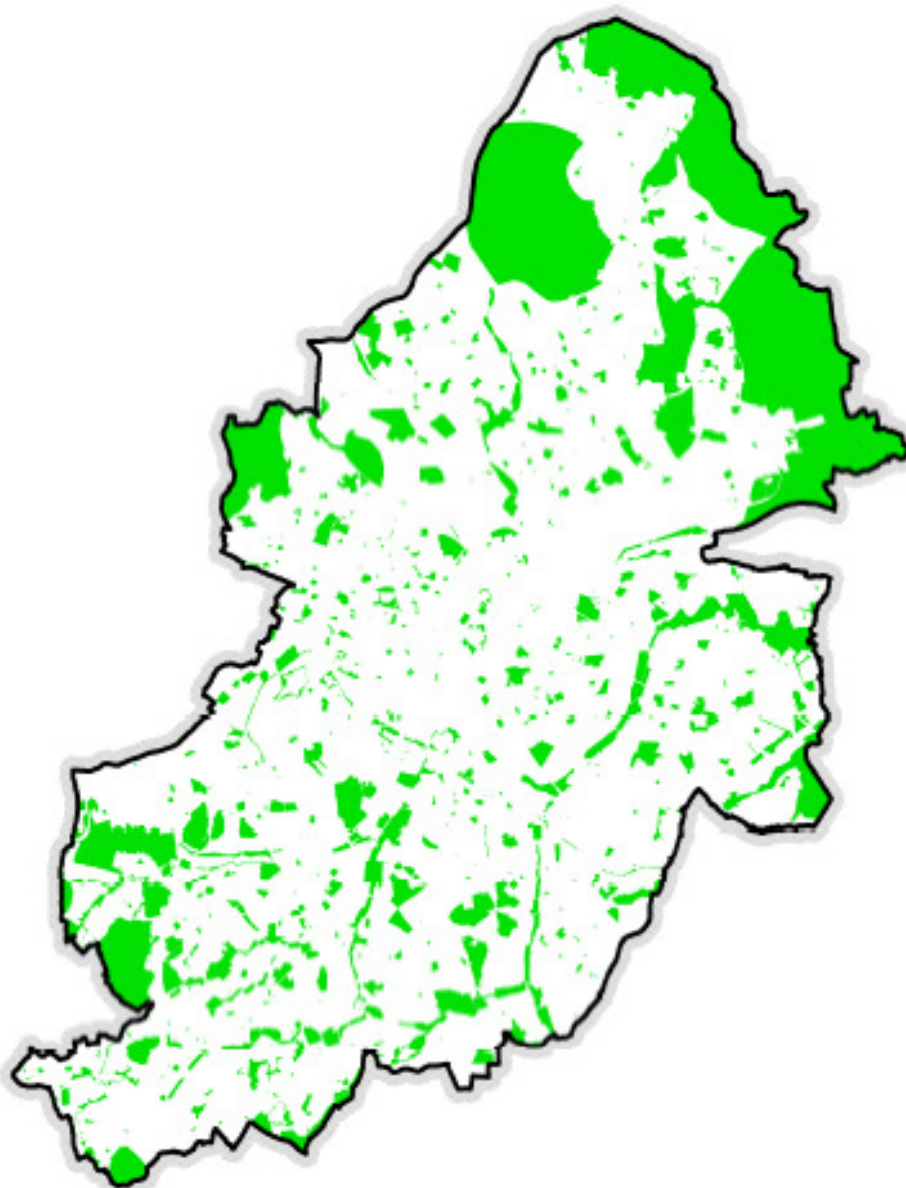
Table 4.5 Green Spaces in Birmingham

Type of Area	Total Area (Hectares)	% of City's Area
Public Open Space	3,069.77	11.46
Public Playing Fields	321.11	1.19
Private Playing Fields	268.11	1.0
Private Open Space	67.19	0.26
Educational Playing Fields	166.78	0.62
Golf Courses	657.87	2.46
Statutory Common Land	11.25	0.04
Allotments	250.93	0.94
Green Belt	4,153.11	15.51

Source: Birmingham City Council, AMR 2013

Birmingham's green spaces are mapped in Figure 4.10.

Figure 4.10 Green Spaces in Birmingham



Source: <http://consult.birmingham.gov.uk/portal/ps/csd/csdraft?pointId=d2670232e7333>

4.5.1 Geodiversity

The term geodiversity incorporates all the variety of rocks, minerals and landforms and the processes which have formed these features throughout geological time. The geology of the West Midlands is dominated by the South Staffordshire Coalfield, the exploitation of which has contributed greatly to the industrial and economic development of the area³⁰. Upper Carboniferous Coal Measures underlie the main conurbation of Wolverhampton, Walsall, West Bromwich and Dudley. Surrounding these shales, sandstones and mudstones are Triassic aged rocks which comprise red mudstones and sandstones. These underlie much of Birmingham and form the solid geology up to Sutton Coldfield. Within the main mass of the Coal Measures are a number of isolated outcrops of older Silurian rock. These shallow water limestones and shales contain a wide range of marine fossils and form the famous outcrops at Wren's Nest and Dudley Castle Hill. There are also a number of igneous intrusions into the Coal Measures. Much of the area has been mantled in thick deposits of boulder clay and sands and gravel deposited by ice sheets and meltwaters during the Ice Ages of the last two million years³¹.

The geology underlying the City has a significant influence over the use of SuDS which include a variety of techniques including swales and basins, permeable pavements and ponds and wetlands to mimic natural drainage processes and mitigate the impacts that development has on surface water runoff rates and volumes. The SFRA for Birmingham (2011) notes that the geology beneath Birmingham, is essentially divided into two due to a fault, known as the 'Birmingham Fault', running approximately north-east to south-west and consists of Permian and Triassic sandstones and mudstones. To the west of the fault line the rock strata predominantly consists of red and red-orange sandstones and is indicative of high permeability soils (good to very good drainage), and to the east the rock strata predominately consists of red and red-brown mudstones which are inter-bedded by several silt and sandstone bands and are typically representative of low permeability soils (poor drainage to practically impervious). The SFRA encourages that these characteristics should be considered in the development process where large increases in impermeable area for a site could contribute to a significant and resulting increase in surface water runoff peak flows and volumes. In turn this could contribute to an increase in flood risk elsewhere unless adequate SuDS techniques are implemented as part of a development. Additionally, indirect impacts on the water table and source protection zones need to be taken into account.

4.5.2 Influence of the DM DPD on Biodiversity and Geodiversity

Policies and proposals pursued in the DM DPD could include a range of direct and indirect impacts, all having the potential to adversely affect biodiversity. Careful scrutiny of development proposals will be required to ensure that direct impacts are avoided where possible and indirect impacts (such as downstream effects) are anticipated and appropriately mitigated. If well managed, development can benefit wildlife and recreational opportunities, through habitat improvement or creation.

³⁰ http://www.naturalengland.org.uk/ourwork/conservation/geodiversity/englands/counties/area_ID38.aspx

³¹ http://www.naturalengland.org.uk/ourwork/conservation/geodiversity/englands/counties/area_ID38.aspx

4.6 Population and Human Health

4.6.1 Housing

The City covers an area of 26,779ha (267.8km²), of which 15,200ha is residential. According to the Housing Development Plan³² Birmingham's residents live in 406,000-410,000 households. The City has about 414,000 self-contained properties. In April 2006, there were about 68,000 Council and an estimated 40,000 registered social landlord social rented homes. Since 2001, the City's population has grown after experiencing declines between 1991 and 2001 due to net out-migration. The gains reflect a shift in the overall balance of migration from negative to positive, coupled with greater natural increases. The main reason for this has been the high levels of international immigration in recent years. These statistics have implications for housing provision. Table 4.6 shows that the number of households in the City increased in the period from 2001 to 2011. Despite the above, the rate of increase in households in Birmingham has been less than the national and regional rates.

Table 4.6 Change in Households in Birmingham, the West Midlands Region and England, 2001 and 2011

Area	2001 Households	2011 Households
Birmingham	390,800	410,700
West Midlands Region	2,153,700	2,294,900
England	20,451,400	22,063,400
Index of Change		
Birmingham		+0.95
West Midlands Region		+0.93
England		+0.92

Source: Census of Population, 2001 and 2011, Office of National Statistics

The average household size in Birmingham is greater than the national average and is greatest in the West Midlands Region according to the 2011 Census with an average household size of 2.6 people. Birmingham has relatively high proportions of households containing one person or with five or more people. Average household size reduced from 2.54 in the period 1991 to 2001, largely as a result of growing numbers of one-person households. However, for the period of 2011 to 2011 the average household size (persons) has increased to 2.56³³. The City has a relatively low proportion of detached housing, and higher proportions of terraced housing and flats. According to the 2011 Census, Birmingham was the most densely populated local authority within the West Midlands region with 4,000 people per square kilometre. This is an increase on the 2011 population density of 3,677 people per square kilometre which equates to an increase of 0.9%. The average housing density has decreased from over 74 dwellings in 2009/10 to just over 59 dwellings per hectare. This could be attributed to factors such as the reluctance of the development industry to commit to apartment schemes at the present time.

³² Source:

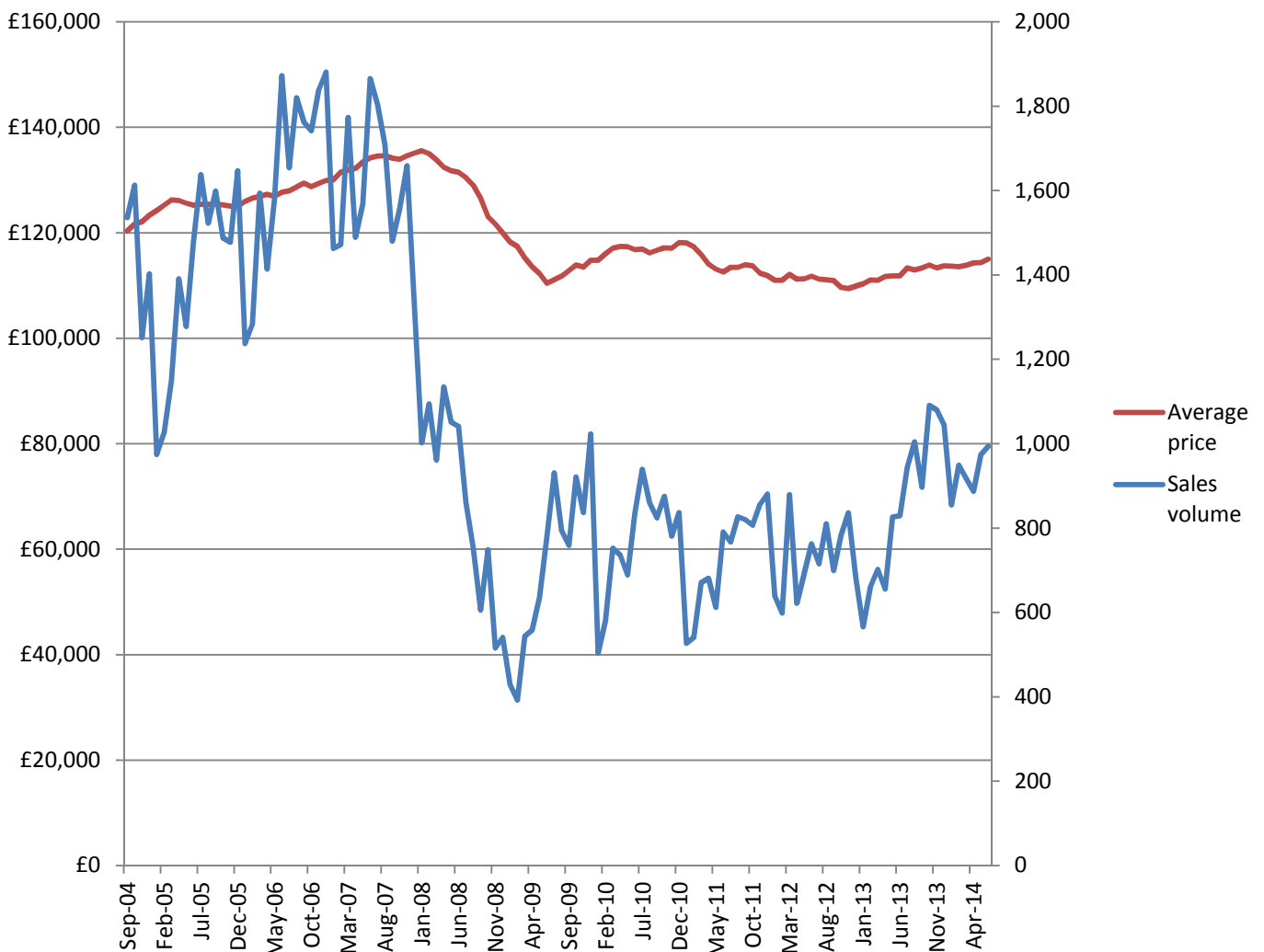
<http://www.birmingham.gov.uk/cs/Satellite?c=Page&childpagename=Housing%2FPageLayout&cid=1223092723273&pagename=BCC%2FCommon%2FWrapper%2FWrapper>

³³ Office for National Statistics 2011 Census: Population and household estimates for England and Wales – supplementary figures part 2

In recent years there have been political concerns over high density suburban development. This has manifested itself in a ‘Mature Suburbs: Guidelines to Control Residential Intensification - Supplementary Planning Document’ and away from the City Centre this has led to decreasing densities over the past five years.

The mean house price in the City is below the regional average, particularly at the cheaper end of the market. Latest figures from the Land Registry website (June 2014) indicate that the average house price in Birmingham is £114,989. Figure 4.11 indicates that house prices in Birmingham peaked in January 2008 and sharply declined through to 2010, and now have stabilised. Clearly however, sales volumes have declined by over 50% since October 2004. This suggests that the affordability of housing for poorer families and first-time buyers has declined due to other national economic conditions.

Figure 4.11 Average House Prices and Sales Volumes in Birmingham 2004-2014³⁴



³⁴ Land Registry (2014) <http://www.landregistry.gov.uk/public/house-prices-and-sales/search-the-index>

Birmingham has a relatively high proportion of households renting from Birmingham City Council. Statistics from the Housing Strategy Statistical Appendix 2011 show that within Birmingham the number of local authority rented housing is 64,424 and Registered Social Landlord housing is 40,613 which collectively equates to 25.6% of the total housing supply or the local authority. There is a mismatch between the existing supply of affordable housing and the location of demand. The Birmingham Housing Plan (2010 Review) identifies that the vast majority of Birmingham's City Council housing meets the Decent Homes standard. In the private sector, Birmingham has a substantial number of older homes that are in need of repair and modernisation.

Historically, homeless applications in Birmingham have been twice the national average; although they are declining. There were 19,496 applicants for housing on the Local Authority Housing Register as at 01 April 2013. Increasingly, older and disabled people wish to remain in their own homes. This results in strong demand for property adaptations, and an implication of need for to build homes to 'lifetime' standards. There were 1,899 referrals for assistance from Birmingham City Council in 2011/12.

Birmingham still manages its own stock and, notwithstanding Right to Buy, there remain very significant areas of predominantly local authority housing. These areas are however clustered and there are indeed significant pockets of the City (e.g. Edgbaston and Sutton) where affordable housing is in lesser supply and average houses prices are the highest in the City.

4.6.2 Economy

Birmingham's economic prosperity was originally built on manufacturing, but changes in the 1970s and 1980s led to a massive decline in this sector. However, highly-skilled, specialist manufacturing remains important to the city. Birmingham has since developed a substantial business and financial services sector through the transformation and growth of the City Centre and has become a major employment centre drawing in workers from across the West Midlands. It is an economic cluster with a particular focus on the banking, finance and insurance and distribution, hotels and restaurants and public service sectors. Birmingham is now a major centre for business conferences.

Despite declines in manufacturing, Birmingham is still a major employment centre drawing in workers from across the West Midlands region. Table 4.7 shows the number of economically active people within Birmingham, and Table 4.8 shows the number of employed residents in Birmingham by Gender and Ethnic Group.

Table 4.7 Economically Active Residents (2012)³⁵

	Birmingham (numbers)	Birmingham (%)	West Midlands (%)	Great Britain (%)
All People				
Economically active	449,500	65.7	74.3	76.6
In employment	390,200	57.0	67.6	70.3
Employees	337,900	49.4	58.6	60.3
Self employed	48,400	7.0	8.5	9.5
Males				
Economically active	255,100	75.6	81.1	82.8

³⁵ <http://www.nomisweb.co.uk/reports/lmp/la/2038431965/report.aspx#tabempunemp>

Table 4.7 (continued) Economically Active Residents (2012)³⁶

	Birmingham (numbers)	Birmingham (%)	West Midlands (%)	Great Britain (%)
In employment	220,500	65.2	73.0	75.5
Employees	179,500	53.2	60.1	61.7
Self employed	39,000	11.5	12.4	13.4
Unemployed (model-based)	34,700	13.6	9.7	8.6
Females				
Economically active	194,400	56.2	67.6	70.4
In employment	169,700	49.1	62.2	65.1
Employees	158,300	45.8	57.0	59.0
Self employed	9,400	2.7	4.7	5.7
Unemployed (model-based)	24,600	12.7	8.0	7.4

Table 4.8 Employed Residents in Birmingham by Gender and Ethnic Group³⁷

	2008		2009		2010		2011		2012	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Male	220,500	67.9	211,000	64.6	216,600	65.8	218,700	66.0	216,200	65.1
Female	177,600	53.9	180,500	54.3	180,900	53.0	173,100	50.1	166,500	49.1
White	284,500	70.1	284,500	70.1	268,300	67.1	274,800	63.9	256,100	64.3
Ethnic Minority	113,200	45.7	123,200	47.8	121,900	49.1	131,000	48.9	126,600	46.4

At 49.4%, Birmingham's employed residents (excluding self-employed) is noticeably below the Regional rate of 58.6%. The female rate is much lower than the male rate, and both are lower in Birmingham than the national averages; for women there is a 13.2 point difference from the England rate.

Some 34.3% of Birmingham's population is economically inactive (neither working nor seeking work). This is 10.9 points higher than the national rate. The female rate of 43.8% is 19.4 points higher than the male rate. The West Midlands has one of the highest economic inactivity rates in England. Birmingham in particular has a high unemployment rate and low employment rate. Table 4.9 summarises the total number of economic inactivity for those aged between 16-64 in Birmingham. This shows that the highest proportion of the economic inactivity are students at 34.9% which is 9.8% higher than the national average of 25.1%. The non-white economic inactivity rate is 42%, significantly higher than the white rate of 24%. Both rates are above the England averages of 32% and 20% respectively.

³⁶ <http://www.nomisweb.co.uk/reports/lmp/la/2038431965/report.aspx#tabempunemp>

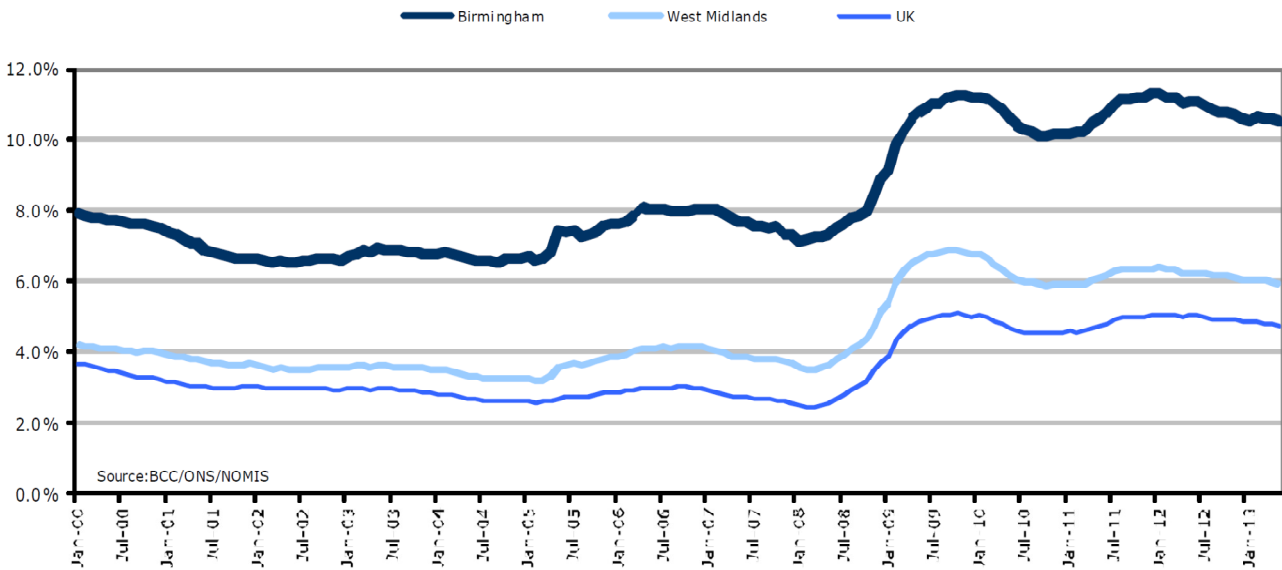
³⁷ ONS

Table 4.9 Economic Inactivity in Birmingham (ONS LFS/APS)

	Birmingham (level)	Birmingham (%)	West Midlands (%)	Great Britain (%)
Student	80,900	34.9	26.5	25.1
Looking after family/home	61,400	26.5	25.9	24.9
Temporary sick	4,700	2.0	1.9	1.9
Long-term sick	56,600	20.1	21.7	22.2
Discouraged	#	#	0.7	0.9
Retired	22,900	9.9	15.9	16.7
Other	13,700	5.9	7.3	8.4
Total	231,800	34.3	25.7	23.4

Birmingham has seen persistently higher levels of worklessness over the past decade, compared to the West Midlands and the UK, as can be seen from Figure 4.12.

Figure 4.12 Economically Active Unemployment Rates 2000-2013³⁸



Employment growth in the city as a whole is set to be relatively subdued over the period 2010-2025 as the economy recovers from the recession and adjusts to a decline in public sector employment. Indeed the forecast level of employment in the city in 2025 is only just returning to the levels seen prior to the recession.

³⁸ <http://www.birmingham.gov.uk/birmingham-economy>

The Greater Birmingham & Solihull LEP is a partnership of businesses, local authorities and universities which supports private sector growth and job creation. It was set up to strengthen local economies, encourage economic development and enterprise, and improve skills across the region. The City Deal between the Government and the Partnership was announced in July 2012 which consists of a package of measures that are to be implemented to drive economic growth designed to exploit the area's economic assets and address its challenges³⁹. The first phase of the City Deal is to focus on the delivery of a range of economic benefits for the Greater Birmingham and Solihull area. These include:

- 10,000 additional direct jobs, building on the 40,000 created by the vanguard Enterprise Zone in Birmingham City Centre;
- Leveraging in over £15bn of private sector investment over 25 years from £1.5bn of public funding;
- A Single Settlement to cover all economic development funding;
- A world-class skills system which meets the needs of employers and fulfils the expectations of employees;
- 3,560 apprenticeships (AGE) grants to be delivered by March 2013;
- Improvements to employers' perceptions of 'work readiness' year-on-year;
- In excess of 2,800 additional new homes through the use of public assets;
- At least 100% capital return on current market value of public assets;
- An Institute of Translational Medicine to respond to national unmet need, unlock growth potential in the NHS and create a portal for SMEs and international pharmaceutical companies;
- £35M of largely private sector clinical trial investment and £50M of free drugs;
- 15,000 homes refurbished delivering savings in domestic energy usage of 26 ktonnes pa of CO₂ and at least 40 public buildings refurbished delivering savings in energy usage of 10 ktonnes pa of CO₂; and
- Retrofitting to the properties of 1,500 people on pension or disability premium and 2,250 people in fuel poverty.

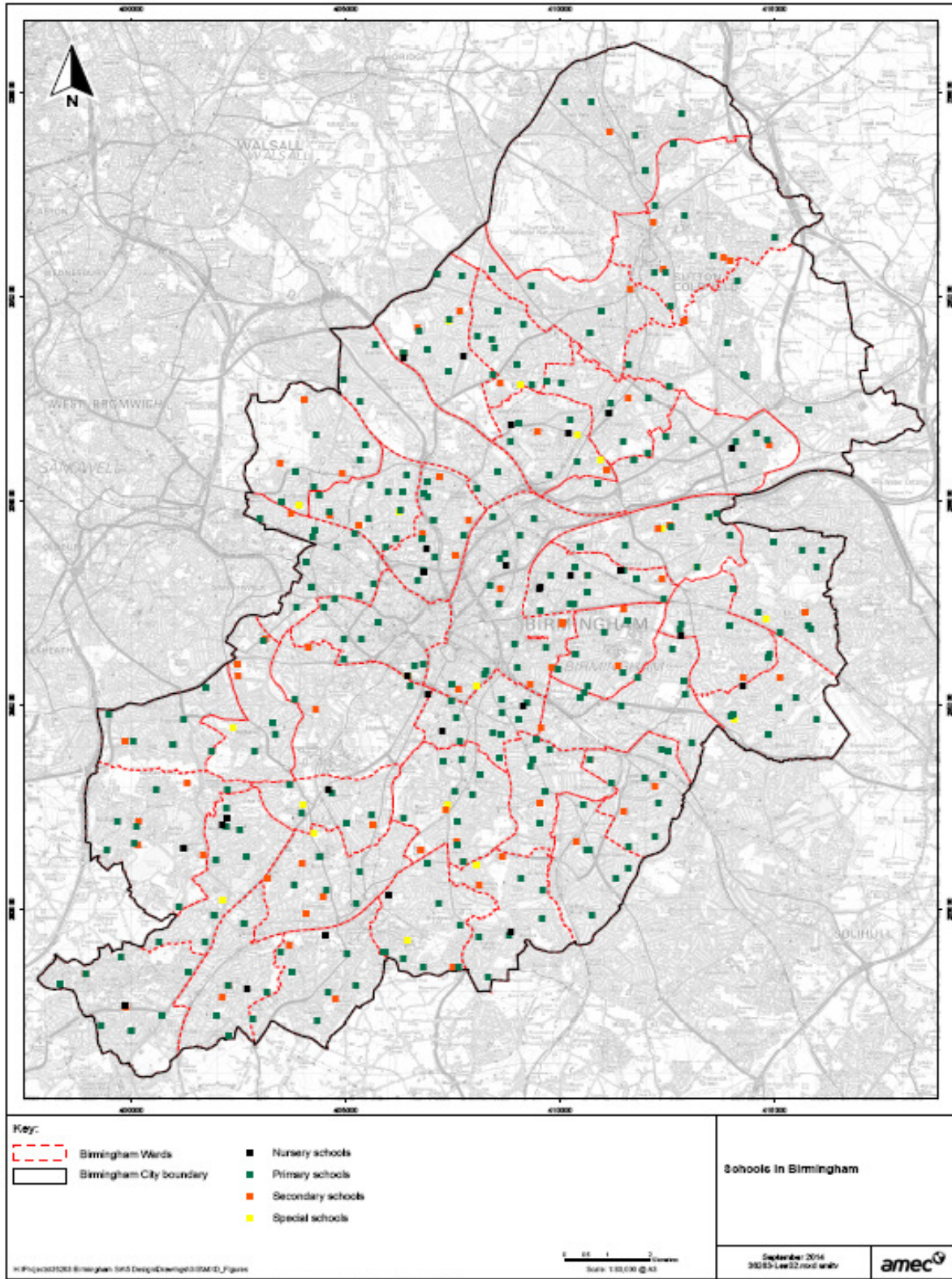
The City Deal comprises five elements: GBS Finance; Skills; Public Assets; Life Sciences and Green Deal, each of which includes specific commitments from the LEP and Government. Progress against these will be monitored to ensure they are delivered.

Learning and Skills

According to the Community Strategy, the City has a substantial education sector (Figure 4.13). Over the past ten years, the pupils and students of the City's schools and colleges have made major improvement in educational achievement, closing the gap on national averages. The percentage of Birmingham's population achieving NVQ level 3 or above (in 2011) was 43.5%, however this remains below the Region and National average, as is the proportion of the population educated to degree level. As a result, nearly half the high-skilled jobs in Birmingham are currently taken by people who live outside of the City.

³⁹ <http://centrefenterprise.com/about-the-lep/key-projects-and-issue/>

Figure 4.13 Nursery, Primary and Secondary Education Resources across Birmingham



With regard to current school provision and achievement levels in Birmingham, population forecasts produced by the University of Manchester show that there will be an increase in the number of children between 0-4 (+10,000 between 2006 and 2026) and 5-10 (+13,500).

There are currently several initiatives taken forward by Birmingham Council and the Learning and Skills Council to improve the educational offer and education delivery in the level of skills in Birmingham. Birmingham is one of only 23 local authorities to be chosen by the government to pilot the Primary Capital Programme, a national scheme that aims to develop primary schools and primary age special schools across the country.

Building Schools for the Future (BSF) is a national building programme that will give Birmingham the opportunity to rebuild or refurbish secondary schools and secondary special schools over the next decade. The developments will take place over six phases. The priority list for work on the schools is based on the degree of disadvantage in the neighbourhood plus the level of pupil achievement in that school.

Birmingham Academies are a key part of the Transforming Education programme in the city. Along with all the schools in the Building Schools for the Future programme, Birmingham Academies is intended to deliver a fresh approach to learning and be the key driver in inspiring young people and the community to explore new opportunities. Such academies will support young people to develop skills in construction, engineering, finance and law, health, hospitality, manufacturing, retail and media and arts.

There are numerous programmes on-going to improve further education in Birmingham. These are mainly programmes run by the Learning and Skills Councils such as Train to Gain, Skills Pledge and learning grants. Moreover, the city strategic partnership is to develop a comprehensive approach to training, skills and economic development, and to set up targets for 2012 with a focus on priority wards. Worklessness and long term unemployment is a key issue for Birmingham's residents and can lead to poor economic performance. Table 4.10 shows the total number of residents currently claiming Job Seekers Allowance (JSA). JSA is payable to people who are available for, and actively seeking work.

Table 4.10 Total JSA Claimants 2007 - 2013⁴⁰

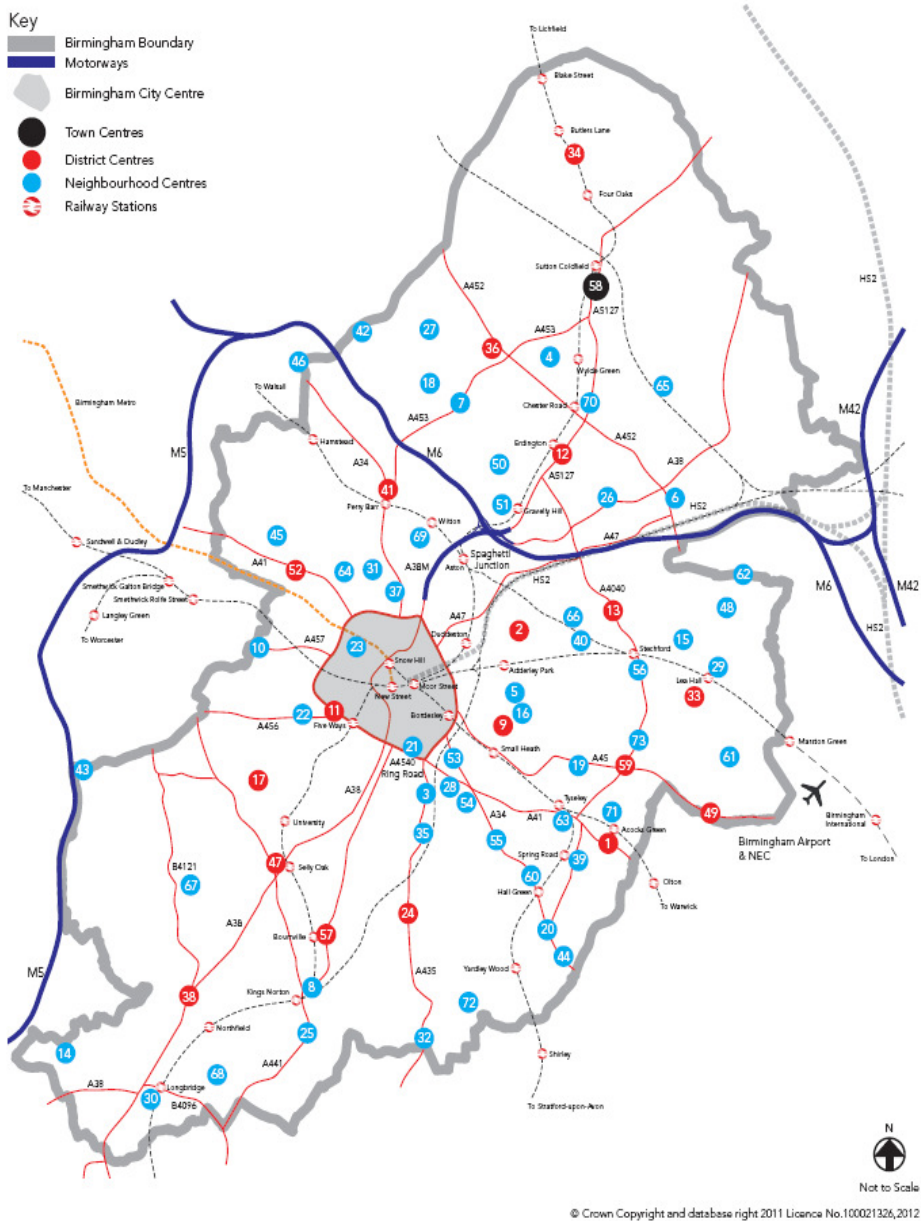
	Birmingham (number)	Birmingham (%)	West Midlands (%)	UK
2007	35,058	7.7	3.9	2.7
2008	35,154	7.7	4.0	2.9
2009	49,011	10.7	6.6	4.8
2010	48,074	10.5	6.2	4.7
2011	49,319	10.8	6.2	4.8
2012	50,123	11.0	6.2	5.0
2013	47,278	10.4	5.8	4.6

⁴⁰ ONS claimant count with rates and proportions

4.6.3 Birmingham's Local Centres

Birmingham's network of 73 local centres provides the focal points for much day-to-day shopping and community activity. Uses of buildings within local centres have been surveyed by Birmingham City Council during 2013 and 2014 in order to help track of changes in use which can affect their vitality and require a policy response. Figure 4.14 maps the local centres across the City.

Figure 4.14 Birmingham's Local Centres

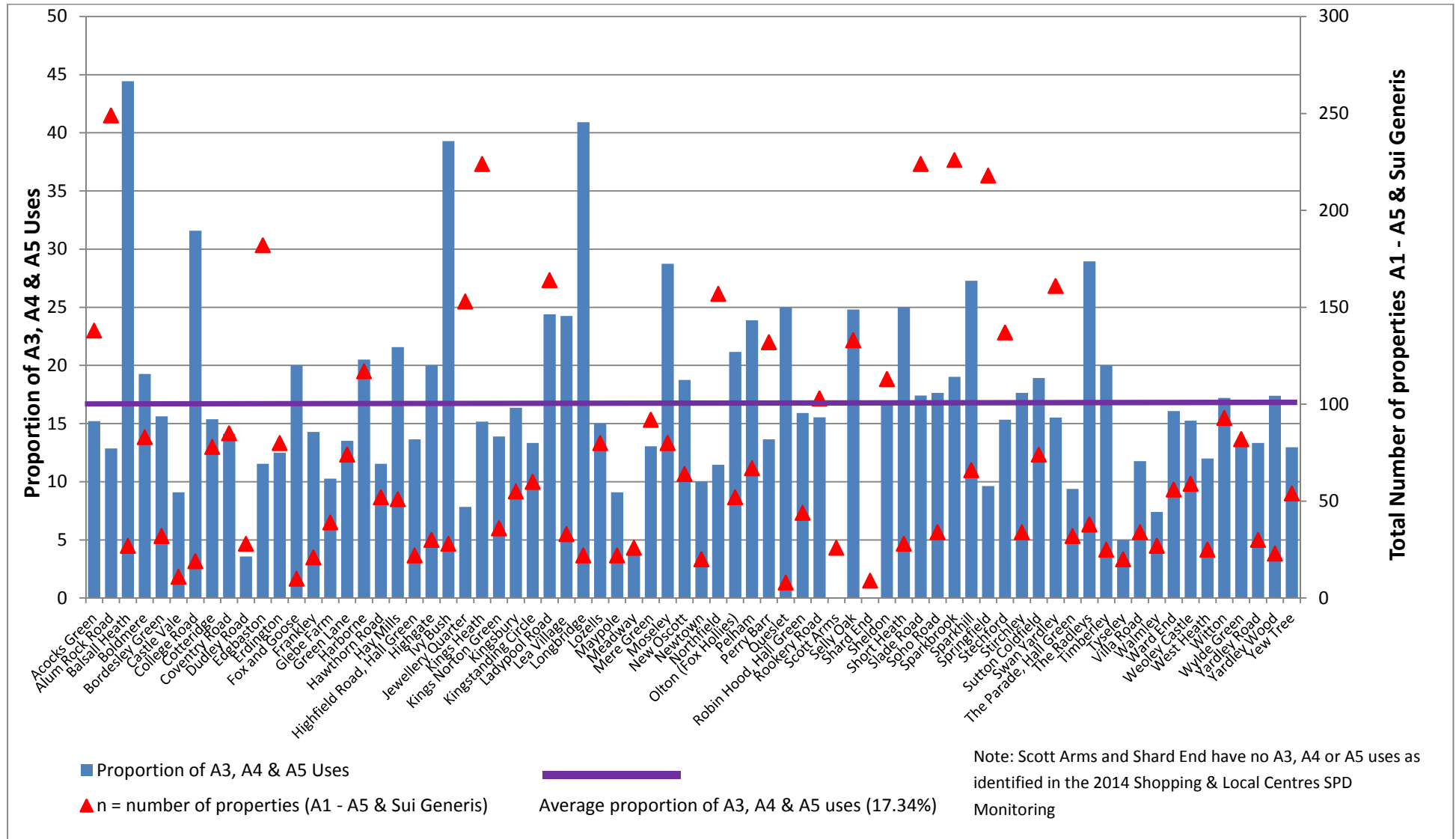


Source: BCC (2012) Shopping and Local Centres SPD

1. Acocks Green	26. Kingsbury	51. Slade Road
2. Alum Rock Road	27. Kingstanding Circle	52. Soho Road
3. Balsall Heath	28. Ladypool Road	53. Sparkbrook
4. Boldmere	29. Lea Village	54. Sparkhill
5. Bordesley Green	30. Longbridge	55. Springfield
6. Castle Vale	31. Lozells	56. Stechford
7. College Road	32. Maypole	57. Stirchley
8. Cotteridge	33. Meadway	58. Sutton Coldfield
9. Coventry Road	34. Mere Green	59. Swan
10. Dudley Road	35. Moseley	60. The Parade, Hall Green
11. Edgbaston	36. New Oscott	61. The Radleys
12. Erdington	37. Newtown	62. Timberley
13. Fox and Goose	38. Northfield	63. Tyseley
14. Frankley	39. Olton Boulevard (Fox Hollies)	64. Villa Road
15. Glebe Farm	40. Pelham	65. Walmley
16. Green Lane	41. Perry Barr	66. Ward End
17. Harborne	42. Queslett	67. Weoley Castle
18. Hawthorn Road	43. Quinton	68. West Heath
19. Hay Mills	44. Robin Hood, Hall Green	69. Witton
20. Highfield Road, Hall Green	45. Rookery Road	70. Wylde Green
21. Highgate	46. Scott Arms	71. Yardley Road
22. Ivy Bush	47. Selly Oak	72. Yardley Wood
23. Jewellery Quarter	48. Shard End	73. Yew Tree
24. Kings Heath	49. Sheldon	
25. Kings Norton Green	50. Short Heath	

Analysis of the proportion of three use classes – A3 (restaurants), A4 (pubs and drinking establishments) and A5 (hot food takeaways) – which are likely to be a particular focus for policy, reveals significant variation across centres, and some disproportionately high occurrences above the mean of 17.34% (Figure 4.15). The significance of some of these relatively high proportions of A3/A4/A5 uses in terms of their relationship to issues such as health is unproven. Section 4.6.8 below explores the spatial pattern of health across Birmingham.

Figure 4.15 Proportion of Use Classes A3, A4 and A5 by centre and total units



4.6.4 Culture/Sport/Recreation

Birmingham is internationally known for sports and exhibitions, with well-known venues including the National Indoor Arena and the National Exhibition Centre. Developments in arts, sports and leisure have played a key part in the City's renaissance over the past twenty years. Birmingham has many strengths including world-class performance, arts, sports and exhibition facilities, and internationally recognised companies of cultural excellence. Many of these facilities are located in the City Centre, including the International Convention Centre; Birmingham Symphony Hall, home of Birmingham Symphony Orchestra, the National Indoor Arena, a major concert and sporting venue; Birmingham Hippodrome; Birmingham Royal Ballet and Birmingham Museum & Art Gallery. These are complemented by smaller venues such as the IKON Gallery, Jam House and Electric Cinema.

The proportion of leisure development that has taken place in centres has varied considerably year on year, and there appears to be no clear trend or pattern. This is probably in part due to the fact that there are various types of leisure development and some (e.g. sports facilities associated with playing fields or pitches), would not necessarily be expected to be located in centres. The relatively high proportion of out-of-centre leisure development overall since 1991 (61%) is skewed by a small number of very large developments, such as 'Star City' (Nechells), Birmingham Great Park and Longbridge which were committed before the current national planning policy guidance came into effect. There has also been a significant amount of leisure development based around existing sports facilities in out-of-centre locations. During 2010/11 88% was built out-of-centre including an indoor sports arena at the Tenby building, Great King Street (Aston). Also out-of-centre, but under construction included the erection of a 5,000 seat stand at the Alexander Stadium in Perry Barr.

Investment in new hotels continues e.g. the Radisson and Etap. Other recent leisure developments in the City Centre include Millennium Point and the Five Ways Leisure complex. A significant amount of leisure development that has taken place in Birmingham since 1991 has been tourism related, for example, the National Sea Life Centre and Millennium Point. The number of overseas residents to the City has increased from 520,000 in 2000, to 700,000 in 2011, which has remained constant since 2007⁴¹. Birmingham is now the fourth most popular destination in the UK among overseas residents after London, Edinburgh and Manchester.

Culture and leisure facilities both attract people to Birmingham and serve local residents. According to the Community Strategy, surveys show that 45% of Birmingham residents had been to the theatre or a concert in the city in the last year, while 36% had visited a museum or gallery.

4.6.5 Community Involvement

Community involvement can be measured by a number of indicators, including election turnout. Table 4.11 shows the election turnout in Birmingham for the 2010 general election by constituency. It can be seen that the turnout varies dramatically between some of the different constituencies.

⁴¹ Source: http://www.ons.gov.uk/ons/dcp29904_274310.pdf

Table 4.11 General Election Turnout in Birmingham for the 2010 General Election

Constituency	% Turnout
Sutton Coldfield	67.91
Hall Green	63.63
Selly Oak	62.25
Edgbaston	60.62
Northfield	58.61
Perry Barr	58.97
Hodge Hill	56.60
Yardley	56.48
Erdington	53.53
Ladywood	48.66

Source: UK Political Information Website 2012

Ladywood constituency had the lowest turnout, which was the third lowest turnout in the UK. Conversely, Sutton Coldfield had the highest turnout, but this was only the 217th highest turnout in the UK.

One important aspect of community involvement is the extent to which people feel involved in the development of their local area. As part of the Government's Big Society, new legislation has been introduced to encourage local people to have more say in how their area looks. Neighbourhood Planning is a process by which communities can come together and prepare land use plans that will guide the type of developments they would wish to see in their area.

The Sustainable Community Strategy indicates that in 2006, 40% of people agreed that they can influence decisions that affect their local area, an improvement of 22% from 2004. Furthermore the Birmingham Community Strategy (Strategic Assessment Update November 2006) found over half those asked felt that people together can influence decisions in their constituency (most apparent in areas of Ladywood and Sparkbrook), compared to just over a quarter who felt that people collectively had little or no influence (most apparent in Perry Barr and Selly Oak).

4.6.6 Equality

Birmingham's residents are from a range of national, ethnic and religious backgrounds, as Birmingham is one of the most ethnically diverse cities in Europe. Table 4.12 summarises the proportion of the main ethnic groups present. Almost 10% are Pakistani, with the next largest groups being Indian and Black Caribbean. Between 1991 and 2001, the Black and Minority Ethnic (BME) population increased, particularly the Pakistani and Bangladeshi groups. BME groups are mainly concentrated in the inner parts of the City. BME groups vary in terms of housing, the labour market, health and age structure. Most established BME groups are growing through natural change and immigration. Since 2001 the city has attracted migrants from a widening range of countries, including Eastern Europe, Africa and the Middle East.

Table 4.12 Largest Ethnic Groups in Birmingham and England, 2010

Ethnic Group	% of Population Birmingham	% of Population England
White British	63.3	82.8
Pakistani	9.7	1.9
Indian	5.8	2.7
Black Caribbean	4.0	1.2
White Irish	2.1	1.1
White Other	2.6	3.6
Mixed Groups	3.2	1.8
Bangladeshi	2.5	0.7
All other groups	6.8	4.1

Source: Experimental Estimates, National Statistics, Crown Copyright 2010

Birmingham has a fairly youthful population. Approximately 46% of residents are younger than 30, compared with the national (England) average of 38%⁴².

Inequalities are reflected in statistics relating to people without a car. Birmingham has a relatively high percentage of households without a car, 38%, compared to the English average of 27%. The percentages without a car are high in the inner parts of the city and in some more peripheral areas. About two thirds of those in social-rented housing live in households without a car, as do nearly half of unemployed people and those not working because of long term sickness or disability. Percentages are particularly high among households containing lone pensioners and lone parents. Percentages are also high among Black, Bangladeshi and White Irish households.

Work undertaken for the West Midlands Local Transport Plan showed that there is generally good accessibility in most places at most times for the 33.7% (2001) of households without a car, due to the extensive bus network. However two particular problems were identified with access for unemployed people to attend job interviews and with access to major NHS hospitals by public transport.

Further detail on equality has been covered in the section on Economy and Equality.

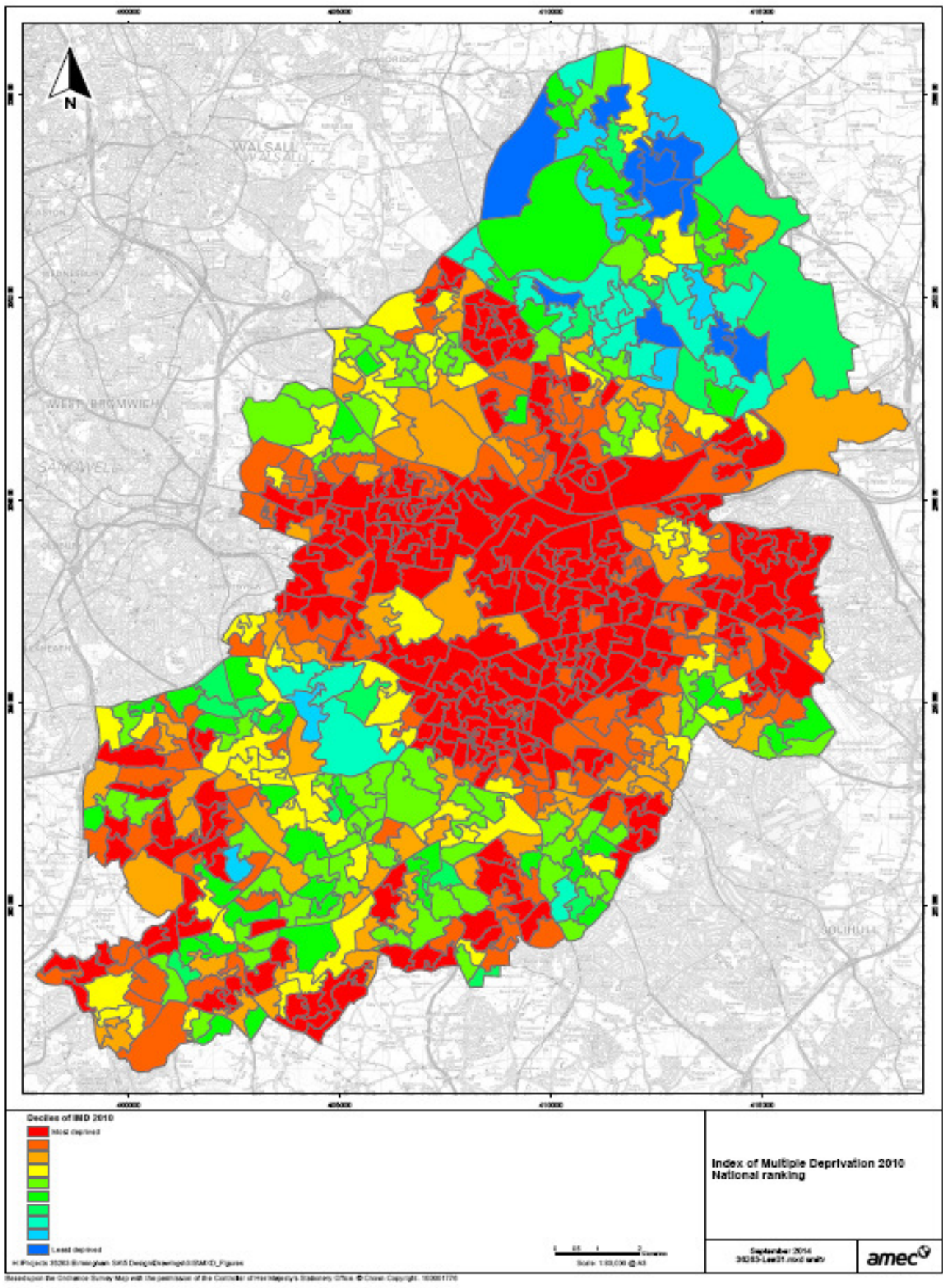
4.6.7 Poverty

According to the Index of Deprivation, in 2010 about 40% of Birmingham's residents lived in areas that were in the most deprived 10% in England. Concentrations are very high in wards to the east, north and west of the City Centre and also in the Tyburn and Kingstanding Wards to the north of the M6 motorway (Figure 4.16). In 2012 the proportion of child living in poor households in Birmingham was 29.4%, compared to 18.6% for England and 18.7% for the UK.⁴³

⁴² Source: Mid Year Population Estimates, ONS

⁴³ <https://www.gov.uk/government/statistics/personal-tax-credits-children-in-low-income-families-local-measure-2012-snapshot-as-at-31-august-2012>

Figure 4.16 Index of Multiple Deprivation 2010



4.6.8 Health

Information on health for Birmingham can be found in the NHS Health Profile for the area 2011, which gives a snapshot of health in Birmingham. According to the NHS, life expectancy in Birmingham for males is 76.8 years which is 'significantly worse' when compared to an average across England of 78.6 years. Furthermore life expectancy for females is 81.6 years compared to an average across England of 82.6 years.

Adults in Birmingham are less likely than average to follow healthy eating guidelines, but the proportion of obese adults is not vastly different to the England average. A survey undertaken by Sport England⁴⁴ reveals that there is a low rate of participation in sport and other physical activity in Birmingham compared with other local authorities within the West Midlands.

Teenage pregnancy rates are 'significantly worse' for Birmingham (47.4 per 1,000) than the England average (38.1 per 1,000). Binge drinking is lower than the England average; however hospital stays for alcohol-related harm were 'significantly worse' in Birmingham for 2010/11 with 2,235 per 100,000 rate of admission episodes for alcohol attributable conditions compared to the national average of 1,895⁴⁵. Rates of sexually transmitted infections are better than the England average. The incidence of malignant melanoma is lower than average (2012). Estimated levels of adult 'healthy eating' and obesity are worse than the England average.

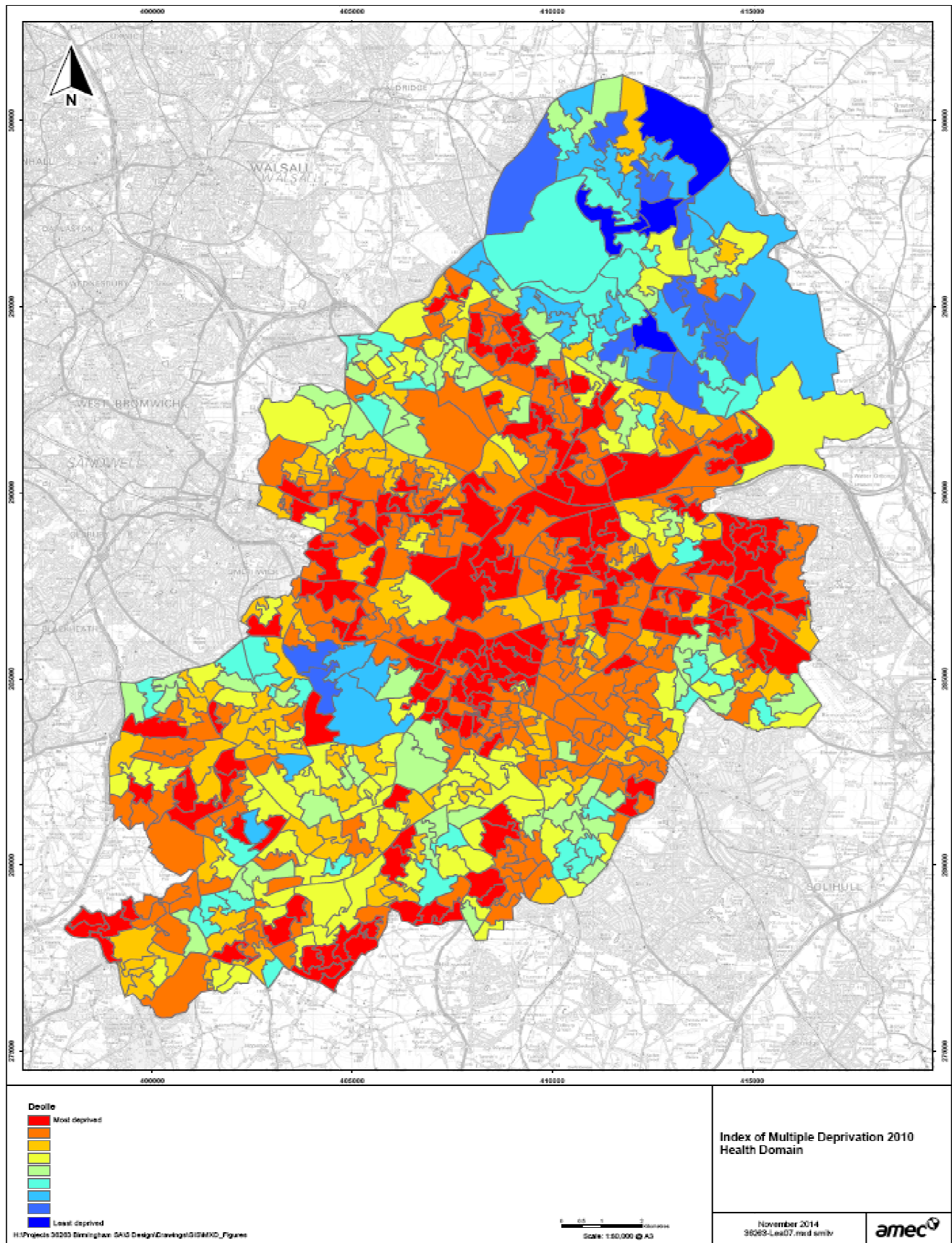
People in routine and manual occupations have poorer health than those in more highly-skilled jobs, and these people are also more likely to smoke. The infant death rate is greater than the England average in this group. Birmingham has a higher than average number of people working in lower grade jobs such as process plant and machine operatives than in the rest of the West Midlands and England.

Figure 4.17 illustrates the health domain of the Index of Multiple Deprivation 2010 and broadly reflects the IMD as a whole, albeit with severe concentration of deprivation in the central parts of the City.

⁴⁴ http://www.sportengland.org/research/active_people_survey/active_people_survey_2/regional_results.aspx

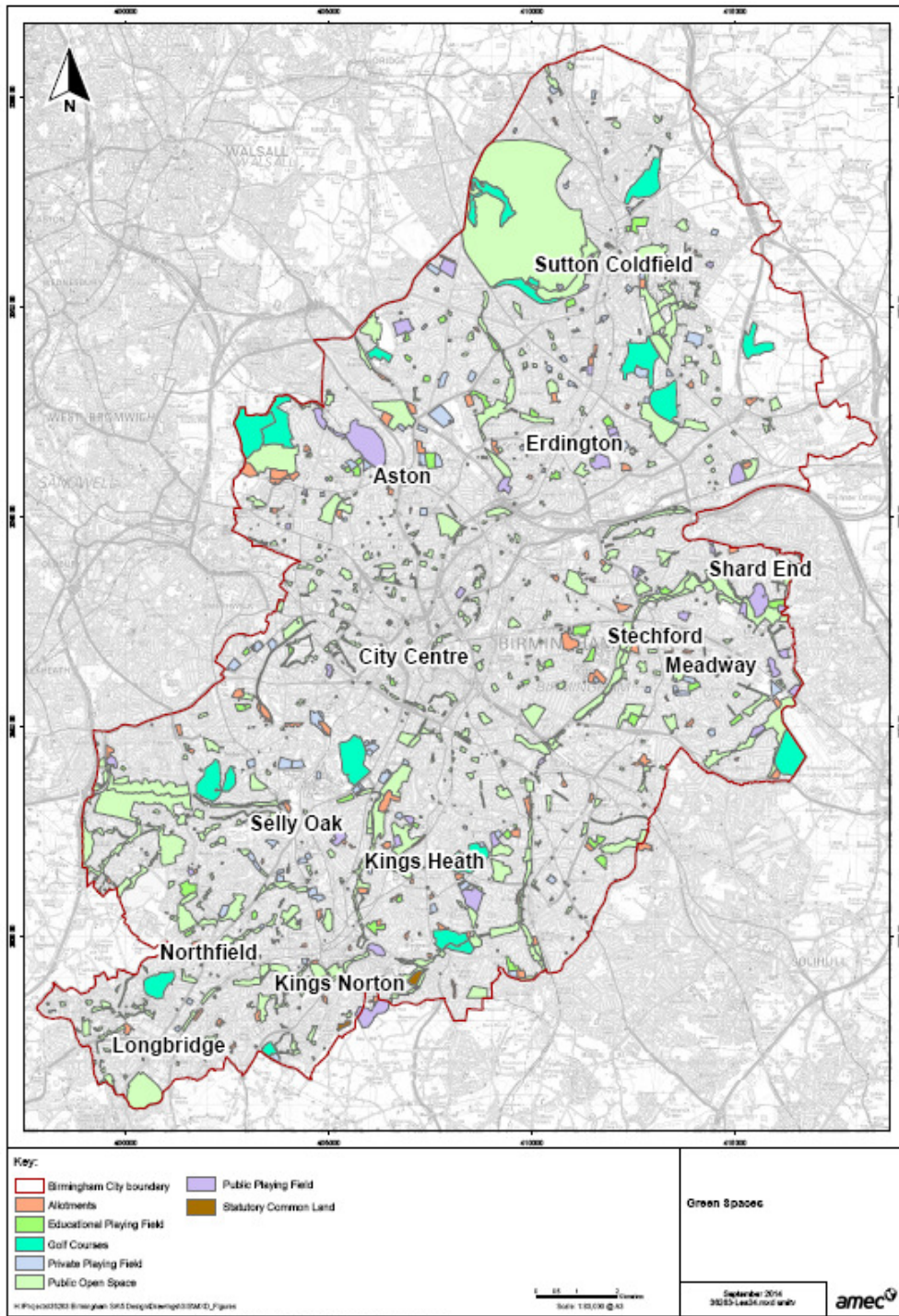
⁴⁵ Public Health Organisations (2011) Hospital stays for alcohol related harm

Figure 4.17 Index of Multiple Deprivation 2010 – Health Domain



As mentioned above in section 3.2.12, well planned GI can give access to high quality green spaces that will provide opportunities for better health and well-being. Figure 4.18 illustrates the distribution of green spaces across the City. Further information on health in Birmingham can be found in the Department of Health Birmingham Health Profile 2012⁴⁶.

Figure 4.18 Green Spaces Across Birmingham



⁴⁶Department of Health Birmingham Health Profile <http://www.apho.org.uk/resource/item.aspx?RID=117129>

4.6.9 Crime

Burglary crime in Birmingham is going down and new figures suggest that crime is lower than it has been for the last three years. There have been over 5,300 less victims of crime based on figures for April to June 2012, compared to the same period in 2009. Recorded crime has been reducing in four policing area across the city and, when compared to 2009 burglary has been reduced by 17% meaning 276 less burglaries, robbery has reduced by 18% meaning 171 less robberies, and vehicle crime has reduced by almost 17% meaning 453 less vehicles stolen or broken into.⁴⁷ However, the rate of violent crime in Birmingham is above the national average, with over 18,000 reported incidents in 2010/11 (Public Health Observatories, 2012). Crime and safety remain a concern of local people, however Birmingham City Council's Performance Plan⁴⁸ feedback indicates that 95% of Birmingham residents surveyed say they feel safe during the day.

However, there are certain areas in Birmingham which have higher burglary rates than elsewhere in Birmingham, notably Erdington Ward, Lozells in Perry Barr, Bournbrook Student Area in Selly Oak, Frankley and Rubery in Northfield, and Brandwood and Billesley Ward Boundary in Hall Green (Birmingham Community Safety Partnership, 2005). The number of robberies and muggings in Birmingham tends to fluctuate, but there are higher rates in the following four areas than in other areas in Birmingham: Nechells Parkway in Ladywood District, Soho Road Lozells and Aston in Ladywood and Perry Barr Districts; the city centre; Coventry Road on the Ladywood, Bordesley Green and Yardley Border.

4.6.10 Noise

Levels of noise pollution are problems in certain parts of the city according to the Sustainable Community Strategy⁴⁹. Recent surveys have shown that one in eight residents are concerned about noise, and the Council receives over 3000 complaints about noise a year. Traffic is one of the principal sources of this noise. Birmingham has pioneered 'noise mapping' to help manage the problem.

4.6.11 Influence of the DM DPD on Population and Human Health

The influence of the DM DPD on population and human health is likely to be relatively limited in many respects but could make a significant difference to the trends of certain measures such as changes in the use of buildings in local centres. Here, for example, changes to hot food takeaways could be carefully monitored in order to gauge their potential impact on the character of the locality, health indicators and vulnerable groups such as children. Individual approaches to specific service centres may be required to take account of special circumstances including their size, economic health and proximity to specific receptors such as schools.

⁴⁷ <http://www.saferbirmingham.org.uk/>

⁴⁸ Source: <http://www.birmingham.gov.uk/cs/Satellite?c=Page&childpagename=Policy-and-Delivery%2FPageLayout&cid=1223092613434&pagename=BCC%2FCommon%2FWrapper%2FWrapper>

⁴⁹ Birmingham Strategic Partnership and Birmingham City Council (2008) Birmingham 2026: Our vision for the future: Sustainable Community Strategy.

4.7 Water & Air Quality

4.7.1 The State of Birmingham's Rivers

The BCC SPD on sustainable management of rivers and floodplains summarises the key issues relating to the state of the City's rivers:

- Parts of the river system are in a poor ecological state;
- Parts of the river system are inaccessible over much of their length and are of poor amenity value to the local community;
- Fly tipping of domestic and commercial waste;
- Beneath Birmingham, groundwater is rising, bringing with it contaminants that have previously remained in the ground;
- Wildlife habitats in the rivers and at the banksides have been badly damaged;
- During storms pollution flushes into the river, causing a loss of oxygen and killing fish; and
- There are increasing development pressures on bank-side locations.

Across the Humber River Basin⁵⁰ as a whole, despite recent progress, a range of challenges still remain, which will need to be addressed to secure the predicted outcomes. They include:

- Point source pollution from water industry sewage works;
- Diffuse pollution from agricultural activities;
- Diffuse pollution from urban sources;
- Physical modification of water bodies; and
- Disused mines, point and/or diffuse pollution source.

At present, because of these pressures, and the higher environmental standards required by the Water Framework Directive, only 18% of surface waters are currently classified as good or better ecological status/potential. Some 27% of assessed surface water bodies are at good or better biological status now.

4.7.2 Reservoirs and Canals

Birmingham has 22 reservoirs as defined under the Reservoir Act 1975 of which 11 large raised reservoirs are the responsibility of Birmingham City Council. The remaining reservoirs are the responsibility of a variety of organisations including Environment Agency (3), Severn Trent Water (5), British Waterways (1) and private companies (2). Of these, two reservoirs are used for drinking water supply and one, a canal feed reservoir at Edgbaston.

⁵⁰ Environment Agency (2009) Humber River Basin Management Plan

Birmingham has an extensive network of canals, the exact length depends on where you draw the city boundaries, but the whole Birmingham Canal Navigations system extends for approximately 160 miles in total. It is one of the most intricate canal networks in the world. These waterways converge in the city centre at Gas Street Basin. The canals within Birmingham include:

- Birmingham & Fazeley Canal;
- Birmingham Canal Main Line;
- Birmingham Canal Old Main Line;
- Grand Union Canal;
- Tame Valley Canal;
- Worcester and Birmingham Canal; and
- Stratford-upon-Avon Canal.

4.7.3 Air

The whole of Birmingham was declared as an Air Quality Management Area (AQMA) in 2003. The main pollutant is nitrogen dioxide, the primary sources of which are transport and industrial combustion processes.

The transportation sector is a major contributor to the emissions of nitrogen oxides across the city, but there has been a slight decrease in the traffic contribution over the last few years according to the Air Quality Action Plan. The City's principal road network is illustrated in Figure 4.19 and shows the distinct presence of motorways to the north of the City and their influence, along with the City Centre, on NO₂ concentrations (Figure 4.20).

The overall number of morning rush hour car trips into Birmingham City Centre has declined by around one third over the past decade (1999 – 2011) (AMR, 2013), replaced by an increase in rail trips by one third (18,987 to 27,674) and a doubling of tram trips (998 to 1,687).

Figure 4.19 Birmingham's Transportation Network

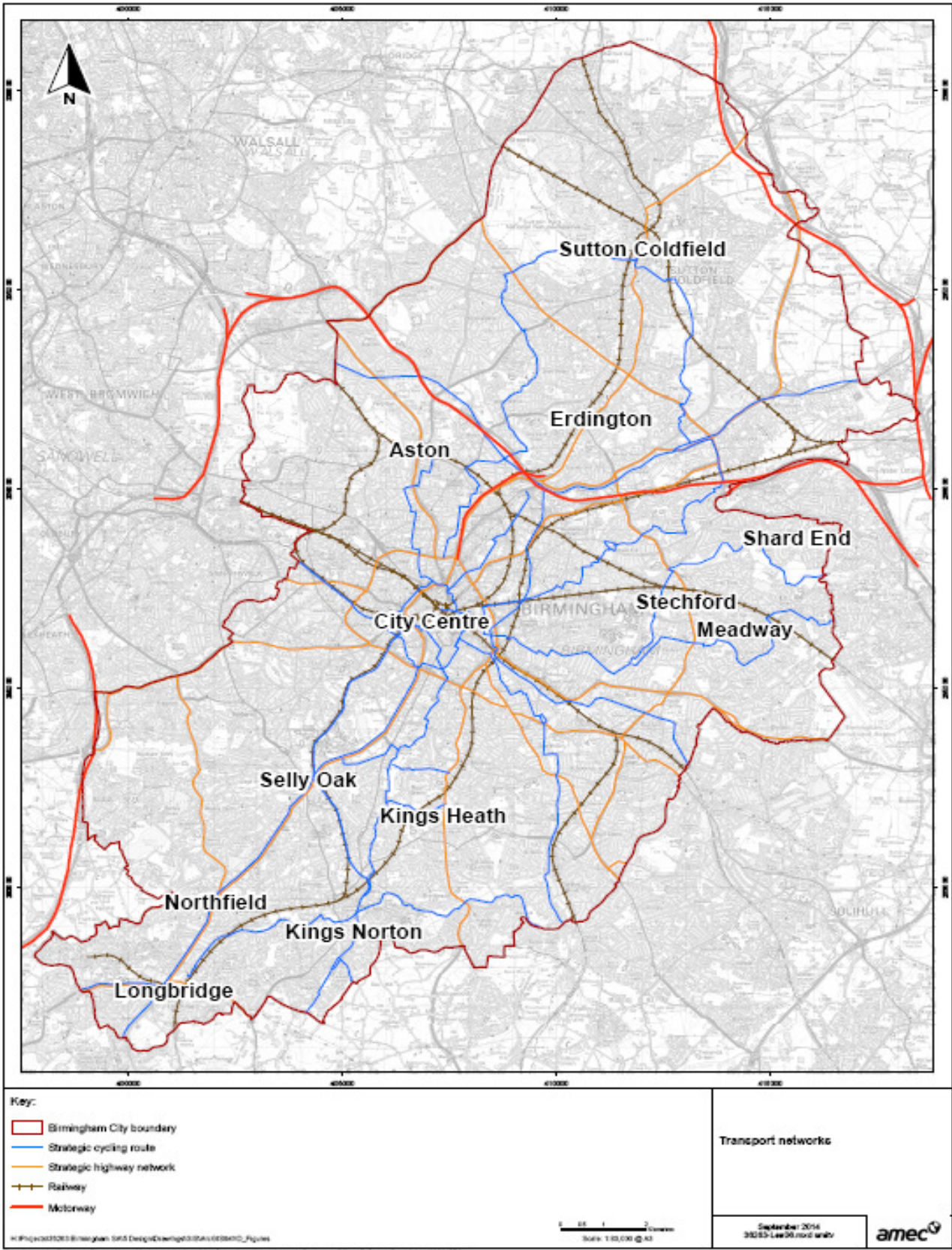
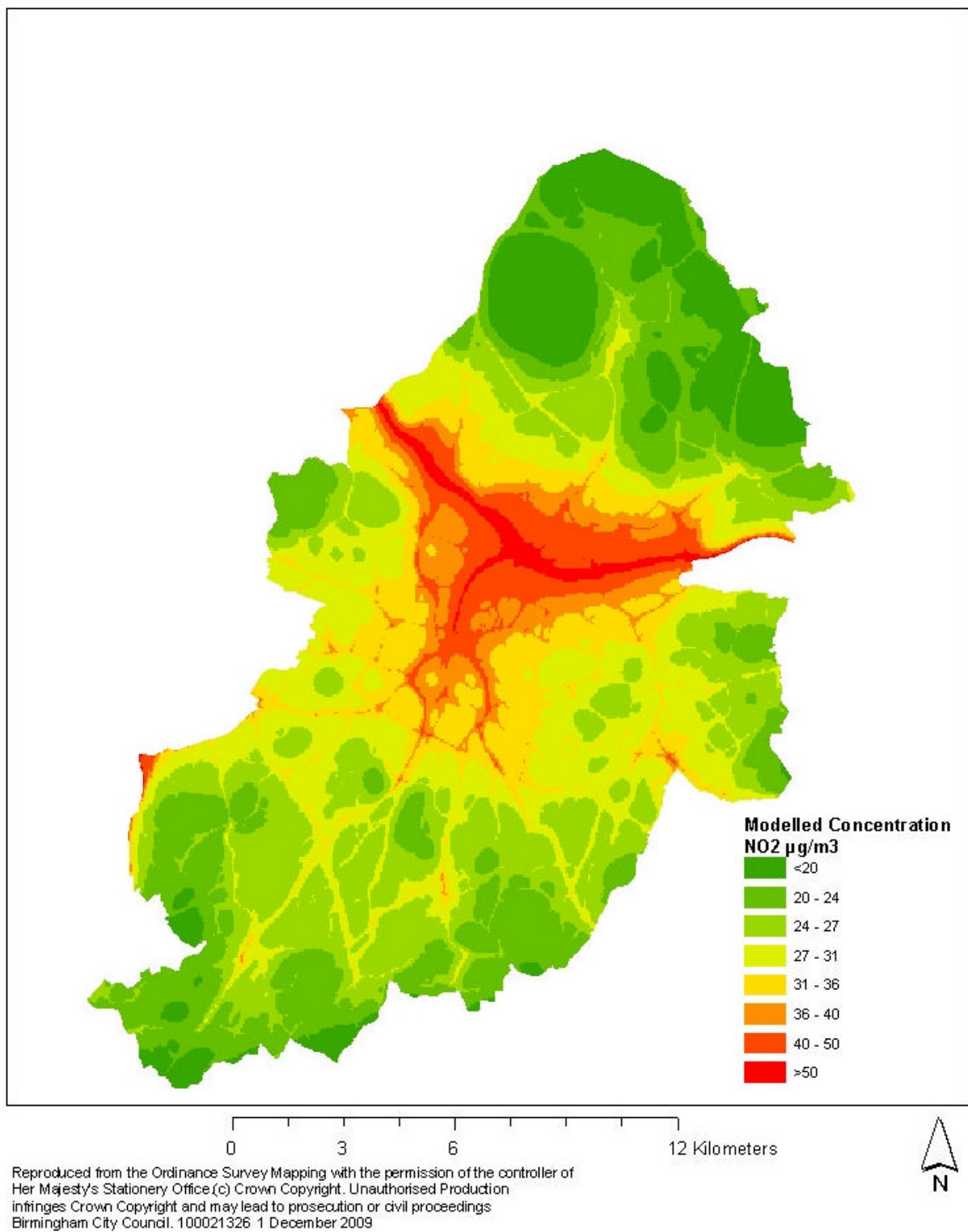


Figure 4.20 Modelled N02 Concentrations across Birmingham 2008



The City has 47 significant industrial installations from an air pollution perspective, of which 16 are regulated by the Environment Agency under Integrated Pollution Prevention and Control (IPPC)⁵¹.

4.7.4 Influence of the DM DPD on Water and Air Quality

The influence of the DM DPD on water and air quality is likely to be both direct and indirect, short and longer term, and potentially cumulative reflecting the impact of multiple developments over a long timescale. Through the application of the supporting criteria to the policies and appropriate conditions, negative effects should be avoided and where appropriate mitigated. However, monitoring of developments will be required to determine net effects.

4.8 Cultural Heritage

4.8.1 Built and Historic Environment

Birmingham has a wide variety of distinctive historic townscapes, buildings and landscapes. The extent of the City's historic resource is summarised in Table 4.13 and mapped in Figure 4.21.

Table 4.13 Birmingham's Historic Built Environment

Type of Resource	Number	Area (Hectares)
Scheduled Ancient Monuments	13	448.64
Statutorily Listed Buildings	1488	-
Locally Listed Buildings	448	-
Conservation Areas	30	1,223.62
Registered Parks and Gardens	14	1,183.44
		Length (Kilometres)
Canals		57.4

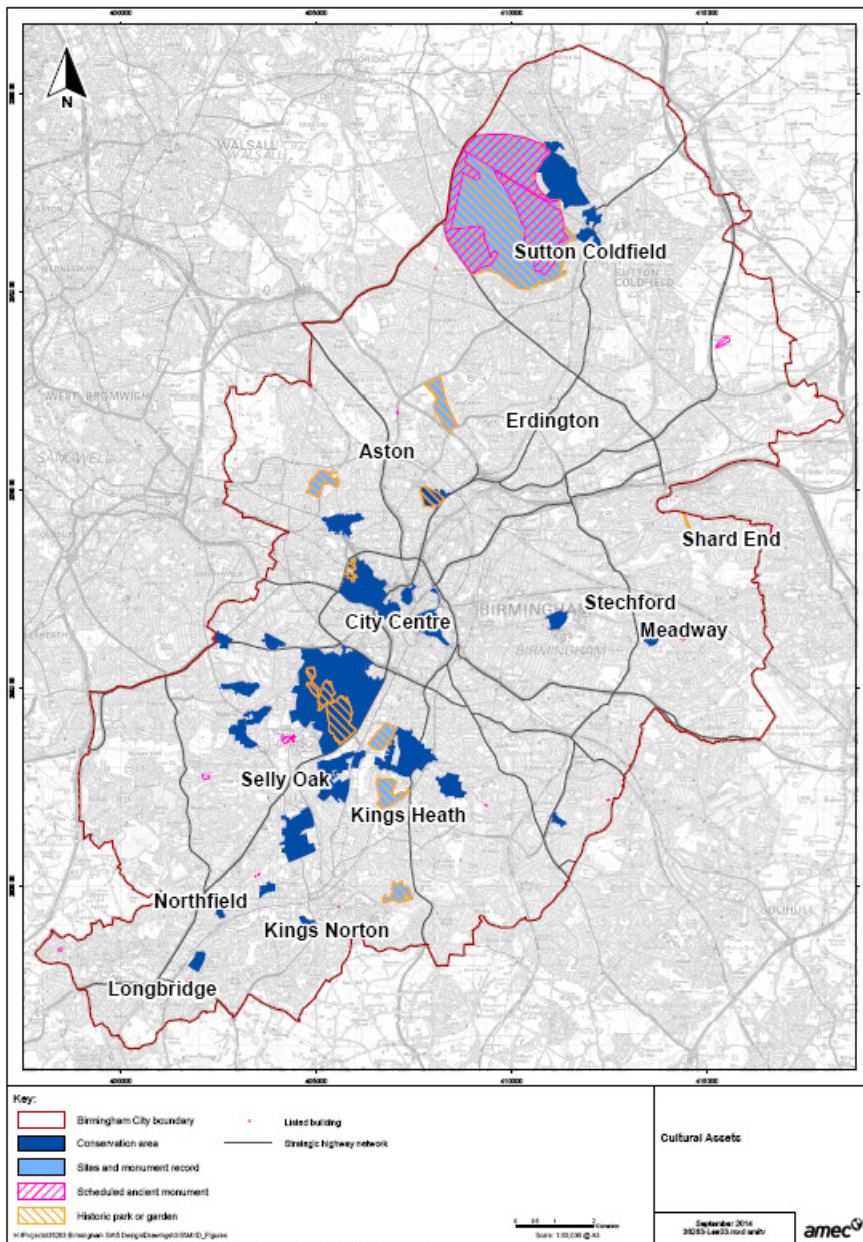
Source: Birmingham City Council, AMR (2013)

There are currently 30 Conservation Areas in Birmingham, which account for 4% of the land area of the City including five within the City Centre. Some Conservation Areas, such as the Jewellery Quarter and Bourneville, are unique and are nationally recognised. Birmingham also has nearly 1,500 statutorily listed buildings and 14 registered parks and gardens of special historic interest. The City Council applied to the United National, Educational, Scientific and Cultural Organisation for 'World Heritage Site' status in 2011 for the Jewellery Quarter. The City's Listed Buildings range in date from mediaeval churches and houses to important examples of twentieth century architecture. Birmingham also has an extensive network of historic canals, reflecting its key role during the Industrial Revolution in the eighteenth and nineteenth centuries.

⁵¹ Birmingham City Council (2011) Air Quality Action Plan

The City’s archaeological resource is surprisingly varied for such a major urban area. Some remains are recognised as being of national importance, and are protected by scheduling. Known remains range in date from prehistoric earthworks to nineteenth and twentieth century industrial buildings and structures. The Historic Environment Record maintained by the City Council includes details of all known archaeological remains within the City. These now total almost 5,525 records which has increased from 5,445 from 2012. Historic Landscape Characterisation of the City commenced in 2011 with 4,141 polygons captured. Environmental improvements by the City Council during the late 1980s and early 1990s, such as the development of the ICC and Centenary Square, Victoria Square and the pedestrianisation of New Street, have improved the overall quality of the environment within the City Centre. There have been notable successes in relation to improving the quality of design and the environment, particularly in the city centre. This was recognised by the award to the city of the RTPI Silver Jubilee Cup in 2004. Birmingham also won the European City of the Future Award at the European Property Awards in Munich in 2005.

Figure 4.21 Birmingham’s Historic Assets



4.8.2 Natural Landscape

Although much of Birmingham is built up, there is a significant amount of open land within the City. Landscape character is a key contributor to regional and local identity, influencing sense of place, shaping the settings of people's lives and providing a critical stimulus to their engagement with the natural environment. The National Character Areas (NCAs) provide a description of landscape character across England⁵². These are used by Natural England to provide a context for monitoring landscape change through the Countryside Quality Counts (CQC) project⁵³. Birmingham falls within two NCAs, Arden to the south and Cannock Chase and Cank Wood to the north. The part of the City which lies within Arden is almost entirely urbanised. The wider landscape to the south is characterised by a farmed woodland landscape of rolling landform with narrow meandering river valleys.

The National Character Area description relevant to Birmingham states:

“Birmingham has a clearly-defined concentric pattern of development. Much of the landscape is dominated by 19th and 20th century housing, the former in characteristic red brick. Canals, parks, golf courses and the river corridor form the main open spaces, with a substantial parkland area around the University at Edgbaston and some low-density garden suburbs like Bournville. Enclosed within the urban area are fragments of older landscapes like Castle Bromwich Park⁵⁴.”

The change in landscape character in the period 1998-2003 is described in the CQC assessment as:

“...development pressure continues to be evident throughout the area, with evidence of expansion around many major settlements such as Nuneaton, Coventry, Bromsgrove and Redditch, and expansion of major roads such as the M6 toll⁹.”

The northern part of the city lies within the Cannock Chase and Cank Wood NCA. Relevant extracts from the JCA are set out below:

“Cannock Chase and Cank Wood is a landscape dominated by its history as a former forest and chase and by the presence at its centre of the South Staffordshire Coalfield. It forms an area of higher ground, with the towns and large villages of the Black Country rising out of the lowlands of Shropshire and Staffordshire to the west. In the south it merges with Birmingham and Arden. 9% of the area is woodland, 45% is urban and 9% lies within Cannock Chase AONB. Part of the area lies within the Forest of Mercia (Community Forest) and the Black Country Urban Forest.

To the north of Birmingham and west of West Bromwich there are many more areas of open land, primarily in agricultural use, but with a large historic park at Sutton Park and with fragments of heathland, such as Barr Beacon.

There are medium-sized fields, generally with good quality hedgerows, patches of ancient enclosure fields and areas of semi-natural vegetation including acid grassland, pools, fens and fragments of ancient woodland. Narrow, hedged lanes are often present and there is a real feeling of countryside despite the nearness of the built-up area⁵⁵.”

⁵² <http://publications.naturalengland.org.uk/category/587130>

⁵³ <http://www.countryside.gov.uk/LAR/Landscape/CC/cqc.asp>

⁵⁴ Source: http://www.naturalengland.org.uk/Images/jca097-arden_tcm2-21191_tcm6-5424.pdf

⁵⁵ Source: <http://www.farmsteadstoolkit.co.uk/downloads/jca/JCA%2067.pdf>

The change in landscape character is characterised in the CQC assessment as:

“High rate of change to urban (JCA ranked 11th nationally); 46% of JCA is within greenbelt. Marked expansion of fringe into peri-urban around Cannock, Lichfield, Burntwood and Norton Canes. Also development of M6 Toll has had major impact. Character of the area continues to be transformed.”

Approximately 15% of Birmingham’s land area is designated as Green Belt which lies within the Cannock Chase and Cank Wood JCA. This includes all the open countryside within the City’s boundary, as well as other areas extending into the City, for example along river valleys. There are also areas of open space within the built-up areas of the City, such as parks and playing fields, nature reserves and allotments.

4.8.3 Influence of the DM DPD on Cultural Heritage

Development Management policies potentially have a significant influence over cultural heritage assets, emphasising the importance of clear policy, application of suitable conditions and monitoring of impacts to mitigate potential negative impacts.

4.9 Data Limitations and Assumptions Made

The information presented is a summary of the various sustainability topics specified by the SEA Directive. Other information is presented in other plans and strategy documents on specific topics which have been prepared by Birmingham City Council or other bodies. At this stage there are no immediate data gaps, however limitations identified are set out in Table 4.14.

Table 4.14 Limitations and Assumptions Made

Nature of data limitation	Commentary	Assumptions made
Data on Sustainable Design, Construction and Maintenance, and Corporate social and environmental responsibility.	No baseline information on this topic has been identified, although there are initiatives in place to encourage measures designed to help meet these objectives.	None
Geographical coverage.	For a limited number of the topics, including certain transport information and landscape character, information is not available for the City Council area and as a result wider geographical areas have been referred to.	It has been assumed that the overall trends and conclusions reached from this information can be applied to the area within Birmingham City.
Date of data collection.	Available data has been collected at different dates. Up to date data has been used wherever possible. Some of the information is based on the 2001 Census and as such is somewhat dated and may not be representative of current circumstances.	2010 Census data has been used as the basis for helping to identify sustainability issues.

4.10 Summary of Key Sustainability Issues and Inter-relationships for Birmingham

Table 4.15 Summary of Key Sustainability Issues

Sustainability Theme	Key Sustainability Issues
1. Resource Use	<p>New additional water management measures or water resources needed to ensure there is sufficient water for new housing proposed in the current and revised Regional Spatial Strategy.</p> <p>Resource Use is linked to issues related to water quality.</p>
2. Sustainable Design, Construction and Maintenance	<p>There are several examples of good design in Birmingham, but more could be done in the future to regenerate certain parts of the City.</p> <p>Sustainable Design, Construction and Maintenance is linked to issues related to energy efficiency, climate change mitigation and adaptation and housing.</p>
3. Renewable Energy	<p>Use of renewable energy could be significantly improved.</p> <p>Renewable Energy is linked to issues related to climate change mitigation and adaptation.</p>
4. Energy Efficiency	<p>Recent developments have shown evidence of energy efficiency, but the large number of old properties in the City will need improving to make them more energy efficient, building on current initiatives.</p> <p>Energy Efficiency is linked to issues related to renewable energy, sustainable design construction and maintenance, housing and social and environmental responsibility.</p>
5. Sustainable Transport	<p>Although the city has good public transport infrastructure, it needs expanding and upgrading to help minimise the high level of car use in Birmingham. A commitment is set out to achieve this. Emphasis will be placed on 'smarter travel', discouraging unnecessary journeys and encouraging people to use public transport. Congestion is a significant issue at certain times on both road and rail.</p> <p>Sustainable Transport is linked to issues related to air quality, reducing the need to travel, health, climate change mitigation and adaptation.</p>
6. Reducing the Need to Travel	<p>A very small proportion of people who work and live in the city (one tenth) work from home and therefore avoid travelling to work. There is little evidence of people being actively encouraged to work from home. More emphasis needs to be placed on 'smarter travel', discouraging unnecessary journeys and encouraging people to use public transport.</p> <p>Reducing the need to travel is linked to issues related to sustainable transport, air quality, health, climate change mitigation and adaptation and noise.</p>
7. Waste Reduction and Minimisation	<p>Landfill diversion rates are increasing in the City, and past targets for recycling have been met.</p> <p>The percentage of waste sent to landfill within the City has decline to one third of its level ten years ago, whilst recycling has trebled. Given European and National targets it is likely these trends will continue.</p> <p>Waste Reduction and Minimisation is linked to issues related to air quality, soil quality, natural landscape and built and historic environment.</p>
8. Efficient Use of Land	<p>Good use is being made of previously developed land as a very high proportion of new housing and office development has taken place on previously developed land.</p> <p>Efficient Use of Land is linked to issues related to soil quality, natural landscape, built and historic environment, biodiversity culture, sport and recreation and sense of place.</p>
9. Reducing Climate Change	<p>CO₂ emissions across the City</p> <p>Reducing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.</p>
10. Managing Climate Change	<p>Birmingham City Council has a good record of taking on board Environment Agency comments in terms of permitting development in flood risk areas. There is limited information on this objective although it is recognised by the City Council that measures will need to be put in place to manage the unavoidable impacts of climate change.</p> <p>Managing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.</p>

Table 4.15 (continued) Summary of Key Sustainability Issues

Sustainability Theme	Key Sustainability Issues
11. Sense of Place	<p>Birmingham people are positive about their city; according to the Community Cohesion Strategy, opinion polls show that three quarters of people think it is a good place to live. No public open space is currently being lost, and environmental improvements have been made and continue to be made to various parts of the City.</p> <p>Sense of Place is linked to issues related to built and historic environment, natural landscape, housing, health, biodiversity, culture, sport and recreation and crime.</p>
12. Built and Historic Environment	<p>Birmingham has a large amount of land designated as Conservation Areas, some of which are nationally recognised such as the Jewellery Quarter and Bourneville. The City also has an extensive number of archaeological remains Listed Buildings and Registered Parks & Gardens.</p> <p>Built and Historic Environment is linked to issues related to sense of place, housing, sustainable design, construction and maintenance, crime and poverty.</p>
13. Natural Landscape	<p>Although much of Birmingham is built up, there is a significant amount of open land within the City including areas of agricultural land to the north east and south west of the City. The City falls within the National Character Areas (NCAs) of Arden to the south and Cannock Chase and Cank Wood to the north. The assessment of these areas for the Countryside Quality Counts project for Natural England indicates that they are subject to a high rate of change. Most of Birmingham is built up, but 15% of the City is designated as Green Belt.</p> <p>Natural landscape is linked to issues related to biodiversity, health, soil quality, sense of place, culture, sport and recreation, climate change mitigation and adaptation.</p>
14. Biodiversity and Geodiversity	<p>The City has 2 SSSIs and a number of other designated sites which cover approximately 10% of the City.</p> <p>The West Midlands Biodiversity Partnership has developed a number of area based projects which look at different ways of protecting biodiversity by reducing fragmentation of habitats and species. These areas are known as Biodiversity Enhancement Areas. In such areas biodiversity should improve.</p> <p>There is one Local Nature Reserve designated in order to protect its geodiversity.</p> <p>Biodiversity is linked to issues related to air quality, soil quality, water quality, natural landscape, health).</p> <p>Geodiversity is linked to issues related to water quality, soil quality and natural landscape.</p>
15. Air Quality	<p>Air quality is an issue as the whole City is designated as an Air Quality Management Area (AQMA); the main source pollutant being nitrogen dioxide as a result of pollution from vehicle emissions. There is a strong correlation between traffic congestion and poor air quality. Given the allocation of an AQMA, air quality should improve within the City.</p> <p>Air Quality is linked to issues related to biodiversity, health, sustainable transport reducing the need to travel, climate change mitigation and adaptation).</p>
16. Water Quality	<p>The chemical and biological quality of rivers and waterways in Birmingham is generally poor compared to the West Midlands and England as a whole.</p> <p>Water Quality is linked to issues related to resource use, soil quality, health, biodiversity, climate change mitigation and adaptation).</p>
17. Soil Quality	<p>There is very little high quality soil due to the built-up nature of Birmingham; however there are some small areas of Grade 3 agricultural land in the north of the City. The history of land use within the City including landfill sites, extensive manufacturing and transport leads to the potential for land contamination.</p> <p>Soil Quality is linked to issues related to biodiversity, waster quality, natural landscape, and health.</p>
18. Noise	<p>Noise pollution is a problem in some parts of the city, with Birmingham airport and traffic being the principal sources. It is anticipated this trend will continue.</p> <p>Noise is linked to issues related to sustainable transport and housing.</p>
19. Social and Environmental Responsibility	<p>No information has been identified on this topic.</p> <p>Social and Environmental Responsibility is linked to issues related to equality, community involvement, learning and skills, economy and equality, waste reduction and minimisation.</p>

Table 4.15 (continued) Summary of Key Sustainability Issues

Sustainability Theme	Key Sustainability Issues
20. Economy and Equality	<p>Birmingham is the major employment centre for the West Midlands Recent trends show an increase in service sector jobs, a continued decline in manufacturing jobs and an increase in unemployment.</p> <p>Birmingham still has a high proportion of economically inactive people e.g. students, people caring full-time for relatives. Unemployment is higher than the national average. The economic activity rate for Black and Minority Ethnic residents is far higher than that for white residents.</p> <p>There is significant disparity in terms of average household income between Birmingham's constituencies.</p> <p>Economy and Equality is linked to issues related to poverty, learning and skills, equality, housing and community involvement.</p>
21. Learning and Skills	<p>The proportion of people in Birmingham with few or no qualifications is above the national average, but improvements are being made in educational achievement. The percentage of Birmingham residents with a NVQ level of 3 or above has been increasing since 2002⁵⁶.</p> <p>The percentage of residents on Job Seekers Allowance has increased significantly since November 2007. Whether this trend will continue is likely to depend on wider national economic trends.</p> <p>Learning and Skills is linked to issues related to economy and equality, community involvement, equality, poverty and social and environmental responsibility</p>
22. Community Involvement	<p>Birmingham experiences very varied election turnouts from constituency to constituency, ranging from a 44.2% in Ladywood, to a 60.4% in Sutton Coldfield. The Sustainable Community Strategy indicates that in 2006, 40% of people agreed that they can influence decisions that affect their local area, an improvement of 22% from 2004.</p> <p>Community Involvement is linked to issues related to economy and equality, learning and skills, poverty, sense of place and housing.</p>
23. Equality	<p>Birmingham has a relatively youthful population composed of people from a wide variety of national, ethnic and religious backgrounds. There are inequalities relating to access to services such as to jobs and health services, which is partly to do with geographical location, but partly to do with social and economic disadvantage. There is generally good accessibility in most places at most times for those households without a car, due to the extensive bus network. Two particular problems have been identified with access for unemployed people to attend job interviews and with access to major NHS hospitals by public transport.</p> <p>Equality is linked to issues related to economy and equality, learning and skills, community involvement, poverty, crime and housing.</p>
24. Poverty	<p>About 40% of Birmingham's residents live in areas that are in the most deprived 10% in England. Concentrations are very high in wards to the east, north and west of the City Centre and also in Tyburn and Kingstanding Wards to the north of the M6 motorway. Unemployment rates are above the national average.</p> <p>Poverty is linked to issues related to health, crime, community involvement, learning and skills and equality.</p>
25. Health	<p>The number of residents feeling in poor health is higher than the national average, and people in Birmingham have generally less healthy lifestyles than the English average. Life expectancy in Birmingham is below the England average.</p> <p>Health is linked to issues related to air quality, water quality, biodiversity, natural landscape, culture, sport and recreation, equality and crime.</p>
26. Crime	<p>Birmingham has the lowest overall crime rate of the eight major English cities. There have been over 5,300 less victims of crime based on figures for April to June 2012, compared to the same period in 2009.</p> <p>Crime is linked to issues related to poverty, equality, learning and skills and housing.</p>

⁵⁶ https://www.nomisweb.co.uk/reports/lmp/la/2038431965/subreports/quals_time_series/report.aspx

Table 4.15 (continued) Summary of Key Sustainability Issues

Sustainability Theme	Key Sustainability Issues
27. Housing	<p>Birmingham faces several issues relating to housing: there are large numbers of homeless people, social housing is in need of updating and relocating, and the number of households is increasing.</p> <p>House prices in Birmingham peaked in January 2008 and sharply declined through to 2010, and now have stabilised. Clearly however sales volumes have declined by over 50% since October 2006. This suggests that the affordability of housing for poorer families and first-time buyers has declined due to other national economic conditions.</p> <p>Housing is linked to issues related to poverty, equality, built and historic environment, natural landscape, sense of place, resource use, energy efficiency and sustainable design, construction and maintenance.</p>
28. Culture/Sport/Recreation	<p>Birmingham has many strengths in this area and is internationally recognised for sports and exhibitions.</p> <p>The City's popularity amongst international visitors has increased and is now the fourth most popular city in the UK.</p> <p>Culture/Sport/Recreation is linked to issues related to health, poverty, community involvement, biodiversity, natural landscape, sense of place and efficient use of land.</p>

5. Issues and Problems Relevant to the DM DPD

The analysis of the baseline information led to the identification of a number of issues and problems relevant to the DM DPD, as set out in Table 5.1. These issues are used in combination with the review of plans and programmes and the SA/SEA of the Birmingham Development Plan to produce the Sustainability Objectives and the Assessment Framework as set out in chapter 5.

Table 5.1 Key Issues and Problems Relevant to the DM DPD

Issue/Problem	Description	Supporting Evidence
Biodiversity and geodiversity	Biodiversity and greenspace resources, including locally and nationally important sites, across the City are mapped and managed. DM policies will be important in protecting the integrity of designated sites, both directly and indirectly. Continued monitoring of developments on the periphery of designated sites will be important to determine potential indirect and cumulative impacts.	Birmingham Nature Conservation Strategy
Population and health	The population of Birmingham is predicted to grow considerably over the next 20 years and the emerging Birmingham Development Plan is responding to this change through the provision of housing and employment land across the City. The locations of this development could place greater and different demands on the application of DM policies, requiring, for example, that they facilitate development in areas of need and cumulatively do not result in negative effects on specific population groups, areas of the City or key issues such as health through, for example, access to greenspace or reductions in motor transport. Consideration of the wider effects of policy application, such as on health, will also be important through, for example, the control of certain kinds of development in local centres.	ONS population estimates Emerging Birmingham Development Plan
Water resources and quality	Water resources are under pressure in Birmingham and across the regional generally, with reliance on external sources such as Wales. DM policies, in combination with the BDP, should contribute to the protection of water resources and quality through the application of development standards which encourage prudent water resource use and guard against pollution.	Catchment Abstraction Management Strategies (CAMS) Humber River Basin Management Plan Emerging Birmingham Development Plan
Climate change	Climate change impacts for Birmingham are likely to consist of higher temperatures and more extreme events, including rainfall leading to flooding. Whilst it is challenging for DM policies to be specific on climate change adaptation measures, the design of buildings for example will be important, as will the continued encouragement of CO2 reductions through energy efficiency measures and encouraging pedestrian, cycling and public transport access wherever possible.	UKCP09 predictions Birmingham Climate Change Action Plan Emerging Birmingham Development Plan
Flood risk, incidences of flooding and flood defences	Sources of flood risk are from river flooding, surface water flooding, sewer flooding and groundwater flooding. There are around 9,000 properties at risk from fluvial flooding and 30,000 from surface water flooding (1 in 100 year event). These risks will be taken into account as part of the assessment of applications for development.	Birmingham Strategic Flood Risk Assessment BCC records
Material Assets (housing, economy, key infrastructure, minerals and waste)	DM policies, in combination with those of the BDP, will be influential in the promoting the efficient use of material assets through, for example, attention on energy efficiency standards, the use of recycled aggregates and promotion of waste management. The effects are likely to be cumulative and long term in character, associated with the progressive replacement of the City's housing stock through renewal and new build.	ONS data Birmingham Housing Development Plan Birmingham Development Plan

Table 5.1 (continued) Key Issues and Problems Relevant to the DM DPD

Issue/Problem	Description	Supporting Evidence
Cultural heritage	Cultural heritage is a diverse, City-wide asset which can be vulnerable to the effects of development, both direct and indirect, short-term and cumulative. Criteria guiding DM policies will help to avoid immediate impacts, but monitoring will be required to ensure that there are no unintended consequences for example in relation to the wider setting of cultural heritage assets which can be affected by cumulative development.	Birmingham Development Plan Birmingham Conservation Strategy Birmingham Archaeology Strategy
Landscape and townscape	Although much of Birmingham is built up, there is a significant amount of open land within the City. Landscape character is a key contributor to regional and local identity, influencing sense of place, shaping the settings of people's lives and providing a critical stimulus to their engagement with the natural environment. The DM DPD, in combination with the BDP, will be influential in helping to retain a sense of character across the City in the context of development pressures.	Birmingham Development Plan Birmingham Conservation Strategy

6. Sustainability Objectives and the Assessment Framework

6.1 Introduction

This section describes the proposed approach to undertaking the SA/SEA of the DM DPD. It draws on the information presented in chapters 2, 3 and 4 and the associated appendices to define the scope of the assessment (in terms of what is to be assessed and the environmental issues to be considered) and develop the assessment framework. The assessment framework includes proposed objectives and guide questions supported by definitions of significance that will help the reader understand how the assessor will determine the effects of the DM DPD against the Sustainability Objectives.

6.2 Proposed Scope of the Assessment

6.2.1 Environmental Topics

The range of potential environmental effects under consideration has been informed primarily by the SEA Directive and Regulations, using published government guidance. As discussed in Section 3, Annex I of the SEA Directive and Schedule 2 of the SEA Regulations requires that the assessment includes information on the “*likely significant effects on the environment, including on issues such as: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape; and the inter-relationship between the issues referred to.*” All cited topics are proposed with the included within the assessment framework.

6.2.2 Geographic Scope

The SEA will consider potential effects across the Birmingham City Council area. The accompanying HRA considers potential trans-boundary effects in relation to designated European sites.

6.2.3 Short, Medium and Long-Term Timescales

When considering the timing of potential effects of the draft DM DPD, the commentary classifies effects as ‘short,’ ‘medium’ or ‘long term.’ This reflects an intention to capture the differences that could arise at different timescales, consistent with the requirements of the Annex II (2) of the SEA Directive where the assessment of the effects should have regard to ‘the probability, duration, frequency and reversibility of the effects’. For the purposes of this assessment, ‘short,’ ‘medium’ or ‘long term’ is summarised in Table 6.1.

Table 6.1 Duration of Short, Medium and Long Term

Duration	Length (years)
Short	0 to 10 years
Medium	10 to 25 years
Long	25 years+

6.3 Proposed Objectives and Guide Questions

Establishing appropriate Sustainability Objectives and guide questions is central to assessing the effects of the DM DPD on the environment. The proposed Sustainability objectives and guide questions reflect the topics to be included within the assessment and have been informed by:

- The review of plans and programmes and the associated environmental protection objectives (see chapter 2 and Appendix A; and
- The baseline information and key issues (chapter 3 and 4).

Broadly, the SEA objectives present the preferred environmental outcome, which typically involves minimising detrimental effects and enhancing positive effects. Associated guide questions have been developed for each SEA Objective to provide a detailed framework against which the DM DPD can be assessed. The draft SEA Objectives are as follows:

1. ENV1 Encourage development that optimises the use of previously developed land and buildings
2. ENV2 To promote the application of high standards of design, construction and maintenance of buildings
3. ENV3 To encourage the use of sustainable methods of transport and reduce the need to travel
4. ENV4 To encourage development which protects and enhances Birmingham's cultural and natural heritage
5. ENV5 To promote development which anticipates and responds to the challenges associated with climate change, particularly floodrisk
6. ENV6 To promote development which helps to reduce pollution of air, land, and water, including waste management
7. ECON1 To help improve the performance of the local and City-wide economy to provide opportunity for all
8. ECON2 To help promote the vitality of local centres
9. ECON3 To promote the regeneration of areas across the City through appropriate development
10. ECON4 To encourage investment in learning and skills development
11. SOC1 To help ensure equitable access to community services and facilities
12. SOC2 To help provide decent and affordable housing for all, of the right quantity type, tenure and affordability to meet local needs
13. SOC3 To encourage development which promotes health and well-being
14. SOC4 To encourage development which helps to reduce crime, the fear of crime and antisocial behaviour
15. SOC5 To enable communities to influence the decisions that affect their neighbourhoods and quality of life.

Table 6.2 sets out the proposed Framework for assessing the sustainability performance of the DM DPD, specifically evaluating whether there are likely to be any significant effects associated with the strategy and its proposed measures of the strategy.

Table 6.2 Proposed Sustainability Objectives, Guide Questions and Indicators

Topic Area(s)	Proposed Sustainability Objectives	Proposed Guide Questions	Potential Indicators
Material assets	ENV1 Encourage development that optimises the use of previously developed land and buildings	Will the use of previously developed land be encouraged? Will development densities be maximised?	Proportion of new development on previously developed land used Development densities achieved
Material assets	ENV2 To promote the application of high standards of design, construction and maintenance of buildings	Will development be encouraged to meet and where possible exceed standards for energy efficiency?	Proportion of developments meeting energy efficiency standards for design, construction and maintenance
Material assets	ENV3 To encourage the use of sustainable methods of transport and reduce the need to travel	Will development be encouraged to incorporate measures which promote sustainable transport? Will development help to reduce the need to travel?	Work place travel plans Measures to promote sustainable transport such as provision for cyclists
Landscape & townscape, cultural heritage, biodiversity & geodiversity	ENV4 To encourage high quality development which protects and enhances Birmingham's cultural and natural heritage	Will development protect and where possible enhance the City's cultural and natural heritage?	Development affecting historic assets Development affecting natural assets including open space
Climatic Factors	ENV5 To promote development which anticipates and responds to the challenges associated with climate change, particularly floodrisk	Will development take into account and actively mitigate climate change impacts?	Renewable energy installed Other measures installed such as SUDS Flooding events Approvals made contrary to EA advice
Water resources, air quality, material assets	ENV6 To promote development which helps to reduce pollution of air, land, and water, including waste management	Will development actively avoid creating additional pollution burdens?	Changes in water quality Change to/within Air Quality Management Areas Noise complaints Sustainable waste management
Population and health	ECON1 To help improve the performance of the local and City-wide economy to provide opportunity for all	Will development promote growth in key economic sectors? Will development contribute to encouraging a culture of enterprise and innovation?	Employment creation by area and type Business start-ups
Population and health	ECON2 To help promote the vitality of local centres	Will development contribute to the maintenance and enhancement of the vitality of local centres?	Local centre health checks

Table 6.2 (continued) Proposed Sustainability Objectives, Guide Questions and Indicators

Topic Area(s)	Proposed Sustainability Objectives	Proposed Guide Questions	Potential Indicators
Population and health	ECON3 To promote the regeneration of areas across the City through appropriate development	Will development contribute to regeneration of areas of the City most in need?	Location and type of development
Population and health	ECON4 To encourage investment in learning and skills development	Will development contribute to investment in learning and skills?	Local initiatives to promote skills development
Population and health	SOC1 To help ensure equitable access to community services and facilities	Will development help to promote equitable access to services?	Accessibility indices of key facilities
Population and health	SOC2 To help provide decent and affordable housing for all, of the right quantity type, tenure and affordability to meet local needs	Will development help to promote access to a range of housing types which meet the needs of residents?	Development types and spatial distribution
Population and health	SOC3 To encourage development which promotes health and well-being	Will development help to promote a healthier, more active population?	Activity levels by area and sector of the population
Population and health	SOC4 To encourage development which helps to reduce crime, the fear of crime and antisocial behaviour	Will development help to discourage crime?	Crime levels by area and type
Population and health	SOC5 To enable communities to influence the decisions that affect their neighbourhoods and quality of life	Will public participation be encouraged as part of the planning of new development?	Participation in consultations

6.4 Compatibility between the Sustainability Objectives and the DM DPD Objectives

Testing the compatibility between Sustainability Objectives and Plan Objectives is a formal requirement of stage B of the SA/SEA process. However, it is helpful to identify at an early stage where there could be conflict between the two sets of objectives of the SA/SEA and those devised for the DM DPD, particularly in respect of economic and social objectives which can sometimes be at odds with environmental objectives. The policies within the DM DPD reflect national planning policy and are in accordance with guidance set out within the National Planning Policy Framework (NPPF) and policies in the Birmingham Development Plan. The aims of the DM DPD are to ensure:

1. That development makes an overall positive contribution to the delivery of sustainable communities, the economy and the environment;
2. That development contributes to the needs of local communities; and
3. That development is well designed, and relates well to the natural and built environment.

The following Objectives have been set for the emerging DM DPD:

1. Ensuring that development makes a positive contribution to community safety, health and well-being;
2. Ensuring that development makes a positive contribution to environmental considerations;
3. Strengthening the vitality and viability of centres;
4. Enabling business development in appropriate locations and on a scale which helps to provide local jobs, minimises the need to travel, and avoids adverse environmental impacts;
5. Ensuring that housing meets local needs; and
6. Ensuring that new development is designed to integrate effectively with its setting, promote local distinctiveness, and be accessible to all.

Table 6.3 summarises an initial assessment of the potential compatibility between these Objectives and those established for the Assessment Framework.

Table 6.3 Compatibility between the Sustainability Objectives and the Draft DM DPD Objectives

Sustainability Objectives	Draft DM DPD Objectives					
	1. A positive contribution to community safety, health and well-being	2. A positive contribution to environmental considerations	3. Strengthening the vitality and viability of centres	4. Enabling business development in appropriate locations	5. Ensuring that housing meets local needs	6. New development is designed to integrate effectively with its setting, promote local distinctiveness, and be accessible to all
ENV1 Encourage development that optimises the use of previously developed land and buildings	~	+	~	?	~	+
ENV2 To promote the application of high standards of design, construction and maintenance of buildings	~	+	~	~	~	+
ENV3 To encourage the use of sustainable methods of transport and reduce the need to travel	~	+	+	?	~	?
ENV4 To encourage high quality development which protects and enhances Birmingham's cultural and natural heritage	+	+	~	+	~	+
ENV5 To promote development which anticipates and responds to the challenges associated with climate change, particularly floodrisk	+	+	~	+	~	~
ENV6 To promote development which helps to reduce pollution of air, land, and water	+	+	~	?	~	~

Table 6.3 (continued) Compatibility between the Sustainability Objectives and the Draft DM DPD Objectives

Sustainability Objectives	Draft DM DPD Objectives					
	1. A positive contribution to community safety, health and well-being	2. A positive contribution to environmental considerations	3. Strengthening the vitality and viability of centres	4. Enabling business development in appropriate locations	5. Ensuring that housing meets local needs	6. New development is designed to integrate effectively with its setting, promote local distinctiveness, and be accessible to all
ECON1 To help improve the performance of the local and City-wide economy to provide opportunity for all	+	~	+	+	~	~
ECON2 To help promote the vitality of local centres	~	?	+	+	~	+
ECON3 To promote the regeneration of areas across the City through appropriate development	+	?	+	+	~	+
ECON4 To encourage investment in learning and skills development	~	~	+	+	~	~
SOC1 To help ensure equitable access to community services and facilities	+	~	~	~	~	+
SOC2 To help provide decent and affordable housing for all, of the right quantity type, tenure and affordability to meet local needs	+	~	~	~	+	~

Table 6.3 (continued) Compatibility between the Sustainability Objectives and the Draft DM DPD Objectives

Sustainability Objectives	Draft DM DPD Objectives					
	1. A positive contribution to community safety, health and well-being	2. A positive contribution to environmental considerations	3. Strengthening the vitality and viability of centres	4. Enabling business development in appropriate locations	5. Ensuring that housing meets local needs	6. New development is designed to integrate effectively with its setting, promote local distinctiveness, and be accessible to all
SOC3 To encourage development which promotes health and well-being	+	+	~	~	~	~
SOC4 To encourage development which helps to reduce crime, the fear of crime and antisocial behaviour	+	~	?	~	~	+
SOC5 To enable communities to influence the decisions that affect their neighbourhoods and quality of life	+	+	+	+	+	+

+	Objectives are potentially compatible	?	Uncertain if Objectives are related	~	No clear relationship between Objectives	-	Objectives are potentially incompatible
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Table 5.4 identifies a number of potential uncertainties between the Sustainability Objectives and those of the emerging DM DPD, principally related to the relationship between appropriate business locations and environmental considerations such as reducing the need to travel; contributions to environmental considerations in respect of local centre viability and regeneration; and development which contributes to local distinctiveness and reducing the need to travel. These relationships are unproven, but highlighted as issues which could require monitoring.

The compatibility assessment will be revisited in more detail as part of the Environmental Report.

7. Completing and Recording the Assessment

7.1 Introduction

In line with the ODPM (now CLG) Practical Guide to the SEA Directive the assessment process will seek to predict the significant environmental effects of the draft DM DPD. This is done by identifying the likely changes to the baseline conditions as a result of implementing the proposed plan (or reasonable alternative). These changes will be described (where possible) in terms of their geographic scale, the timescale over which they could occur, whether the effects would be temporary or permanent, positive or negative, likely or unlikely, frequent or rare. Where numerical information is not available, the assessment will be based on professional judgement and with reference to relevant legislation, regulations and policy. More specifically, in undertaking the assessment, consideration will be given to:

- Baseline information including existing environmental problems and their evolution;
- The likely activities and potential effects arising from the interventions outlined in the DM DPD;
- The regulatory framework; and
- The Sustainability Objectives and guide questions.

7.2 Assessing the Environmental Effects of the DM DPD

Table 6.1 illustrates a draft of the SA/SEA matrix developed to comprehensively meet the requirements of the SEA Directive and record the assessment of the effects of the DM DPD. It contains the Sustainability Objectives and guide questions presented in Table 6.2. The matrix also includes the timescale of the effect and a commentary. These are briefly explained below:

- Timing of Effect - Will the effect manifest itself in the short, medium or the long term? The short term is within the first ten years of the DM DPD, the medium term within the lifetime of the DM DPD (i.e. to 25 years), and the longer term beyond this;
- Commentary - The commentary text within the matrix and summary text within the report will identify possible mitigation measures associated with the proposals. Where a score is indicated as 'uncertain' the commentary should identify ways in which this uncertainty could be reduced, for example, through additional data collection or further consultation with experts;
- Secondary, cumulative and synergistic effects, as well as the temporary/permanence and likelihood of the effects are identified within the commentary;
 - Secondary or indirect effects are effects that are not a direct result of DM DPD, but occur at distance from the direct impacts or as a result of a complex pathway. Examples of a secondary effect of the DM DPD could include land use changes which affect a neighbourhood adjacent to that in which a development was permitted;
 - Cumulative effects arise, for instance, where several developments each have insignificant effects but together have a significant effect; or where several individual effects of the DM DPD occur;
 - Synergistic effects interact to produce a total effect greater than the sum of individual effects. Significant synergistic effects often occur as habitats, resources or human communities get close to

capacity. In the case of the DM DPD this could relate to the effects of multiple individual permissions; and

- Temporary effects can occur for example during construction of a development. Whilst these are generally short lived, they may occur over several years with larger development schemes.
- Geographical effects will be noted where the effect is likely to occur differentially within, for example different wards of Birmingham, or outside of Birmingham.

Table 7.1 Draft Assessment Matrix

Sustainability Objectives	Assessment Questions	Timescale			Commentary/Explanation (to include secondary, cumulative and synergistic effects)	
		Short Term	Medium Term	Long Term		
ENV1 Encourage development that optimises the use of previously developed land and buildings	Will the use of previously developed land be encouraged? Will development densities be maximised?	+	+	++	Assessment of Effects: A description of effects of the DM DPD on the SA/SEA objective under consideration will be provided here, with reasoning and justification included. Mitigation: Measures to offset adverse effects and enhance positive effects will be identified. Assumptions: Any assumptions that have underpinned the assessment will be highlighted here. Uncertainties: Uncertainties encountered during the assessment will be noted:	
ENV2 To promote the application of high standards of design, construction and maintenance of buildings	Will development be encouraged to meet and where possible exceed standards for energy efficiency?	0	0	0	Assessment of Effects: TBC Mitigation: TBC Assumptions: TBC Uncertainties: TBC	
.....etc.	?	?	?	Etc.....	
Score Key:	++ Significant positive effect	+ Minor positive effect	0 No overall effect	- Minor negative effect	-- Significant negative effect	? Score uncertain
NB: where more than one symbol is presented in a box it indicates that the appraisal has found more than one score for the category. Where the scores are both positive and negative, the boxes are deliberately not coloured. Where a box is coloured but also contains a ?, this indicates uncertainty over whether the effect could be a minor or significant effect although a professional judgement is expressed in the colour used. A conclusion of uncertainty arises where there is insufficient evidence for expert judgement to conclude an effect. S – short term (0 - 10 years), M – medium term (between 10 and 25 years) and L – long term (>25 years)						

Each proposal that comes forward from the DM DPD will be considered against each of the SEA objectives. This will be undertaken by the assessment team and will be informed by the baseline data and evidence gathered as part of the Scoping Report. It will also be informed by expert judgement from various technical specialists including key stakeholders and consultees.

7.3 Assessment of Strategy Alternatives

Alternatives presented in the DM DPD will be assessed on an objective-by-objective basis. Table 7.2 sets out the proposed framework that will be used to record the findings of this assessment. The first column describes the alternative whilst the second column summarises the expected effects on the SEA Objective under consideration. The rationale for this relationship will be explained in more detail in the final column.

Table 7.2 Proposed Assessment Framework (DM DPD Alternatives Assessment)

Alternative	Score	Commentary
1.	-	<p>Assessment of Effects: A description of effects of Alternative 1 on the SEA objective under consideration will be provided here, with reasoning and justification included.</p> <p>Mitigation: Measures to offset adverse effects and enhance positive effects will be identified.</p> <p>Assumptions: Any assumptions that have underpinned the assessment will be highlighted here.</p> <p>Uncertainties: Uncertainties encountered during the assessment will be noted.</p>
2.	+	<p>Assessment of Effects: A description of effects of Alternative 2 on the SEA objective under consideration will be provided here, with reasoning and justification included.</p> <p>Mitigation: Measures to offset adverse effects and enhance positive effects will be identified.</p> <p>Assumptions: Any assumptions that have underpinned the assessment will be highlighted here.</p> <p>Uncertainties: Uncertainties encountered during the assessment will be noted.</p>
3.	?	<p>Assessment of Effects: A description of effects of Alternative 3 on the SEA objective under consideration will be provided here, with reasoning and justification included.</p> <p>Mitigation: Measures to offset adverse effects and enhance positive effects will be identified.</p> <p>Assumptions: Any assumptions that have underpinned the assessment will be highlighted here.</p> <p>Uncertainties: Uncertainties encountered during the assessment will be noted.</p>
Summary		
<i>A brief summary of the effects of all the alternatives on the SEA objective under consideration will be provided.</i>		

Table 7.2 (continued) Proposed Assessment Framework (DM DPD Alternatives Assessment)

Summary						
Score Key:	++ Significant positive effect	+ Minor positive effect	0 No overall effect	- Minor negative effect	-- Significant negative effect	? Score uncertain
<p>NB: where more than one symbol is presented in a box it indicates that the appraisal has found more than one score for the category. Where the scores are both positive and negative, the boxes are deliberately not coloured. Where a box is coloured but also contains a ?, this indicates uncertainty over whether the effect could be a minor or significant effect although a professional judgement is expressed in the colour used. A conclusion of uncertainty arises where there is insufficient evidence for expert judgement to conclude an effect.</p> <p>S – short term (0 - 10 years), M – medium term (between 10 and 25 years) and L – long term (>25 years)</p>						

Note: This draft appraisal matrix is for illustrative purposes only. The full matrix will be finalised after comments have been received on the Sustainability Objectives and assessment criteria.

7.4 Mitigation

Identifying effective mitigation measures will also be an important part of the Environmental Report. Box 7.1 provides information on types and examples of mitigation measures that might be proposed and includes an overview of the mitigation hierarchy. The mitigation hierarchy is based on the principle that it is preferable to prevent the generation of an impact rather than counteract its effects. It thus suggests that mitigation measures higher up the hierarchy should be considered in preference to those further down the list.

Box 7.1 Mitigation Hierarchy and Example Measures
<p>Mitigation measures should be consistent with the mitigation hierarchy (after DETR 1997⁵⁷ and CLG 2006⁵⁸):</p> <ul style="list-style-type: none"> • Avoidance - making changes to a design (or potential location) to avoid adverse effects on an environmental feature. This is considered to be the most acceptable form of mitigation. • Reduction - where avoidance is not possible, adverse effects can be reduced through sensitive environmental treatments/design. • Compensation - where avoidance or reduction measures are not available, it may be appropriate to provide compensatory measures (e.g. an area of habitat that is unavoidably damaged may be compensated for by recreating similar habitat elsewhere). It should be noted that compensatory measures do not eliminate the original adverse effect, they merely seek to offset it with a comparable positive one. • Remediation - where adverse effects are unavoidable, management measures can be introduced to limit their influence. • Enhancement - where there are no negative impacts, but measures are adopted to achieve a positive move towards the sustainability objectives e.g. through innovative design. <p>Examples of how mitigation measures could be incorporated into DM DPD proposals could include:</p> <ul style="list-style-type: none"> • Ensuring that development management decisions are scrutinised for consistency, cumulative impacts and potential unintended consequences at site, neighbourhood and City-wide levels. • Monitoring the scope the DM DPD and its relationship with the BDP, and where there could be policy gaps. • Monitoring the impacts of particular policies and their effectiveness, particularly in respect of the criteria used to help define the policy.

⁵⁷ Department of the Environment, Transport and the Regions (1997) *Mitigation Measures in Environmental Statements*. London: DETR

⁵⁸ Department for Communities and Local Government (2006): *Consultation Document - EIA: A guide to good practice and procedures*. London: CLG

8. Proposed Structure of the Environmental Report

The assessment Framework and the evidence base will form the basis of the SA/SEA to be undertaken on the DM DPD, the findings of which will be incorporated into an Environmental Report and be subject to public consultation. The Environmental Report will be structured as follows:

Table 8.1 Structure of the Environmental Report

Chapter	Content
Non-Technical Summary	<ul style="list-style-type: none"> An accessible summary of the approach, method and key results of the assessment.
Structure of the Environmental Report	<ul style="list-style-type: none"> Table signposting the components of the Environmental Report for the purpose of the SEA Directive.
Introduction	<ul style="list-style-type: none"> Purpose of the SA/SEA; SA/SEA process of and legislation; and Structure of the Environmental Report.
Background	<ul style="list-style-type: none"> Summary of the Birmingham DM DPD; Aims and objectives of the DM DPD; and Reasonable alternatives to the DM DPD, given the purpose and objectives of the strategy.
SEA Objectives, baseline and context	<ul style="list-style-type: none"> Relationship with other policies, plans and programmes and environmental protection objectives; Baseline characteristics; Key environmental, social and economic issues ; Limitations; and The SA/SEA Framework.
Birmingham DM DPD objectives and actions	<ul style="list-style-type: none"> Strategic options considered; Comparison of the environmental, social and economic effects of the options; The preferred option and reasoning behind the choice; Environmental, social and economic effects of DM DPD objectives; and Environmental, social and economic effects of local level actions.
Conclusions and recommendations	<ul style="list-style-type: none"> Significant, secondary, cumulative and synergistic effects; Proposed mitigation measures; and Proposed monitoring.

The ODPM SA Guidance contains a Quality Assurance checklist to help ensure that the requirements of the SEA Directive are met. Those relevant to this stage have been highlighted in Table 8.2.

Table 8.2 Quality Assurance Checklist

Quality Assurance Checklist	
Objectives and Context	
The plan's purpose and objectives are made clear.	Will be set out in full in the Environmental Report.
Sustainability issues, including international, national, regional and local objectives are considered in developing objectives and targets.	Chapter 2 and Appendix A.
SA objectives are clearly set out and linked to indicators and targets where appropriate.	Chapter 4.
Links with other related plans, programmes and policies are identified and explained.	Chapter 2 and Appendix A.
Scoping	
The environmental consultation bodies are consulted in appropriate ways and at appropriate times on the content and scope of the SA Report.	This Scoping Report is to be consulted upon with the statutory environmental consultees and any other relevant consultees for a period of five weeks.
The assessment focuses on significant issues.	Significant sustainability issues have been identified in this report in chapter 3. This will assist in focussing on the key issues during the assessment process.
Technical, procedural and other difficulties encountered are discussed; assumptions and uncertainties are made explicit.	These are made clear throughout the report where appropriate.
Reasons are given for eliminating issues from further consideration.	These are made clear throughout the Report where appropriate.
Baseline Information	
Relevant aspects of the current state of the environment and their likely evolution without the plan are described.	Chapter 3
Characteristics of areas likely to be significantly affected are described, including areas wider than the physical boundary of the plan area where it is likely to be affected by the plan where practicable.	Chapter 3. Further detail will be provided in the Environmental Report.
Difficulties such as deficiencies in information or methods are explained.	These are made clear throughout the Report where appropriate.

9. Consultation and Next Steps

This Scoping Report presents the findings of the initial tasks (Stage A) undertaken for SA/SEA of the DM DPD. It follows closely the advice and guidance provided by the UK Government and has been prepared to meet the requirements outlined within the Quality Assurance Checklist within the ODPM (2005) SA Guidance (see above).

Responses to the following questions are invited:

- Do you agree with the scope of the proposed assessment?;
- Do you agree with the main issues identified?; and
- Do you agree that the objectives cover the breadth of issues appropriate for assessing the effects?

The consultation will run from Friday 12th December 2014 until Friday 22nd January 2015. You can post or e-mail your responses to:

Keith Watson
Principal Planning Officer
Birmingham City Council
1 Lancaster Circus
Queensway
Birmingham
B4 7DQ

Keith.A.Watson@birmingham.gov.uk

Comments from consultees will be considered and the information in this report will be amended, as appropriate, in advance of its use during the next stages of the SA/SEA process.

The next stage of the SEA process (Stage B) involves considering and assessing options for the DM DPD, and then predicting and evaluating the effects of the objectives and proposed interventions of the DM DPD as they emerge. This assessment will consider ways of mitigating adverse effects and maximising beneficial effects. The assessment process will be reported within an Environmental Report which will be published for consultation alongside the draft DM DPD.

Appendix A

Review of Relevant Plans and Programmes

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
International		
EU (1992) Conservation of Natural Habitats and Wild Fauna and Flora (92/43/EEC, Habitats Directive).	The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance. In applying these measures Member States are required to take account of economic, social and cultural requirements, as well as regional and local characteristics.	Incorporated in Sustainability Objective 4
EU (1996) Ambient Air Quality Assessment and Management (96/62/EC, Air Quality Framework Directive).	The Directive ensures that where pollutants exceed certain limit values, Member States take action to reduce pollution down to the limit values. The list of atmospheric pollutants to be considered includes: sulphur dioxide, nitrogen dioxide, particulate matter, lead, ozone, benzene, carbon monoxide, poly-aromatic hydrocarbons, cadmium, arsenic, nickel and mercury. Objectives: <ul style="list-style-type: none"> • obtain adequate information on ambient air quality; and • maintain ambient air quality where it is good, and improve air quality where it is bad. 	Incorporated in Sustainability Objective 6
EU (2000) Directive on Establishing a Framework for Community Action in the Field of Water Policy (2000/60/EC, The Water Framework Directive).	The Directive establishes an integrated approach to protection, improvements and sustainable use of water bodies, introducing a statutory system of analysis and planning based upon the river basin. The Directive imposes a statutory responsibility on Member States to ensure all water bodies meet certain water quality standards. The four main stages of implementation are: <ul style="list-style-type: none"> • environmental and economic assessment ('Characterisation') of river basin districts including identification of pressures and impacts; • environmental monitoring based on river basin district characterisation; • setting of environmental objectives; and • designing and carrying out a programme of measures to achieve these environmental objectives. 	Incorporated in Sustainability Objectives 5 and 6
EU (2005) Clean Air Strategy.	Targets: All water bodies in all Member States are to reach 'Good Ecological Status' by 2015. However, exactly what constitutes 'Good Ecological Status' has not yet been defined.	
EU (2005) Clean Air Strategy.	The strategy aims to extend clean air laws into new sectors - agriculture and transport - that were not covered before, targeting five main pollutants including fine-dust particles which are most harmful to human health.	Incorporated in Sustainability Objective 6
EU (2008) Directive on Waste (2006/12/EC, Waste Framework Directive).	The directive requires all Member States to take the necessary measures to ensure waste is recovered or disposed of without endangering human health or causing harm to the environment and includes permitting, registration and inspection requirements. The directive also requires Member States to take appropriate measures to encourage firstly, the prevention or reduction of waste production and its harmfulness and secondly the recovery of waste by means of recycling, re-use or reclamation or any other process with a view to extracting secondary raw materials, or the use of waste as a source of energy. The directive's overarching requirements are supplemented by other directives for specific waste streams.	Incorporated in Sustainability Objective 6

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
International		
UNFCCC (1997) Kyoto Protocol to the UN Framework Convention on Climate Change.	The protocol shares the Convention's objective (to achieve stabilisation of greenhouse gas concentrations in the atmosphere at safe levels, so that ecosystems can adapt naturally, and food supply is not threatened) but strengthens the convention by committing Countries to legally-binding targets to limit or reduce their greenhouse gas emissions.	Incorporated in Sustainability Objective 5
UNFCCC (2009) Copenhagen Accord (Climate Change).	<p>The Copenhagen Accord is a treaty that is to take over from the Kyoto Protocol's targets, as of when it expires in 2012, for curbing the growth in greenhouse gas emissions sufficiently to avoid climate change impacts projected by the IPCC. The Copenhagen Accord commits Countries to legally binding targets including:</p> <ul style="list-style-type: none"> • to reduce global emissions so as to hold the increase in global temperature below 2°C; • commit developed countries to reducing greenhouse gas emissions; • projects to reduce greenhouse gas emissions in developing countries will be subject to international monitoring if they are internationally funded; • provide developing countries with financial incentives to preserve forests; and • implementation of the Accord to be reviewed in 2015 and an assessment to be made on whether the goal of keeping global temperature rise within 2°C needs to be strengthened to 1.5°C. 	Incorporated in Sustainability Objective 5
Council of Europe (2006) European Landscape Convention	Aims to promote the protection, management and planning of Europe's landscapes, both rural and urban, and to foster European co-operation on landscape issues.	Incorporated in Sustainability Objective 4
Council of Europe (1985) Convention on the Protection of the Architectural Heritage of Europe	This convention commits signatories to protect their architectural heritage by means of identifying monuments, buildings and sites to be protected; preventing the disfigurement, dilapidation or demolition of protected properties; providing financial support by the public authorities for maintaining and restoring the architectural heritage on its territory; and supporting scientific research for identifying and analysing the harmful effects of pollution and for defining ways and means to reduce or eradicate these effects.	Incorporated in Sustainability Objective 4
EU (2007) Floods Directive	The Floods Directive aims to provide a consistent approach to managing flood risk across Europe. The approach is based on a 6 year cycle of planning which includes the publication of Preliminary Flood Risk Assessments, hazard and risk maps and flood risk management plans. The Directive is transposed into English law by the Flood Risk Regulations 2009.	Incorporated in Sustainability Objective 5
EU (1991) Urban Waste Water Treatment Directive.	<p>The Directive aims to protect the environment from the adverse effects of urban waste water discharges and discharges from certain industrial sectors and concerns the collection, treatment and discharge of:</p> <ul style="list-style-type: none"> • Domestic Waste Water; • Mixture of Waste Water; and • Waste Water from Certain Industrial Sectors. <p>There are four main principles: planning, regulation, monitoring, and information and reporting.</p>	Incorporated in Sustainability Objective 6
European Commission (1999) The Landfill Directive.	The Directive aims to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from the landfilling of waste, during the whole lifecycle of the landfill.	Incorporated in Sustainability Objectives 1 and 6

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
International		
EC (2007) Together for Health: A Strategic Approach for the EU 2008-2013	The Strategy aims to provide an overarching strategic framework spanning core issues in health as well as health in all policies and global health issues.	Incorporated in Sustainability Objective 13
The Pan-European Biological and Landscape Diversity Strategy (1995)	The strategy aims to address degradation of biological and landscape diversity across Europe reinstating these assets where possible.	Incorporated in Sustainability Objective 4
National		
CLG (2012) National Planning Policy Framework (NPPF)	The general thrust of the NPPF is aimed at contributing towards sustainable development through the planning system. There is a presumption in favour of sustainable development " <i>which should be seen as a golden thread running through both plan-making and decision-taking.</i> " There are three dimensions as to how the government aims to achieve sustainable development which gives rise to the need for the planning system to perform in a number of roles. These roles are based around economic, environmental and social roles.	Incorporated in Sustainability Objectives 1 - 15
NPPF – Biodiversity, Geodiversity and Soil	<p>The NPPF sets out 12 core planning principles for plan and decision making, including: 'Conserving and enhancing the natural environment'. The planning system should contribute and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> • protecting and enhancing valued landscapes, geological conservation interests and soils; • recognising the wider benefits of ecosystem services; • minimising impacts on biodiversity and providing net gains in biodiversity where possible, including by establishing coherent ecological networks that are more resilient to current and future pressures; • preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and • remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. <p>Plans and decisions should encourage effective use of brownfield sites and take into account the economic benefits of agricultural land when assessing development, seeking to utilise areas of poorer quality land.</p> <p>Local planning authorities should plan positively for creation, protection, enhancement and management of networks of biodiversity and green infrastructure. Planning and decision making should occur at a landscape scale across local authority boundaries and assess noise, air and light pollution, considering cumulative impacts. Local planning authorities should protect and enhance biodiversity specifically regarding priority species/habitats, protected sites and potential/proposed/possible protected sites.</p>	Incorporated in Sustainability Objectives 1, 4 and 6

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
NPPF – Landscape	<p>The NPPF sets out 12 core planning principles for plan and decision making, including: ‘Conserving and enhancing the natural environment’. The planning system should contribute and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> • protecting and enhancing valued landscapes, geological conservation interests and soils; • recognising the wider benefits of ecosystem services; • minimising impacts on biodiversity and providing net gains in biodiversity where possible, including by establishing coherent ecological networks that are more resilient to current and future pressures; • preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and • remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. <p>Plans and decisions should encourage effective use of brownfield sites and take into account the economic benefits of agricultural land when assessing development, seeking to utilise areas of poorer quality land.</p> <p>Local planning authorities should plan positively for creation, protection, enhancement and management of networks of biodiversity and green infrastructure. Planning and decision making should occur at a landscape scale across local authority boundaries and assess noise, air and light pollution, considering cumulative impacts. Local planning authorities should protect and enhance biodiversity specifically regarding priority species/habitats, protected sites and potential/proposed/possible protected sites.</p>	Incorporated in Sustainability Objective 4
NPPF – Cultural Environment	<p>One of the NPPF’s 12 core planning principles for plan and decision making is the conservation and enhancement of the historic environment. Local planning authorities are required to set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets. Proposals that preserve the setting, reveal the significance of the asset or make a positive contribution should be treated favourably.</p>	Incorporated in Sustainability Objective 4

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
NPPF – Water	<p>Among the NPPF’s core principles are ‘conserving and enhancing the natural environment’ and ‘meeting the challenge of climate change, flooding and coastal change’; In fulfilling these objectives, the planning system should contribute to and enhance the natural and local environment by: preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.</p> <p>In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment.</p> <p>Local planning authorities should adopt proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations.</p> <p>Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. Local Plans should be supported by Strategic Flood Risk Assessment and develop policies to manage flood risk from all sources, taking account of advice from the Environment Agency and other relevant flood risk management bodies, such as lead local flood authorities and internal drainage boards. Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change, by:</p> <ul style="list-style-type: none"> • applying the Sequential Test; • if necessary, applying the Exception Test; • safeguarding land from development that is required for current and future flood management; • using opportunities offered by new development to reduce the causes and impacts of flooding; and. • where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to facilitate the relocation of development, including housing, to more sustainable locations. 	Incorporated in Sustainability Objectives 5 and 6
NPPF – Climate Change	<p>One of the core principles of the NPPF is meeting the challenge of climate change, flooding and coastal change and encourages the adoption of proactive strategies to mitigate and adapt to climate change in line with the objectives and provisions of the Climate Change Act 2008, taking full consideration of flood risk, coastal change and water supply and demand. The NPPF also supports low carbon future by helping to increase the use of renewable and low carbon sources in line with the National Policy Statement for Renewable Energy Infrastructure. It seeks to ensure that all types of flood risk is taken into account over the long term at the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk.</p>	Incorporated in Sustainability Objective 5
NPPF - Air Quality	<p>This Directive aims to improve air quality throughout Europe by controlling the level of certain pollutants and monitoring their concentrations. In particular the Directive aims to establish levels for different air pollutants; draw up common methods for assessing air quality; methods to improve air quality; and make sure that information on air quality is easily accessible to Member States and the public.</p>	Incorporated in Sustainability Objective 6

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
NPPF - Minerals and Waste	One of the core principles of the NPPF is facilitating the sustainable use of minerals. Policy guidance suggests the need to: Identify policies for existing and new sites of national importance, the definition of Mineral Safeguarding Areas so that locations of mineral sources are not sterilised by other developments, safeguarding of existing and planned mineral infrastructure (rail links, wharfage, storage, processing etc.), environmental criteria to ensure there is not an unacceptable environmental impact and policies for reclaiming land and site aftercare.	Incorporated in Sustainability Objective 1
NPPF - Economy	<p>One of the NPPF's core planning principles for plan and decision making is building a strong competitive economy. The NPPF highlights the Government's commitment to securing economic growth to create jobs and prosperity, ensuring the planning system does everything it can to support sustainable economic growth. Local planning authorities are required to proactively meet development needs recognising potential barriers to invest (including infrastructure, housing and services) and regularly review land allocations. Economic growth in rural areas should be supported to create jobs and sustainable new developments, including expansion of all types of businesses, diversification of agriculture, supporting tourism and retention of local services.</p> <p>In drawing up local plans, local authorities should:</p> <ul style="list-style-type: none"> • set out a clear economic vision and strategy for their area which positively and proactively encourages sustainable economic growth; • set criteria, or identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period; • support existing business sectors, taking account of whether they are expanding or contracting and, where possible, identify and plan for new or emerging sectors likely to locate in their area. Policies should be flexible enough to accommodate needs not anticipated in the plan and to allow a rapid response to changes in economic circumstances; • plan positively for the location, promotion and expansion of clusters or networks of knowledge driven, creative or high technology industries; • identify priority areas for economic regeneration, infrastructure provision and environmental enhancement; and • facilitate flexible working practices such as the integration of residential and commercial uses within the same unit. 	Incorporated in Sustainability Objectives 7 – 10

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
NPPF – Housing	<p>Two of the NPPF's core principles is the delivery of a wide choice of high quality homes and requiring good design. Local planning authorities are required to significantly boost the supply of housing through:</p> <ul style="list-style-type: none"> • affordable and meeting needs of the market, identifying accessible sites for 5, 6-10 and 11-15 years worth of housing/growth; • illustrating the expected rate of housing delivery through a housing trajectory and set out a strategy; • deliver high quality housing, widen opportunities for home ownership and create sustainable inclusive and mixed communities; • making allowance for windfall sites on the basis that such sites are consistently available; • resisting inappropriate development of residential gardens; and • avoid isolated country homes unless they were truly outstanding or innovative in design or enhance the surroundings. <p>Sustainable development in rural areas housing should be located where it will enhance or maintain the vitality of rural communities.</p> <p>Planning policies and decisions should aim to ensure that developments:</p> <ul style="list-style-type: none"> • will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development; • establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit; • optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks; • respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation; • create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and • are visually attractive as a result of good architecture and appropriate landscaping. 	Incorporated in Sustainability Objective 12
NPPF - Health	<p>Amongst the planning principles of the NPPF is the promotion of healthy communities. The framework sets out open space, sport and recreation considerations for neighbourhood planning bodies which include an assessment of needs and opportunities; setting local standards; maintaining an adequate supply of open space and sports and recreational facilities; planning for new open space and sports and recreational facilities; and planning obligations. Local and neighbourhood plans should identify community green spaces of particular importance (including recreational and tranquillity) to them, ensuring any development of these areas is ruled out in a majority of circumstances.</p>	Incorporated in Sustainability Objective 13
NPPF – Transport & Accessibility	<p>Amongst the 12 planning principles of the NPPF are:</p> <ul style="list-style-type: none"> • promoting sustainable transport; Support sustainable transport development including infrastructure, large scale facilities, rail freight, roadside facilities, ports and airports. <p>Protecting and exploiting opportunities for sustainable transport modes, including designing and locating developments to maximise sustainable modes</p>	Incorporated in Sustainability Objective 3

and minimise day to day journey lengths.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
NPPF – Quality of Life	<p>One of the 12 core planning principles of the NPPF is: Promoting healthy communities, and Supporting high quality communications infrastructure. The NPPF argues that the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities. Local planning authorities should create a shared vision with communities of the residential environment and facilities they wish to see. Local policies and decisions should therefore promote: Safe and accessible environments and developments.</p> <ul style="list-style-type: none"> • Opportunities for members of the community to mix and meet. • Plan for development and use of high quality shared public space. • Guard against loss of facilities. • Ensure established shops can develop in a sustainable way. • Ensure integrated approach to housing and community facilities and services. <p>Local and neighbourhood plans should identify community green spaces of particular importance (including recreational and tranquillity) to them, ensuring any development of these areas is ruled out in a majority of circumstances.</p> <p>The framework sets out open space, sport and recreation considerations for neighbourhood planning bodies. These include an assessment of needs and opportunities; setting local standards; maintaining an adequate supply of open space and sports and recreational facilities; planning for new open space and sports and recreational facilities; and planning obligations.</p>	Incorporated in Sustainability Objectives 12 - 15
CLG (2012) NPPF Technical Guidance	Provides technical detail the 'sequential test' to assist with fulfilling the requirements set out in the NPPF on ensuring that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.	Incorporated in Sustainability Objective 1
CLG (2011) The Localism Act	<p>The Localism Bill includes five key measures that underpin the Government's approach to decentralisation.</p> <ul style="list-style-type: none"> • community rights; • neighbourhood planning; • housing; • general power of competence; and • empowering cities and other local areas. 	Incorporated in Sustainability Objectives 11 - 15
CLG (2011) The Community Infrastructure Levy Regulations	<p>The Community Infrastructure Levy is a new levy that local authorities in England and Wales can choose to charge on new developments in their area. The money can be used to support development by funding infrastructure that the council, local community and neighbourhoods want - for example new or safer road schemes, park improvements or a new health centre. The system applies to most new buildings and charges are based on the size and type of the new development.</p>	Incorporated in Sustainability Objectives 11 - 15
DECC (2008) UK Climate Change Act 2008.	<p>The 2008 Climate Change Act seeks to manage and respond to climate change in the UK, by:</p> <ul style="list-style-type: none"> • setting ambitious, legally binding targets; • taking powers to help meet those targets; • strengthening the institutional framework; 	Incorporated in Sustainability Objective 5

- enhancing the UK's ability to adapt to the impact of climate change; and
- establishing clear and regular accountability to the UK Parliament and to the devolved legislatures.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
DCMS (2007) Heritage Protection for the 21 st Century.	<p>This White Paper responds to the public call for change, and to this changing policy context. It sets out a vision for a new heritage protection system. The proposals in the White Paper reflect the importance of the heritage protection system in preserving heritage for people to enjoy now and in the future. They are based around three core principles:</p> <ul style="list-style-type: none"> • developing a unified approach to the historic environment; • maximising opportunities for inclusion and involvement; and • supporting sustainable communities by putting the historic environment at the heart of an effective planning system. 	Incorporated in Sustainability Objective 4
Defra (2003) The Water Environment (Water Framework Directive) (England and Wales) Regulations	Requires all inland and coastal waters to reach "good status" by 2015. This is being done by establishing a river basin structure with ecological targets for surface waters.	Incorporated in Sustainability Objective 6
Defra (2007) Guidance for Local Authorities on Implementing Biodiversity Duty	The Duty is set out in Section 40 of the Natural Environment and Rural Communities Act (NERC) 2006, and states that: " <i>Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity</i> ". Particular areas of focus include: Policy, Strategy and Procurement; Management of Public Land and Buildings; Planning, Infrastructure and Development; and Education, Advice and Awareness.	Incorporated in S Sustainability Objective 4
Defra (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem	This is a new biodiversity strategy for England that builds on the Natural Environment White Paper and provides a comprehensive picture of the Government is implementing the international and EU commitments. It sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea. The Strategy has as its mission to halt overall biodiversity loss, support healthy well-functioning ecosystems, and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.	Incorporated in Sustainability Objective 4
Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 2).	The Strategy sets out standards and objectives for the 8 main health-threatening air pollutants in the UK. The standards are based on an assessment of the effects of each pollutant on public health. They are based on recommendations by the Expert Panel on Air Quality Standards, The European Union Air Quality Daughter Directive and the World Health Organisation. Local Authorities are responsible for seven of the eight air pollutants under Local Air Quality Management (LAQM). National objectives have also been set for the eighth pollutant, ozone, as well as for nitrogen oxides and sulphur dioxide.	Incorporated in Sustainability Objective 6
Defra (2011) Review of Waste Policy in England	<p>Building on waste reduction targets established in the 2007 Waste Strategy, the Review sets out a range of commitments relating to:</p> <ul style="list-style-type: none"> • sustainable use of materials; • waste prevention, re-use and recycling; • regulation and enforcement; • householders and local authorities working together; • business waste collection; • energy recovery; 	Incorporated in Sustainability Objective 2

- landfill; and
- infrastructure and planning .

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
Defra (2008) Future Water, the Government's Water Strategy for England	<p>Objectives:</p> <p>By 2030 at the latest, we have:</p> <ul style="list-style-type: none"> • improved the quality of our water environment and the ecology which it supports, and continued to provide high levels of drinking water quality from our taps; • sustainably managed risks from flooding and coastal erosion, with greater understanding and more effective management of surface water; • ensured a sustainable use of water resources, and implemented fair, affordable and cost reflective water charges; • cut greenhouse gas emissions; and • embedded continuous adaptation to climate change and other pressures across the water industry and water users. <p>Targets: Key targets are within the objectives above and further a number of sub-targets are included within the document.</p>	Incorporated in Sustainability Objectives 5 and 6
Defra (2009) Safeguarding our Soils: A Strategy for England	<p>The Soil Strategy for England provides a vision to guide future policy development across a range of areas and sets out the practical steps that are needed to take to prevent further degradation of our soils, enhance, restore and ensure their resilience, and improve understanding of the threats to soil and best practice in responding to them. Key objectives of the strategy include:</p> <ul style="list-style-type: none"> • better protection for agricultural soils; • protecting and enhancing stores of soil carbon; • building the resilience of soils to a changing climate; • preventing soil pollution; • effective soil protection during construction and development; and • dealing with the legacy of contaminated land. 	Incorporated in Sustainability Objective 1
Defra (2011) Natural Environment White Paper; The natural choice: securing the value of nature	<p>The Natural Environment White paper sets out the Government's plans to ensure the natural environment is protected and fully integrated into society and economic growth. The White Paper sets out four key aims:</p> <ol style="list-style-type: none"> protecting and improving our natural environment; growing a green economy; reconnecting people and nature; and international and EU leadership, specifically to achieve environmentally and socially sustainable economic growth, together with food, water, climate and energy security and to put the EU on a path towards environmentally sustainable, low-carbon and resource-efficient growth, which is resilient to climate change, provides jobs and supports the wellbeing of citizens. 	Incorporated in Sustainability Objectives 4 and 7

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
Defra (2011) Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services	<p>The Strategy is designed to help to deliver the Natural Environment White Paper and include the following priorities:</p> <ul style="list-style-type: none"> • creating 200,000 hectares of new wildlife habitats by 2020; • securing 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition; • encouraging more people to get involved in conservation by supporting wildlife gardening and outdoor learning programmes; and • introducing a new designation for local green spaces to enable communities to protect places that are important to them. 	Incorporated in Sustainability Objective 3
Defra & HM Government (2011) Water White Paper; Water for Life	Water for Life describes a vision for future water management in which the water sector is resilient, in which water companies are more efficient and customer focused, and in which water is valued as the precious and finite resource it is.	Incorporated in Sustainability Objective 5
Defra & Environment Agency (2001) National Flood and Coastal Erosion Risk Management Strategy for England	The strategy describes what needs to be done by all organisations involved in flood and coastal erosion risk management. The strategy sets out a statutory framework that will help communities, the public sector and other organisations to work together to manage flood and coastal erosion risk.	Incorporated in Sustainability Objective 5
HM Government (2010) The Air Quality Standards 2010	The Regulations largely implement Directive 2008/50/EC on ambient air quality and cleaner air for Europe.	Incorporated in Sustainability Objective 6
HM Government (2010) Flood and Water Management Act	<p>The Act takes forward a number of recommendations from the Pitt Review into the 2007 floods and places new responsibilities on the Environment Agency, local authorities and property developers (among others) to manage the risk of flooding.</p> <ul style="list-style-type: none"> • The Environment Agency is responsible for developing and applying a flood risk management strategy for England and Wales. Every other agency with a flood risk management function across England and Wales must take account of this strategy. • Local authorities across England and Wales are required to develop, maintain, apply and monitor a strategy for local flood risk management in their areas. These local strategies must include the risk of flooding from surface water, watercourse and groundwater flooding. • Lead local authorities must establish and maintain a register of structures which have an effect on flood risk management in their areas. • The Act introduces a requirement to improve the flood resistance of existing buildings by amending the Building Act 1984. • The Act introduces the provision for residential landlords to be charged the cost of their tenant's unpaid water bills should the landlord fail to pass on the tenants details to the respective water company for the local area. • The Act introduces the requirements for developers of property to construct Sustainable Drainage Systems (SUDS). • Local authorities have a duty to adopt these SUDS once completed. By adoption, the Act means that they become responsible for maintaining the systems. 	Incorporated in Sustainability Objective 5

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
DfT (2008) Delivering a Sustainable Transport System (DaSTS).	<p>Objectives:</p> <ul style="list-style-type: none"> to support national economic competitiveness and growth, by delivering reliable and efficient transport networks; to reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change; to contribute to better safety and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health; to promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society; and to improve quality of life for transport users and non-transport users, and to promote a healthy natural environment. 	I Incorporated in Sustainability Objectives 3, 7 – 9, 13
English Heritage (2008) Conservation Principles, Policies and Guidance	<p>A framework for the sustainable management of the historic environment based on the following principles:</p> <ul style="list-style-type: none"> the historic environment is a shared resource; everyone should be able to participate in sustaining the historic environment; understanding the significance of places is vital; significant places should be managed to sustain their values; decisions about change must be reasonable, transparent and consistent; and documenting and learning from decisions is essential. 	Incorporated in Sustainability Objective 3
English Nature (2006) Climate Change Space for Nature	Context for the next 80 years in terms of the likely effects of climate change on biodiversity. Prescribes suggested actions to be taken in preparation for change.	Incorporated in Sustainability Objective 3 and 5
Environment Agency (2009) Water for people and the environment - Water resources strategy for England and Wales.	<p>Objectives:</p> <ul style="list-style-type: none"> enable habitats and species to adapt better to climate change; allow the way we protect the water environment to adjust flexibly to a changing climate; reduce pressure on the environment caused by water taken for human use; encourage options resilient to climate change to be chosen in the face of uncertainty; better protect vital water supply infrastructure; reduce greenhouse gas emissions from people using water, considering the whole life-cycle of use; and improve understanding of the risks and uncertainties of climate change. <p>Target: In England, the average amount of water used per person in the home is reduced to 130 litres each day by 2030.</p>	Incorporated in Sustainability Objective 3 and 6
Forestry Commission (2005): Trees and Woodlands Nature's Health Service	An advisory document which provides detailed examples of how the Woodland Sector (trees, woodlands and green spaces) can significantly contribute to people's health, well-being (physical, psychological and social) and quality of life. Increasing levels of physical activity is a particular priority.	Incorporated in Sustainability Objective 4 and 13

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
National		
HM Government (2006) Climate Change The UK Programme	<p>The Climate Change Programme aims to tackle climate change by setting out policies and priorities for action in the UK and internationally.</p> <p>Aims and Objectives:</p> <ul style="list-style-type: none"> to reduce carbon dioxide emissions by 20% below 1990 levels by 2010 (more than is required by the Kyoto Agreement); make agreements with other countries as to how they will tackle climate change together; report annually to Parliament on UK emissions, future plans and progress on domestic climate change; and set out the adaptation plan for the UK, informed by additional research on the impacts of climate change. 	Incorporated in Sustainability Objective 5
HM Government (2010) The Conservation of Habitats and Species Regulations	This is the UK transposition of EC Directive 92/43/EC on the conservation of natural habitats and of wild fauna and flora. The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.	Incorporated in Sustainability Objective 4
Regional		
Severn Trent Water Resources Management Plan (2010)	<p>Guidance on the approach to water management over the period 2010-2035, focused on achieving and maintaining the level of headroom necessary to ensure we can deliver our target levels of service at least cost to customers, whilst minimizing the impact on the environment. This is to be achieved in part by reducing leakage and managing the demand for water, and partly by developing new resources. The Strategy identifies that: <i>"Our best estimates of future supply/demand pressures show that we will need additional water resources and treatment capacity in the longer term. The schemes being delivered through our wider supply resilience investment strategy will provide a deployable output benefit and these form a key part of our longer term supply / demand plans. However, we have identified the likely need for further leakage reductions and water resource schemes during in the 2025-2035 period. Our analysis shows that the most significant risk to our long term supply/demand balance is the impact of climate change."</i></p>	Incorporated in Sustainability Objectives 2 and 5
Environment Agency Trent Catchment Flood Management Plan (2010)	Strategic planning document that provides an overview of the main sources of flood risk in the Trent catchment and how these can be managed in a sustainable framework for the next 50 to 100 years	Incorporated in Sustainability Objective 5
The Greater Birmingham and Solihull Local Enterprise Partnership Strategy (2013)	<p>The Greater Birmingham & Solihull LEP is a partnership of businesses, local authorities and universities which supports private sector growth and job creation. Set up to strengthen local economies, encourage economic development and enterprise, and improve skills across the region. The LEP has set out plans to:</p> <ul style="list-style-type: none"> increase economic output (GVA) in the area by £8.25 billion by 2020; create 100,000 private sector jobs by 2020; stimulate growth in the business stock and business profitability; boost indigenous and inward investment; become global leaders in key sectors, including: automotive assembly, low carbon R&D, business and professional services, clinical trials, creative and digital sectors; and increase the proportion of adults with appropriate qualifications to meet employment needs. 	Incorporated in Sustainability Objectives 7, 8, 9 and 10.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Regional		
<p>The 7 Authorities of the West Midlands Metropolitan Area (2011) West Midlands Local Transport Plan</p>	<p>The West Midlands Local Transport Plan 2011 - 2026 (LTP) is a statutory document which looks at the transport needs of the Metropolitan Area and sets out a way forward to deliver those needs through short, medium and long term transport solutions.</p> <p>The LTP sets out how our transport network can play its part in the transformation of the West Midlands economy. It demonstrates how this will bring real benefits to people through its contribution to economic revival, creation of jobs, improved accessibility, improved local and national connections by road and rail and better quality of life. The Plan's specific objectives are:</p> <ul style="list-style-type: none"> • prioritising investment on those interventions which will have greatest economic benefit; • improving the delivery of our transport priorities; • effectively maintaining and managing our transport assets ; • enhancing the efficiency, and reliability of our transport networks for the movement of people and freight; • improving safety and security; and • promoting low carbon corridors and Smarter Choices to influence travel behaviour. 	<p>Incorporated in Sustainability Objective 3</p>
<p>Environment Agency (2009) A Water Resources Strategy Regional Action Plan for the West Midlands Region</p>	<p>The EA Water Resources Strategy for England and Wales, <i>Water for People and the Environment</i>, sets out a number of actions that are reflected in the Regional Action Plan. This Plan takes the aims and objectives of the strategy and identifies Regional actions that will enable:</p> <ul style="list-style-type: none"> • water to be abstracted, supplied and used efficiently; • the water environment to be restored, protected and improved so that habitats and species can better adapt to climate change; • supplies to be more resilient to the impact of climate change, including droughts and floods; • water to be shared more effectively between abstractors; • improved water efficiency in new and existing buildings; • water to be valued and used efficiently; • additional resources to be developed where and when they are needed in the context of a twin-track approach with demand management; • sustainable, low carbon solutions to be adopted; and • stronger integration of water resources management with land, energy, food and waste. 	<p>Incorporated in Sustainability Objective 2</p>
<p>Forestry Commission (2004) West Midlands Regional Forestry Framework</p>	<p>The Framework sets out priorities for activity across the private, public and voluntary sector, and includes priorities and actions based around the following themes:</p> <ul style="list-style-type: none"> • Tree and Woodland Cover; • Trees Woodland and Forestry Industry; • Wood Energy and Recycling; • Recreation and Tourism; • Health and Wellbeing; • Fostering Social Inclusion; • Enhancing Biodiversity; • Climate Change; and • Green Infrastructure. 	<p>Incorporated in Sustainability Objectives 4, 5, 6 and 13</p>

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Local		
Birmingham City Council (2013) Birmingham Development Plan (emerging)	A Development Plan Document which sets the long-term spatial planning vision and objectives for Birmingham. It contains a set of strategic policies that are required to deliver the vision including the broad approach to development.	Incorporated in Sustainability Objectives 1 - 15
Birmingham City Council (2012) Aston, Newtown and Lozells Area Action Plan	To provide a clear vision and strategy for regeneration and development in the Aston, Newtown and Lozells area over the period 2012-2026. The AAP sets out a comprehensive and co-ordinated approach to shaping housing, employment, local centres, community facilities, infrastructure, transport and the environment.	Incorporated in Sustainability Objectives 1 - 15
Birmingham City Council & Bromsgrove District Council (2009) Longbridge Area Action Plan	Longbridge will undergo major transformational change redeveloping the former car plant and surrounding area into an exemplar sustainable, employment led mixed use development for the benefit of the local community, Birmingham, Bromsgrove, the region and beyond. It will deliver new jobs, houses, community, leisure and educational facilities as well as providing an identifiable and accessible new heart for the area. All development will embody the principles of sustainability, sustainable communities and inclusiveness. At the heart of the vision is a commitment to high quality design that can create a real sense of place with a strong identity and distinctive character. All of this will make it a place where people will want to live, work, visit and invest and which provides a secure and positive future for local people.	Incorporated in Sustainability Objectives 1 - 15
Birmingham City Council (1997) Nature Conservation Strategy for Birmingham	SPG promoting the conservation and enhancement of nature conservation across the City.	Incorporated in Sustainability Objective 4.
Birmingham City Council (1999) Regeneration Through Conservation: Birmingham Conservation Strategy.	A strategy for the protection and enhancement of Birmingham's cultural heritage.	Incorporated in Sustainability Objective 4.
Birmingham City Council (2004) Archaeology Strategy.	The Strategy explains the process when proposed new development is likely to affect archaeological remains. It stresses the importance of early consultation about the archaeological implications of a proposed development and the process of assessment and evaluation to inform decision, making on requirements for preservation or recording of archaeological remains.	Incorporated in Sustainability Objective 4.
Birmingham City Council (2005) Developing Birmingham: An Economic Strategy for the City 2005-2015.	<p>The vision of the Economic Strategy is: <i>"To build on Birmingham's renaissance and secure a strong and sustainable economy for our people."</i></p> <p>The strategy identifies four key areas to focus on:</p> <ol style="list-style-type: none"> 1) development and Investment; 2) creating a skilled workforce; 3) fostering business development and diversification; and 4) creating sustainable communities and vibrant urban villages. 	Incorporated in Sustainability Objectives 7, 8, 9 and 10.
Birmingham City Council (2006) Air Quality Action Plan.	<p>The Action Plan sets out 41 actions which follow the objectives below:</p> <ul style="list-style-type: none"> • reducing vehicle emissions; • improving public transport to reduce traffic volumes; • improving the road network to reduce congestion; • using area planning measures to reduce traffic volumes; • reducing air pollution from industry, commerce and residential areas; and • changing levels of travel demand/promotion of alternative modes of transport. 	Incorporated in Sustainability Objective 6.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Local		
<p>Birmingham City Council (2006) Municipal Waste Management Strategy.</p>	<p>The Strategy sets out the following vision for delivering its municipal waste management services:</p> <p><i>“To run a city that produces the minimum amount of waste that is practicable, and where the remainder is re-used, recycled or recovered to generate energy. The material recovered through composting, recycling, re-use and from the energy recovery process will replace the need for extraction of virgin materials.</i></p> <p><i>The waste management strategy will be sensitive to local needs and will provide a service to help Birmingham become as clean and green a city as it can be. Birmingham City Council and the Constituency partners will provide a service that citizens are pleased to support, and where there is malpractice or deliberate misuse of the service, that this is dealt with efficiently to maintain a clean, safe and healthy environment.”</i></p> <p>The Strategy has the following objectives:</p> <ul style="list-style-type: none"> • the Council will explore ways of reducing the amount of waste sent to landfill to an absolute minimum, recovering value from waste wherever economically and environmentally practicable through energy recovery and measures to increase re-use, recycling and composting; • the City Council and its partners will raise awareness among the wider community to view waste as a resource and will deliver communications activities and work with relevant stakeholders (such as community groups and schools) to promote the cultural change needed to significantly increase recycling and re-use and reduce the overall quantity of waste requiring treatment or disposal; • the City Council will develop recycling and composting system that meet the targets set out in this strategy through methods that are acceptable and accessible to the residents of Birmingham; • the City Council will explore ways of working with other local authorities and will expand its partnership activities with the private voluntary sectors to assist in delivery of this strategy; and • the City Council will work with its partners and other agencies to provide efficient and effective enforcement of its services to contribute to a clean, green, safe and healthy environment. 	<p>Incorporated in Sustainability Objective 6.</p>
<p>Birmingham City Council (2007) Sustainable Management of Urban Rivers and Floodplains SPD</p>	<p>A Supplementary Planning Document which responds to the demands of the Water Framework Directives and sets out policies for development near to river corridors relating to:</p> <ul style="list-style-type: none"> • Water Quality; • Water Pollution Prevention; • Sustainable Urban Drainage Systems (SUDS) and Surface Water Run-Off; • Character of the River Corridors; • The Floodplain; • Nature Conservation and Landscaping; • The Historic Environment; • Design of Developments; • Access; • Education and Recreation; • Safety and Litter; and • Community Involvement. 	<p>Incorporated in Sustainability Objective 5.</p>

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Local		
Birmingham City Council (2010) The Birmingham Area Investment Prospectus.	The purpose of the Area Investment Prospectus (AIP) is to capture the key strategic development and investment opportunities around the city as well as outline Birmingham's plans to improve the economic environment and infrastructure required to support the growth generated by these opportunities. The AIP brings together the visions of public and private partners into one overall framework, designed to continue the transformation of Birmingham, and enhance its place as a leading world city and a dynamic regional capital.	Incorporated in Sustainability Objectives 7, 8, 9 and 10.
Birmingham City Council (2008) Birmingham Private Sector Housing Strategy 2008+ (updated 2010).	The strategy details priority issues and actions to increase levels of decent homes in owner-occupied and private rented sector housing; promote domestic energy efficiency and affordable warmth; and address the growing demand from elderly and disabled residents for assistance to live independently in their own homes. It also set out how the council will fulfil its regulatory role in the licensing and inspection of Houses in Multiple Occupation (HMOs) as prescribed by the Housing Act (2004) and promote better standards of management within the private rented sector (PRS).	Incorporated in Sustainability Objective 12.
Birmingham City Council (2008) Contaminated Land Inspection Strategy for Birmingham Second Edition	To identify any contaminated land as defined by the legislation. To take steps to control any risk from any contaminated land identified using voluntary or enforcement action. To liaise with the Environment Agency regarding sites that may be polluting controlled waters or other special sites.	Incorporated in Sustainability Objective 6.
Birmingham City Council (2010) Birmingham Climate change action plan 2010+	Birmingham becoming a 'Low Carbon Transition' city Improving the energy efficiency of the city's ' Homes and Buildings ' Reducing the city's reliance on unsustainable energy through 'Low Carbon Energy Generation' Reducing the city's impact on the non-renewable resources through 'Resource Management' Reducing the environmental impact of the city's mobility needs through 'Low Carbon Transport' Making sure the city is prepared for climate change through 'Climate Change Adaptation' Making sure that this action plan 'Engages with Birmingham Citizens and Businesses'	Incorporated in Sustainability Objective 5.
Birmingham City Council (2011) Multi-agency Flood Plan	A plan outlining flood risk, warnings mechanisms, the actions, roles and responsibilities of those organisations and communities with a key response role in the event, or threat of flooding in the Birmingham local authority area.	Incorporated in Sustainability Objective 5.
Birmingham City Council (Jan 2012) Level 1 & 2 Strategic Flood Risk Assessment	Assesses and maps all known sources of flood risk, including fluvial, surface water, sewer, groundwater and impounded water bodies, taking into account future climate change predictions, to allow the Council to use this as an evidence base to locate future development primarily in low flood risk areas. The outputs from the SFRA will also assist in preparing sustainable policies for the long term management of flood risk.	Incorporated in Sustainability Objective 5.
Birmingham City Council (2013) Birmingham Surface Water Management Plan (emerging)	A study undertaken in consultation with key local partners who are responsible for surface water management and drainage in their area. Partners work together to understand the causes and effects of surface water flooding and agree the most cost effective way of managing surface water flood risk for the long term. The process of working together as a partnership is designed to encourage the development of innovative solutions and practices.	Incorporated in Sustainability Objective 5.

