Birmingham City Council

Sustainability Appraisal of the Development Management DPD

Scoping Report - 2018 Update

May 2018

Amec Foster Wheeler Environment
& Infrastructure UK Limited

Report for

Uyen-Phan Han
Planning Policy Manager
Birmingham City Council
Planning and Regeneration
1 Lancaster Circus
Queensway
Birmingham
B4 7DJ

Main contributors

Robert Deanwood
Ryan Llewellyn

Issued by

.....
Robert Deanwood

Approved by

.....
Robert Deanwood

Amec Foster Wheeler

Gables House
Kenilworth Road
Leamington Spa
Warwickshire CV32 6JX
United Kingdom
Tel +44 (0) 1926 439 000

Doc Ref. L40761

h:\projects\40761 sa of bdp dm dpd\1 client\reports\bcc dm policies dpd sa scoping report update 2018.docx

Copyright and non-disclosure notice

Third-party disclaimer

Management systems

This document has been produced by Amec Foster Wheeler Environment & Infrastructure UK Limited in full compliance with the management systems, which have been certified to ISO 9001, ISO 14001 and OHSAS 18001 by LRQA.

Executive summary

Purpose of this report

Wood[1] (formerly AMEC Environment & Infrastructure UK Ltd) 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."*[2]

The NPPF makes reference to the UK Sustainability Strategy *Securing the Future*[3] 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

[1] Amec Foster Wheeler was acquired in October 2017 by Wood Group.

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

[3] Defra (2005) **Securing the Future – UK Government Sustainable Development Strategy**

- 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 Birmingham Plan. New foul drainage infrastructure will also be required to support the proposed level of growth. 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.
6. Reducing the Need to Travel	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, encouraging people to use public transport, and the provision of new/enhanced footways and cycleways. Reducing the need to travel is linked to issues related to sustainable transport, air quality, health, climate change mitigation and adaptation and noise.
7. Waste Reduction and Minimisation	Landfill diversion rates are increasing in the City, and past targets for recycling have been met. The percentage of waste sent to landfill within the City has declined 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. Waste Reduction and Minimisation is linked to issues related to air quality, soil quality, natural landscape and built and historic environment.
8. Efficient Use of Land	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. Multifunctional use of land is also important with the City's Green and Blue Infrastructure network having an important role to play in achieving this. Efficient Use of Land is linked to issues related to soil quality, flood risk, water quality, natural landscape, built and historic environment, biodiversity culture, sport and recreation and sense of place.
9. Reducing and Managing Climate Change	CO_2 emissions and the heal island effect are significant climate related issues which need to actively managed to avoid their effects becoming more detrimental in the coming decades. Use of the City's Green Infrastructure network will be particularly important in addressing this issue. Reducing and Managing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.
10. Manage and reduce Flood Risk	Birmingham City Council has a good record of taking on board Environment Agency comments in terms of permitting development in flood risk areas. It is recognised by the City Council that measures will need to be put in place to manage and where possible reduce flood risk. Use of the City's Green Infrastructure network will be particularly important in addressing this issue. Managing and Reducing Flood Risk is linked to issues related to health and well-being, biodiversity and infrastructure provision.

Sustainability Theme	Key Sustainability Issues
11. Sense of Place	Birmingham is a city with a strong tradition of social action and civic engagement. The City's voluntary and community groups play a crucial role in fostering integration. Birmingham is a young and diverse city with people from over 180 different countries making it their home. The diversity of cultures, creativity, skills and experiences that contribute to the city's social and economic vitality. Sense of Place is linked to issues related to built and historic environment, natural landscape, housing, health, biodiversity, culture, sport and recreation and crime.
12. Built and Historic Environment	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. Built and Historic Environment is linked to issues related to sense of place, housing, sustainable design, construction and maintenance, crime and poverty.
13. Natural Landscape	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. Natural landscape is linked to issues related to biodiversity, health, soil quality, sense of place, culture, sport and recreation, climate change mitigation and adaptation, managing and reducing flood risk.
14. Biodiversity and Geodiversity	The City has 2 SSSIs and a number of other statutory and non- statutory designated sites which cover approximately 10% of the City. There is one Local Nature Reserve designated in order to protect its geodiversity. The Birmingham and Black Country Nature Improvement Area (NIA) Ecological Strategy provides a landscape-scale framework for action to conserve and enhance biodiversity and geodiversity and to improve ecological networks across the City. The Cannock Chase to Sutton Park Project is an another example of landscape-scale action. Biodiversity and Geodiversity is linked to issues related to air quality, water quality, soil quality, health and natural landscape.
15. Air Quality	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, and the requirement to maintain an Air Quality Action Plan (AQAP) to direct compliance with national objectives, air quality should improve within the City. In order to deliver compliance, Government has determined the need for Birmingham to introduce a Clean Air Zone (CAZ) to control road transport related emissions particularly Nitrogen Dioxide. A Clean Air Zone feasibility study to determine the type and extent of the zone is underway. Air Quality is linked to issues related to biodiversity, health, sustainable transport reducing the need to travel, climate change mitigation and adaptation).
16. Water Quality	The chemical and biological quality of rivers and waterways in Birmingham is generally poor compared to the West Midlands and England as a whole. Water Quality is linked to issues related to resource use, soil quality, health, biodiversity, climate change mitigation and adaptation).
17. Soil Quality	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. Soil Quality is linked to issues related to biodiversity, water quality, natural landscape, and health.
18. Noise	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. Noise is linked to issues related to sustainable transport and housing.
19. Social and Environmental Responsibility	The Birmingham Business Charter for Social Responsibility aims to help the local economy by supporting local businesses, creating jobs and making sure workers are paid a fair wage. Social and Environmental Responsibility is linked to issues related to equality, community involvement, learning and skills, economy and equality, waste reduction and minimisation.

Sustainability Theme	Key Sustainability Issues
20. Economy and Equality	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. 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. There is significant disparity in terms of average household income between Birmingham's constituencies. Economy and Equality is linked to issues related to poverty, learning and skills, equality, housing and community involvement.
21. Learning and Skills	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 2002[4]. 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. Learning and Skills is linked to issues related to economy and equality, community involvement, equality, poverty and social and environmental responsibility
22. Community Involvement	On the 3rd of May 2018 Birmingham held its first all-out elections since 2004. The election achieved a turnout of 32.1% (out of 734, 693 electorates) and resulted in a labour hold result. Community Involvement is linked to issues related to economy and equality, learning and skills, poverty, sense of place and housing.
23. Equality	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. Equality is linked to issues related to economy and equality, learning and skills, community involvement, poverty, crime and housing.
24. Poverty	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. Poverty is linked to issues related to health, crime, community involvement, learning and skills and equality.
25. Health	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. Health is linked to issues related to air quality, water quality, biodiversity, natural landscape, culture, sport and recreation, equality and crime.
26. Crime	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. Crime is linked to issues related to poverty, equality, learning and skills and housing.
27. Housing	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. 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. 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.
28. Culture/Sport/ Recreation	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. Culture/Sport/Recreation is linked to issues related to health, poverty, community involvement, biodiversity, natural landscape, sense of place and efficient use of land.

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

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 management and reduction
Water resources, air quality, material assets	6. ENV6 To promote development which makes best use of water resources, reduces pollution and encourages sustainable 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

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).

A draft of this Scoping Report was published for consultation between Friday 12th December 2014 and Friday 22nd January 2015. Responses were sought on the following questions:

- 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?

Detailed responses were received from the Environment Agency and Natural England, and this Report incorporates all the suggestions made. A record of the comments and responses is set out at Appendix B.

This Scoping Report informs the Sustainability Appraisal of the draft Development Management DPD.

What Are the Next Steps in the SA Process?

This Non-Technical Summary and the accompanying Scoping Report are being issued for a new consultation for a 6-week period from 21st May to 29th June 2018 Details of how to respond to the consultation are provided overleaf. Comments and responses received on this NTS and Scoping Report will be considered by the Council and used to finalise the approach to the SA of the Local Plan.

The appraisal will be an iterative process and will involve the development and refinement of the Local Plan by testing the sustainability strengths and weaknesses of the emerging Plan options with the findings presented in a series of SA Reports. Each SA Report will have the following structure (with indicative contents also outlined):

- A Non-Technical Summary;
- Introduction, purpose, summary of the emerging DM DPD;
- Approach to appraisal (including review of baseline and evolution of the baseline, review of plans and programmes, appraisal objectives, assumptions and any technical difficulties encountered in the completion of the SA);
- SA process undertaken to date on the DM DPD;
- Appraisal of effects (including: plan objectives; the spatial strategy; plan policies; and reasonable alternatives including cumulative, in combination effects and assessment of synergistic effects with clear justification for the selection of the preferred options and the reasons for not taking forward any other reasonable alternatives considered);
- Conclusions and recommendations (including any proposed mitigating measures such as the addition or deletion of proposed policies and the amendment to policies and proposals for monitoring); and
- Implementation and monitoring.

This Consultation: How to Give Us Your Views

We would welcome your views on any aspect of this Scoping Report. However, we would particularly welcome responses to the following questions:

1. **Do you agree with the scope of the proposed assessment?**
2. **Do you agree with the main issues identified? and**
3. **Do you agree that the objectives cover the breadth of issues appropriate for assessing the effects?**

Please provide your comments by 29 June 2018. Comments should be sent to:

By email: planning.strategy@birmingham.gov.uk

By telephone: 0121 303 2332

By post: Planning Policy Team, Birmingham City Council, Planning and Regeneration, 1 Lancaster Circus, Queensway, Birmingham, B4 7DJ

Contents

1. Introduction

1.1 Context

Birmingham City Council is producing a Development Management Development Plan Document (hereafter referred to as 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 Wood 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

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:

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

To confirm and clarify, the objectives of the DM DPD are the same as the objectives of the Birmingham Development Plan (adopted 2017). It is expected that the principles of all development should seek to achieve these in so doing:

- To develop Birmingham as a City of sustainable neighbourhoods that are safe, diverse and inclusive with locally distinctive character.
- To make provision for a significant increase in the City's population.
- To create a prosperous, successful and enterprising economy with benefits felt by all.
- To promote Birmingham's national and international role.
- To provide high quality connections throughout the City and with other places including encouraging the increased use of public transport, walking and cycling.
- To create a more sustainable City that minimises its carbon footprint and waste, and promotes brownfield regeneration while allowing the City to grow.
- To strengthen Birmingham's quality institutions and role as a learning City and extend the education infrastructure securing significant school places.
- To encourage better health and well-being through the provision of new and existing recreation, sport and leisure facilities linked to good quality public open space.
- To protect and enhance the City's heritage assets and historic environment.
- To conserve and enhance Birmingham's natural environments, allowing biodiversity and wildlife to flourish.
- To ensure that the City has the infrastructure in place to support its future growth and prosperity.

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/EC[5] (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 2004[6] (the 'SEA Regulations'). Under these regulations[7], 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);
- 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.

[5] European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, Article 1
[6] The Environmental Assessment of Plans and Programmes Regulations, 2004, S.I. No.1633, Parts 3 and 4
[7] 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

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	This scoping report consultation.
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.

2.3 Habitats Regulations Assessment

The potential impact of the DM DPD against the conservation objectives of designated European conservation sites[8] also needs to be assessed. This is known as Habitats Regulations Assessment (HRA)[9]. Regulation 105 of the *Conservation of Habitats and Species Regulations 2017* (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

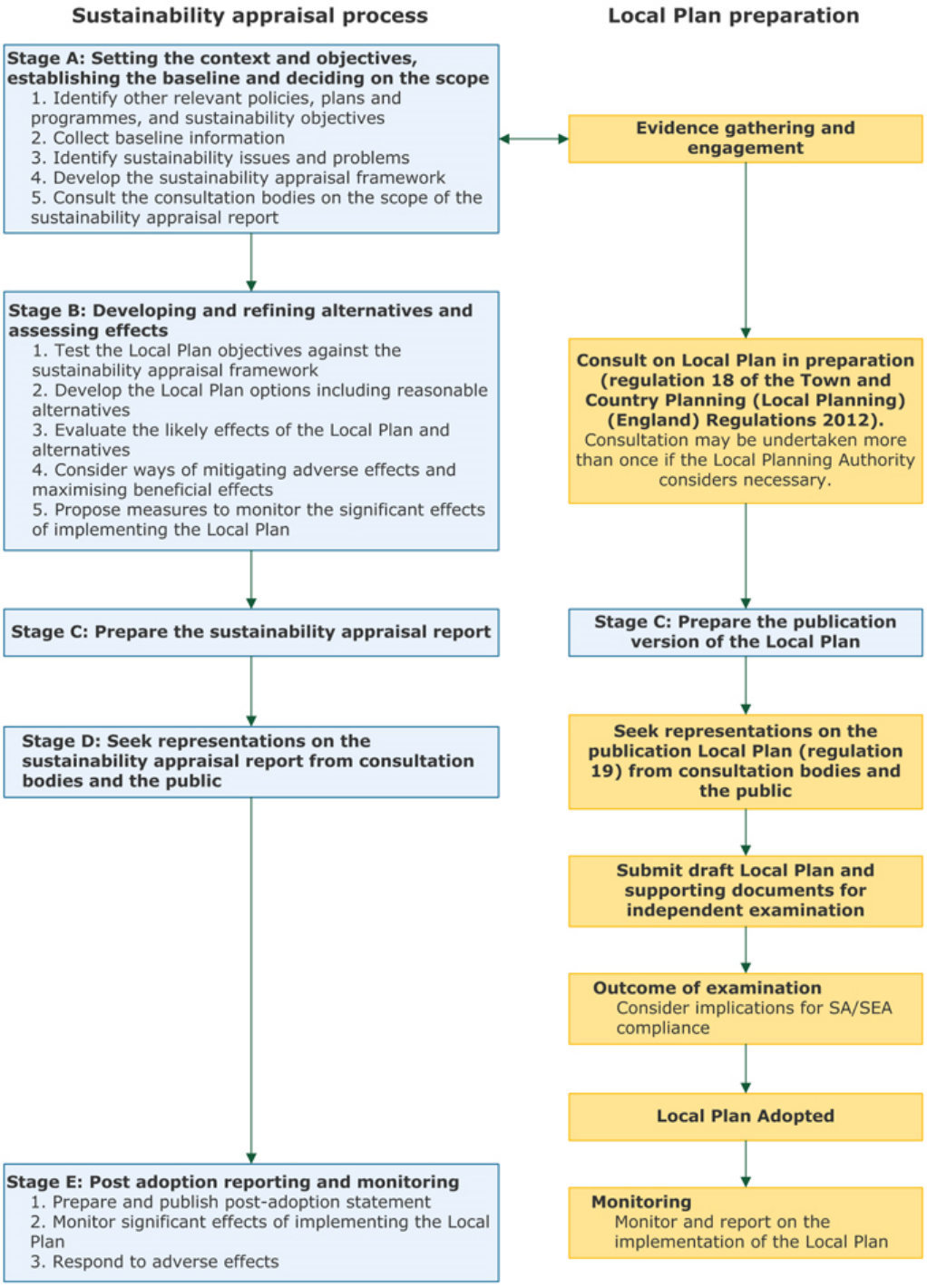
[8] A European Site is any classified Special Protected Area (SPA) and any Special Area of Conservation (SAC) from the point where the European Commission and the Government agree the site as a Site of Community Importance. SPAs and SACs have been created under the EC Birds Directive and Habitats Directive. 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.

[9] '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.

so, whether these effects will result in any adverse effects on the site's integrity. Where the possibility of significant effects cannot be excluded, a more detailed Appropriate Assessment (AA) is carried out to determine whether those effects would adversely affect the integrity of European sites.

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

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

2.4 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 3 identifies other policies, plan and programmes which are relevant to the DM DPD;
- Chapter 4 sets out the baseline information which is used to help develop the assessment framework for the DM DPD;
- 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.

2.5 How to Comment on this Scoping Report

This Scoping Report will be subject to a 6-week consultation period from 21 May 2018 to 29 June 2018. Details of how to respond to the consultation are provided below.

This Consultation: How to Give Us Your Views

We would welcome your views on any aspect of this Scoping Report. However, we would particularly welcome responses to the following questions:

1. **Do you agree with the scope of the proposed assessment?**
2. **Do you agree with the main issues identified? and**
3. **Do you agree that the objectives cover the breadth of issues appropriate for assessing the effects?**

Please provide your comments by 29 June 2018. Comments should be sent to:

By email: planning.strategy@birmingham.gov.uk

By post: Planning Policy Team, Birmingham City Council, Planning and Regeneration, 1 Lancaster Circus, Queensway, Birmingham, B4 7DJ

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:

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 ensuing 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.

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)*[12]8 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.

The Ministry for Housing, Communities and Local Government (MHCLG) has published its draft text for consultation on changes to the NPPF[13]. Consultation closes in May, with the revised NPPF likely to be published later in 2018. Whilst the final form of wording is uncertain, it seems reasonable that reference to the requirements for SA/SEA will be similar to that made in the following proposed text (paragraph 35):

"Strategic and local plans should be informed throughout their preparation by a sustainability appraisal that meets the relevant legal requirements. This should demonstrate how the plan has addressed relevant economic, social and environmental objectives (including opportunities for net gains). Significant adverse impacts on these objectives should be avoided and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued."

Planning Practice Guidance (PPG) also makes clear that SA plays an important role in demonstrating that a local plan reflects sustainability objectives and has considered reasonable alternatives. In this regard, SA will help to ensure that a local plan is "justified", a key test of soundness that concerns the extent to which the plan is the most appropriate strategy[14], when considered against the reasonable alternatives and available and proportionate evidence.

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.

[12] 8 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*"

[13] Ministry for Housing, Communities and Local Government (2018) *National Planning Policy Framework: Draft text for consultation*. Available from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/685289/Draft_revised_National_Planning_Policy_Framework.pdf

[14] The 'NPPF: Draft text for consultation' includes amendments to the tests for a 'sound' plan, to make clear that it should set out 'an' appropriate strategy rather than 'the most appropriate strategy'. The SEA requirements for consideration of reasonable alternatives will remain an important contribution to support the selection of the appropriate strategy despite this change in planning policy.

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

International
EU Directive on the Conservation of Wild Birds (79/409/EEC).
EU Directive on Waste (Directive 75/442/EEC, 2006/12/EC 2008/98/EC as amended).
EU (1991) Urban Waste Water Treatment Directive
EU (1992) Conservation of Natural Habitats and Wild Fauna and Flora (92/43/EEC, Habitats Directive)
EU Packaging and Packaging Waste Directive (94/62/EC).
The Pan-European Biological and Landscape Diversity Strategy (1995)
EU (1996) Ambient Air Quality Assessment and Management (96/62/EC, Air Quality Framework Directive)
EU Drinking Water Directive (98/83/EC).
EU Directive on the Landfill of Waste (99/31/EC).
European Commission (1999) The Landfill 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 (2000) The Water Framework Directive
EU 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA Directive).
EU Directive 2002/91/EC (2002) Directive 2002/91/EC on the Energy Performance of Buildings.
EU Environmental Noise Directive (Directive 2002/49/EC).
Earth Summit (2002) Johannesburg Declaration on Sustainable Development
EU (2008) The Air Quality Directive
EU (2006) European Employment Strategy.
EU (2007) Floods Directive
EC (2007) Together for Health: A Strategic Approach for the EU 2008-2013
EU (2008) Directive on Waste (2006/12/EC, Waste Framework Directive)
EU (2010) The Industrial Emissions Directive
EU (2011) EU Biodiversity Strategy to 2020 – towards implementation.
EU (2013) Seventh Environmental Action Programme to 2020 'Living well, within the limits of our planet'.
EU (2015) Invasive Alien Species Regulation (1143/2014/EU).
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
National
Committee on Climate Change (2017) UK Climate Change Risk Assessment.
DCLG (2011) The Localism Act
DCLG (2011) The Community Infrastructure Levy Regulations
DCLG (2012) National Planning Policy Framework (NPPF)
DCLG (2012) National Planning Policy Framework Technical Guidance

DCLG (2012) Planning Policy for Traveller Sites

DCLG (2014) Planning Practice Guidance

DCLG (2014) National Planning Policy for Waste

DCLG (2014) Written Statement on Sustainable Drainage Systems

DCLG (2017) Fixing Our Broken Housing Market

DECC (2008) UK Climate Change Act 2008

DCMS (2007) Heritage Protection for the 21st Century

DCMS 2013: Scheduled Monuments and Nationally Important but Non-Scheduled Monuments

Defra (2003) The Water Environment (Water Framework Directive) (England and Wales) Regulations

Defra (2007) Guidance for Local Authorities on Implementing Biodiversity Duty

Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 2)

Defra (2008) Future Water, the Government's Water Strategy for England (Feb 08)

Defra (2009) Safeguarding our Soils: A Strategy for England

Defra (2011) Government Review of Waste Policy in England

Defra (2011) Natural Environment White Paper; The natural choice: securing the value of nature

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

Defra (2011) Securing the Future: Delivering UK Sustainable Development Strategy

Department for Culture, Media and Sport (DCMS) (2001) The Historic Environment: A Force for our Future

Historic England (2015) Historic Environment Good Practice Advice in Planning Notes 1 to 3.

HM Government (2006) Climate Change: The UK Programme

HM Government (2010) The Air Quality Standards 2010

HM Government (2010) Flood and Water Management Act, 2010

HM Government (2012) Draft Water Bill

HM Government (1979) Ancient Monuments and Archaeological Areas Act.

HM Government (1981) Wildlife and Countryside Act.

HM Government (1990) Planning (Listed Building and Conservation Areas) Act.

HM Government (2000) Countryside and Rights of Way Act 2000.

HM Government (2003) Sustainable Energy Act.

HM Government (2004 and revised 2006) Housing Act.

HM Government (2005) Securing the future - delivering UK sustainable development strategy.

HM Government (2006) The Natural Environment and Rural Communities (NERC) Act 2006.

HM Government (2008) The Climate Change Act 2008.

HM Government (2008) The Planning Act.

HM Government (2009) The UK Renewable Energy Strategy.

HM Government (2010) The Government's Statement on the Historic Environment for England.

HM Government (2010) Flood and Water Management Act 2010.

HM Government (2010) White Paper: Healthy Lives, Healthy People: Strategy for Public Health in England.

HM Government (2011) The Localism Act.

HM Government (2011) Water for Life: White Paper.

HM Government (2011) UK Marine Policy Statement.
HM Government (2011) Carbon Plan: Delivering our Low Carbon Future.
HM Government (2011) Water for Life, White Paper.
HM Government (2013) The Community Infrastructure Levy (Amendment) Regulations 2013.
HM Government (2014) Water Act.
HM Government (2015) Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.
HM Government (2015) Government Response to the Committee on Climate Change.
HM Government (2016) Environmental Permitting (England and Wales) Regulations 2016.
HM Government (2017) The Conservation of Habitats and Species Regulations 2017.
HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment.
Department for Education (DFE) (2014) Home to School Travel and Transport Guidance.
DFE (2016) Strategy 2015 – 2020: World Class Education and Care.
DfT (2008) Delivering a Sustainable Transport System (DaSTS).
English Heritage (2008) Conservation Principles, Policies and Guidance
English Nature: Climate Change Space for Nature (2006)
Environment Agency (2009) Water for people and the environment - Water resources strategy for England and Wales.
Environment Agency (2011) National Flood and Coastal Erosion Risk Management Strategy for England.
Environment Agency (2013) Managing Water Extraction (updated 2016).
Forestry Commission (2005): Trees and Woodlands Nature's Health Service
Forestry Commission (2016) Corporate Plan 2016-2017.
NHS (2014) Five Year Forward View.
NHS (2017) Next Steps on the Five Year Forward View.
Regional
Severn Trent Water Resources Management Plan (2014)
Severn Trent Water Sewage Management Plan (2009)
Tame, Anker and Mease Abstraction Licensing Strategy (2013)
The Wildlife Trust for Birmingham and the Black Country (2017) Birmingham and Black Country Nature Improvement Area Ecological Strategy 2017-2022
Environment Agency Humber River Basin Management Plan (2009) and The Tame, Anker and Mease Management Catchment consultation (2014)
Environment Agency Trent Catchment Flood Management Plan (2010)
Environment Agency (2015) Severn River Basin District River Basin Management Plan
Energy Capital (2018) a Regional Approach to Clean Energy Innovation
The Greater Birmingham and Solihull Local Enterprise Partnership Strategy (2013)
Greater Birmingham & Solihull Local Enterprise Partnership (2016) Strategic Economic Plan 2016-2030
The 7 Authorities of the West Midlands Metropolitan Area (2011) West Midlands Local Transport Plan
Environment Agency (2009) A Water Resources Strategy Regional Action Plan for the West Midlands Region
Forestry Commission (2004) West Midlands Regional Forestry Framework
Energy Capital (2017) A Vision for the West Midlands – Renewable and Energy Efficient Future
Natural England (2012) National Character Area profile no. 67: Cannock Chase and Cank Wood

Natural England (2012) National Character Area profile no. 97: Arden
Peter Brett Associates LLP (2014) GBSLEP Joint Strategic Housing Study
West Midlands Combined Authority (2017) West Midlands Roadmap to a Sustainable Future in 2020 (Annual Monitoring Report)
West Midlands Combined Authority (2017) Thrive West Midlands – An Action Plan to drive better mental health and wellbeing in the West Midlands
Local
Birmingham City Council (1992) Moseley and Sparkhill: Area of restraint
Birmingham City Council (1994) Handsworth, Sandwell and Soho: Areas of restraint
Birmingham City Council (1999) Wheelwright Road: Area of restraint
Birmingham City Council (2005) Developing Birmingham: An Economic Strategy for the City 2005-2015
Birmingham City Council (2006) Air Quality Action Plan
Birmingham City Council (2006) Municipal Waste Management Strategy.
Birmingham City Council (2007) Sustainable Management of Urban Rivers and Floodplains SPD
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 and Black Country Biodiversity Partnership (2010) Birmingham and the Black Country Biodiversity Action Plan
Birmingham City Council (2011) Birmingham Multi Agency Flood Plan
Birmingham City Council (2012) Level 1 & 2 Strategic Flood Risk Assessment
Birmingham City Council (2013) Green Living Spaces Strategy
Birmingham City Council (2013) Carbon Roadmap
Birmingham City Council (2013) Birmingham Health and Well-being Strategy
Birmingham City Council (2014) Local Flood Risk Management Strategy
Birmingham City Council (2014) Gypsy and Traveller Accommodation Assessment
Birmingham City Council (2014) Selly Oak, Edgbaston and Harborne: Houses in Multiple Occupation Article 4
Birmingham City Council (2015) Corporate Emergency Plan
Birmingham City Council (2015) Surface Water Management Plan
Birmingham City Council (2017) Air Quality Annual Status Report
Birmingham City Council (2017) Birmingham Development Plan
Birmingham City Council (2006) Access for People with Disabilities SPD
Birmingham City Council (2001) Affordable Housing SPG
Birmingham City Council (1993) Car park design guide
Birmingham City Council (2012) Car Parking guidelines SPD
Birmingham City Council (2007) Extending your home: Home extensions guide
Birmingham City Council (2000) Floodlighting of sports facilities, car parks and secure areas
Birmingham City Council (2003) High Places
Birmingham City Council (2008) Large format banner advertisements SPD
Birmingham City Council (2008) Lighting Places
Birmingham City Council (1999) Location of advertisement hoardings

Birmingham City Council (2006) Loss of industrial land SPD
Birmingham City Council (2008) Mature suburbs
Birmingham City Council (2000) Parking of vehicles at commercial and industrial premises adjacent to residential property
Birmingham City Council (2006) The Future of Birmingham's Parks and Open Space Strategy
Birmingham City Council (2001) Places for all
Birmingham City Council (2001) Places for living
Birmingham City Council (2011) Places of worship
Birmingham City Council (2007) Public open space in new residential development SPD
Birmingham City Council (1996) Shopfronts design guide
Birmingham City Council (2012) Shopping and Local Centres SPD
Birmingham City Council (2001) Specific needs residential uses SPG
Birmingham City Council (2008) Telecommunications development mobile phone infrastructure SPD
Birmingham City Council (2018) Council Plan and Budget 2018+
Birmingham City Council (2014) Birmingham Connected White Paper
Birmingham City Council (2008) Sustainable Community Strategy
Birmingham City Council (2012) Employment Land Review
Birmingham City Council (2013) Employment Land and Office Targets
Birmingham City Council (2013) Strategic Housing Market Assessment
Birmingham City Council (2018) SHLAA 2017
Birmingham City Council (2008) Statement of Community Involvement
Birmingham City Council (2017) Birmingham Cultural Strategy

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 Authority Monitoring Report[15], and the websites/reports of a number of organisations, such as the Birmingham City Council, Birmingham Strategic Partnership, Environment Agency, Natural England, Audit Commission, Department of Health, NOMIS Labour Market Statistics and Census data.

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 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

[15] Birmingham City Council (2017) **Authority Monitoring Report 2016-17**

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

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 Study[16], 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.

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/day[17]. This was lower than the national average in 2007/08 of 14 litres/head/day (Audit Commission[18]).

The current Water Resources Plan[19], 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 which the zone will go into a significant deficit by 2030. Abstraction is licensed by the Environment Agency on a catchment basis[20] which set show they will manage water resources in the Tame, Anker and Mease catchments. It provides information on how existing abstraction is regulated and whether water is available for further abstraction. The strategy details delivery commitments under the Water Framework Directive, ensuring no ecological deterioration of rivers. New additional water management measures or water resources will be needed to ensure water is available to meet the needs of new housing. New foul drainage infrastructure will also be required to support the proposed level of growth.

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

[17] http://www.defra.gov.uk/sustainable/government/progress/regional/summaries/16.htm

[18] http://www.defra.gov.uk/sustainable/government/progress/national/16.htm

[19] Severn Trent Water (2013) Water Resources Management Plan

[20] Environment Agency (2013) Tame, Anker and Mease Licensing Strategy at: https://www.gov.uk/government/publications/cams-tame-anker-and-mease-abstraction-licensing-strategy

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.

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. There are currently 39 BREEAM Excellent buildings within Birmingham. There are no BREEAM Oustanding buildings. Commercial buildings include 19 George Road (Excellent), Calthorpe House (Excellent) and Baskerville House (Excellent). The homes at Attwood Green received Excellent Ecohomes standard.

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.[21] The city currently produces just 1% of the £1.3bn of energy that its residents and businesses purchase and consume each year. This not only represents a significant loss of money from the local economy, more critically, it leaves the city exposed to threats from energy security, low levels of resilience, as well as price fluctuations in global energy trading which affect energy bills, having a significant impact upon fuel poverty. BCC has therefore committed to developing energy activity in the city to bring about a more decentralised energy system, and to improve the social and economic opportunities of its residents by addressing fuel poverty and decarbonisation of energy. BCC has begun to tackle this through a focus on energy, and understanding where and how decentralised energy systems could provide major opportunities for the city to produce, control and distribute heat and power networks.

The Climate Change Strategic Framework[22] identifies that 46% of Birmingham's CO_2 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 Report[1] 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' BES resulted in the construction of 3,000 (5%) of its planned energy saving measures.

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. Birmingham District Energy Scheme is a co-joint co-operation between ENGIE and Birmingham City Council. The scheme is the fastest growing in the UK, with the Council House, ICC, Aston University and Birmingham

[21] Birmingham City Council website 'Renewable Energy'

[22] Birmingham City Council (2009) Cutting CO2 for a Smarter Birmingham Strategic Framework

Children's Hospital among the buildings benefitting from more efficient energy. It incorporates three district energy networks, all built and operated by ENGIE through the Birmingham District Energy Company (BDEC):

1. Broad Street – a tri-generation (heat, power and cooling) system
2. Aston University – CHP (combined heat and power) system
3. Birmingham Children's Hospital – CHP system.

The Council signed a 25-year energy supply agreement in 2006. The scheme helps Birmingham to save more than 15,000 tonnes of CO_2 emissions every year. Two residential towers are connected to the District Heat network - Crescent and Cambridge towers, situated at the rear of the ICC. The secondary delivery to these blocks is owned by BCC. The 'total cost of ownership' of access to heat and power infrastructure, servicing, maintenance, as well as heating and power costs are currently estimated at around 5% less per year. Developers have also shown an interest in bringing 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.

The city also has a number of district heat networks. An energy network feasibility study is currently in progress to help with the development of up to 3 potential energy network opportunities. The Langley Sustainable Urban Extension (SUE) is currently underway and will deliver approximately 6,000 new homes, with a focus on family housing. As stated in the Birmingham Development Plan, adopted January 2017, the new neighbourhood will provide for a mix of housing sizes, types and tenures, including affordable housing in line with the requirements in Policy TP31 (35%). The site is adjacent to a BCC owned site called Peddimore; a large industrial development location; and energy networks are currently being considered in both locations with a potential interconnection at a new junction on the A38. BCC has recently secured feasibility funding from HNDU to further refine this significant network opportunity and consider the potential to deliver affordable and low carbon heat to businesses and residents alike. Selly Oak's large energy demands of the acute care NHS sites in Selly Oak has been under consideration for some time as a potential connection since HNDU funding was secured in 2016. BCC owned housing blocks Thirlmere House and Windemere House are in close proximity to the hospital trust site and are currently heated via electric storage heaters. As this study continues, the potential to convert these buildings to wet heating systems and adopt them onto a local network will be assessed.

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. 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 Britain. The strategy envisages that in 2026 Birmingham will lead on Climate Change with local energy generation from CHP and cooling schemes will reduce $C0_2$ 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.

Sustainable Transport

Rail and Metro

The BDP sets out the transport improvements required to deliver the growth agenda to support development and attract investment. Birmingham Connected provides the long-term strategy for improving the City's transport system. This includes measures challenging the car culture, significant investment in walking and cycling and new high quality public transport routes such as Metro, 'Sprint' (the bus rapid transit system) and heavy rail. This is being supplemented by a number of proposals including the Birmingham Cycle Revolution, 20mph zones and the West Midlands Bus Alliance.

The proposed High Speed 2 (HS2) rail link, initially between Birmingham and London, will bring radically improved rail connections into the City Centre when it opens in 2026, as well as a significant number of new jobs and visitors to the City. This will be supported by the HS2 Connectivity Programme to ensure that the wider region has access to the benefits that HS2 will bring.

Birmingham is at the heart of the rail network and in easy reach of millions of people. The £600m redevelopment of New Street Station was opened in 2016 providing a bight modern transport hub and enhanced facilities. There is also a network of suburban and freight rail services.

The Midland Metro is a light-rail/tram line in the county of West Midlands, England, operating between the cities of Birmingham and Wolverhampton via the towns of West Bromwich and Wednesbury. The Midland Metro extension from Snow Hill to New Street Station was completed in 2016. Upwards of £300 million is being invested in extending the network that will link key city centre destinations - New Street Station with HS2 at Birmingham Curzon, the business district at Snow Hill, the civic areas around Victoria Square and Centenary Square, Digbeth and Birmingham Smithfield.

The line has potential to extend across a wider area running from Birmingham Smithfield to the south of the City to the University of Birmingham, Life Sciences Campus and Queen Elizabeth Hospital. And also from Birmingham through east Birmingham to Birmingham Airport.

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). 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%[23]. 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 home[18]. 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.

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

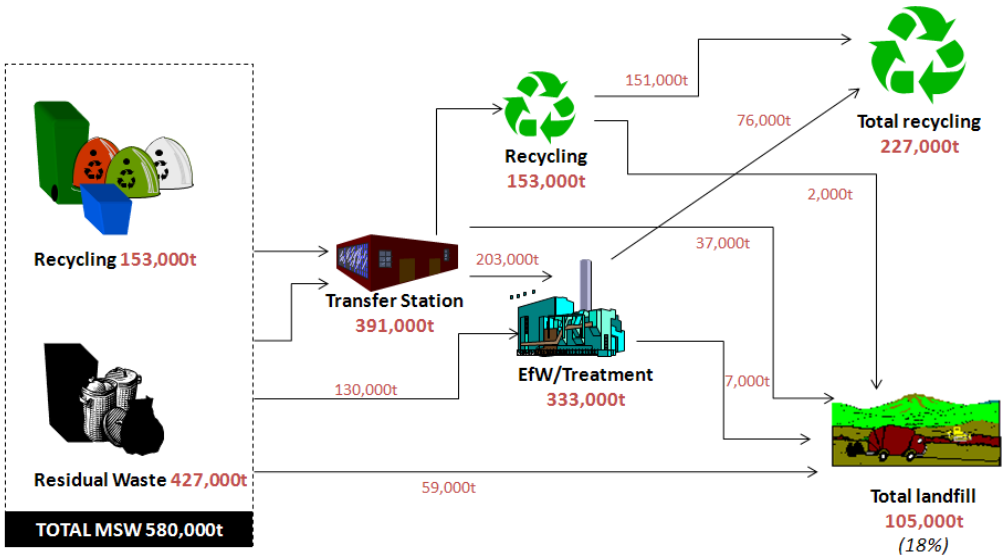
The picture is different for trips to the city centre with over 60% of trips arriving by non-car modes. According to the Birmingham Cordon Surveys, the total number of car trips entering Birmingham City Centre during the morning peak hours (07:30-09:30 hrs) has decreased in the past ten years. However, 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 punctuality[24] 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). In 2011, 8 out of 10 journeys made by public transport were made by bus The Bus Alliance is committed to ensuring that all buses in the region are a minimum of Euro V by 2020 (West Midland Local Transport Plan Delivery Report 2017/18). The Transportation and Street Services Overview and Scrutiny Committee set a target of 83% by 2010/11.Waste Management

[23] Birmingham City Council (2014) Annual Monitoring Report 2013

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

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).

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's 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) [25]. 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.

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

[25] Birmingham City Council (2006) Municipal Waste Management Strategy 2006-2026

Year	Waste Arising (tonnes)	Waste Recycled/Composted		Waste Recovered EFW		Waste sent to Landfill		% of 2001 level sent to landfill
		Tonnes	%	Tonnes	%	Tonnes	%	
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

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.

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).

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 contamination[26].

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.

[26] Birmingham City Council (2008) Contaminated Land Inspection Strategy for Birmingham Second Edition

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

Climate Change

UK Climate Change Projections (UKCP09)[27] suggest that mean summer temperatures could rise by 2.6ºC, 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%[28]. 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.

More generally, according to the UK's Climate Change Risk Assessment[29] 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.

---

[27] UKCP09 http://ukclimateprojections.defra.gov.uk/content/view/515/499/

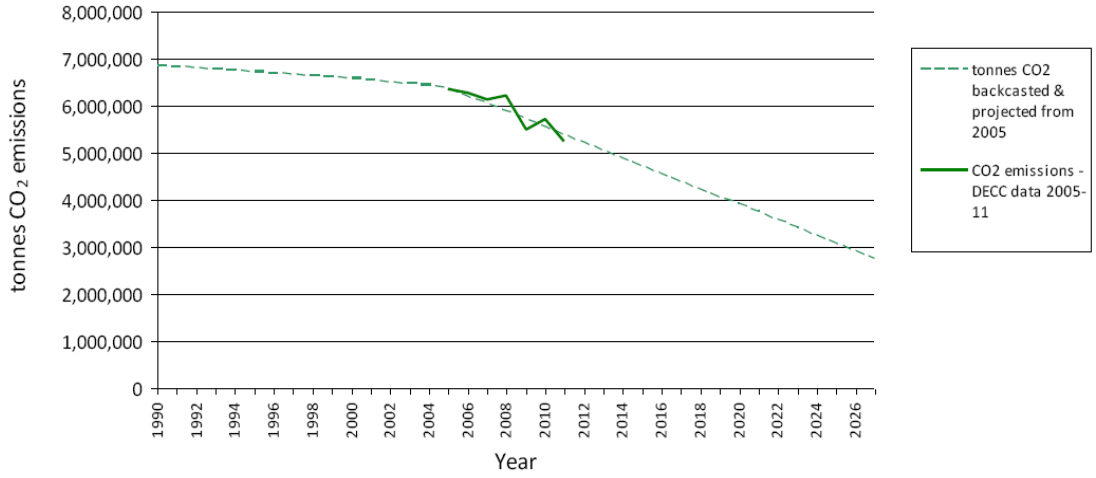
[28] Birmingham City Council (2011) Preliminary Flood Risk Assessment

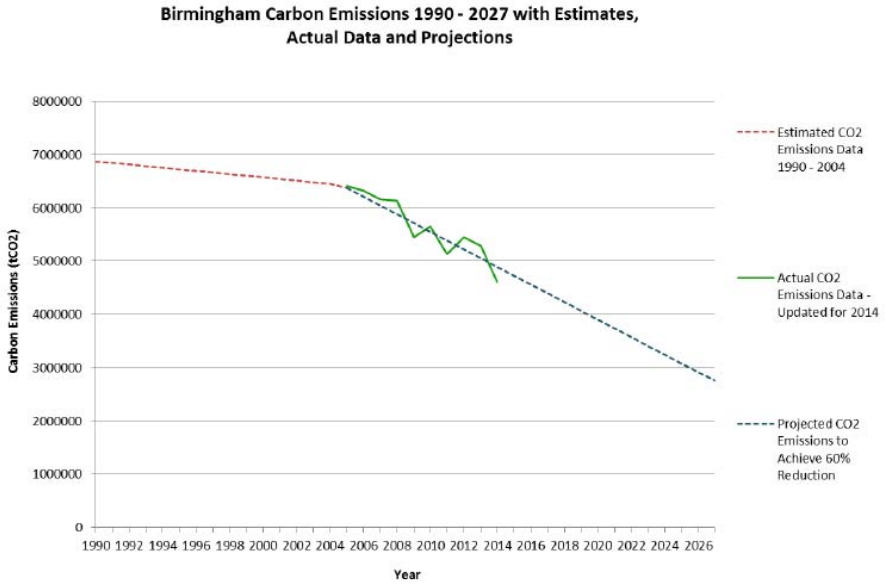
[29] http://www.sustainabilitywestmidlands.org.uk/media/resources/adaptation_sub-committee_report.pdf

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 years[30]. The Climate Change Strategic Framework[31] identifies that 46% of Birmingham's CO_2 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.[32]

Figure 4.2 CO2 Emissions Progress and Required Reduction Path

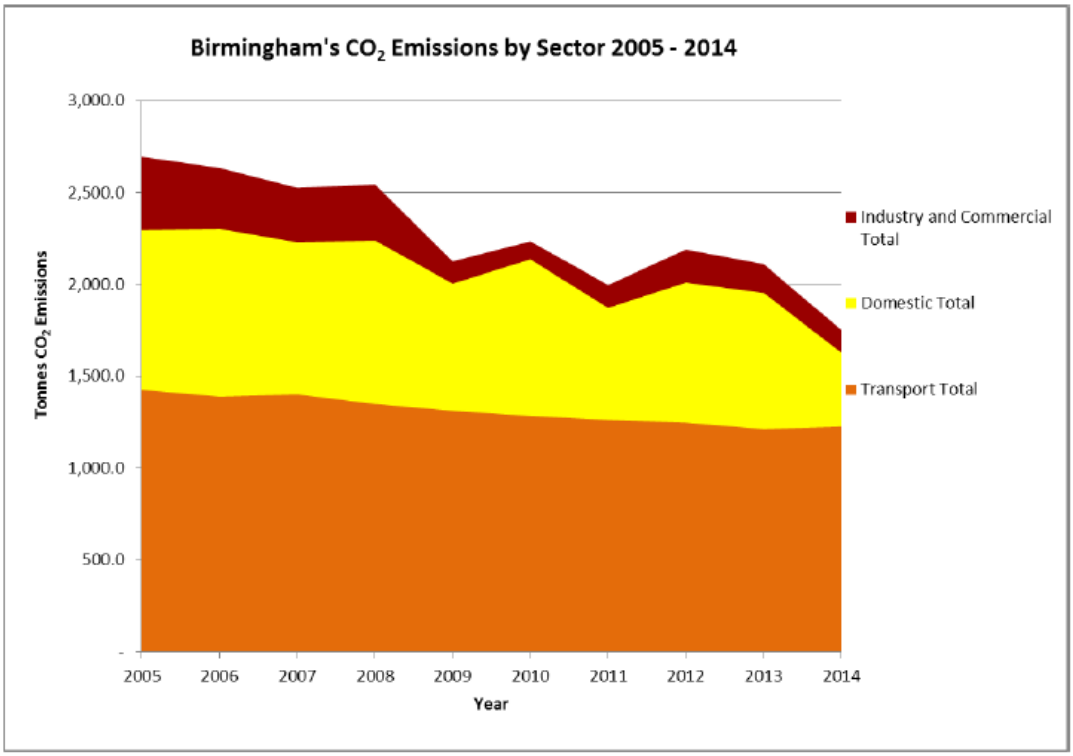




[30] Birmingham City Council website 'Renewable Energy'
[31] Birmingham City Council (2009) Cutting CO_2 for a Smarter Birmingham Strategic Framework
[32] Birmingham's Green Commission (September 2013) Report on Birmingham's Carbon Emissions Progress
http://greencity.birmingham.gov.uk/wp-content/uploads/2013/11/Birminghams-CO2-Emissions-Progress-September-2013.pdf

In terms of sectoral emissions (Figure 4.3), 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 – 2014



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 Report[1] 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.

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 $C0_2$ 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.

Managing and Reducing Flood Risk

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 2013/2014 Birmingham City Council received 64 responses on planning applications from the Environment Agency. During 2012/13 the City Council received 26 responses on full planning applications from the Environment Agency. Only 2 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 uses 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 if climate change is the development and enhancement of Green Infrastructure (GI) (also including 'blue infrastructure'). GI is the interconnected network of open spaces and natural areas, such as greenways, waterway and waterbodies, 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'.

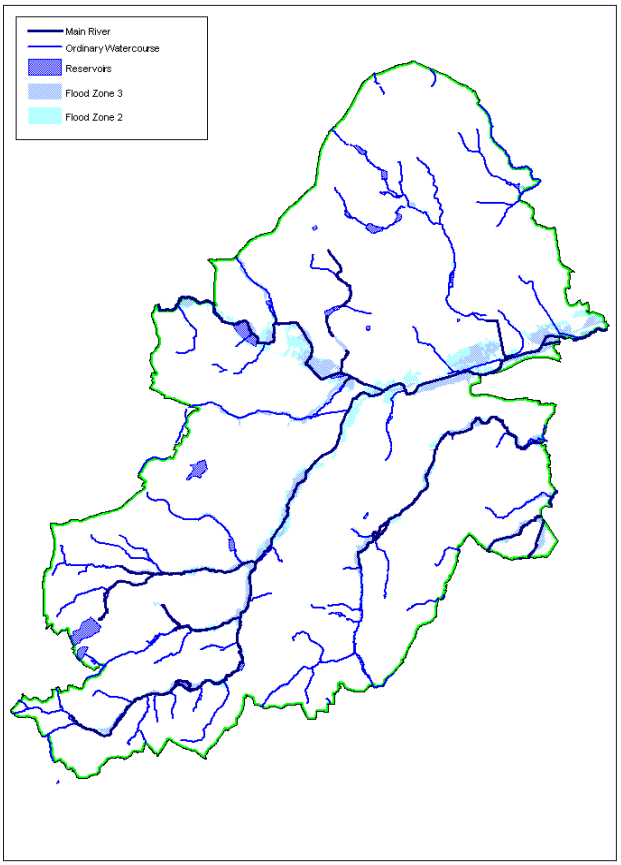
Birmingham is at risk of flooding from Main Rivers, ordinary watercourses, surface water, sewer flooding and groundwater. There is also the potential for canal and reservoir breach and overtopping. It is estimated that there are 11,365 at risk of fluvial flooding and 24,600 properties at risk of surface 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. Emerging strategies at the City-wide level to manage flood risk include the Surface Water Management Plan and the Local Flood Risk Management Strategy.

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:

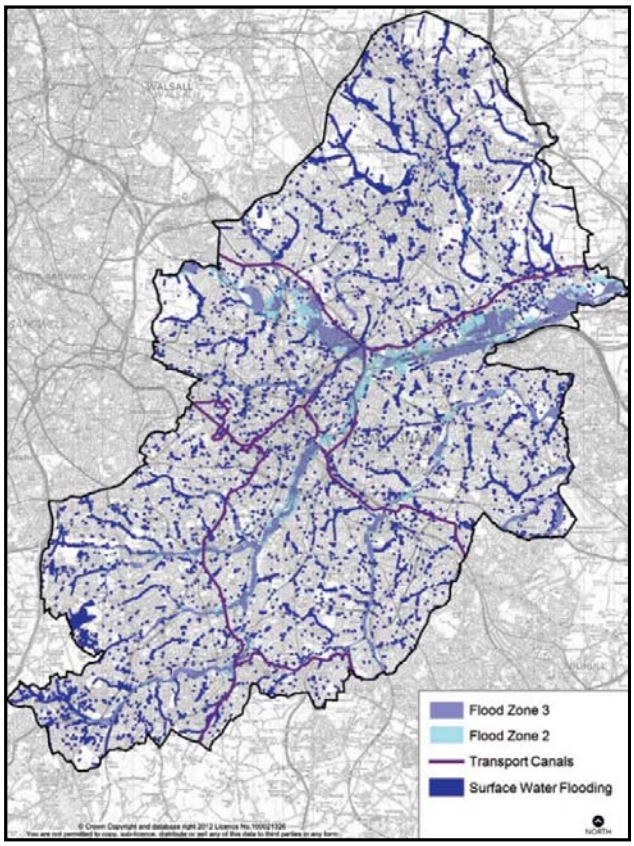
- Pluvial flooding - flooding as a result of high intensity rainfall when water is ponding or flowing over the ground surface (surface run-off) before it enters the underground drainage network or watercourse, or cannot enter it because the network is full to capacity;
- Sewer flooding33 - flooding which 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 watercourses[34] 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 has developed a Surface Water Management Plan[35]. 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

[33] Consideration of sewer flooding in 'dry weather' resulting from blockage, collapse, or pumping station mechanical failure is excluded from SWMPs as this id for the sole concern of the sewerage undertaker
[34] Interactions with larger rivers and tidal waters can be an important mechanisms controlling surface water flooding
[35] https://www.birmingham.gov.uk/downloads/file/2561/surface_water_management_plan_for_birmingham_-_final_report

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.

Figure 4.5 Areas Susceptible to Surface Water Flooding



Source: Birmingham City Council (May 2013) Green Spaces Living Plan

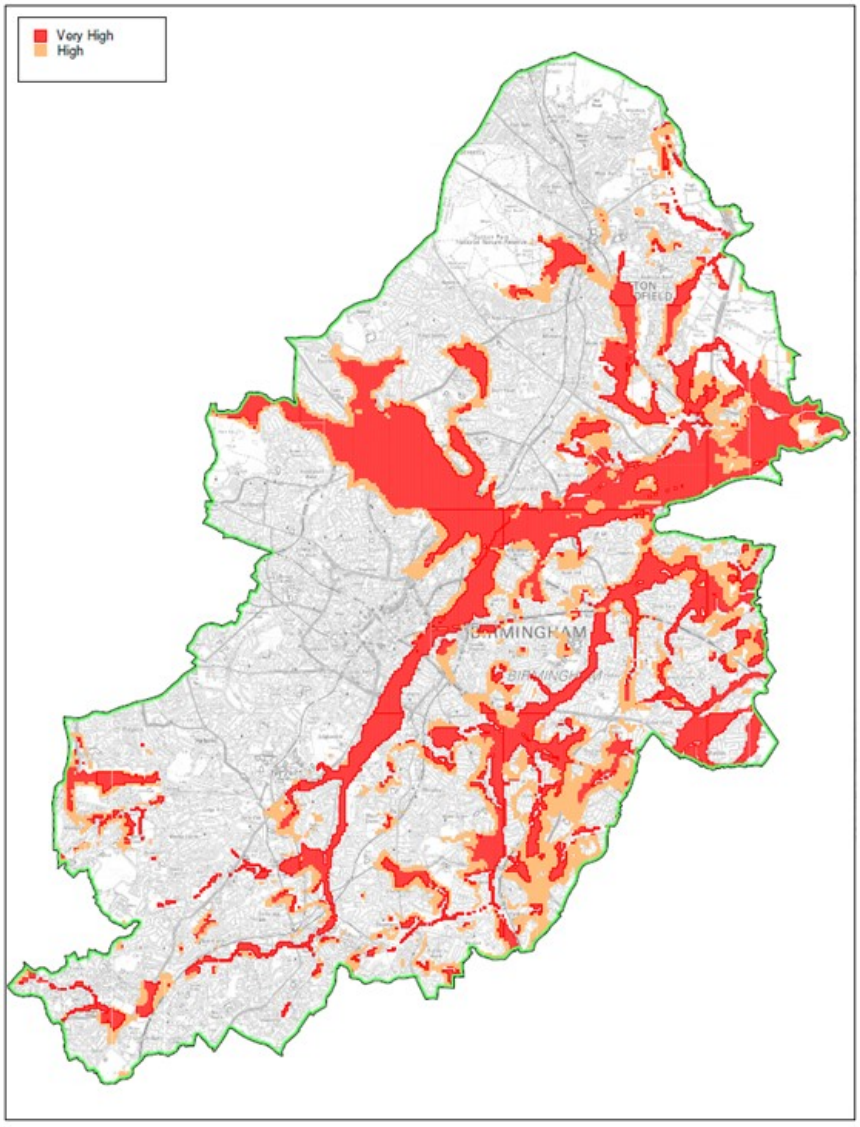
Groundwater Flood Risk

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



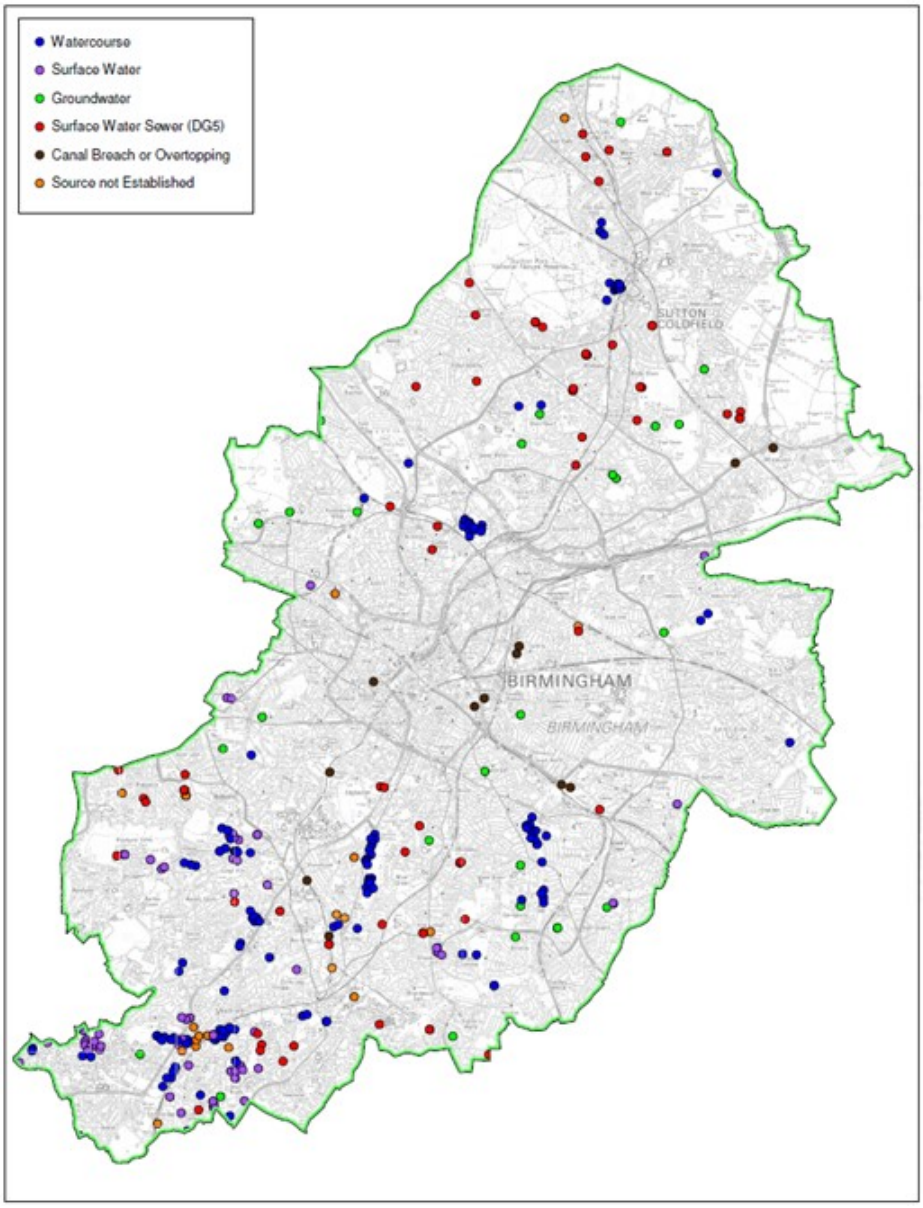
Source: Birmingham City Council (May 2011) Preliminary Flood Risk Assessment

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

Influence of the DM DPD on Climate Change and Managing and Reducing Flood Risk

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 extension and enhancement of Green Infrastructure across the City will be important in providing necessary resilience against the likely impacts of climate change. The DM DPD will directly influence were development takes place through guiding development away from flood risk areas, requiring appropriate adaptation measures where this is not possible, and enhancing the City's capacity to mitigate and adapt to the likely effects of climate change.

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 12 Local Nature Reserves (LNRs), over 50 Sites of Importance for Nature Conservation (SINCs) and over 120 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. Together these form the City's green and blue infrastructure network through a series of corridors and stepping stones which, in accordance with the NPPF (para 109) should be protected and enhanced to increase their resilience to current and future pressures. Table 4.4 shows the total area covered by different types of nature conservation sites, Figure 4.8 maps these assets.

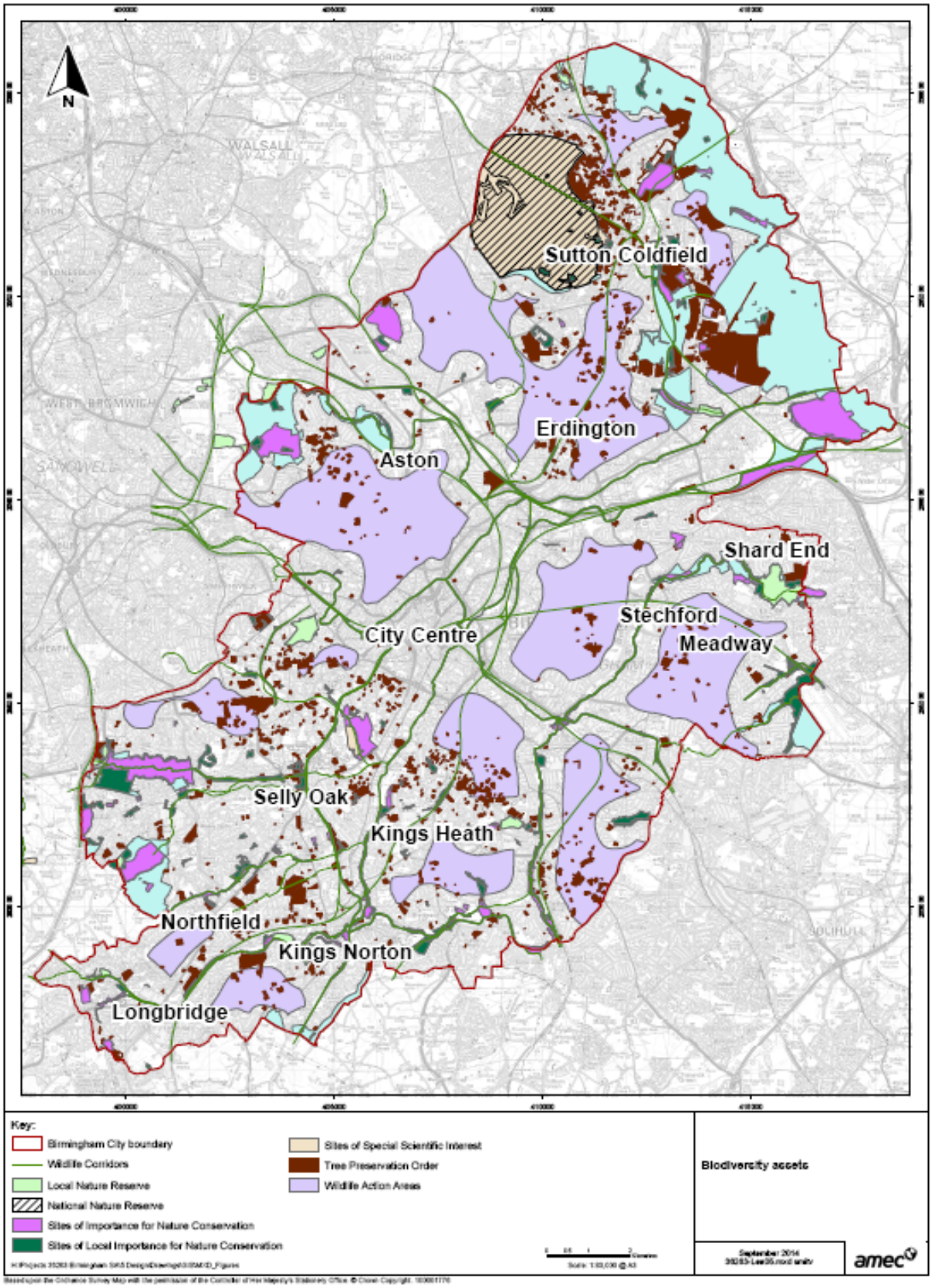
Table 4.4 Birmingham's Designated Nature Conservation Sites

Type of Area	Number of Sites	Total Area (Hectares)	% of City's Area
SSSIs	2	896.59	3.35
NNRs	1	811.73	3.03
LNRs	12	316.73	1.16
SINCs	55	828.03	3.09
SLINCs	121	698.96	2.62

Source: Birmingham City Council, AMR (2013 and 2014)

The 2016-2017 AMR reports only very limited changes to designated sites as a result of planning applications, with one application approved for development within designated sites of national importance (SSSIs or NNRs). Some 43 applications for development were approved for development in or adjacent to SINCs: for these schemes where, adverse impacts on sites' nature conservation interests were anticipated, appropriate mitigation and compensation were secured to satisfactorily address these impacts.

Figure 4.8 Birmingham's Biodiversity Assets



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 wetlands[36]. GI can provide a number of benefits including:

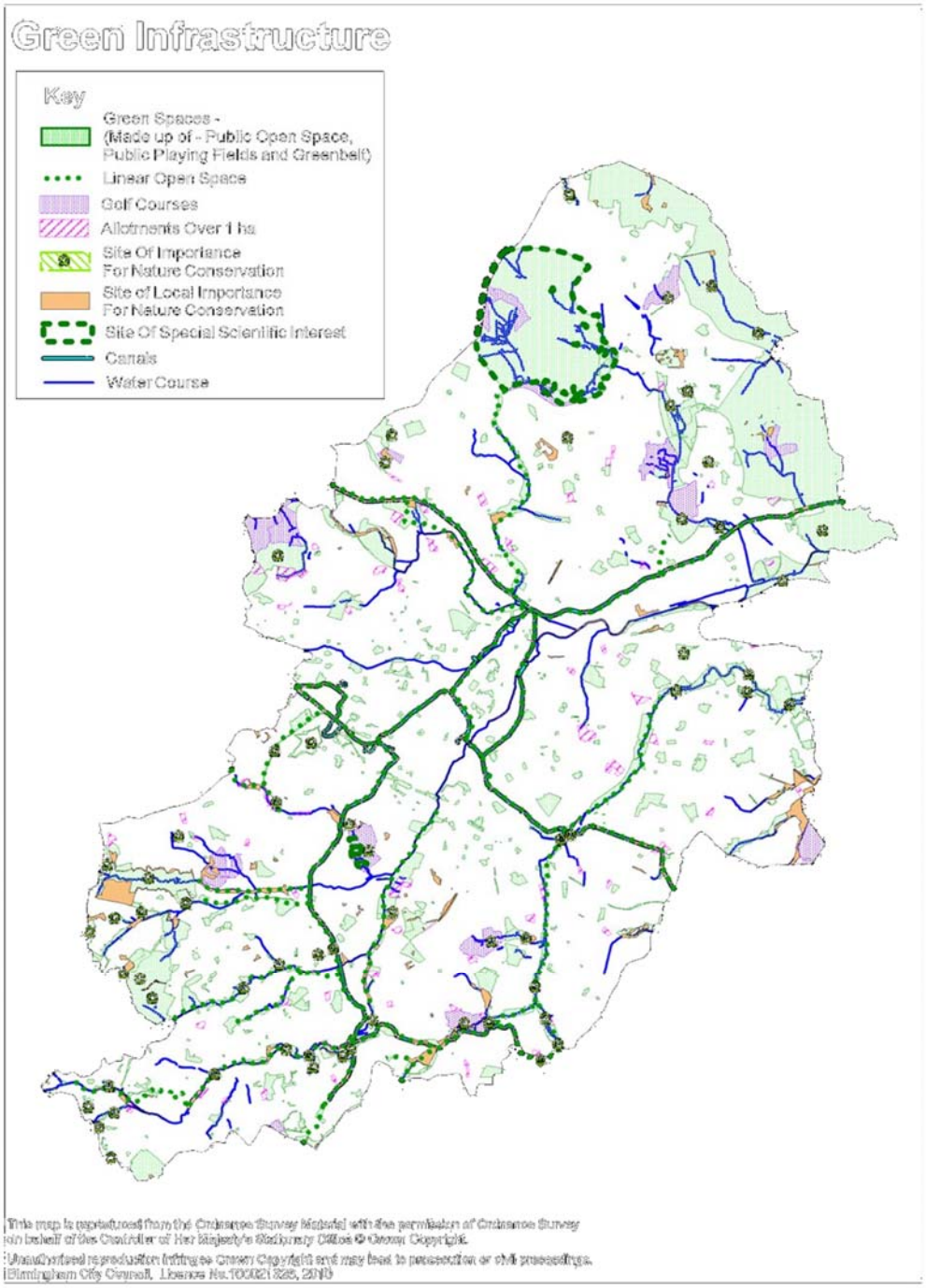
- Safeguarding and enhancing natural and historic assets
- Increasing contact between people and nature
- Protecting and enhancing landscape character and local distinctiveness
- Providing for climate change mitigation and adaptation
- Creating a focus for social inclusion, education, training, health and well-being
- Increasing property and land values
- Attracting and retaining people ensuring stable populations and labour supply

Figure 4.9 illustrates the City's GI network.

The Birmingham and Black Country Nature Improvement Area (NIA) Ecological Strategy provides a landscape-scale framework for action to conserve and enhance biodiversity and geodiversity and to improve ecological networks across the City. The approach set out in the Strategy reflects ecological principles set out in *Making Space for Nature* (Lawton *et al* 2010) and national policy and guidance relating to the natural environment and green infrastructure .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. Across the City, Nature Improvement Areas (NIA) are being identified and designated. The City's ecological networks are a fundamental component of Birmingham's Green Infrastructure and in accordance with para 117 and 157 of the NPPF should inform policy and its implementation to ensure that development that may affects them is compatible with their purpose and can contribute to their enhancement. The Council's Green Living Spaces Plan recognises the essential role of the green infrastructure network in securing a resilient and healthy city and provides a framework for increasing natural capital and the ability of green infrastructure assets to deliver environmental and socio-economic benefits.

[36] 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

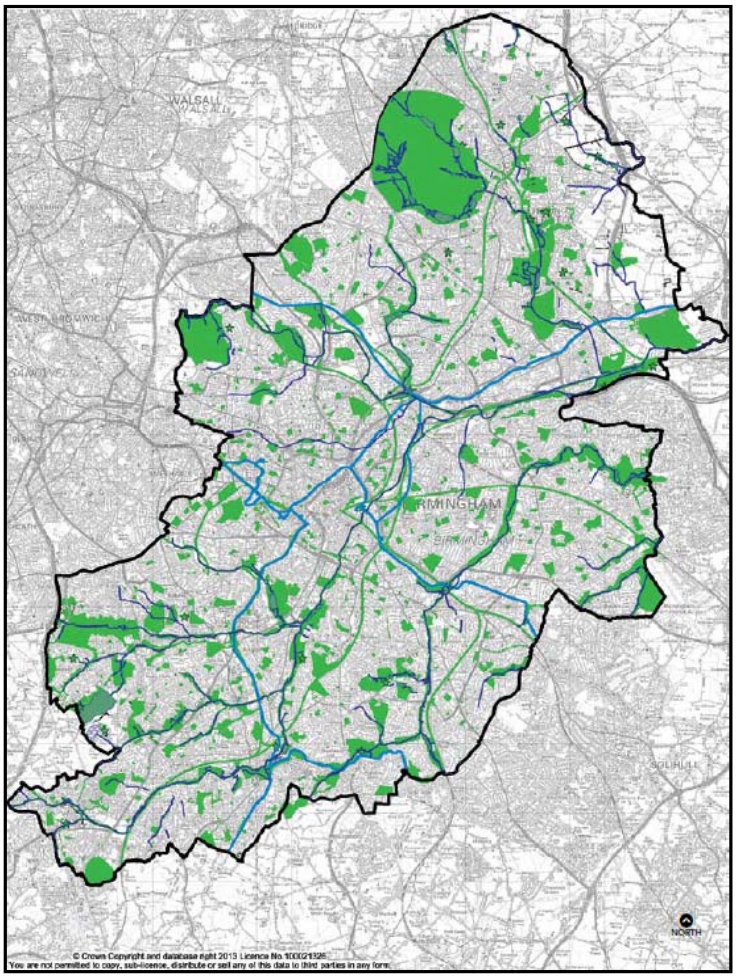
Birmingham is characterised by a large number of well-established parks, many of which were created in the 19th century. The City's greenspace is supplemented by a large linear open space network, which is based primarily on the Rivers Cole and Rea and the City's extensive canal network. The extent of green spaces (excluding areas designated for nature conservation) is show in Table 4.5, and are mapped in Figure 4.10.

Table 4.5 Green Spaces in Birmingham

Open Space Category	Area (ha)	% of City Council Area
Public Open Space	3,069.77	11.46
Public Playing Fields	296.9	1.11
Private Playing Fields	268.11	1.0
Private Open Space	67.19	0.25
Educational Playing Fields	166.33	0.62
Golf Courses	657.78	2.46
Statutory Common Land	11.25	0.04
Allotments	243.8	0.91
Green Belt	4,154.77	15.52

Source: Birmingham City Council, AMR (2015)

Figure 4.10 Green Spaces in Birmingham



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

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 area[37]. 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 years[38].

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.

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 interests, through habitat improvement or creation using the Green and Blue infrastructure multifunctional network as a starting point. This accords with guidance in the NPPF (para 118) which requires the application of the 'avoid, then mitigate and, (as a last resort) compensate for adverse impacts on biodiversity' principle. Given the need to minimise impacts on biodiversity, DM DPD policies and their application should promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets (in accordance with the NPPF para 117). For geodiversity, there is a need to conserve, interpret and manage geological sites and features in the wider environment, and not just designated sites.

4.6 Population and Human Health

Housing

Birmingham's 2017 housing strategy states that: *"Every citizen should have the opportunity to live in a safe and warm home within a neighbourhood they are proud of"*. The strategy outlines the importance of tackling fuel poverty to improve health, well-being and financial inclusion. This is highlighted as a cross-cutting issue within the Council's Vision and Priorities statement. The strategy also makes reference to the well-established "Stay Warm Stay Well" (SWSW) programme that delivers practical solutions to vulnerable people

[37] http://www.naturalengland.org.uk/ourwork/conservation/geodiversity/englands/counties/area_ID38.aspx
[38] http://www.naturalengland.org.uk/ourwork/conservation/geodiversity/englands/counties/area_ID38.aspx

affected by fuel poverty. This programme is delivered through a network of third sector partners. The Council has an ambition to extend an offer of affordable warmth works to private sector households within the areas where ECO-funded improvement works are being carried out on Council-owned homes.

The City covers an area of 26,779ha (267.8km^2), of which 15,200ha is residential. According to the Housing Development Plan[39] Birmingham's residents live in 406,000-410,000 households. The City has about 414,000 self-contained properties. In April 2018, there were about 61,000 Council owned properties and an estimated 37,650 owned by registered social landlords. In addition to this there are also 3,000 shared ownership properties. Since 2001, the City's population has grown after experiencing declines between 1991 and 2001 due to net out-migration. The current population of the City (according to ONS population estimates) is 1,218,100. If recent trends continue the population of Birmingham is projected to grow from 1,101,400 in 2014 to 1,189,600 (+8.0%) in 2024 and to 1,268,100 (+15.1%) in 2034 (sub national population projections)[40]. Substantial growth is expected among pensioners particularly those aged 85 years or more. This age group is expected to increase by almost 25% by 2024. 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. The growth in the ageing population is reflective of national trends. 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

If recent trends continue the population of Birmingham is projected to grow from 1,101,400 in 2014 to 1,189,600 (+8.0%) in 2024 and to 1,268,100 (+15.1%) in 2034. Substantial growth is expected among pensioners particularly those aged 85 years or more. This age group is expected to increase by almost 25% by 2024.

Forecast organic population growth equates to just under 40,000 new residents over the next five years. Birmingham is forecast to see growth in the number of households from 422,022 in 2014 to 440,529 – a rise of around 18,500 households. This equates to an average annual increase of approximately 3,680[41] households each year. Longer term forecasts[42] show that the number of households will increase by over 100,000 over the next 20 years.

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

[40] Statistics from https://www.birmingham.gov.uk/info/50065/population_and_census/1003/population_in_birmingham/6 [Accessed April 2018]

[41] Figures from ONS

[42] ONS 2039 Household Projections

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 2.56[43]. The City has a relatively low proportion of detached housing, and higher proportions of terraced housing and flats.

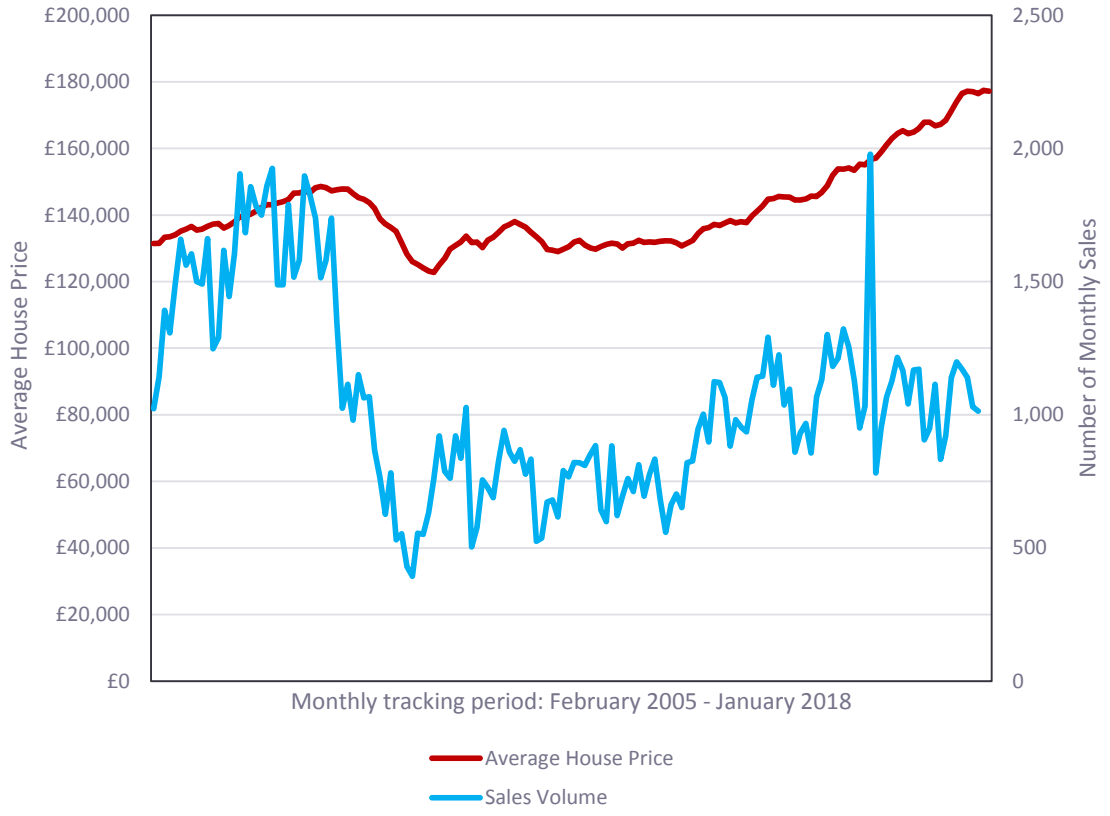
According to the 2011 Census, Birmingham was the most densely populated local authority within the West Midlands region with 4,000 people per square kilometre. This is an increase on the 2011 population density of 3,677 people per square kilometre which equates to an increase of 0.9%. The average housing density has decreased from over 74 dwellings in 2009/10 to just over 40.6 dwellings per hectare in 2014/15. This could be attributed to factors such as the reluctance of the development industry to commit to apartment schemes at the present time.

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. Figure 4.11 indicates that house prices in Birmingham peaked in January 2008 and sharply declined through to 2010, and now have recovered strongly to over one third higher in 2018 than 15 years ago at almost £180,000. Over the same period sales volumes initially declined but have recovered to levels of 15 years previously. Overall, the figures suggest that the affordability of housing for poorer families and first-time buyers has declined. 89,000 new homes are needed from 2011 to 2031. Whilst is not possible to deliver all of this new housing within the city boundary, Birmingham council have ambitious but achievable plans to build at least 51,000 new homes in this period.

[43] Office for National Statistics 2011 Census: Population and household estimates for England and Wales – supplementary figures Pt 2

Figure 4.11 Average House Prices and Sales Volume in Birmingham 2005-2018[44]



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 61,000 and Registered Social Landlord housing is 37,650 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. There is continued demand for affordable housing in Birmingham. The most recent City wide Strategic Housing Market Assessment (SHMA)[45] found that approximately 38% of the City's overall housing requirement is for affordable housing. The Birmingham Development Plan will help to address some of this 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. As of April 2018, the new minimum energy efficiency standard (MEES) regulations will come into action. The new standard requires landlords of privately rented domestic (PRS) and non-domestic property in England or Wales to ensure that their properties reach at minimum Energy Performance Certificate (EPC) rating of E before granting a new tenancy to new or existing tenants[46]. If a property does not meet EPC standard E, landlords are obligated to carry out any works under the value of £2,500 to bring the property up to standard. Special exemptions may apply, for example if the building is listed. There are clear links between the condition of housing and human health. For example, research[47] undertaken by Birmingham University showed that there is a clear

[44] Land Registry (2018) http://www.landregistry.gov.uk/public/house-prices-and-sales/search-the-index

[45] Available at https://www.birmingham.gov.uk/downloads/download/359/strategic_housing_market_assessment_2013 [Accessed April 2018]

[46]

[47] https://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/SPSW/Housing/2016/good-housing-better-health-2016.pdf [Accessed April 2018]

relationship between excess winter deaths, especially of older people, cold housing and low energy efficiency.

Birmingham has benefitted from 1,944 net dwelling completions and 111 vacant dwellings being returned to use in 2016/17 which totalled over 2,000[48] new dwellings being added to the housing stock. This was lower than the 2015/16 period (3,113) but higher than the four preceding years.

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

Birmingham City Council understands that Trading Standards will be leading on the primary delivery and prosecution process associated with MEES. BCC's Private Rented Services Regulation & Enforcement team have a good working relationship with the people who 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. Demand for housing still remains strong albeit that there was a fall from over 28,000 households on the register to just over 20,000 in 2015/16. The overall total as at April 2016 stood at 20,292.

Every year, housing partners across the city ensure that thousands of households who are homeless, or at high risk of homelessness, are provided with shelter and a pathway into settled accommodation. For 2015/16 this included 5,578 households assisted through the statutory homeless system as well an additional 7,824 households whose homelessness was prevented or relieved by Council delivered services or commissioned services delivered by partners. In addition, there are many other agencies active in the city who provide advice and assistance to people in housing crisis.

In 2016 Birmingham undertook a homelessness review[49] which included examining the extent, nature and causes of homelessness in the City. One of the key findings from this review is that there are an estimated 20,000 households in Birmingham each year who are homeless. This study also highlighted that there are more than 20,000 households on the BCC housing register (as at April 2016) so there is significant demand for Council housing.

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.

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.

[48] All figures from 2016/17 Authority Monitoring Report [Accessed April 2018]

[49] Birmingham City Council Homelessness Review 2016/17 Available at https://www.birminghambeheard.org.uk/people-1/birmingham-homelessness-prevention-strategy-2017/supporting_documents/Birmingham%20Homelessness%20Review%202016%20FINAL.pdf [Accessed April 2018]

Table 4.7 Economically Active Residents (2017)[50]

	Birmingham (numbers)	Birmingham (%)	West Midlands (%)	Great Britain (%)
All People				
Economically active	500,900	69.4	76.4	78.4
In employment	458,900	63.6	72.4	74.9
Employees	391,500	54.3	62.4	64.0
Self employed	65,900	9.1	9.7	10.6
Unemployed	42,100	8.4	5.4	4.5
Males				
Economically active	275,000	76.9	82.0	83.4
In employment	250,000	69.9	77.5	79.6
Employees	200,900	56.2	63.9	65.2
Self employed	49,100	13.7	13.4	14.1
Unemployed	25,000	9.1	5.5	4.6
Females				
Economically active	225,900	62.1	70.9	73.4
In employment	208,900	57.4	67.2	70.3
Employees	190,600	52.4	60.9	62.7
Self employed	16,800	4.6	6.0	7.2
Unemployed	17,100	7.6	5.2	4.3

Table 4.8 Employed Residents in Birmingham by Gender and Ethnic Group[51]

	2013		2014		2015		2016		2017	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Male	228,100	66.4	236,000	68.2	240,500	68.8	256,000	72.1	250,000	69.9
Female	179,700	51.6	198,500	55.9	194,500	54.3	197,200	54.8	208,900	57.4
White	261,100	67.4	290,600	67.5	306,200	69.1	272,400	73.1	283,400	71.7
Ethnic Minority	145,300	48.1	143,900	53.4	128,700	48.8	180,800	52.8	174,700	54.0

At 63.6%, Birmingham's employment rate is well below both the corresponding regional (72.4%) and national rate (74.9%). The female employment rate for Birmingham (57.4%) is much lower than the male rate (66.9%) and both are lower in Birmingham than the national averages; for women there is a 12.9 point difference from the rate for Great Britain.

Nearly a third (30.6%) of Birmingham's working age population is economically inactive (neither working nor seeking work). This is 9.0 percentage points higher than the national rate. The female economic inactivity

[50] ONS Annual Population Survey
[51] ONS Annual Population Survey

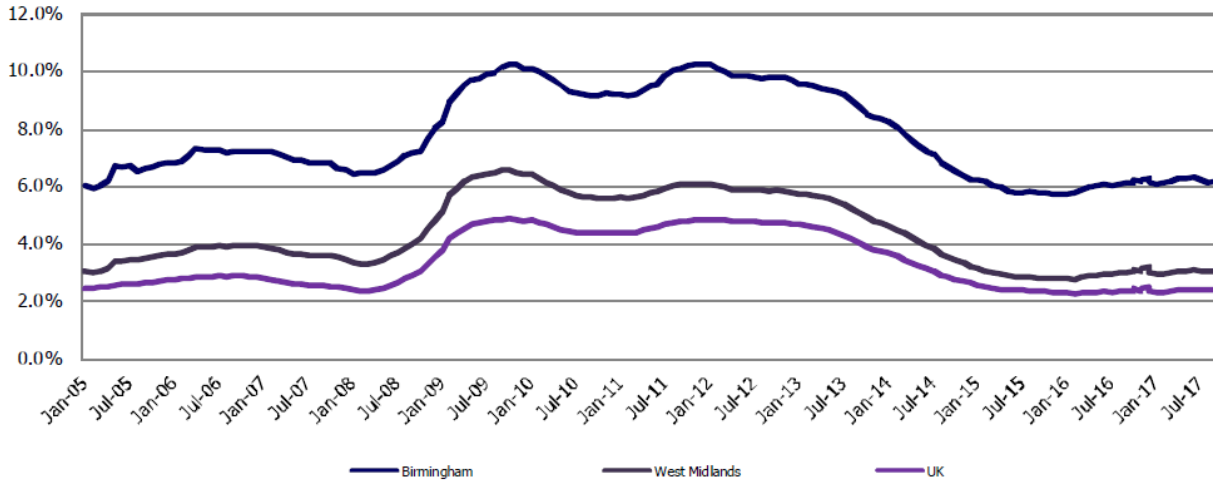
rate in the city is 11.3 percentage points higher than the male rate. Table 4.9 summarises economic inactivity for those aged 16-64 in Birmingham. This shows that the highest proportion of economically inactive residents are full time students (39.6%), which is 12.6 percentage points higher than the national average of 27.0%. The non-white economic inactivity rate is 39%, significantly higher than the white rate of 24%. Both rates are above the GB averages of 30% and 20% respectively.

Table 4.9 Economic Inactivity in Birmingham 2017[2]

	Birmingham (level)	Birmingham (%)	West Midlands (%)	Great Britain (%)
Student	87,400	39.6	28.2	27.0
Looking after family/home	61,500	27.9	26.1	24.4
Temporary sick	4,300	2.0	2.3	2.1
Long-term sick	36,800	16.7	20.9	22.1
Discouraged	!	!	0.3	0.4
Retired	11,300	5.1	11.8	13.2
Other	18,500	8.4	10.5	10.8
Total Economically Inactive	**220,600**	**30.6**	**23.6**	**21.6**
Male Economic inactivity	82,700	23.1	16.6	18.0
Female Economic inactivity	137,900	37.9	26.6	29.1
White Economic inactivity	93,900	23.7	20.9	20.2
BME Economic inactivity	125,300	38.8	34.8	29.9

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

Figure 4.12 Unemployment Rates in Birmingham, the West Midlands and the UK, 2005-2017



Source: Birmingham Labour Market Update (January 2018)

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.

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 challenges[52]. 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 CO_2 and at least 40 public buildings refurbished delivering savings in energy usage of 10 ktonnes pa of CO_2; 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.

Median gross weekly pay for workers in Birmingham in 2015 was £488.20. This figure is a 1.9% increase on 2014 but it is below the UK figure of £527.70 which saw a 1.8% increase from 2014. However, people who work in the city earn more than the residents (£538.70 compared to £488.20). Workplace earnings in the city are similar to the figure for the UK. The difference between resident and workplace earnings reflects Birmingham's position as the regional capital and the large numbers of people who commute into the city to work. It also highlights that not all Birmingham residents are able to access the better paid jobs in the city.

Education and Skills

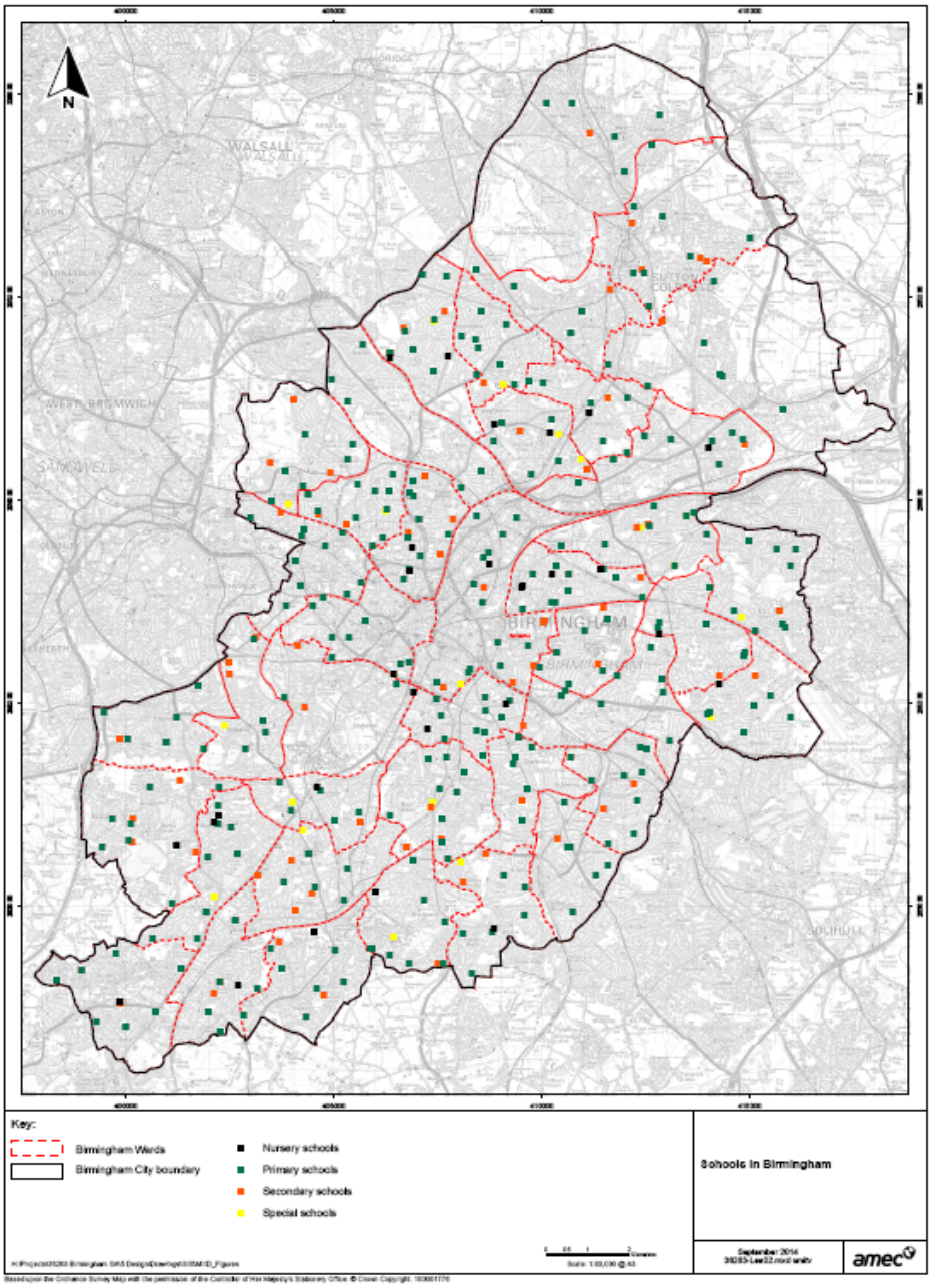
The City has a substantial education sector, from early years and schools through to colleges, universities and adult education. According to the Education Services Delivery and Improvement Plan (2017/18), the City has 445 state-funded schools. In addition, there are five colleges, five universities and a thriving independent school sector. The City Council itself is a major provider of adult and community learning through its Adult Education Service. (Figure 4.13). Birmingham is one of the youngest cities in Europe with around 46% of the population aged under 30. Based on 2014 levels, by 2022 the population aged between 0 to 4 is due to grow by 3.8% to 88,1000 children; the 5 to 9 population is expected to grow by 4.5% to 84,000 but the largest growth rate in Birmingham's children will be the 10 to 14 age group – increasing by 14.6% to 82,600. The demographic makeup of Birmingham's young people has also changed significantly

[52] http://centreofenterprise.com/about-the-lep/key-projects-and-issue/

over recent years and is becoming increasingly diverse. For example, according to the 2011 census over 60% of the under 18 population is now from a non-white British background, compared to around 44% in 2001. Approximately, 43% of Birmingham's school children have a first language that is other than English. This equated to 38,089 pupils, which is 1.3% more than in 2014.

According to the Annual Population Survey (2017), the City has a substantial education sector (Figure 4.13). 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%, and this has increased to 50.4% in 2017. However, this remains marginally below the Regional average (50.8%) and significantly below the National average (57.2%). The proportion of the population educated to degree level was 31.4% compared to 31.8% regionally and 38.6% nationally. As a result, nearly half the high-skilled jobs in Birmingham are currently taken by people who live outside of the City.

Figure 4.13 Nursery, Primary and Secondary Education Resources across Birmingham



Birmingham's 2016 GCSE results were very positive. 2016 saw the introduction of a new accountability system for schools with the new measure of Progress 8 – "the progress a pupil makes from the end of Key Stage 2 to Key Stage 4, compared with pupils nationally with similar attainment". The national average performance is therefore zero. A positive score indicates out-performing the national average. Birmingham's provisional result is zero, second best out of core cities.

Birmingham Adult Education Service (BAES) runs a number of adult education courses in the City and these can be undertaken in a variety of locations across the city and cover a wide variety of topics to help improve education and skills levels in the city. The Birmingham Education and Development Plan 2015-2020 includes a vision that by 2013 Birmingham will be:

'Renowned as an enterprising, innovative and green city that has delivered sustainable growth meeting the needs of its population and strengthening its global competitiveness.'

To deliver the vision the plan includes a number of objectives including to ensure sufficient school places for young people; that additional places are provided where needed at the right time to meet needs; and to ensure young people participate fully in the school education offer and beyond into further education and training.

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. The number of claimants steadily rose to over 50,000 in 2012 but had dropped to 30,685 by 2017. However, the claimant rate of 6.1% was higher than other cities in the UK – Newcastle was the next highest at 5.1%[53].

Table 4.10 Total JSA Claimants 2007 - 2017[54]

	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
2014	41,955	5.9	3.7	3.0
2015	31,605	4.4	2.5	2.1
2016	29,030	4.0	2.2	1.8
2017	30,660	4.2	2.3	1.8
2018	31,405	4.3	2.5	2.0

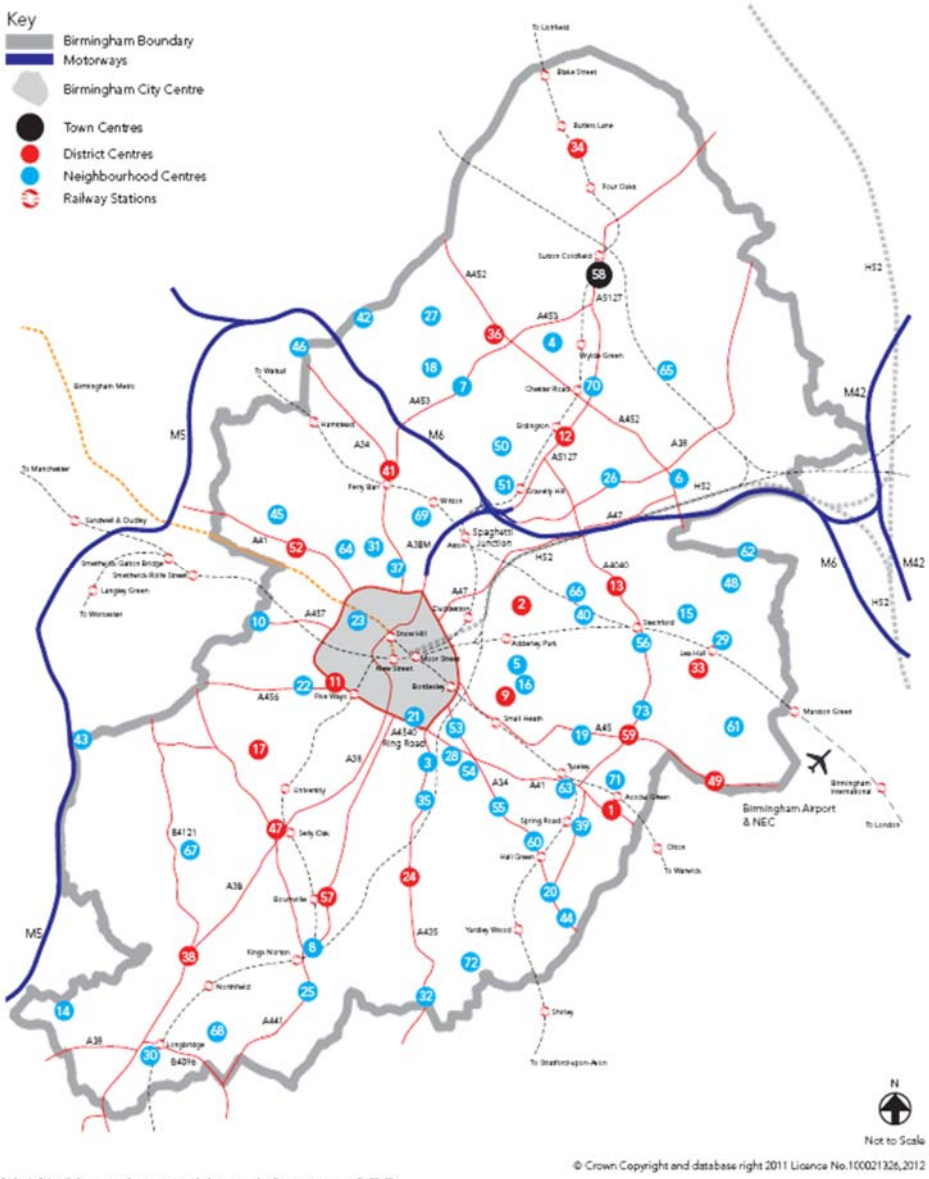
Birmingham's Local Centres

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 below maps the local centres across the City.

[53] Figures from Birmingham Labour Market Update January 2018

[54] ONS claimant count with rates and proportions and Birmingham Labour Market profile 2018.

Figure 4.14 Birmingham's Local Centres

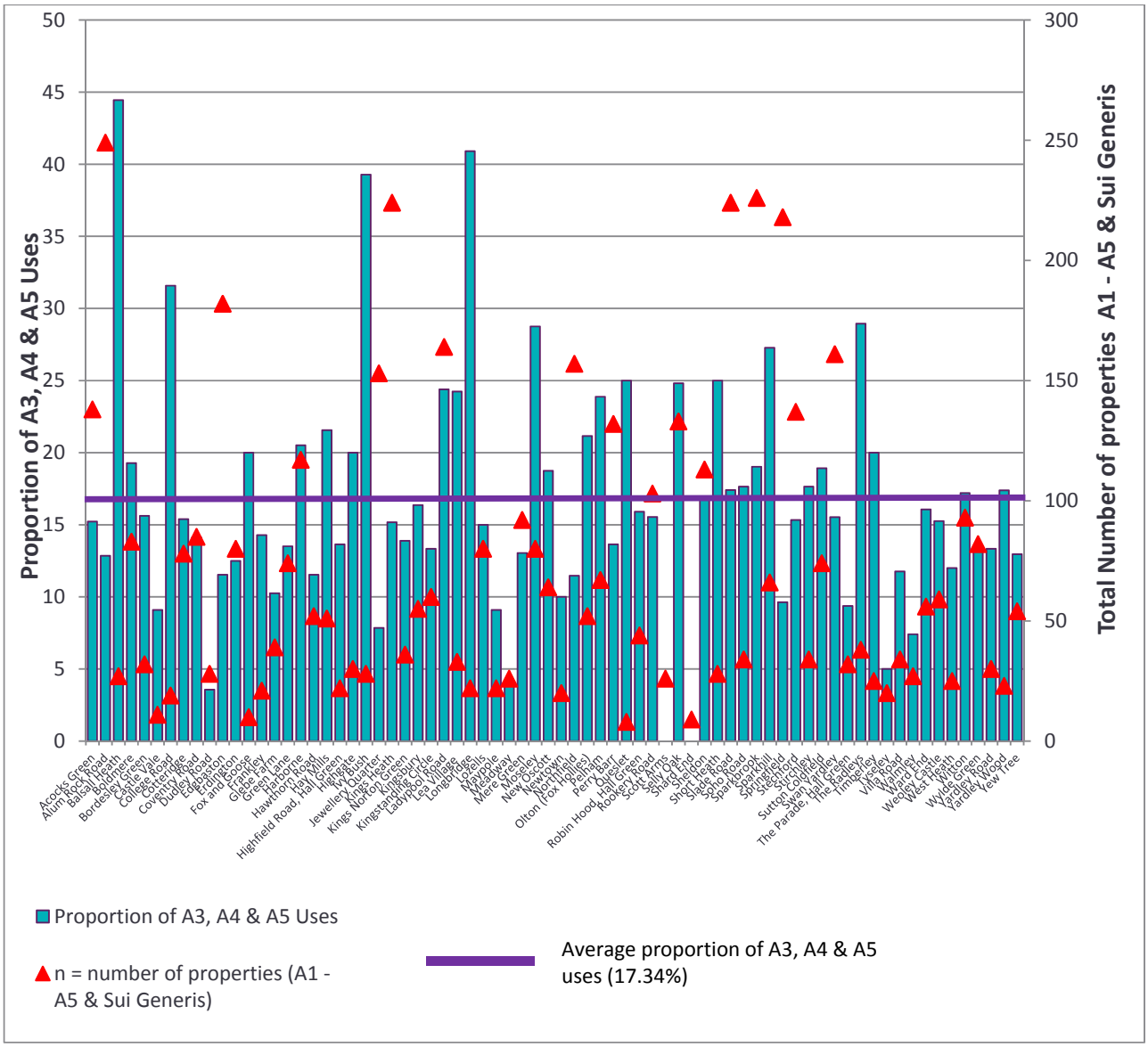


Source: BCC (2012) Shopping and Local Centres SPD

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

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



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. Birmingham will host the 2020 Commonwealth Games which will prompt a significant amount of construction activity.

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 visitors to the City has increased from 520,000 in 2000, to 713,000 in 2012 and 1,110,000 in 2015[55]. Birmingham is now the fourth most popular destination in the UK among overseas residents after London, Edinburgh and Manchester. Birmingham welcomed the highest number of visitors on record in 2016, with tourist numbers reaching 39 million, and tourism revenue hitting an all-time high of £6.5 billion.

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.

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 2017 General Election by constituency. It can be seen that the turnout varies between some of the different constituencies.

Table 4.11 General Election Turnout in Birmingham for the 2017 General Election

Constituency	% Turnout
Sutton Coldfield	70.06
Hall Green	69.63
Selly Oak	66.05
Edgbaston	64.21
Perry Barr	63.28
Northfield	61.53
Hodge Hill	61.50
Yardley	61.46
Ladywood	59.21
Erdington	57.37

Source: https://www.birmingham.gov.uk/info/20097/elections_and_voting/1273/parliamentary_general_election_results_june_2017/5

[55] Source: http://birminghamtoolkit.com/files/downloads/VisitorEconomyHeadlines2016withupdatedSTEAMfigures.pdf

Erdington 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).

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%[56].

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

[56] Source: Mid Year Population Estimates, ONS

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.

Health

Information on health for Birmingham can be found in the NHS Health Profile for the area 2017[57], which gives a snapshot of health in Birmingham. According to the NHS, life expectancy in Birmingham for males is 77.1 years which is 'significantly worse' when compared to an average across England of 79.5 years. Furthermore, life expectancy for females is 81.9 years compared to an average across England of 83.1 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 England[58] 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. The 2017 health profile reflects this trend with the percentage of physically active adults lower (51.1%) than the national average (57%).

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 2017 with 6,786 per 100,000 rate of admission episodes for alcohol attributable conditions compared to the national average of 1,163[59]. Rates of sexually transmitted infections are better than the England average. The incidence of malignant melanoma is lower than average (2017). 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.

Local health priorities for Birmingham include childhood obesity, statutory homelessness and reducing the numbers of vulnerable children and adults

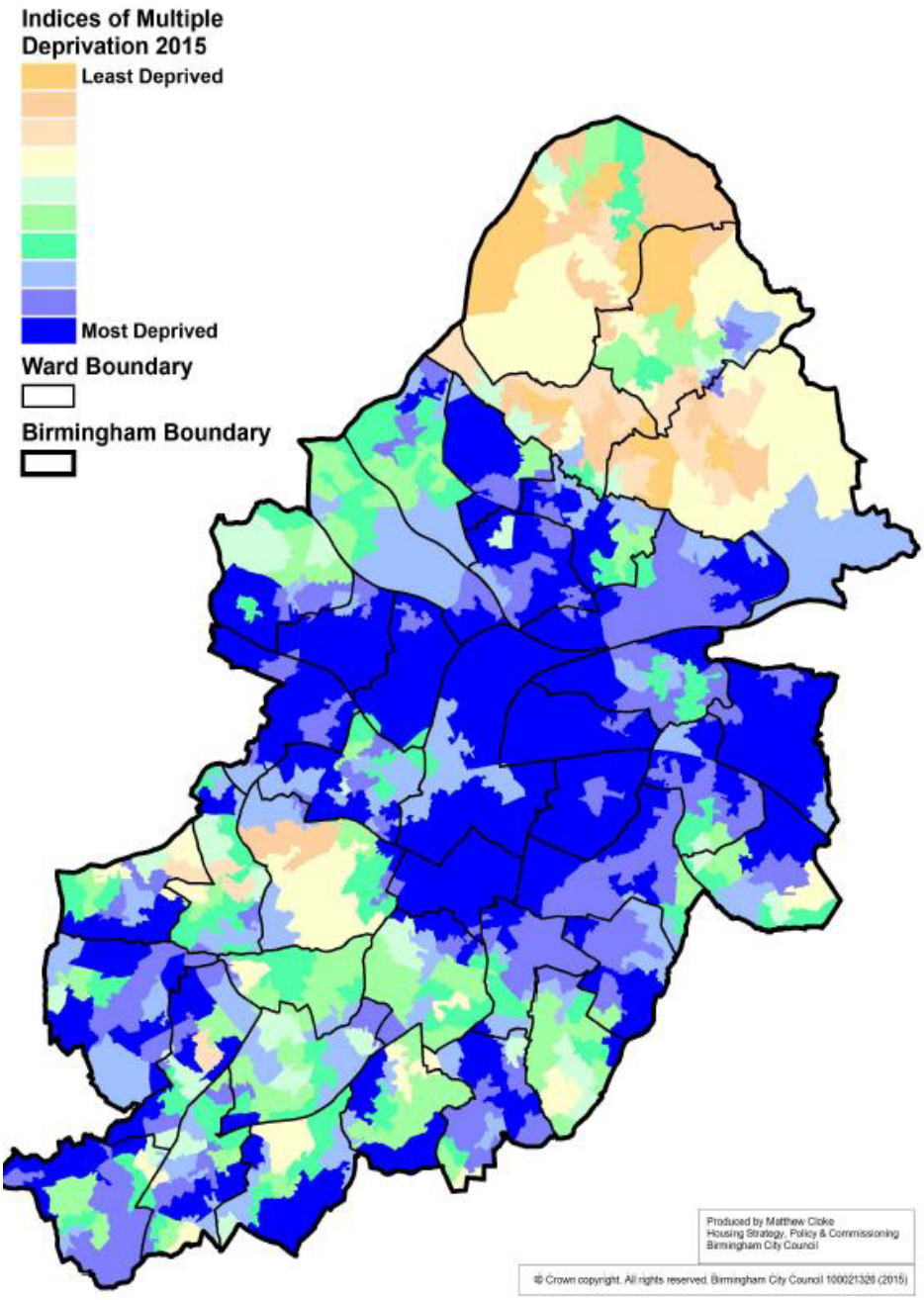
Poverty

According to the Index of Deprivation, in 2015 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 2014 (the most recent figures available) the proportion of child living in poor households in Birmingham was 32.9%, compared to 20.3% for England and 20% for the UK.[60]

In Birmingham there are over 100,000 children living in poverty, the equivalent of 37% of all children in the city (after housing costs). Nearly half of Birmingham's children live in the 10% most deprived areas in the country – with nearly 8,000 living in the 1% most deprived areas. Birmingham Ladywood Constituency has the third highest level of child poverty in the UK among parliamentary constituencies with 47% of children living in poverty after housing costs[47].

[57] Available at http://fingertipsreports.phe.org.uk/health-profiles/2017/e08000025.pdf [Accessed April 2018)
[58] http://www.sportengland.org/research/active_people_survey/active_people_survey_2/regional_results.aspx
[59] Public Health Organisations (2017) Hospital stays for alcohol related harm from 2017 Birmingham Health Profile
[60] https://www.gov.uk/government/statistics/personal-tax-credits-children-in-low-income-families-local-measure-2014-snapshot-as-at-31-august-2014-30-september-2016

Figure 4.16 Index of Multiple Deprivation 2015



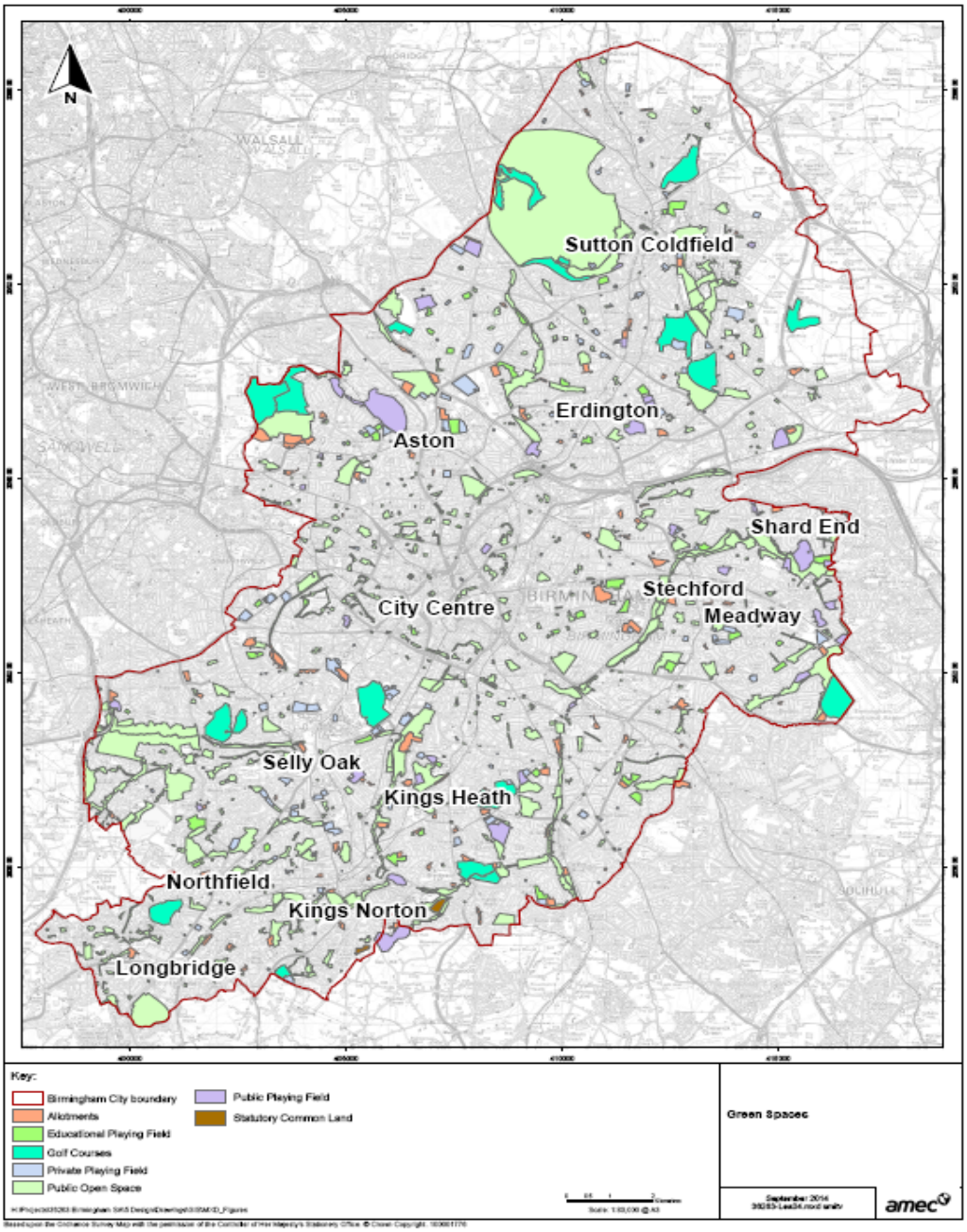
Data from the Public Health Profile[61] for Birmingham from 2017 shows that over 50% of residents live in neighbourhoods classed as some of the most deprived (based on IMD classifications) compared to the average for England of 20%. In consequence, less than 10% of residents in Birmingham live in neighbourhoods classed as the least deprived.

As noted above, well planned GI can give access to high quality green spaces that will provide opportunities for better health and well-being. Figure 4.17 illustrates the distribution of green spaces across the City.

[61] Available from http://fingertipsreports.phe.org.uk/health-profiles/2017/e08000025.pdf [Accessed April 2017]

Further information on health in Birmingham can be found in the Department of Health Birmingham Health Profile 2017[62].

Figure 4.17 Green Spaces Across Birmingham



Crime

Burglary crime in Birmingham was declining between 2011 and 2015, however the most recent data from 2016 indicates that crime is on the rise. The total Birmingham crime rate for 2014-2016s 205 crimes per 1000 people. This is notably much lower than other cities of a similar size: the crime rate in Manchester – the

[62]Department of Health Birmingham Health Profile 2017 http://fingertipsreports.phe.org.uk/health-profiles/2017/e08000025.pdf

next largest UK city after Birmingham – is 87% higher, at 384 crimes per 1000 people. Antisocial is the most reported crime in Birmingham, followed by violent crime, which is 40% higher than the national average. Crime and safety remain a concern of local people, however Birmingham City Council's Performance Plan[63] feedback indicates that 95% of Birmingham residents surveyed say they feel safe during the day. The Birmingham Community Safety Partnership's 2012 annual report reveals that the city is making good progress to reducing serious violence among 10-19 year olds, with a 19.3% reduction.

More recent figures show that Burglary crime whilst fluctuating has increased with 7,625 victims of Burglary reported for the 12 months ending 30th September 2017. Robbery has also increased with 3.647 incidents for the 12 months ending 30th September, compared with 3165 for the equivalent period in 2016. Shoplifting offences fell slightly, whilst violent offences have been steadily increasing, alongside possession of weapons offences. This is also reflected in the total crimes recorded in Birmingham which has been steadily increasing and stood at 96,992[64] for the 12 months ending 30th September 2017. In the month of February 2018, West Mercia police had recorded 10 street crimes in Birmingham and this included 3 violent offences, 1 incident of shoplifting and 2 other thefts.

Vehicle crime is a notably bigger problem in Birmingham than other cities. Although making up just 10% of total crime recorded in Birmingham in 2016 the city had the fourth highest amount of vehicle crime over the period in the country with 22 recorded incidents per 1,000 people which was 145%[65] higher than the national average.

Figures from the Birmingham Community Safety Partnership in 2005 showed that 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. The number of robberies and muggings in Birmingham tends to fluctuate (as demonstrated by the more up to date statistics provided above), but there were 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. Noise

Levels of noise pollution are problems in certain parts of the city according to the Sustainable Community Strategy[66]. Surveys have shown that one in eight residents are concerned about noise, and the Council receives over 3,000 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.

Influence of the DM DPD on Population and Human Health

The influence of the DM DPD on population and human health could make a significant difference in respect 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. More widely, the role of Green Infrastructure in promoting health and well-being needs to be recognised and planned for.

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

[64] All crime statistics from https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/datasets/recordedcrimedataatcommunitysafetypartnershiplocalauthoritylevel [Accessed April 2018]

[65] https://www.verisure.co.uk/advice-and-help/crime-statistics/birmingham-crime-statistics

[66] https://www.birmingham.gov.uk/downloads/file/1543/strat1_sustainable_community_strategy_birmingham_2026_2008pdf

4.7 Water & Air Quality

The State of Birmingham's Rivers

The BCC SPD on sustainable management of rivers and floodplains[67] 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 Basin[68] 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:

- Physical modifications - affecting 42% of water bodies;
- Pollution from waste water – affecting 38% of water bodies;
- Pollution from towns, cities and transport - affecting 16% of water bodies;
- Changes to the natural flow and level of water - affecting 6% of water bodies;
- Negative effects of invasive non-native species - affecting <1% of water bodies;
- Pollution from rural areas - affecting 32% of water bodies; and
- Pollution from abandoned mines - affecting 4% of water bodies.

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.

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;

[67] https://www.birmingham.gov.uk/downloads/file/1166/sustainable_management_of_urban_rivers_and_floodplains_supplementary_planning_document

[68] Environment Agency (2016) Humber River Basin Management Plan

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

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 4.18 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 4.19).

The overall number of morning rush hour car trips into Birmingham City Centre has declined by around one third over the period 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 4.18 Birmingham's Transportation Network

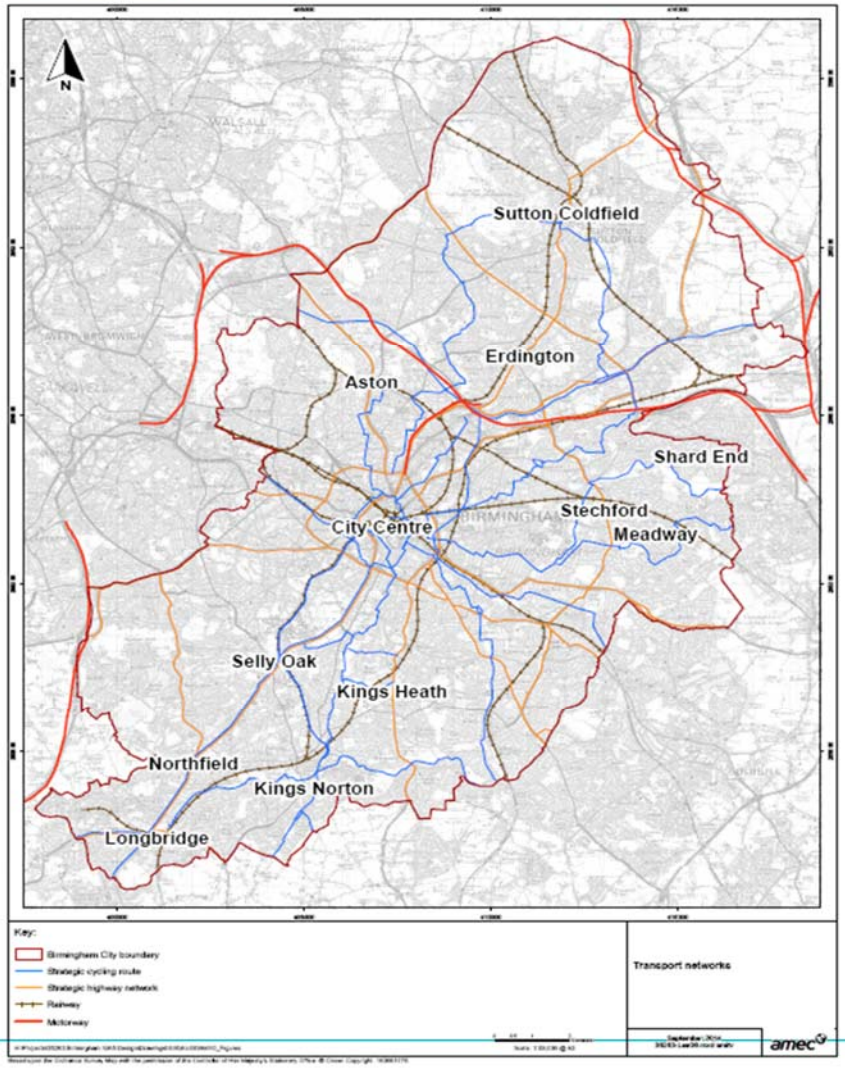
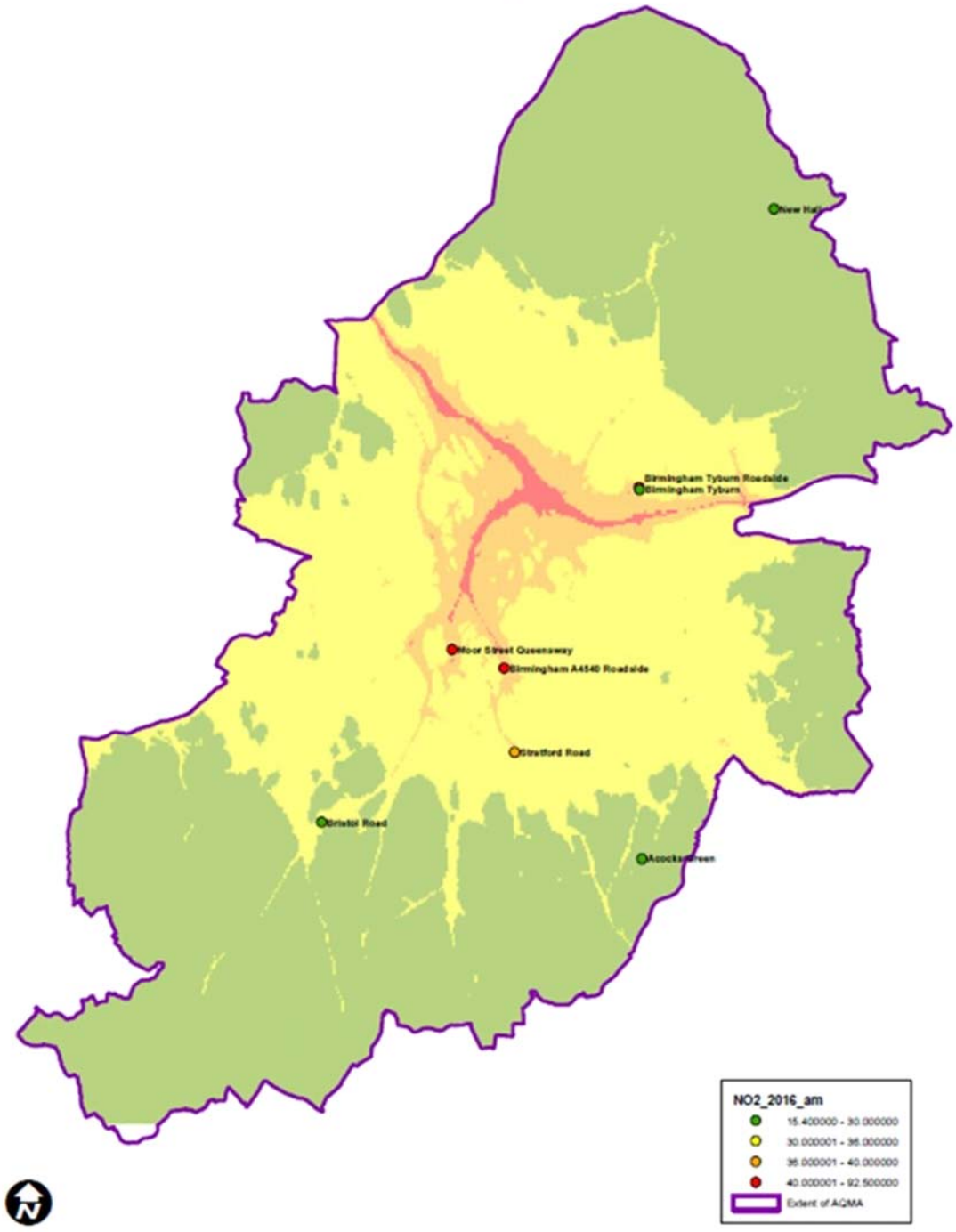


Figure 4.19 Modelled N02 Concentrations across Birmingham 2016[69]



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

[69] Birmingham City Council (2017) 2016 Air Quality Annual Status Report (ASR)

should be avoided and where appropriate mitigated. However, monitoring of developments will be required to determine net effects. A specific issue relates to the increased volume of waste water and sewage effluent associated with City's growth proposals will need to be treated to a high enough standard to ensure that there is no detriment in the quality of the watercourses receiving this discharge. Given the dispersed nature of the proposed development, it is likely that there will be a requirement for widespread upgrading of the sewerage pipe network throughout the City. Policy will need to ensure that the sewerage system has adequate capacity to manage any additional flows.

4.8 Cultural Heritage

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 4.20.

Table 4.13 Birmingham's Historic Built Environment

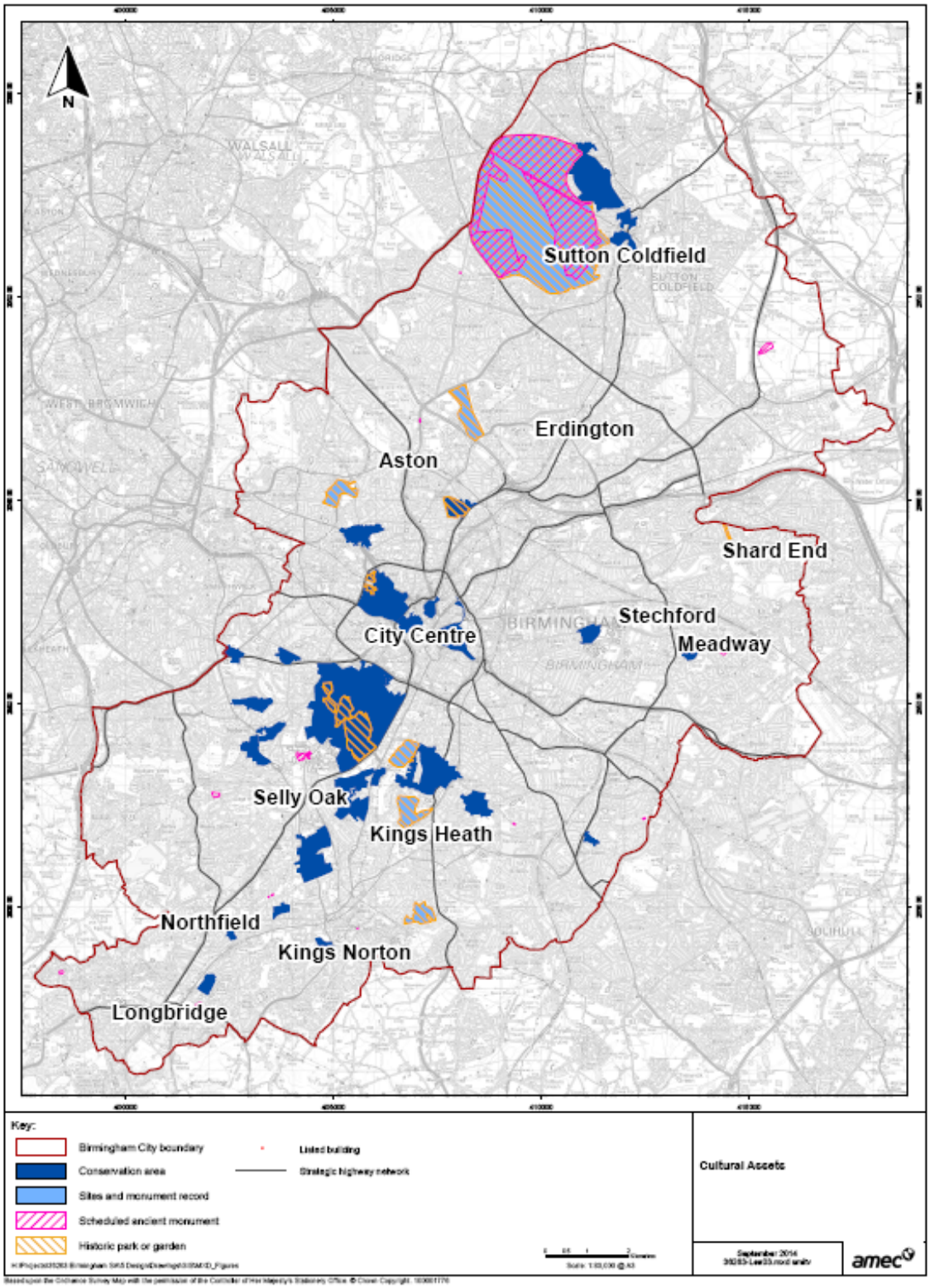
Heritage Asset	Number	Area (Hectares)
Scheduled Ancient Monuments	14	528.72
Statutorily Listed Buildings	1,486	369.98
Locally Listed Buildings	444	176.06
Conservation Areas	30	1,223.22
Registered Parks and Gardens	14	1,183.44
		Length (Kilometres)
Canals	-	57.4

Source: Birmingham City Council, AMR (2015)

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.

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 4.20 Birmingham's Heritage Assets



Natural Landscape

Although much of Birmingham is built up, there is a significant amount of open land within the City (Table 4.14).

Table 4.14 The Natural Environment and Open Space

Open Space Category	Area (ha)	% of City Council Area
Sites of Special Scientific Interest	896.59	3.35
National Nature Reserves	811.73	3.03
Local Nature Reserves	316.73	1.16
Sites of Importance for Nature Conservation	828.03	3.09
Sites of Local Importance for Nature Conservation	698.98	2.62
Public Open Space	3,069.77	11.46
Public Playing Fields	296.9	1.11
Private Playing Fields	268.11	1.0
Private Open Space	67.19	0.25
Educational Playing Fields	166.33	0.62
Golf Courses	657.78	2.46
Statutory Common Land	11.25	0.04
Allotments	243.8	0.91
Green Belt	4,154.77	15.52

Source: Birmingham City Council, AMR (2015)

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 England[70]. These are used by Natural England to provide a context for monitoring landscape change through the Countryside Quality Counts (CQC) project[71]. 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 Bourneville. Enclosed within the urban area are fragments of older landscapes like Castle Bromwich Park[72]."

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

[70] http://publications.naturalengland.org.uk/category/587130
[71] http://www.countryside.gov.uk/LAR/Landscape/CC/cqc.asp
[72] Source: http://www.naturalengland.org.uk/Images/jca097-arden_tcm2-21191_tcm6-5424.pdf

"...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 toll[9]."

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 area[73]."

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.

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 4.15.

Table 4.15 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

[73] Source: http://www.farmsteadstoolkit.co.uk/downloads/jca/JCA%2067.pdf

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.	2011 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 4.16 Summary of Key Sustainability Issues

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 Birmingham Plan. New foul drainage infrastructure will also be required to support the proposed level of growth. 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.
6. Reducing the Need to Travel	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, encouraging people to use public transport, and the provision of new/enhanced footways and cycleways. Reducing the need to travel is linked to issues related to sustainable transport, air quality, health, climate change mitigation and adaptation and noise.
7. Waste Reduction and Minimisation	Landfill diversion rates are increasing in the City, and past targets for recycling have been met. 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. Waste Reduction and Minimisation is linked to issues related to air quality, soil quality, natural landscape and built and historic environment.
8. Efficient Use of Land	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. Multifunctional use of land is also important with the City's Green and Blue Infrastructure network having an important role to play in achieving this. Efficient Use of Land is linked to issues related to soil quality, flood risk, water quality, natural landscape, built and historic environment, biodiversity culture, sport and recreation and sense of place.

Sustainability Theme	Key Sustainability Issues
9. Reducing and Managing Climate Change	CO_2 emissions and the heal island effect are significant climate related issues which need to be actively managed to avoid their effects becoming more detrimental in the coming decades. Use of the City's Green Infrastructure network will be particularly important in addressing this issue. Reducing and Managing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.
10. Manage and reduce Flood Risk	Birmingham City Council has a good record of taking on board Environment Agency comments in terms of permitting development in flood risk areas. It is recognised by the City Council that measures will need to be put in place to manage and where possible reduce flood risk. Use of the City's Green Infrastructure network will be particularly important in addressing this issue. Managing and Reducing Flood Risk is linked to issues related to health and well-being, biodiversity and infrastructure provision.
11. Sense of Place	Birmingham is a city with a strong tradition of social action and civic engagement. The City's voluntary and community groups play a crucial role in fostering integration. Birmingham is a young and diverse city with people from over 180 different countries making it their home. The diversity of cultures, creativity, skills and experiences that contribute to the city's social and economic vitality. Sense of Place is linked to issues related to built and historic environment, natural landscape, housing, health, biodiversity, culture, sport and recreation and crime.
12. Built and Historic Environment	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. Built and Historic Environment is linked to issues related to sense of place, housing, sustainable design, construction and maintenance, crime and poverty.
13. Natural Landscape	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. Natural landscape is linked to issues related to biodiversity, health, soil quality, sense of place, culture, sport and recreation, climate change mitigation and adaptation, managing and reducing flood risk.
14. Biodiversity and Geodiversity	The City has 2 SSSIs and a number of other statutory and non- statutory designated sites which cover approximately 10% of the City. There is one Local Nature Reserve designated in order to protect its geodiversity. The Birmingham and Black Country Nature Improvement Area (NIA) Ecological Strategy provides a landscape-scale framework for action to conserve and enhance biodiversity and geodiversity and to improve ecological networks across the City. The Cannock Chase to Sutton Park Project is another example of landscape-scale action. Biodiversity and Geodiversity is linked to issues related to air quality, water quality, soil quality, health and natural landscape.
15. Air Quality	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, and the requirement to maintain an Air Quality Action Plan (AQAP) to direct compliance with national objectives, air quality should improve within the City. In order to deliver compliance, Government has determined the need for Birmingham to introduce a Clean Air Zone (CAZ) to control road transport related emissions particularly Nitrogen Dioxide. A Clean Air Zone feasibility study to determine the type and extent of the zone is underway. Air Quality is linked to issues related to biodiversity, health, sustainable transport reducing the need to travel, climate change mitigation and adaptation).
16. Water Quality	The chemical and biological quality of rivers and waterways in Birmingham is generally poor compared to the West Midlands and England as a whole. Water Quality is linked to issues related to resource use, soil quality, health, biodiversity, climate change mitigation and adaptation).
17. Soil Quality	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. Soil Quality is linked to issues related to biodiversity, water quality, natural landscape, and health.

Sustainability Theme	Key Sustainability Issues
18. Noise	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. Noise is linked to issues related to sustainable transport and housing.
19. Social and Environmental Responsibility	The Birmingham Business Charter for Social Responsibility aims to help the local economy by supporting local businesses, creating jobs and making sure workers are paid a fair wage. Social and Environmental Responsibility is linked to issues related to equality, community involvement, learning and skills, economy and equality, waste reduction and minimisation.
20. Economy and Equality	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. 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. There is significant disparity in terms of average household income between Birmingham's constituencies. Economy and Equality is linked to issues related to poverty, learning and skills, equality, housing and community involvement.
21. Learning and Skills	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 2002. 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. Learning and Skills is linked to issues related to economy and equality, community involvement, equality, poverty and social and environmental responsibility
22. Community Involvement	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. Community Involvement is linked to issues related to economy and equality, learning and skills, poverty, sense of place and housing.
23. Equality	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. Equality is linked to issues related to economy and equality, learning and skills, community involvement, poverty, crime and housing.
24. Poverty	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. Poverty is linked to issues related to health, crime, community involvement, learning and skills and equality.
25. Health	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. Health is linked to issues related to air quality, water quality, biodiversity, natural landscape, culture, sport and recreation, equality and crime.
26. Crime	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. Crime is linked to issues related to poverty, equality, learning and skills and housing.
27. Housing	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. 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. 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.

Sustainability Theme	Key Sustainability Issues
28. Culture/Sport /Recreation	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. Culture/Sport/Recreation is linked to issues related to health, poverty, community involvement, biodiversity, natural landscape, sense of place and efficient use of land.

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 biodiversity and geodiversity assets, including designated sites, important habitats and legally protected and notable species both directly and indirectly. For example, continued monitoring of developments on the periphery of designated sites will be important to determine potential indirect and cumulative impacts. Monitoring the potential effects of developments on biodiversity and geodiversity assets more generally is also important because of the potential for these to be influenced by a variety of environmental pathways.	BDP; AMR, Birmingham and Black Country NIA Ecological Strategy, and BCC and EcoRecord data.
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 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 Severn Trent Water Resources 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 2010, Carbon Roadmap 2013, 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 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 Development Plan

Issue/Problem	Description	Supporting Evidence
	There is high demand for housing in Birmingham and not all of it can be met within Birmingham itself and demand for housing is likely to continue to increase with forecast population growth.	
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 here 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
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

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

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.

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.

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:

- 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 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 managing and reducing floodrisk;
- ENV6 To promote development which makes best use of water resources, reduces pollution and encourages sustainable waste management;
- 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;
- 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; and
- 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

Topic Area(s)	Proposed Sustainability Objectives	Proposed Guide Questions	Potential Indicators
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 managing and reducing floodrisk	Will development help to reduce flood risk? 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 makes best use of water resources, reduces pollution and encourages sustainable waste management	Will development incorporate water efficiency measures? Will development actively avoid creating additional pollution burdens?	Water use and technologies 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
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

Topic Area(s)	Proposed Sustainability Objectives	Proposed Guide Questions	Potential Indicators
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:

- That development makes an overall positive contribution to the delivery of sustainable communities, the economy and the environment;
- That development contributes to the needs of local communities; and
- 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. To develop Birmingham as a City of sustainable neighbourhoods that are safe, diverse and inclusive with locally distinctive character.
2. To make provision for a significant increase in the City's population.
3. To create a prosperous, successful and enterprising economy with benefits felt by all.
4. To promote Birmingham's national and international role.
5. To provide high quality connections throughout the City and with other places including encouraging the increased use of public transport, walking and cycling.
6. To create a more sustainable City that minimises its carbon footprint and waste, and promotes brownfield regeneration while allowing the City to grow.
7. To strengthen Birmingham's quality institutions and role as a learning City and extend the education infrastructure securing significant school places.
8. To encourage better health and well-being through the provision of new and existing recreation, sport and leisure facilities linked to good quality public open space.

9. To protect and enhance the City's heritage assets and historic environment.
10. To conserve and enhance Birmingham's natural environments, allowing biodiversity and wildlife to flourish.
11. To ensure that the City has the infrastructure in place to support its future growth and prosperity.

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

	Plan Objectives										
Sustainability Objectives	1. Sustainable Neighbourhoods	2. Population Growth	3. Prosperity	4. National & International Role	5. Connectivity	6. Sustainable City	7. Education	8. Health & Well-being	9. Heritage	10. Natural Environment	11. Infrastructure
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 managing and reducing floodrisk	+	?	?	~	~	+	~	+	?	?	?
ENV6 To promote development which makes best use of water resources, reduces pollution and encourages sustainable waste management	+	?	?	~	~	+	~	+	~	+	~
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	~	~	+	~	~	~	+	~	~	~	~

	Plan Objectives										
Sustainability Objectives	1. Sustainable Neighbourhoods	2. Population Growth	3. Prosperity	4. National & International Role	5. Connectivity	6. Sustainable City	7. Education	8. Health & Well-being	9. Heritage	10. Natural Environment	11. Infrastructure
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	+	+	~	~	~	~	~	+	~	~	~
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

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.	-	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. 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.
2.	+	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. 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.
3.	?	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. 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.
Summary		
A brief summary of the effects of all the alternatives on the SEA objective under consideration will be provided.		

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
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)						

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

Mitigation measures should be consistent with the mitigation hierarchy (after DETR 1997[74] and CLG 2006[75]):

- 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.

Examples of how mitigation measures could be incorporated into DM DPD proposals could include:

- 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.

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

[75] 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	• An accessible summary of the approach, method and key results of the assessment.
Structure of the Environmental Report	• Table signposting the components of the Environmental Report for the purpose of the SEA Directive.
Introduction	• Purpose of the SA/SEA; • SA/SEA process of and legislation; and • Structure of the Environmental Report.
Background	• 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	• 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	• 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	• 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).

A draft of this Scoping Report was published for consultation between Friday 12th December 2014 and Friday 22nd January 2015. Responses were sought on the following questions:

- 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?

Detailed responses were received from the Environment Agency and Natural England, and this Report incorporates all the suggestions made. A record of the comments and responses is set out at Appendix B.

This Scoping Report will inform the sustainability appraisal of the draft Development Management DPD.

Comments can be sent to:

By email: planning.strategy@birmingham.gov.uk

By telephone: 0121 303 2332

By post: Planning Policy Team, Birmingham City Council, Planning and Regeneration, 1 Lancaster Circus, Queensway, Birmingham, B4 7DJ

Appendix A Review of Plans and Programmes

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
International		
EU Directive on the Conservation of Wild Birds (79/409/EEC)	Identifies 181 endangered species and sub-species for which the Member States are required to designate Special Protection Areas. Makes it a legal requirement that EU countries make provision for the protection of birds. This includes the selection and designation of Special Protection Areas. Target Actions include: • Creation of protected areas; • Upkeep and management; and • Re-establishment of destroyed biotopes.	Incorporated in Sustainability Objective 4.
EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) & Subsequent Amendments	Directive seeks to conserve natural habitats. Conservation of natural habitats requires member states to identify special areas of conservation and to maintain, where necessary landscape features of importance to wildlife and flora. The amendments in 2007: • Simplify the species protection regime to better reflect the Habitats Directive; • Provide a clear legal basis for surveillance and monitoring of European protected species (EPS); • Toughen the regime on trading EPS that are not native to the UK; and • Ensure that the requirement to carry out appropriate assessments on water abstraction consents and land use plans is explicit.	Incorporated in Sustainability Objective 4.
EU Directive on Waste (Directive 75/442/EEC, 2006/12/EC 2008/98/EC as amended)	Promotes the development of clean technology to process waste, promoting recycling and re-use. The Directive contains a range of provision including: • The setting up of separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors – including by 2015 separate collection for at least paper, metal, plastic and glass. • Household waste recycling target – the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly other origins as far as these waste streams are similar to waste from households, must be increased to a minimum of 50% by weight by 2020. Construction and demolition waste recovery target – the preparing for re-use, recycling and other material recovery of non-hazardous construction and demolition waste must be increased to a minimum of 70% by weight by 2020.	Incorporated in Sustainability Objective 6.
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 Packaging and Packaging Waste Directive (94/62/EC)	This Directive aims to harmonize national measures concerning the management of packaging and packaging waste in order, on the one hand, to prevent any impact thereof on the environment of all Member States as well as of third countries or to reduce such impact, thus providing a high level of environmental protection, and, on the other hand, to ensure the functioning of the internal market and to avoid obstacles to trade and distortion and restriction of competition within the Community. To this end this Directive lays down measures aimed, as a first priority, at preventing the production of packaging waste and, as additional fundamental	Incorporated in Sustainability Objective 6.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	principles, at reusing packaging, at recycling and other forms of recovering packaging waste and, hence, at reducing the final disposal of such waste. No later than five years from the date by which this Directive must be implemented in national law (1996), between 50 % as a minimum and 65 % as a maximum by weight of the packaging waste will be recovered. Within this general target, and with the same time limit, between 25 % as a minimum and 45 % as a maximum by weight of the totality of packaging materials contained in packaging waste will be recycled with a minimum of 15 % by weight for each packaging material.	
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: • 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 (1998) Aarhus Convention	The Aarhus Convention establishes a number of rights of the public (individuals and their associations) with regard to the environment. The Parties to the Convention are required to make the necessary provisions so that public authorities (at national, regional or local level) will contribute to these rights to become effective. The Convention provides for: • The right of everyone to receive environmental information that is held by public authorities ("access to environmental information"). This can include information on the state of the environment, but also on policies or measures taken, or on the state of human health and safety where this can be affected by the state of the environment. Applicants are entitled to obtain this information within one month of the request and without having to say why they require it. In addition, public authorities are obliged, under the Convention, to actively disseminate environmental information in their possession; • The right to participate in environmental decision-making. Arrangements are to be made by public authorities to enable the public affected and environmental non-governmental organisations to comment on, for example, proposals for projects affecting the environment, or plans and programmes relating to the environment, these comments to be taken into due account in decision-making, and information to be provided on the final decisions and the reasons for it ("public participation in environmental decision-making"); • The right to review procedures to challenge public decisions that have been made without respecting the two aforementioned rights or environmental law in general ("access to justice").	Incorporated in Sustainability Objective 15
EU Drinking Water Directive (98/83/EC)	Provides for the quality of drinking water. The standards are legally binding.	Incorporated in Sustainability Objective 6.
EU Directive on the Landfill of Waste (99/31/EC)	Sets out requirements to ensuring that where landfilling takes place the environmental impacts are understood and mitigated against. By 2006 biodegradable municipal waste going to landfills must be reduced to 75% of the total amount (by weight) of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available.	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: • 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	Incorporated in Sustainability Objectives 5 and 6

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	• Designing and carrying out a programme of measures to achieve these environmental objectives. Targets: All water bodies in all Member States are to reach 'Good Ecological Status' by 2015. Good ecological status applies to natural water bodies and is defined as a slight variation from undisturbed natural conditions. Some water bodies are designated as 'artificial' or 'heavily modified'. This is because they may have been created or modified for a particular use such as water supply, flood protection, navigation or urban infrastructure. By definition, artificial and heavily modified water bodies are not able to achieve natural conditions. Instead the classification and objectives for these water bodies, and the biology they represent, are measured against 'ecological potential' rather than status. For an artificial or heavily modified water body to achieve good ecological potential, its chemistry must be good. In addition, any modifications to the structural or physical nature of the water body that harm biology must only be those essential for its valid use. All other such modifications must have been altered or managed to reduce or remove their adverse impact, so that there is the potential for biology to be as close as possible to that of a similar natural water body.	
EU 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA Directive)	The SEA Directive provides the following requirements for consultation: • Authorities which, because of their environmental responsibilities, are likely to be concerned with the effects of implementing the plan or programme, must be consulted on the scope and level of detail of the information to be included in the Environmental Report. These authorities are designated in the SEA Regulations as the Consultation Bodies (Consultation Authorities in Scotland). • The public and the Consultation Bodies must be consulted on the draft plan or programme and the Environmental Report, and must be given an early and effective opportunity within appropriate time frames to express their opinions. • Other EU Member States must be consulted if the plan or programme is likely to have significant effects on the environment in their territories.	Directive sets the basis for SEA as a whole and therefore Indirectly covers all objectives.
Earth Summit (2002) Johannesburg Declaration on Sustainable Development		
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
EU (2010) The Industrial Emissions Directive	The Johannesburg Declaration on Sustainable Development was adopted at the World Summit on Sustainable Development (WSSD), sometimes referred to as Earth Summit 2002, at which the Plan of Implementation of the World Summit on Sustainable Development was also agreed upon. The Johannesburg Declaration builds on earlier declarations made at the United Nations Conference on the Human Environment at Stockholm in 1972, and the Earth Summit in Rio de Janeiro in 1992. While committing the nations of the world to sustainable development, it also includes substantial mention of multilateralism as the path forward. In terms of the political commitment of parties, the Declaration is a more general statement than the Rio Declaration. It is an agreement to focus particularly on *"the worldwide conditions that pose severe threats to the sustainable development of our people, which include: chronic hunger; malnutrition; foreign occupation; armed conflict; illicit drug problems; organized crime; corruption; natural disasters; illicit arms trafficking; trafficking in persons; terrorism; intolerance and incitement to racial, ethnic, religious and other*	The principles of sustainable development are included in all of the sustainability objectives.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	hatreds; xenophobia; and endemic, communicable and chronic diseases, in particular HIV/AIDS, malaria and tuberculosis." Johannesburg Declaration	
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).	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: • 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.	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: • Domestic Waste Water; • Mixture of Waste Water; and • Waste Water from Certain Industrial Sectors. There are four main principles: planning, regulation, monitoring, and information and reporting.	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
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

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
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 "*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. These roles are based around economic, environmental and social roles.	Incorporated in Sustainability Objectives 1 - 15
NPPF – Biodiversity, Geodiversity and Soil	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: • 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. 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. 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.	Incorporated in Sustainability Objectives 1, 4 and 6
NPPF – Landscape	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: • 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. 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.	Incorporated in Sustainability Objective 4

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	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.	
NPPF – Cultural Environment	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.	Incorporated in Sustainability Objective 4
NPPF – Water	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. In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment. 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. 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: • 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	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	Incorporated in Sustainability Objective 5

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	development in areas at risk of flooding, and to direct development away from areas of highest risk.	
NPPF - Air Quality	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.	Incorporated in Sustainability Objective 6
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	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. In drawing up local plans, local authorities should: • 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
NPPF – Housing	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: • 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.	Incorporated in Sustainability Objective 12

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	Sustainable development in rural areas housing should be located where it will enhance or maintain the vitality of rural communities. Planning policies and decisions should aim to ensure that developments: • 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.	
NPPF - Health	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.	Incorporated in Sustainability Objective 13
NPPF – Transport & Accessibility	Amongst the 12 planning principles of the NPPF are: • Promoting sustainable transport; Support sustainable transport development including infrastructure, large scale facilities, rail freight, roadside facilities, ports and airports. Protecting and exploiting opportunities for sustainable transport modes, including designing and locating developments to maximise sustainable modes and minimise day to day journey lengths.	Incorporated in Sustainability Objective 3
NPPF – Quality of Life	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. • 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. 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. 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	Incorporated in Sustainability Objectives 12 - 15

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	space and sports and recreational facilities; planning for new open space and sports and recreational facilities; and planning obligations.	
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	The Localism Bill includes five key measures that underpin the Government's approach to decentralisation. • 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	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.	Incorporated in Sustainability Objectives 11 - 15
DCLG (2014) Planning Policy for Traveller Sites (updated August 2015)	This document sets out the Government's planning policy for Traveller sites. It identifies the following aims: • That local planning authorities should make their own assessment of need for the purposes of planning; • To ensure that local planning authorities, working collaboratively, develop fair and effective strategies to meet need through the identification of land for sites; • To encourage local planning authorities to plan for sites over a reasonable timescale; • That plan-making and decision-taking should protect Green Belt from inappropriate development; • To promote more private Traveller site provision while recognising that there will always be those Travellers who cannot provide their own sites; • That plan-making and decision-taking should aim to reduce the number of unauthorised developments and encampments and make enforcement more effective; • For local planning authorities to ensure that their Local Plan includes fair, realistic and inclusive policies; • To increase the number of Traveller sites in appropriate locations with planning permission, to address under provision and maintain an appropriate level of supply; • To reduce tensions between settled and Traveller communities in plan making and planning decisions; • To enable provision of suitable accommodation from which Travellers can access education, health, welfare and employment infrastructure; and • For local planning authorities to have due regard to the protection of local amenity and local environment.	Incorporated in Sustainability Objective 12.
DCLG (2014) Planning Practice Guidance	Planning Practice Guidance is designed to support the NPPF. It reflects the objectives of the NPPF which are not repeated here.	All of the Objectives reflect NPPF and PPG.
DCLG (2014) National Planning Policy for Waste	This document sets out detailed waste planning policies for local authorities. States that planning authorities need to: • Use a proportionate evidence base in preparing Local Plans. • Identify sufficient opportunities to meet the identified needs of their area for the management of waste streams. Identifying suitable sites and areas.	Incorporated in Sustainability Objective 6

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	The overall objective of the document is to work towards a more sustainable and efficient approach to resource use and management. Planning plays a pivotal role e.g. by ensuring the design and layout of new development and other infrastructure complements sustainable waste management.	
DCLG (2014) Written Statement on Sustainable Drainage Systems	This statement sets out that it is the Government's expectation that sustainable drainage systems will be provided in new developments wherever this is appropriate.	Incorporated in Sustainability Objective 6.
DCLG (2017) Fixing Our Broken Housing Market	The White Paper makes the following proposals as 'step 1': • Making sure every part of the country has an up-to-date, sufficiently ambitious plan so that local communities decide where development should go; • Simplifying plan-making and making it more transparent, so it's easier for communities to produce plans and easier for developers to follow them; • Ensuring that plans start from an honest assessment of the need for new homes, and that local authorities work with their neighbours, so that difficult decisions are not ducked; • Clarifying what land is available for new housing, through greater transparency over who owns land and the options held on it; • Making more land available for homes in the right places, by maximising the contribution from brownfield and surplus public land, regenerating estates, releasing more small and medium-sized sites, allowing rural communities to grow and making it easier to build new settlements; • Maintaining existing strong protections for the Green Belt, and clarifying that Green Belt boundaries should be amended only in exceptional circumstances when local authorities can demonstrate that they have fully examined all other reasonable options for meeting their identified housing requirements; • Giving communities a stronger voice in the design of new housing to drive up the quality and character of new development, building on the success of neighbourhood planning; and Making better use of land for housing by encouraging higher densities, where appropriate, such as in urban locations where there is high housing demand; and by reviewing space standards.	Incorporated in Sustainability Objective 12.
DECC (2008) UK Climate Change Act 2008.	The 2008 Climate Change Act seeks to manage and respond to climate change in the UK, by: • Setting ambitious, legally binding targets; • Taking powers to help meet those targets; • Strengthening the institutional framework; • 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.	Incorporated in Sustainability Objective 5
DCMS (2007) Heritage Protection for the 21st Century.	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: • 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
DCMS (2013) *Scheduled Monuments & Nationally Important but Non-Scheduled Monuments*	This policy statement sets out Government policy on the identification, protection, conservation and investigation of nationally important ancient monuments, under the provisions of the Ancient Monuments and Archaeological Areas Act 1979. It includes principles relating to the selection of scheduled monuments and the determination of applications for scheduled monument consent.	Incorporated in Sustainability Objective 4.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
DCMS (2016) The Culture White Paper	The White Paper is structured around four core themes: • Everyone should enjoy the opportunities culture offers, no matter where they start in life; • The riches of our culture should benefit communities across the country; • The power of culture can increase our international standing; and • Cultural investment, resilience and reform.	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 (2006) The Natural Environment and Rural Communities Act 2006	The Act is primarily intended to implement key aspects of the Government's Rural Strategy published in July 2004; it also addresses a wider range of issues relating broadly to the natural environment. The Act established an independent body – Natural England – responsible for conserving, enhancing and managing England's natural environment for the benefit of current and future generations. The Act also established the Commission for Rural Communities ("the Commission"). The Commission will be an independent advocate, watchdog and expert adviser for rural England, with a particular focus on people suffering from social disadvantage and areas suffering from economic under-performance. It will provide information, advice, monitoring and reporting to Government and others on issues and policies affecting rural needs. The Act also reconstitutes the Joint Nature Conservation Committee and renames and reconstitutes the Inland Waterways Amenity Advisory Council (which becomes the Inland Waterways Advisory Council). In line with the 2004 Rural Strategy, the Act extends both the Secretary of State's funding powers for functions within Defra's remit, and the ability to authorise other bodies to carry out those functions. Public bodies for which Defra is responsible are given the power to enter agreements to enable various other designated bodies to perform functions on their behalf. These various powers are intended to be used to simplify and devolve delivery arrangements and to improve their effectiveness and efficiency. The Act makes provision in respect of biodiversity, pesticides harmful to wildlife and the protection of birds, and in respect of invasive non-native species. It alters enforcement powers in connection with wildlife protection, and extends time limits for prosecuting certain wildlife offences. It addresses a small number of gaps and uncertainties which have been identified in relation to the law on sites of special scientific interest. It amends the functions and constitution of National Park authorities, the functions of the Broads Authority and the law on rights of way.	Incorporated in Sustainability Objectives 4, 7, 8 and 9.
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: "*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*". 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 (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 (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland	The Strategy: • Sets out a way forward for work and planning on air quality issues; • Sets out the air quality standards and objectives to be achieved;	Incorporated in Sustainability Objectives 3 and 12.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	• Introduces a new policy framework for tackling fine particles; and • Identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives. The Air Quality Strategy sets out objectives for a range of pollutants. As these are quite extensive they have not been reproduced here.	
Defra (2007) Strategy for England's Trees, Woods and Forests	Key aims for government intervention in trees, woods and forests are: • To secure trees and woodlands for future generations; • To ensure resilience to climate change; • To protect and enhance natural resources; • To increase the contribution that trees, woods and forests make to our quality of life; and • To improve the competitiveness of woodland businesses and products. These aims will form the basis on which the Delivery plan will be developed by Natural England and the Forestry Commission England (FCE). The strategy provides a national policy direction, which can be incorporated alongside regional priorities within regional forestry frameworks. Strategy aims to create 2,200 hectares of wet woodland in England by 2010.	Incorporated in Sustainability Objective 4.
Defra (2009) Safeguarding our Soils: A Strategy for England	The Strategy is underpinned by the following vision: By 2030, all England's soils will be managed sustainably and degradation threats tackled successfully. This will improve the quality of England's soils and safeguard their ability to provide essential services for future generations. Achieving this vision will mean that: • Agricultural soils will be better managed and threats to them will be addressed; • Soils will play a greater role in the fight against climate change and in helping us to manage its impacts; • Soils in urban areas will be valued during development, and construction practices will ensure vital soil functions can be maintained; and Pollution of our soils is prevented, and our historic legacy of contaminated land is being dealt with. There are no specific objectives or targets in this strategy.	Incorporated in 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 (2011) Review of Waste Policy in England	Building on waste reduction targets established in the 2007 Waste Strategy, the Review sets out a range of commitments relating to: • Sustainable use of materials; • Waste prevention, re-use and recycling; • Regulation and enforcement; • Householders and local authorities working together; • Business waste collection; • Energy recovery; • Landfill; and • Infrastructure and planning.	Incorporated in Sustainability Objective 2

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Defra (2008) Future Water, the Government's Water Strategy for England	Objectives: By 2030 at the latest, we have: • 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. Targets: Key targets are within the objectives above and further a number of sub-targets are included within the document.	Incorporated in Sustainability Objectives 5 and 6
Defra (2009) Safeguarding our Soils: A Strategy for England	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: • 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	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: (i) protecting and improving our natural environment; (ii) growing a green economy; (iii) reconnecting people and nature; and (iv) 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
Defra (2011) Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services	The Strategy is designed to help to deliver the Natural Environment White Paper and include the following priorities: • 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	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	Incorporated in Sustainability Objective 5

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Erosion Risk Management Strategy for England	framework that will help communities, the public sector and other organisations to work together to manage flood and coastal erosion risk.	
HM Government (1979) Ancient Monuments and Archaeological Areas Act	The Act defines sites that warrant protection as ancient monuments. They can be a Scheduled Ancient Monuments or *"any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it"*. There are no specific targets or objectives identified.	Incorporated in Sustainability Objective 4.
HM Government (1981) Wildlife and Countryside Act	The main UK legislation relating to the protection of named animal and plant species includes legislation relating to the UK network of nationally protected wildlife areas: Site of Special Scientific Interest (SSSIs). There are no specific targets or objectives identified.	Incorporated in Sustainability Objective 4.
HM Government (1990) Planning (Listed Building and Conservation Areas) Act	The Planning (Listed Buildings and Conservation Areas) Act 1990 provides specific protection for buildings and areas of special architectural or historic interest. There are no specific targets or objectives identified.	Incorporated in Sustainability Objective 4.
HM Government (2000) Countryside and Rights of Way Act 2000	This Act: • Gives people greater freedom to explore open country on foot; • Creates a duty for Highway Authorities and National Park Authorities to establish Local Access Forums; • Provides a cut-off date of 1 January 2026 for the recording of certain rights of way on definitive maps and the extinguishment of those not so recorded by that date; • Offers greater protection to wildlife and natural features, better protection for Sites of Special Scientific Interest (SSSIs) and more effective enforcement of wildlife legislation; and • Protects Areas of Outstanding Natural Beauty with legislation similar to that for National Parks. There are no specific objectives or targets in the Act.	Incorporated in Sustainability Objective 4.
HM Government (2003) Sustainable Energy Act	The Act aims to promote sustainable energy development and use and report on progress regarding cutting the UK's carbon emissions and reducing the number of people living in fuel poverty. Specific targets are set by the Secretary of State as energy efficiency aims.	Incorporated in Sustainability Objective 4.
HM Government (2004 and revised 2006) Housing Act	Energy efficiency must be at least 20% greater in properties by 2010 than compared with 2000.	Incorporated in Sustainability Objective 4.
HM Government (2005) Securing the Future – the UK Sustainable Development Strategy	The Strategy contains a new set of indicators to monitor progress towards sustainable development in the UK. Those most relevant at the local authority level include: • Greenhouse gas emissions • Road freight (CO_2 emissions and tonne km, tonnes and GDP) • Household waste (a) arisings (b) recycled or composted • Local environmental quality	Incorporated in Sustainability Objectives 1, 2, 3, 4, and 6.
HM Government (2006) The Natural Environment and Rural Communities (NERC) Act 2006	The Act: • Makes provision about bodies concerned with the natural environment and rural communities; • Makes provision in connection with wildlife, Sites of Special Scientific Interest (SSSIs), National Parks and the Broads; • Amends the law relating to rights of way; • Makes provision as to the Inland Waterways Amenity Advisory Council; and • Provides for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes. There are no specific objectives or targets in the Act.	Incorporated in Sustainability Objective 4.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
HM Government (2008) The Climate Change Act 2008	The Act sets: • Legally binding targets - greenhouse gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline. The 2020 target will be reviewed soon after Royal Assent to reflect the move to all greenhouse gases and the increase in the 2050 target to 80%. Further, the Act provides for a carbon budgeting system which caps emissions over five year periods, with three budgets set at a time, to set out our trajectory to 2050.	Incorporated in Sustainability Objective 5.
HM Government (2008) The Planning Act	Introduces a new system for nationally significant infrastructure planning, alongside further reforms to the Town and Country Planning system. A major component of this legislation is the introduction of an independent Infrastructure Planning Commission (IPC), to take decisions on major infrastructure projects (transport, energy, water and waste). To support decision-making, the IPC will refer to the Government's National Policy Statements (NPSs), which will provide a clear long-term strategic direction for nationally significant infrastructure development. There are no specific objectives or targets in the Act.	This act is not specifically relevant to any of the objectives.
HM Government (2009) The UK Renewable Energy Strategy	A vision is set out in the document whereby by 2020: • More than 30% of our electricity is generated from renewables; • 12% of our heat is generated from renewables; and • 10% of transport energy is generated from renewables.	Incorporated in Sustainability Objective 5.
HM Government (2010) The Government's Statement on the Historic Environment for England	The Vision of the Statement is "*that the value of the historic environment is recognised by all who have the power to shape it; that Government gives it proper recognition and that it is managed intelligently and in a way that fully realises its contribution to the economic, social and cultural life of the nation*." This vision is supported by six aims: 1 Strategic Leadership: Ensure that relevant policy, guidance, and standards across Government emphasize our responsibility to manage England's historic environment for present and future generations. 2 Protective Framework: Ensure that all heritage assets are afforded an appropriate and effective level of protection, while allowing, where appropriate, for well managed and intelligent change. 3 Local Capacity: Encourage structures, skills and systems at a local level which: promote early consideration of the historic environment; ensure that local decision makers have access to the expertise they need; and provide sufficiently skilled people to execute proposed changes to heritage assets sensitively and sympathetically. 4 Public Involvement: Promote opportunities to place people and communities at the centre of the designation and management of their local historic environment and to make use of heritage as a focus for learning and community identity at all levels. 5 Direct Ownership: Ensure all heritage assets in public ownership meet appropriate standards of care and use while allowing, where appropriate, for well managed and intelligent change. 6 Sustainable Future: Seek to promote the role of the historic environment within the Government's response to climate change and as part of its sustainable development agenda. No key targets.	Incorporated in Sustainability Objective 4..
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	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. • The Environment Agency is responsible for developing and applying a flood risk management strategy for England and Wales. Every other agency with	Incorporated in Sustainability Objective 5

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	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.	
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
HM Government (2010) Flood and Water Management Act 2010	Those key targets related to water resources, include: • To widen the list of uses of water that water companies can control during periods of water shortage, and enable Government to add to and remove uses from the list. • To encourage the uptake of sustainable drainage systems by removing the automatic right to connect to sewers and providing for unitary and county councils to adopt SUDS for new developments and redevelopments. • To reduce 'bad debt' in the water industry by amending the Water Industry Act 1991 to provide a named customer and clarify who is responsible for paying the water bill. • To make it easier for water and sewerage companies to develop and implement social tariffs where companies consider there is a good cause to do so, and in light of guidance that will be issued by the Secretary of State following a full public consultation.	Incorporated in Sustainability Objective 6.
HM Government (2010) White Paper: Healthy Lives, Healthy People: Strategy for Public Health in England	Aims to create a 'wellness' service (Public Health for England) and to strengthen both national and local leadership. No formal targets or objectives.	Incorporated in Sustainability Objective 13.
HM Government (2011) The Localism Act	The Localism Bill includes five key measures that underpin the Government's approach to decentralisation. • Community rights; • Neighbourhood planning; • Housing; • General power of competence; and Empowering cities and other local areas. No key targets or indicators.	Incorporated in Sustainability Objective 15.
HM Government (2011) Water for Life: White Paper	*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 6.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	Water for Life includes several proposals for deregulating and simplifying legislation, to reduce burdens on business and stimulate growth. Ofwat's proposals for reducing its regulatory burdens complement these. No key targets or objectives.	
HM Government (2011) Carbon Plan: Delivering our Low Carbon Future	This sets out how the UK will achieve decarbonisation within the framework of energy policy: • To make the transition to a low carbon economy while maintaining energy security, and minimising costs to consumers, particularly those in poorer households. There are no formal objectives or targets.	Incorporated in Sustainability Objective 5.
HM Government (2013) The Community Infrastructure Levy (Amendment) Regulations 2013	The Community Infrastructure Level (CIL) is a charge which may be applied to new developments by local authorities. The money can be used to support development by funding infrastructure that the council, local community and neighbourhoods want. There are no formal objectives or targets.	Not specifically applicable to any of the objectives.
HM Government (2014) Water Act 2014	The provisions in the Act enable the delivery of Government's aims for a sustainable sector as set out in the Water White Paper in a way that this is workable and clear. This Act aims to makes steps towards reducing regulatory burdens, promoting innovation and investment, giving choice and better service to customers and enabling more efficient use of scarce water resources. There are no formal objectives or targets.	Incorporated in Sustainability Objective 6.
HM Government (2015) Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.	The regulations implement provisions of the Water Framework Directive (Directive 2000/60/EC), the Environmental Quality Standards Directive (Directive 2008/105/EC) and the priority substances amendment of these directives (Directive 2013/39/EU). This includes directions for the classification of surface water and groundwater bodies, monitoring requirements, standards for ecological and chemical status of surface waters, and environmental quality standards for priority substances. There are no formal objectives or targets.	Incorporated in Sustainability Objective 6.
HM Government (2015) Government Response to the Committee on Climate Change.	In June 2015 the Committee on Climate Change and the Adaptation Sub-Committee published the seventh progress report on Government's mitigation activity and the first statutory assessment of the National Adaptation Programme. This included five recommendations and it is those recommendations that are responded to within this response. There are no formal objectives or targets.	Incorporated in Sustainability Objective 5.
HM Government (2016) Environmental Permitting (England and Wales) Regulations 2016.	The Regulations provide a consolidated system of environmental permitting in England and Wales, and transpose the provisions of 15 EU Directives. It provides a system for environmental permits and exemptions for industrial activities, mobile plant, waste operations, mining waste operations, water discharge activities, groundwater activities, flood risk activities and radioactive substances activities. It also sets out the powers, functions and duties of the regulators. Certain flood risk activities are now regulated under the Environmental Permitting Regulations, with environmental permits required for some activities. There are slight variations between England and Wales. There are no formal objectives or targets.	Not specifically relevant to any of the objectives.
HM Government (2016) Housing and Planning Act 2016	This Act makes widespread changes to housing policy and the planning system. It introduces legislation to allow the sale of higher value local authority homes, introduce starter homes and "Pay to Stay" and other measures intended to promote home ownership and boost levels of housebuilding. The Act introduces numerous changes to housing law and planning law: • A proposal to abolish secure and assured tenancies for new tenancies, and replace them with fixed term tenancies lasting between two and five years. However, following an amendment, this was later extended to tenancies of up to 10 years with the possibility of for longer tenancies for families with children.[3] The Act requires where there is a succession to the tenancy that unless they are a spouse or civil partner the new tenancy	Incorporated in Sustainability Objective 12.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	has to be fixed term rather than secure. Housing associations are not affected by this change. • The promotion of self-build and custom build housebuilding. • The building of 200,000 starter homes which will be obtainable to first time buyers between 23 and 40 for sale at 20% below market prices. • The extension of right to buy to include housing association properties. Due to a deal with the National Housing Federation right to buy will be extended to housing association tenants on a voluntary basis with the Government making payments to housing associations to compensate for the discounts on offer. • A policy dubbed "pay to stay" that would see some council tenants pay higher rent. Income of £31,000 or £40,000 in London would see someone hit by "Pay to Stay". Tenants in receipt of housing benefit would not be affected by this change and neither would housing association tenants. • The forced sale of high value empty local authority properties. The stated aim of this policy was to fund right-to-buy for housing associations in order to promote home ownership. The Act states that lost social housing will be replaced with "affordable housing" which could be a starter home. In London two properties will be built for every one sold. • The speeding up of the planning system so as to deliver more housing. A concept called "permission in principle" is being introduced which is "an automatic consent for sites identified in local plans and new brownfield registers subject to further technical details being agreed by authorities". It is hoped that this will speed up house building. • Powers to force local authorities to have a Local Plan where they do not have one. • Changes to banning orders on "rogue landlords" The Act allows a local authority to apply for a banning order when a landlord or letting agent commits certain offences. The Act also creates a database of rogue landlords that will be maintained by local authorities. • Changes relating to Rent Repayment Orders allowing a local authority to apply for one where a landlord has committed certain offences. • A law allowing recovery of abandoned properties. A private landlord will be allowed to do this without serving a section 21 notice and without serving a court order.	
HM Government (2017) The Conservation of Habitats and Species Regulations 2017	The purpose of these Good Practice Advice notes is to provide information on good practice to assist local authorities, planning and other consultants, owners, applicants and other interested parties in implementing biodiversity policy in the National Planning Policy Framework (NPPF) and the related guidance given in the National Planning Practice Guide (PPG). There are no formal objectives or targets.	Incorporated in Sustainability Objective 4.
DfT (2008) Delivering a Sustainable Transport System (DaSTS).	Objectives: • 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	A framework for the sustainable management of the historic environment based on the following principles: • The historic environment is a shared resource;	Incorporated in Sustainability Objective 3

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	• 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.	
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.	Objectives: • 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. Target: In England, the average amount of water used per person in the home is reduced to 130 litres each day by 2030.	Incorporated in Sustainability Objective 3 and 6
Environment Agency (2011) The National Flood and Coastal Erosion Risk Management Strategy for England	The strategy encourages more effective risk management by enabling people, communities, businesses, infrastructure operators and the public sector to work together to: • Ensure a clear understanding of the risks of flooding and coastal erosion, nationally and locally, so investment risk can be prioritised more effectively; • Set out clear and consistent plans for risk management so that communities and business can make informed decisions about the management of the remaining risk; • Manage flood and coastal erosion risks in an appropriate way, taking account of the needs of communities and the environment; • Ensure that emergency plans and responses to flood incidents are effective and that communities are able to respond effectively to flood forecasts, warnings and advice; and • Help communities to recover more quickly and effectively after incidents.	Incorporated in sustainability objective 5.
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
HM Government (2006) Climate Change The UK Programme	The Climate Change Programme aims to tackle climate change by setting out policies and priorities for action in the UK and internationally. Aims and Objectives: • 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

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Regional		
Severn Trent Water Resources Management Plan (2010)	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 n part by reducing leakage and managing the demand for water, and partly by developing new resources. The Strategy identifies that: "*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*."	Incorporated in Sustainability Objectives 2 and 5
Energy Capital (2018) a Regional Approach to Clean Energy Innovation	The report states the main focus of the (Energy Improvement Zones) EIZs will be to integrate low carbon technologies, to develop the business models and infrastructure needed to support new approaches to clean energy as well as overcome the regulatory barriers necessary for them to flourish. They will be designed to stimulate local clean energy innovation and drive productivity within the region, exports and growth. The EIZs aim to demonstrate new technologies, and to turn them into fully commercial propositions, breeding regional markets and supply chains that provide a platform for exports and growth. They will also offer a controlled environment in which innovators of all types can trial new services, technologies and business models.	Incorporated in sustainability objective 5.
Environment Agency Humber River Basin Management Plan (2009)	A strategic document summaries key issue by river catchment. For the Tame, Anker and Mease these are to: • Improve sewage treatment works at a number of locations to reduce the levels of phosphate, for the River Trent designation. • Target pollution prevention campaigns around industrial areas in the urban areas, particularly around Birmingham and the Black Country. • Improve sewage treatment works at a number of locations in the River Mease catchment to reduce the levels of phosphate in the SAC site.	Incorporated in Sustainability Objectives 5 and 6
Environment Agency The Tame, Anker and Mease Management Catchment (2014 consultation)	A summary document forming the background to updating the River Basin Management Plan and the work of the Catchment Partnership. The following objectives are proposed: • Identifying and remediating point source pollution; • Identifying opportunities and tackling diffuse run-off; • Restoring and enhancing watercourses, wetlands and floodplains • Ensuring water bodies, the water environment and network contribute green infrastructure; • Ensuring that the water environment contributes to the local economy and social well-being; and • Using the planning system to maximise benefits to the water environment and catchment. The document notes that: "It is disappointing to see that water quality has declined between 2009 and 2014, despite the significant improvements that have occurred throughout parts of the catchment."	Incorporated in Sustainability Objectives 5 and 6
Environment Agency Trent Catchment Flood Management Plan (2010)	A 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. The CFMP covers Birmingham and the Black Country and identifies that Birmingham should "take further action to reduce flood risk".	Incorporated in Sustainability Objective 5

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Environment Agency (2015) Severn River Basin District River Basin Management Plan	This River Basin Management Plan seeks to protect the River Severn so that is can be enjoyed by different Districts the river runs through without each District affecting the others ability to enjoy the river. It also seeks to conserve and enhance the quality of the River Severn environment and maintain its high water quality and habitats, as the River Severn benefits from having particularly rich and diverse wildlife and habitats.	Incorporated in Sustainability Objective 6.
The Greater Birmingham and Solihull Local Enterprise Partnership Strategy (2013)	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: • 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.
Greater Birmingham & Solihull Local Enterprise Partnership (2016) Strategic Economic Plan 2016-2030	This Strategic Economic Plan sets out a mission for the West Midlands Region: *'To create jobs and grow the economy of Greater Birmingham and in so doing raise the quality of life for all of the LEP's population.'* This plan includes the following targets: • Create 250,000 private sector jobs by 2030 and be the leading Core City LEP for private sector job creation; • Increase GVA by £29bn by 2030; • Decrease unemployment to the National Average by 2020 and to have the lowest unemployment amongst the LEP Core Cities by 2030; • GBSLEP to be the leading Core City by 2030 for GVA per head; • Increase % of working age population with NVQ3+ to the National Average by 2025; • Increase productivity rates to the National Average by 2030; and • GBSLEP to be the Leading Core City LEP for Quality of Life by 2030.	Incorporated in Sustainability Objectives 7, 8, 9 and 10.
Natural England (2012) National Character Area profile no. 67: Cannock Chase and Cank Wood	Cannock Chase and Cank Wood National Character Area (NCA) extends north of the Birmingham and Black Country conurbation and includes a major area of this city. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. The NCA principally coincides with the historical hunting forest of Cannock Chase, with major remnants surviving within the Cannock Chase Area of Outstanding Natural Beauty (AONB), which supports internationally important heathland Special Areas of Conservation (SAC) and the Sutton Park National Nature Reserve.	Incorporated in sustainability objective 4.
Natural England (2012) National Character Area profile no. 97: Arden	Arden National Character Area (NCA) comprises farmland and former wood-pasture lying to the south and east of Birmingham, including part of the West Midlands conurbation. Traditionally regarded as the land lying between the River Tame and the River Avon in Warwickshire, the Arden landscape also extends into north Worcestershire to abut the Severn and Avon Vales. To the north and northeast it drops down to the open landscape of the Mease/Sence Lowlands. The eastern part of the NCA abuts and surrounds Coventry, with the fringes of Warwick and Stratford-upon-Avon to the south. This NCA has higher ground to the west, the Clent and Lickey Hills and to the east, the Nuneaton ridge.	Incorporated in sustainability objective 4.
The 7 Authorities of the West Midlands Metropolitan Area (2011)	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	Incorporated in Sustainability Objective 3

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
West Midlands Local Transport Plan	out a way forward to deliver those needs through short, medium and long term transport solutions. 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: • 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.	
Environment Agency (2009) A Water Resources Strategy Regional Action Plan for the West Midlands Region	The EA Water Resources Strategy for England and Wales, *Water for People and the Environment*, 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: • 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.	Incorporated in Sustainability Objective 2
Forestry Commission (2004) West Midlands Regional Forestry Framework	The Framework sets out priorities for activity across the private, public and voluntary sector, and includes priorities and actions based around the following themes: • 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.	Incorporated in Sustainability Objectives 4, 5, 6 and 13
Peter Brett Associates LLP (2014) GBSLEP Joint Strategic Housing Study.	This study outlined the oversights of past population projections for the Birmingham area and its surrounding districts/regions. It highlights a need for a considerable amount of housing building needed each year and a need for more housebuilding in the regions and districts surrounding Birmingham. • Preferred scenario 2011-31 – 165,000 dwellings.	Incorporated in Sustainability Objective 12.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
West Midlands Combined Authority (2017) West Midlands Roadmap to a Sustainable Future in 2020 (Annual Monitoring Report)	This report is an annual monitoring report of the progress the West Midlands Roadmap to Sustainability and includes the following objective: • Reverse the rise in health inequalities for women	Incorporated in Sustainability Objective 13.
West Midlands Combined Authority (2017) Thrive West Midlands – An Action Plan to drive better mental health and wellbeing in the West Midlands	This Action Plan forms an agreement between the key organisations of the West Midlands to work together to improve the mental health and wellbeing of the residents of the West Midlands: • Improve the accessibility of jobs for people with mental health issues and their general wellbeing.	Incorporated in Sustainability Objective 13.
Local		
Birmingham City Council (1994) Handsworth, Sandwell and Soho: Areas of Restraint	Review of the concentration of residential care and nursing homes, hostels and non-family dwelling house uses within Handsworth, Sandwell and Soho wards. Proposed a restraint policy in respect of the concentration of hotel, institutional and non-family dwellinghouse uses within the Handsowrth, Sandwell and Soho Wards.	Incorporated in Sustainability Objectives 9 and 15.
Birmingham City Council (1999) Wheelwright Road: Area of Restraint	Restricts non family dwellinghouse uses in Wheelwright Road.	Incorporated in Sustainability Objectives 9 and 15
Birmingham City Council (2005) Developing Birmingham: An Economic Strategy for the City 2005-2015.	The vision of the Economic Strategy is: "*To build on Birmingham's renaissance and secure a strong and sustainable economy for our people*." The strategy identifies four key areas to focus on: 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.	The Action Plan sets out 41 actions which follow the objectives below: • 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.
Birmingham City Council (2006) Municipal Waste Management Strategy.	The Strategy sets out the following vision for delivering its municipal waste management services: "*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.* *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*." The Strategy has the following objectives: • The Council will explore ways of reducing the amount of waste sent to landfill to an absolute minimum, recovering value from waste wherever	Incorporated in Sustainability Objective 6.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	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.	
Birmingham City Council (2007) Sustainable Management of Urban Rivers and Floodplains SPD	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: • 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.	Incorporated in Sustainability Objective 5.
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';	Incorporated in Sustainability Objective 5.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	• Making sure the city is prepared for climate change through 'Climate Change Adaptation'; and • Making sure that this action plan 'Engages with Birmingham Citizens and Businesses'.	
Birmingham and Black Country Biodiversity Partnership (2010) Birmingham and the Black Country Biodiversity Action Plan	Objectives are to: • Maintain and increase biodiversity of key sites and landscapes through appropriate protection and management; • Restore degraded habitats and key species populations by restoring key areas; • Link key areas with ecological corridors to reconnect wildlife populations and make them less vulnerable; • Promote and support the use of the natural environment to mitigate against, and adapt to the effects of climate change; • Enable the sustainable use of the natural environment to benefit health and wellbeing of residents, workers and visitors as well as improving the local economy.	Incorporated in Sustainability Objectives 4 and 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.	I 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 (2015) Birmingham Surface Water Management Plan	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.
Birmingham City Council (2013) Health and Well-being Strategy (Updated Priorities 2017)	Improve the wellbeing of children •Detect and prevent Adverse Childhood Experiences (ACEs). Improve the independence of adults. Improve the wellbeing of the most disadvantaged. Make Birmingham a Healthy City.	Incorporated in Sustainability Objective 13.
Birmingham City Council (2013) Green Living Spaces Strategy	Includes seven green living spaces principles but no formal objectives or targets.	Incorporated in Sustainability Objectives 4 and 13.
Birmingham City Council (2013) Birmingham Health and Wellbeing Strategy	Identifies priorities and delivery mechanisms for addressing acute and chronic health and well-being issues across the City, some of which are closely related to spatial planning. These include aspirations to: • Create fair employment and good work for all; • Ensure Healthy Standard of living for all; and • Create and develop healthy sustainable homes and communities	Incorporated in Sustainability Objectives 1, 2,
Birmingham City Council (2013) Carbon Roadmap	60% reduction in C02 emissions by 2027.	Incorporated in sustainability objective 5.
Birmingham City Council (2014) Gypsy and Traveller Accommodation Assessment	Estimates a need for 4 additional pitches during the period 2014-2031.	Incorporated in Sustainability Objective 12.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Birmingham City Council (2015) Corporate Emergency Plan	Aim of the plan delivered through the following objectives: • To provide an overview of the civil emergency risks which can give rise to emergencies / major business disruptions requiring activation of this plan; • To outline emergency management and business continuity responsibilities of the Council at a corporate and directorate level, including specialist capabilities, such as emergency welfare provision, information and communication systems; • To provide a summary of equipment and facilities available for corporate emergency response actions; • To clarify wider resilience structures for both planning and response; and • To summarise corporate training and exercises and other assurance processes.	Not specifically relevant to anyone objective but covered in general terms by the majority of the Objectives.
Birmingham City Council (2017) Local Flood Risk Management Strategy	Includes the following objectives: • Identify all stakeholders with a role in flood risk management , set out their responsibilities and work with them to adopt a partnership approach to managing local flood risk; • Develop a clear understanding of flood risk from surface water, groundwater and ordinary watercourses and set out how this information will be communicated and shared; • Outline how flood risk assets are identified, managed and maintained and develop a clear understanding of riparian responsibilities; • Define the criteria and for responding to and investigating flooding incidents, and set out the role of emergency planning, flood action groups and individual property owners; • Define the criteria for how and when flood risk management measures will be promoted to ensure that they provide value for money whilst minimising long-term revenue costs and maximising external funding contributions; • Minimise the impact of development on flood risk by developing guidance, policies and standards that manage flood risk and reduce the risk to existing communities; and • Adapt a sustainable approach to managing local flood risk by ensuring actions deliver wider environmental benefits.	Incorporated in Sustainability objective 5.
Birmingham City Council (2017) Birmingham Development Plan	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 (2006) Access for People with Disabilities SPD	Provides guidance under Part M of the Building Regulations and their obligations under the Disability Discrimination Act around: • Works in the Public Realm • Approaches to buildings and open areas within an application site • Entrances into buildings used by the public • Signage • Access onto upper floors	Incorporated in SOC1, SOC3 and SOC5.
Birmingham City Council (2001) Affordable Housing SPG	The purpose of this supplementary planning guidance is to provide an additional, complementary mechanism for securing affordable homesin response to recent government advice.	Incorporated in sustainability objectives ECON 2, ECON 3 and SOC 2.
Birmingham City Council (?) Car park design guide	A design guide providing detail on the design objectives and components of car park design required by the council. Includes a provision for those with mobility difficulties and takes into account issues around safety and security.	Incorporated in sustainability objectives ENV 2, ECON 3, SOC 1 and SOC 4.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Birmingham City Council (2012) Car Parking guidelines SPD	A Development Plan Document providing detail on car parking standards. The parking standards guidance is intended to be considered alongside a number of other local policies. Encourages the use of sustainable travel, including electric vehicles, car clubs and cycling.	Incorporated in sustainability objectives ENV 2,ENV 3 and SOC 1.
Birmingham City Council (2007) Extending your home: Home extensions guide	A guide to tell the public about the council's policies on good design and explain what we are looking for when we assess planning applications for home extensions. Outlines three main principles: 1. Respect the appearance of the local area and your home. 2. Ensure the extension does not adversely affect your neighbours. 3. Minimise the impact on the environment. Provides detailed guidance on the three principles, as well as specific guidance on types of extensions, for example back extensions and dormers.	Incorporated in sustainability objectives ENV 2, ENV 4 and ECON 3.
Birmingham City Council (2000) Floodlighting of sports facilities, car parks and secure areas	Supplementary planning guidance for the installation of flood lighting. Flood lighting should: • Point downwards. • Minimise the flood of light near to or above the horizontal to reduce potential glare. • The main floodlight beam should, where possible, be directed towards below a 70'arc from a vertical column. • Use assymetrical beams that permit the front glazing to be kept at or near parallel to the surface being lit.	Not specifically relevant to anyone objective but covered in general terms by the majority of the Objectives.
Birmingham City Council (2003) High Places	This supplementary planning guidance provides policy and design guidance for tall buildings in Birmingham. It provides guidance on the location, form and appearance of tall buildings. It provides information on: • The location of tall buildings. • The design of tall buildings. • Conservation Areas and Listed Buildings where tall buildings are inappropriate • The sustainability of proposals.	Incorporated in sustainability objectives ENV 2, ENV 5,.
Birmingham City Council (2008) Large format banner advertisements SPD	A supplementary planning document detailing the policy around large banners. States that: • A large format banner will only normally be permitted where a building is to be scaffolded for building or related work, and that such scaffolding covers an entire elevation. • A commercial advertisement element should occupy no more than 40% of the extent of the scaffolded elevation. No elevation should normally contain an advertisement element greater than 500sq.m in area or 40% of the scaffolded elevation, whichever is the lesser. • Within sensitive areas such as conservation areas, or on, facing or in close proximity to a listed building, the entire scaffolding mesh must be covered by a 1:1 scale image of the building being constructed/refurbished, or other similar appropriate image. The use of 1:1 scale images will be encouraged in other locations. • Scaffolded elevations shall have the whole elevation covered by mesh to a good quality of workmanship, and shall have any commercial element sitting within, and framed by, the mesh. • The scaffold and associated banner advert(s) should be removed as soon as the relevant work, as described in 3.1 above, is complete. The advertisement consent will last no longer than the agreed building programme or one year, whichever is the shorter. Consent for continued display in accordance with this policy would not be unreasonably withheld. • Such adverts will not normally be permitted in predominantly residential areas.	Incorporated in sustainability objective ENV 2.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Birmingham City Council (2008) Lighting Places	A supplementary planning document detailing how Birmingham's city centre should be lit. The objectives are as follows: • To foster multilateral exchange of experience, ideas, creations, technologies and expertise. • To encourage exchange of technical experts. • To organise theme based meetings. • To help public authorities undertake concerted action to promote illumination projects. • To provide a structure for this exchange within the scope of an international network of local public authorities. • To create arenas for research and experimentation and/or operations. • To include lighting issues within a perspective that is both environmentally friendly and in favour of sustainable development. • To enable the cities to develop an identity by means of their artistic or technical choices. • To impose lighting as a tool for promotion of the cities.	Incorporated in sustainability objectives ENV 2, ENV 6, ECON 1 and ECON 2.
Birmingham City Council (1999) Location of advertisement hoardings	Guidelines for outdoor advertisement hoardings, including those with mechcnically changing displays, ranging from 96 sheet size to smaller 12 sheet panels, and will be used to control the display of existing and proposed hoardings. States that applications must be treated on their own individual merits, with regards to the general characteristics of the locality in which they will be displayed. Also provides specific guidance on location and land use guidelines.	Incorporated in sustainability objectives ENV 2 and ECON 1.
Birmingham City Council (2006) Loss of industrial land SPD	This document provides guidance on the information required by the City Council where a change of use from industrial to an alternative use is being proposed. The SPD applies to all industrial land.	Incorporated in sustainability objectives ENV 1 and ECON 2.
Birmingham City Council (2008) Mature suburbs	The purpose of these guidelines is to set out the City Council's aspirations for such types of development within the City's mature suburbs and residential areas. It sets out key design issues for housing intensification and what is expected from developers and designers when submitting planning applications. Aims for buildings in mature suburbs to be assessed against: • Plot Size • Building Form and Massing • Building Siting • Landscape and Boundary Treatment • Plot Access • Parking Provision and Traffic Impact • Design Styles • Public Realm • Archaeology, Statutorily Listed and Locally Listed Buildings • Design Out • Renewable Energy and Climate • Cumulative Impact	Incorporated in sustainability objectives ENV 6, ECON 3, and SOC 2.
Birmingham City Council (2000) Parking of vehicles at commercial and industrial premises adjacent to residential property	These guidelines apply to car parking proposals relating to commercial and industrial premises which could cause noise and disturbance to occupants in adjoining residential accommodation.	Incorporated in sustainability objective ENV 2.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
Birmingham City Council (2006) The Future of Birmingham's Parks and Open Space Strategy	This Strategy is intended to protect and guide the planning, design, management, maintenance and provision of parks and public open spaces in the city over the next 10-15 years. Contains 30 policies around the provision and use of green spaces and parks.	Incorporated in sustainability objectives ENV 4, ENV 6, ECON2 and SOC3.
Birmingham City Council (2001) Places for all	The guide was produced as a response to the lack of general design guidance that relates to all types of development throughout the city. Good design should apply everywhere not just in key locations such as the city centre and conservation areas. The main targets are: 1. Creating diversity - The aim must be to create or build within places that have an accessible choice of closely mixed complementary activities. 2. Moving around easily - Places should be linked up with short, direct public routes overlooked by frontages. 3. Safe places, private spaces - Places must be safe and attractive with a clear division between public and private space. 4. Building for the future - Buildings and spaces should be adaptable to enhance their longterm viability and built so they harm the environment as little as possible. 5. Build on local character - Development must consider the context and exploit and strengthen the characteristics that make an area special.	Incorporated in sustainability objectives ENV 2, ENV 5, ENV 6, ECON 3 and SOC 3.
Birmingham City Council (2001) Places for living	Residential development is the major land use in Birmingham and the majority of new development proposals within the city will continue to be for new homes. It is important that residential areas are desirable, sustainable and enduring. They should provide good quality accommodation in a safe and attractive environment, which people. 1. Places not estates - Successful developments must address wider issues than simply building houses and create distinctive places that offer a choice of housing and complementary activities nearby 2. Moving around easily - Places should be linked up with short, direct public routes overlooked by frontages. 3. Safe places, private spaces - Places must be safe and attractive with a clear division between public and private space 4. Building for the future - Buildings and spaces should be adaptable to enhance their longterm viability and built so they harm the environment as little as possible. 5. Build on local character - Developers must consider the context and exploit and strengthen the characteristics that make an area special.	Incorporated in sustainability objectives ENV 2, ENV 3, ENV 5, ENV 6, ECON 3 and SOC 2.
Birmingham City Council (2011) Places of worship	The document provides clearer and proactive guidance to communities seeking to establish a place of worship and looking to submit applications for planning permission. Its main aim is to ensure a consistent approach to planning applications, not only for places of worship, but also for faith-related community and educational use.	Incorporated in sustainability objectives ENV 4 and SOC 1.
Birmingham City Council (2007) Public open space in new residential development SPD	• An amount of open space equivalent pro rata, to 2 ha per 1000 population will be required. • As part of the overall requirement, a children's play area will be required where there is no existing provision within walking distance of the new development (defined as 400m, taking into account barriers such as main roads, railways and canals, which restrict access). • Public open space should be sited where it will be overlooked, safe, useable and accessible to all residents and designed to local authority criteria. It should take into account the needs of people with	Incorporated in sustainability objectives ENV 2, ECON 2, ECON 3, SOC 1, SOC 3 and SOC 4.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	disabilities and any cultural needs identified in consultation with local residents. • The key aim of large scale redevelopments is to achieve a good quality environment overall coupled with a good housing stock.	
Birmingham City Council (1996) Shopfronts design guide	These guidelines set out the principles of good shopfront design. They help establish the ground rules for the design of shop fronts and advertisements.	Incorporated in sustainability objective ENV 2, ECON 2 and ECON 3.
Birmingham City Council (2012) Shopping and Local Centres SPD	This expands on policies for shopping and local centres in the UDP and to bring Birmingham's polices for shopping and local centres up to date and in line with national planning policy. • Within the Primary Shopping Areas at least 55 % of all ground fl oor units in the Town and District Centres should be retained in retail (Class A1 use) and 50% of all ground fl oor units in the Neighbourhood Centres should be retained in retail (Class A1) use. • Applications for change of use out of A1 will normally be refused if approval would have led to these thresholds being lowered, unless exceptional circumstances can be demonstrated in line with Policy 3. • No more than 10% of units within the centre or frontage shall consist of hot food takeaways. • Applications for new A3, A4 and A5 uses are encouraged within the Centre Boundary of Town, District and Neighbourhood Centres, subject to avoiding an over concentration or clustering of these uses that would lead to an adverse impact on residential amenity.	Incorporated in sustainability objectives ENV 2, ECON 1, ECON 2 and ECON 3.
Birmingham City Council (2001) Specific needs residential uses SPG	Guidance relating to the use of land and buildings for residential accommodation, and in certain cases associated care, to people whose housing needs may be termed 'specific'. Targets: 1 Parking space per 3 beds. a) Single room used for living/sleeping/cooking – 15.0sq.m. b) Two room letting as living/sleeping roomand separate kitchen One individual: 12.50sq.m (135 sq.ft.) floor area Two individuals: 18.0sq.m (190sq.ft.) c) Two room letting with kitchen/living room and separate bedroom One individual bedroom: 6.50.sq.m (70sq.ft.) floor area One individual kitchen/living area: 11.50sq.m (120sq.ft) floor area Two individual's bedroom: 12.50sq.m. (135 sq.ft.) floor area Two individual's kitchen/living room: 15.0sq.m. (160sq.ft.) floor area	Incorporated in sustainability objectives ENV 2 and SOC 2.
Birmingham City Council (2008) Telecommunications development mobile phone infrastructure SPD	This Supplementary Planning Document (SPD) is intended to provide guidance to the public, licensed telecommunications operators and planners on the process for the control of telecommunications development and for its siting and appearance within Birmingham.	Incorporated in sustainability objective ENV 4.
Birmingham City Council (2018) Council Plan and Budget 2018+	Birmingham City Council's Council Plan and Budget for 2018/19 – 2021/22 setting the objectives, priorities and spending plans of the City Council and the tough decisions that have been made for the 2018/19 financial year ensure a balanced financial position and long-term financial sustainability.	Incorporated in Sustainability Objectives 1 – 15
Birmingham City Council (2014) Birmingham Connected White Paper	Birmingham Connected is directly linked to the strategies and policies of the BDP. Investing in a radically improved integrated transport system will realise the city's potential to support sustainable economic growth, job creation and linking communities. As well as the above Birmingham Connected covers a number of other agendas. Its vision is to create a transport system which puts the user first and	Incorporated in Sustainability Objectives ENV 3, ENV 6, ECON 2, SOC 1 and SOC 3.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	delivers the connectivity that people and businesses require. We will improve people's daily lives by making travel more accessible, more reliable, safer and healthier and using investment in transport as a catalyst to improve the fabric of our city. We also want to use the transport system as a way of reducing inequalities across the city by providing better access to jobs, training, healthcare and education as well as removing barriers to mobility.	
Birmingham City Council (2008) Sustainable Community Strategy	The document's vision is to make Birmingham the first sustainable global city in modern Britain. It will be a great place to live, learn, work and visit: a global city with a local heart. Five outcomes Birmingham people will be enabled to: 1. Succeed economically 2. Stay safe in a clean, green city 3. Be healthy 4. Enjoy a high quality of life 5. Make a contribution	Incorporated in Sustainability Objectives ENV 2, ENV 6, SOC 3, ECON 2, SOC 4, SOC 5.
Birmingham City Council (2012) Employment Land Review	The Employment Land Review (ELR) provides an analysis of the employment land supply position in Birmingham, recent completions, key conclusions and recommendations for future action. As the supply of best urban employment land has declined over recent years. There is a need to identify new employment land opportunities to ensure that an adequate supply of land is maintained. • The Washwood Heath sites be excluded from the potential best urban supply at present due to the proposed HS2 route safeguarding. • Given that the supply of good urban land is low and the scope for new opportunities is limited, existing good urban employment land be retained in industrial use and new opportunities safeguarded. • That the approach for the Protection of Employment land set out in the Supplementary Planning Document on the 'Loss of Industrial Land to Alternative Uses' be maintained. This aims to protect good quality sites whilst recognising that poor quality and outdated sites should either be upgraded or used for new development where appropriate . • Maximise the use of available funding sources to promote the delivery of key employment sites such as the Regional Investment Site at East Aston. • The City Council continues to work proactively with property agents, major companies, landowners and developers to bring sites forward for development. The use of Compulsory Purchase Orders to assemble land to facilitate employment development be considered where necessary. • Where developments involve the loss of employment land an appropriate Section 106 contribution should be secured and utilised to improve other 5 industrial sites. When the Community Infrastructure Levy is adopted a proportion of the monies raised should also be used to improve existing industrial sites. • The Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) consider the supply of land for strategic sites such as Major Investment Sites and Regional Logistic Sites and the mechanism for delivery.	Incorporated in Sustainability Objectives ECON 1 and ECON 3.
Birmingham City Council (2013) Employment Land and Office Targets	This evidence based document provides robust evidence in relation to future requirements for industrial land and office space up to the year 2031. The study helped to inform TP17-TP21 in the Birmingham Development Plan.	Incorporated in Sustainability Objectives ECON 1, ECON 3 and ECON 4.
Birmingham City Council (2013) Strategic Housing Market Assessment	This evidence based document was commissioned by Birmingham City Council in March 2012 to enable the Council to develop planning and housing policies and take decisions which encourage the provision of the most appropriate mix of housing (in terms of type, size, tenure, and affordability The study bears directly on two areas of Council policy, housing and planning. It should inform affordable housing policies, by assessing both the total need for affordable housing and the profile of that need in terms of household sizes and types. It should also inform planning policies in the emerging Core Strategy, in particular the housing target, showing how much housing development the Council should provide land for in the next 20 years, in both the market and affordable sectors.	Incorporated in Sustainability Objective SOC 2.

Plan, Programme or Strategy	Objectives and Targets identified in the Document	Use in Sustainability Objectives
	The study established that for the housing market area (comprising Birmingham, the Black Country, Bromsgrove, Coventry, Lichfield and Solihull), the best available estimate of objectively assessed housing need to 2031 is for some 9,300 net new homes per annum.	
Birmingham City Council (2018) SHLAA 2017	The SHLAA is a study of sites within Birmingham that have the potential to accommodate housing development. Its purpose is to provide evidence to support the Local Development Framework, in particular the Birmingham Development Plan. It is a key component of the evidence base to support the delivery of land to meet the need for new homes within the city. It is not a decision making document and it does not allocate land for development.	Incorporated in Sustainability Objective SOC 2.
Birmingham City Council (2008) Statement of Community Involvement	The Statement of Community Involvement (SCI) sets out how we will encourage more people to participate in decision-making in Planning. The document sets out our minimum standards for consultation on new policies and planning applications. The key objectives are: a) We will consult early in the development process - this will help to ensure that the views of the community, specific consultation bodies, developers and businesses are fed into the process at the outset. Early engagement is one of the government's objectives in reviewing the planning system. b) Use appropriate consultation methods for each document and for each community. c) Use plain English for all documents. d) Be prepared to experiment with a wide range of innovative consultation methods. e) Ensure that everyone, including people from under-rep	Incorporated in Sustainability Objective SOC 5.
Birmingham City Council (2017) Birmingham Cultural Strategy	Our strategy 'Imagination, Creativity and Enterprise' represents the cultural fabric of Birmingham. It was developed in partnership with many cultural sector organisations, businesses, educational institutions and individuals. Multiple agencies use it to deliver the agreed actions and outcomes and advocate on behalf of the cultural sector. The strategy has five themes through which the vision will be delivered: 1. Culture on Our Doorstep Becoming a leader in cultural democracy where people come together to co-create, commission, lead and participate in a wide range of locally relevant, pluralistic and community driven cultural ventures. 2. Next Generation Ensuring that all children and young people have opportunities to engage with a diverse range of high quality arts and cultural experiences at every stage of their development and which they value as worth it. 3. A Creative City Supporting and enabling the growth of creative and cultural SMEs and micro-businesses and individuals through business support, skills and talent development and access to finance. 4. Our Cultural Capital Cementing Birmingham's role and reputation as a centre of imagination, innovation and enterprise, with local roots and international reach. 5. Our Cultural Future Adapting our business models to ensure they are capable of sustaining and growing the sector into the future through collaboration, diversification, rebalancing and devolution	Incorporated in Sustainability Objectives ENV 4, SOC 1, and ECON 4 .

Appendix B Responses to comments made by statutory consultees on the Scoping Report (2015)

Consultee: English Heritage

"It appears an appropriately focussed proposal, proportionate and streamlined to the role of the Plan and as such I have no concerns. However, you may wish to apply the same or similar indicators as those that will monitor the HE policy in the B'ham Plan and in particular re the city's heritage assets formerly 'at risk'.

For information, EH has prepared specific guidance for the preparation of SA in relation to historic environment. It may be worth referring this to AMEC to consider and apply during work on the SA and the environmental report."

Consultee: Environment Agency

Comment	Response
Executive Summary We support the inclusion of environmental issues identified as Key Sustainability Issues for the city of Birmingham (pages vi-ix).	Noted
We note the issue of water resources is raised in Theme 1; Resource Use, however recommend that another key theme relating to water sustainability is the timely provision of foul drainage infrastructure to support the proposed level of growth. The city's transmission infrastructure is currently undersized to accommodate the increase in loading that will go hand in hand with the level of development proposed and the SA should ensure this is addressed through the DM DPD.	Reference to foul drainage added to Theme 1
We welcome the consideration of both climate change adaption and mitigation (Themes 2, 9 and 10). We question however whether Theme 10 should be relabeled as Flood Risk as this is the only issue identified in relation to the management of climate change. We question whether there are other climate change related issues that should be incorporated under this heading relating to health, wellbeing, biodiversity and infrastructure provision (see section 4.4.1: Climate Change page 23). The issue of flood risk could be separated out under its own heading as it is an issue in its own right as the issues are not wholly resulting from the impacts of climate change.	Flood risk separated out under Theme 10 Links made to other climate change issues.
Theme 8: The efficient use of land should be linked with the issue of flood risk (theme 10) as the flood risk sequential test outlined within national policy steers development to areas at lowest risk of flooding. This can sometimes conflict with the preference for brownfield redevelopment sites. We support the reuse of brownfield land as this can enable the remediation of underlying ground contamination caused by previous land uses, improving ground water quality. This therefore links with Theme 16: water quality and vice versa.	Link made
Theme 16 refers to the chemical and biological quality of rivers and waterways, and observes that Birmingham suffers from low quality against these measures. Water quality in the city is largely influenced by the efficiency of the foul drainage infrastructure – this links to our comments in relation to Theme 1.	Comment added
We note that the 28 sustainability issues identified for this plan are to be addressed by 18 standard objectives which are taken from the Development Plan SA/SEA. It should be ensured that all issues raised within this report are reflected within the proposed objectives – it appears that Issue 1: Resources Uses (water) has not been included within the objectives. We recommend it is added in under ENV5 or ENV6.	Added to ENV6
We draw your attention towards Sustainability Objectives 16, 17 and 18 on Page x, which appear to be duplicates of Objectives 1, 2 and 3.	Corrected
Plans, Programmes and Strategies Table 3.1 lists the *Severn Trent Water Resources Management Plan (2010)* under the Regional	Reference added

Comment	Response
heading. This is updated every 5 years and as such this is not the current version. The SA should refer to the 2014 plan found at http://www.severntrent.com/future/plans-and-strategy/water-resources-management-plan as referenced on page 15 of the report.	
The SA should also consider the findings of the Environment Agency publication *Tame, Anker and Mease abstraction licensing strategy (February 2013)* which can be found at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291402/LIT_3306_bc78df.pdf. This relates the availability of water for ground and surface water for abstraction purposes. Information from this strategy should be summarised alongside other water resources issues on page 15.	Reference added
The Environment Agency now has in draft the *Humber Flood Risk Management Plan* which sets out proposals for managing the risk of flooding at a catchment and river basin district scale. These proposals will help inform decisions about where investment and action are targeted in future to best protect people and places from the risk of flooding. For more information about this please see the link at the end of this letter that directs you towards this consultation document. Birmingham City Council also have a number of other water-based evidence documents that should be considered. These include: • *Surface Water Management Plan for Birmingham (2013 emerging draft)* • *Local Flood Risk Management Strategy for Birmingham (2014 outline version). Preliminary Flood Risk Assessment (2011)*	References added
Appendix A reviews the relevant plans and programmes in more detail. Under the Objectives and Targets identified for the Water Framework Directive (WFD) (page A1) it states that all waterbodies are to reach 'Good Ecological Status' by 2015. This is currently correct, however this will change when the next round of River Basin Management Plan (RBMP) is published in December 2015, therefore this will need to be kept up to date. The next statement: *'Exactly what constitutes 'Good Ecological Status' has not yet been defined*.' is incorrect. The following definition is taken from the Humber RBMP (relevant to Birmingham) and should be reflected within the SA: *Good ecological status applies to natural water bodies, and is defined as a slight variation from undisturbed natural conditions.* *Some water bodies are designated as 'artificial' or 'heavily modified'. This is because they may have been created or modified for a particular use such as water supply, flood protection, navigation or urban infrastructure. By definition, artificial and heavily modified water bodies are not able to achieve natural conditions. Instead the classification and objectives for these water bodies, and the biology they represent, are measured against 'ecological potential' rather than status. For an artificial or heavily modified water body to achieve good ecological potential, its chemistry must be good. In addition, any modifications to the structural or physical nature of the water body that harm biology must only be those essential for its valid use. All other such modifications must have been altered or managed to reduce or remove their adverse impact, so that there is the potential for biology to be as close as possible to that of a similar natural water body.*	Noted
The objectives of the Trent Catchment Flood Management Plan *(CFMP)* are very broad and high level and should be summarised in terms relevant to the local distinctiveness of Birmingham as a city. The CFMP considers Birmingham alongside the Black Country, and forms Policy Unit 10. Based on the level of proposed growth, and flooding characteristics of the area, Policy Option 5 has been applied which identifies that Birmingham is to *"take further action to reduce flood risk".* This very specific aim should be reflected within the SA's issues and objectives, particularly ENV5 i.e. the policies should ensure they do not just *'manage'* flood risk but *'reduce'* flood risk.	ENV5 amended
The Humber RBMP (local delivery vehicle for WFD), although listed in Table 3.1 under the Regional subgroup does not appear to be included in Appendix A. This should be rectified with locally-specific objectives summarised and reflected within the SA. Consideration should also be given to the draft plan currently out for consultation.	Amended
We recommend that Birmingham City Council undertake a Water Cycle Study to pull together all the available information on water resource availability and water quality to inform detailed development management policies on development requirements and their impact on the water environment. This should be undertaken in liaison with Severn Trent Water and the Environment	Noted

Comment	Response
Agency with a focus on how development within the city will support objectives set out within the Humber River Basin Management Plan (already referenced within the report).	
Key Sustainability Issues for Birmingham Section 4.4.2 refers to information on planning application consultations and overrulings on flood risk issues from 2011/12. Information is currently available for 2013-14 which is likely to be more representative than the information currently included in this report. Environment Agency records show we responded to 64 consultations in 2013-14, which comprised as follows: • Full 35 • Outline 8 • Change of Use 5 • Conditions 11 • Reserved Matters 2 • Variations 3 Please find attached a dataset for this period detailing applications which we objected to on flood risk grounds. This information should be correlated with Birmingham's records of decisions made to ascertain if there were any overrulings during the period (we are not notified of all planning decisions). This may already be undertaken as part of the annual monitoring process.	Equivalent 2013-14 data not yet available for Birmingham
Section 4.7.1 provides background information to the current state of water and air quality within the city. The Humber RBMP indicates that there are twenty-three surface water bodies which fall within or cross the Birmingham boundary comprising of two lakes, eight canals and thirteen rivers. In the baseline year of 2009 only three out of these twenty-three water bodies achieved the required 'Good Ecological Status' or 'Good Ecological Potential'. We draw your attention towards the WFD Evidence Pack provided by the Environment Agency to support the development of your Development Plan. The Humber RBMP is currently being revised with the new version being published in December 2015. The draft 2015 RBMP is now available as part of the formal consultation process, and any changes to the current plan should be considered within this report. The consultation on the 2015 plan is open until the end of March 2015 (please see details at end of letter).	Noted
The increased volume of waste water and sewage effluent produced by the proposed additional 50,000 dwellings will need to be treated to a high enough standard to ensure that there is no detriment in the quality of the watercourses receiving this discharge. Information currently available indicates that Minworth sewage treatment works should have the capacity to manage this additional capacity however given the dispersed nature of the proposed development, it is likely that there will be a requirement for widespread upgrading of the sewerage pipe network throughout the City. Section 4.7.4 should therefore include a reference to the required upgrading of foul drainage pipework and transmission infrastructure. Cumulative impact is key to this, making it hard to assess which sites and when will trigger the current drainage system to become overloaded and for water quality to become detrimentally impacted by development. It is likely therefore that a blanket policy is required to cover all developments and ensure the sewerage system has adequate capacity to manage any additional flows.	Text updated
Sustainability Objectives and the SA Framework Table 6.2 shows the proposed objectives, quide questions and indicators. As discussed above, in line with the emerging Birmingham Development Plan and the CFMP evidence base, ENV5 should be amended to reflect the need to REDUCE flood risk not just manage it. A guide question should be added to table 6.2 to ask *'Will development help reduce flood risk?'*	ENV5 amended
We support the inclusion of ENV6 which aims to reduce pollution and ENV1 which will encourage the remediation of brownfield contaminated land. These objectives should help ensure the DM DPD is in line with Humber RBMP's requirements in improving the water quality of the city's rivers, canals and groundwater. The Environment Agency can provide information on water quality objections to planning applications which could be used as a potential indicator to ENV6 (as per flood risk in ENV5).	Noted

Comment	Response
Development of Environment Agency publications as part of the evidence base Environment Agency strategies including the draft River Basin Management Plans (RBMPs) and draft Flood Risk Management Plans (FRMPs) are undergoing public consultation at present. The updated plans are due to be published in December 2015 and they will guide us in directing considerable investment and action from 2016 to 2021 and beyond, which will provide benefits to society and the environment. The catchment of interest to Birmingham city is the Humber.	Noted

Consultee: Natural England

Comment	Response
Question 1 - Scope of the proposed SA Natural England is generally supportive of the scope of the proposed SA. We are also supportive of the series of objectives provided at 1.3 to confirm and clarify the Development Management DPD. We particularly welcome the recognised need for development to make a positive contribution to (1) …health and well being, and (2) environmental considerations.	Noted
We support the proposed SEA Topic Areas as proposed at Table 4.1.	Noted
Paragraph 2.2.1 Habitat Regulation's Assessment (HRA) – we recognise the acknowledgement that a HRA will be required and concur with the need for this.	Noted
Question 2 - Do we agree with the main issues identified? We generally agree with the 28 sustainability themes (and related issues) identified as being particularly important affecting the city (page vi and Table 4.15). Specific comments in relation to the 28 Sustainability Themes (ST) and the related issues are provided below:	Noted
- We would argue that ST6 'Reducing the need to Travel' may be provided for via the provision of new / enhanced footways / cycleways and, by this, this ST may also potentially related to the improvement of health and well-being.	Reference included
- Natural England would also like to see a mention of the benefits of multi-functional green infrastructure (GI) (and blue infrastructure) as a potential consideration in the efficient use of land (ST8).	Reference included
- ST9 and ST10 (Reducing and Managing Climate Change) - relate to the important need for the city to tackle climate change. There are many ways that the natural landscape and GI can be utilised for this purpose.	Reference included
- ST13 (Natural Landscape) – Natural England understands that a large proportion of the open land and green belt land discussed here is being considered for development via the Birmingham Plan. The SA / DM DPD, therefore, surely needs to recognise this here in order to be able to provide a truly reflective account. In this way, should Figure 4.9, Table 4.5 and the statistics provided within paragraph 4.8.2 (Natural Landscape) also be updated to reflect the reduction in green belt and public open space area's proposed?	BDP not yet approved
- ST14 (Biodiversity and Geodiversity) – Incorrect reference to Biodiversity Enhancement Areas (BEAs). This work / project has now ceased. Reference here should instead be made to The Cannock Chase to Sutton Park Project. Reference should also be made here to the Nature Improvement Area (NIA) designation. (see notes re: NIA below).	BEA reference removed NIA reference included
- ST25 (Health) – we support the reference to natural landscape and recreation.	Noted
ST28 (Culture/Sport/Recreation) – we support the reference to health and natural landscape.	Noted

Comment	Response
Section 4: Key Sustainability Issues for Birmingham *Managing and Adapting to Climate Change* - Paragraph 4.4.2 – Natural England welcomes the reference made here in respect of the value of GI to helping to mitigate and adapt to climate change. We also recommend a reference to the value of blue infrastructure (e.g. rivers, canals, SuDS) for this purpose.	Reference included
- Paragraph 4.4.4 (Influence of DM DPD on Managing Climate Change) – potential inclusion of need for maximisation of GI as part of development proposals, as appropriate, to help mitigate and adapt to climate change.	Reference included
Biodiversity and Geodiversity - Section 4.5–acknowledge the importance of urban ecological sites and corridors as stepping stones for habitats/species and, in accordance with paragraph 109 of the NPPF, also acknowledge the need to establish improved coherent ecological networks that are more resilient to current and future pressures. We would also recommend inclusion of reference to multi-functional GI (and blue infrastructure) for this purpose.	Reference included
- Acknowledge also the need for the council to ensure net gains are made (to conserve and enhance biodiversity) where possible, from development proposals by applying the '*avoid, then mitigate and, (as a last resort) compensate for adverse impacts on biodiversity'* principle (NPPF para 118). By this, when determining planning applications opportunities to incorporate biodiversity in and around developments should also be encouraged.	Reference included
- Also, given the need to minimise impacts on biodiversity and geodiversity, the SA must ensure the DM DPD policies promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets (NPPF 117).	Reference included
- Page 34 – we support the reference made to the work of the West Midlands Biodiversity Partnership (WMBP) and in particular, The Cannock Chase to Sutton Park Project. References made to the 'BEA', however, are incorrect as this designation / project has now ceased.	BEA reference removed
- Page 34 - This section should also acknowledge the Nature Improvement Area (NIA) designation. NIAs are fundamental to the step-change needed to establish a coherent and resilient ecological network. Where NIAs are in place (in accordance with para's 117 and 157 of the NPPF), Natural England wishes to see Local Plans: identify them on proposals maps; and include policies to ensure that any development affect them is compatible with their purpose and makes a positive contribute to their enhancement (using CIL/S106 agreements/conditions as appropriate).	Reference included
- Page 34 (GI) – neglects to include a reference to climate change mitigation and adaptation benefits.	Reference included
- Page 38 (Geodiversity) – we support the inclusion of geodiversity within the SA. However, we recommend the SA makes an explicit reference to geological conservation and the need to conserve, interpret and manage geological sites and features in the wider environment not just in relation to designated sites	Reference made
- Paragraph 4.5.2 (Biodiversity and Geodiversity) – comments supported.	Noted
Population and Human Health - Paragraph 4.6.11 – Recommend inclusion of reference to GI benefits upon human health and well-being.	Reference included
Section 5: Issues and Problems Relevant to the DM DPD - Table 5.1 – Generally support.	Noted

Comment	Response
- We particularly welcome the reference to the need for continued monitoring of developments on periphery of designated sites to determine potential indirect and cumulative impacts. We would, also, recommend the inclusion of a reference to the need for monitoring of effects upon designated sites which may result from other environmental pathways outside those developments on the immediate periphery.	Noted and reference included
- We also welcome the reference to the importance of greenspace and reductions in motor transport that can have positive impacts upon populations and health.	Noted
- Climate Change – include reference to GI and its benefits.	Reference included
Question 3: Do the objectives cover the breadth of issues appropriate for assessing the effects? Generally, yes. Ensure incorporation of the above.	Noted