

Birmingham City Council

Sustainability Appraisal of the Birmingham Development Plan

Revised Sustainability Report



June 2015

Amec Foster Wheeler Environment
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Report for

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Non-Technical Summary

Outline of the Birmingham Development Plan and its Sustainability Appraisal

This document is a revised Sustainability Appraisal (SA) Report prepared to accompany the Submission version of the Birmingham Development Plan (BDP). The regulations contained within the Planning and Compulsory Purchase Act and the guidance set out in the NPPF identify that SAs should meet the requirements of EU Directive 2001/42/EC, Strategic Environmental Assessment (SEA), otherwise known as the 'SEA Directive'. The SEA Directive requires the iterative assessment of the effects of certain plans and programmes on the environment. In this context, the Directive's main areas of emphasis are to contribute to the integration of environmental considerations into the preparation and adoption of plans to promote sustainable development.

The purpose of the SA Report is to promote sustainable development through the integration of sustainability considerations into proposed BDP. This SA Report reports the results of the assessment and sets out proposed mitigation measures to enhance the sustainability performance of the BDP and a monitoring framework to track the performance of the BDP against significant sustainability issues identified as part of the assessment.

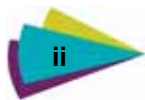
This SA Report is the latest stage in the appraisal process which has accompanied the evolution of the Birmingham Development Plan, the previous reports being:

- ▶ Sustainability Appraisal Scoping Report (2006, revised 2010 and 2012);
- ▶ Interim Sustainability Appraisal of Issues and Options (2008);
- ▶ Interim Sustainability Appraisal of Preferred Options (2010);
- ▶ Interim Sustainability Appraisal of Options Consultation (December 2012); and
- ▶ Interim Sustainability Appraisal of Proposed Site Allocations (September 2013).
- ▶ Final Sustainability Report of the Birmingham Development Plan (June 2014) and Sustainability Appraisal of Proposed Site Allocations (June 2014)

Sustainability characteristics of the plan area

The following sustainability issues are of particular relevance to the appraisal of the BDP:

Sustainability Topic	Key Sustainability Issues
Resource Use	New additional water management measures or water resources needed to ensure there is sufficient water for new housing proposed.
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.
Renewable Energy & Energy Efficiency	Use of renewable energy could be significantly improved. 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.



Sustainability Topic	Key Sustainability Issues
Sustainable Transport & Reducing the Need to Travel	<p>Although the city has good public transport infrastructure, it needs expanding and upgrading to help minimise the high level of car use in Birmingham. 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.</p> <p>A very small proportion of people who work and live in the city (one tenth) work from home and therefore avoid travelling to work. There is little evidence of people being actively encouraged to work from home. More emphasis needs to be placed on 'smarter travel', discouraging unnecessary journeys and encouraging people to use public transport.</p>
Waste Reduction and Minimisation	<p>Landfill diversion rates are increasing in the City, and past targets for recycling have been met.</p>
Efficient Use of Land	<p>Good use is being made of previously developed land as a very high proportion of new housing and office development has taken place on previously developed land.</p>
Reducing and Managing Climate Change	<p>Birmingham's residents and businesses emit over 6.6 million tonnes of CO₂ per year. If global emissions are not reduced Birmingham could see average annual temperatures rise by 1.5°C by 2020 and winter rise by 1.3°C and 3.7°C and 2.9°C 4.5°C by 2080. Birmingham City Council has a good record of taking on board Environment Agency comments in terms of permitting development in flood risk areas. There is limited information on this objective although it is recognised by the City Council that measures will need to be put in place to manage the unavoidable impacts of climate change.</p> <p>Reducing and managing climate change are linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.</p>
Sense of Place	<p>Birmingham people are positive about their city; according to the Community Cohesion Strategy, opinion polls show that three quarters of people think it is a good place to live. No public open space is currently being lost, and environmental improvements have been made and continue to be made to various parts of the City. Sense of Place is linked to issues related to built and historic environment, natural landscape, housing, health, biodiversity, culture, sport and recreation and crime.</p>
Built and Historic Environment	<p>Birmingham has a large amount of land designated as Conservation Areas, some of which are nationally recognised such as the Jewellery Quarter and Bourneville. The City also has an extensive number of archaeological remains Listed Buildings and Registered Parks & Gardens.</p>
Landscape, Biodiversity and Geodiversity	<p>Although much of Birmingham is built up, there is a significant amount of open land within the City including areas of agricultural land to the north-east and south west of the City. The City falls within the National Character Areas (NCAs) of Arden to the south and Cannock Chase and Cank Wood to the north. The assessment of these areas for the Countryside Quality Counts project for Natural England indicates that they are subject to a high rate of change. Most of Birmingham is built up, but 15% of the City is designated as Green Belt. The City has 2 SSSIs and a number of other designated sites which cover approximately 10% of the City. There is one Local Nature Reserve designated in order to protect its geodiversity.</p>
Air, Water and Soil Quality	<p>Air quality is an issue as the whole City is designated as an Air Quality Management Area (AQMA); the main source pollutant being nitrogen dioxide as a result of pollution from vehicle emissions. There is a strong correlation between traffic congestion and poor air quality. The chemical and biological quality of rivers and waterways in Birmingham is generally poor compared to the West Midlands and England as a whole. The history of land use within the City including landfill sites, extensive manufacturing and transport leads to the potential for land contamination.</p>
Noise	<p>Noise pollution is a problem in some parts of the city, with Birmingham airport and traffic being the principal sources. It is anticipated this trend will continue.</p>
Social and Environmental Responsibility	<p>No information has been identified on this topic. Social and Environmental Responsibility is linked to issues related to equality, community involvement, learning and skills, economy and equality, waste reduction and minimisation.</p>



Sustainability Topic	Key Sustainability Issues
Economy and Equality, Learning and Skills	<p>Birmingham is the major employment centre for the West Midlands. Recent trends show an increase in service sector jobs, a continued decline in manufacturing jobs and an increase in unemployment. 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. 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 2002¹.</p> <p>There is significant disparity in terms of average household income between Birmingham's constituencies.</p>
Community Involvement	<p>Birmingham experiences very varied election turnouts from constituency to constituency, ranging from a 44.2% in Ladywood, to a 60.4% in Sutton Coldfield. The Sustainable Community Strategy indicates that in 2006, 40% of people agreed that they can influence decisions that affect their local area, an improvement of 22% from 2004.</p>
Equality & Poverty	<p>Birmingham has a relatively youthful population composed of people from a wide variety of national, ethnic and religious backgrounds. There are inequalities relating to access to services such as to jobs and health services, which are 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. About 40% of Birmingham's residents live in areas that are in the most deprived 10% in England. Concentrations are very high in wards to the east, north and west of the City Centre and also in Tyburn and Kingstanding Wards to the north of the M6 motorway. Unemployment rates are above the national average.</p>
Health	<p>The number of residents feeling in poor health is higher than the national average, and people in Birmingham have generally less healthy lifestyles than the English average. Life expectancy in Birmingham is below the England average. Health is linked to issues related to air quality, water quality, biodiversity, natural landscape, culture, sport and recreation, equality and crime.</p>
Crime	<p>Birmingham has the lowest overall crime rate of the eight major English cities. There have been over 5,300 less victims of crime based on figures for April to June 2012, compared to the same period in 2009.</p>
Housing	<p>Birmingham faces several issues relating to housing such as the increase in the number of households and the need for improvement in the social housing stock. Housing is linked to issues related to poverty, equality, built and historic environment, natural landscape, sense of place, resource use, energy efficiency and sustainable design, construction and maintenance.</p>
Culture, Sport and Recreation	<p>Birmingham has many strengths in this area and is internationally recognised for sports and exhibitions. The City's popularity amongst international visitors has increased and is now the fourth most popular city in the UK.</p>

Evolution of the BDP and reasonable alternatives considered

The BDP has evolved through several phases involving the appraisal of different scales of growth, initially at a level where all development would be accommodated within the existing built up area, and latterly, in response to a significant uplift of identified housing need, on greenfield land. At each stage, from issues and options to the submitted BDP, reasonable alternatives have been identified and appraised, comprising:

1. The period 2008-2011, where initial preparation of the Birmingham Core Strategy centred on delivering 57,500 homes and 180ha of employment land within the City's boundaries for the period 2006-2026. The BDP documents associated with this phase are:
 - ▶ Core Strategy Issues and Options (September 2008);
 - ▶ Birmingham Plan Emerging Core Strategy (October 2010)

Options of growth from 50,600 to 65,000 dwellings were appraised with no Green Belt release. The main sustainability issue identified was the level of development in the existing urban area and the likely pressures on

¹ https://www.nomisweb.co.uk/reports/lmp/la/2038431965/subreports/quals_time_series/report.aspx

features within the natural and historic environment which make it harder to incorporate strategic-scale measures for climate change adaptation.

2. The period 2012-2014, reflecting a revised plan timeframe (2011-2031) and a revised housing target of approximately 80,000 homes (51,100 within the City and around 40,000 delivered by adjacent authorities²) and 200+ha employment land. The BDP documents associated with this phase are:
 - ▶ Options Consultation (December 2012)
 - ▶ Pre-Submission BDP (October 2013)

The need to revisit the level of housing requirement in light of the projected growth of the City's population prompted the Options Consultation of Autumn 2012 which made the case for the need for the allocation of additional greenfield land and set out where development might potentially be located through a sustainable urban extension (SUE) of approximately 5 - 10,000 dwellings, and a strategic employment site of around 71ha (originally 50ha). Appraisal of reasonable alternatives as part of the Submission BDP (June 2014) centred on:

- ▶ Option 1: Do nothing i.e. not seeking to accommodate the additional projected growth (i.e. the level of growth proposed in the Preferred Option [2010]).
- ▶ Option 2: Accommodate additional projected growth within the existing urban area.
- ▶ Option 3: Strategic Green Belt Release (plus sub-options relating to individual sites):
 - Area A: Hill Wood, East of Watford Gap (two sub-options).
 - Area B: West of the M6 Toll (two sub-options).
 - Area C: West of the Sutton Coldfield Bypass, Walmley (two sub-options).
 - Area D: East of the Sutton Coldfield Bypass, Walmley.

In testing the option of a SUE against alternatives of not providing for the additional growth or further concentration of development in the urban area, the latter, it was concluded, involved unacceptably high densities of development and the likely loss of open spaces and employment land. A well-planned SUE in the right location, by contrast, could achieve a sustainable solution through providing a scale of development that could support an appropriate level of infrastructure and service provision and potentially be relatively self-contained. This would not be achieved through a series of small sites, even in proximity to one another, because key infrastructure needs to be carefully phased as part of site delivery and wider masterplanning.

A Revised Sustainability Report

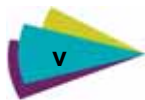
During Examination of the BDP, a number of shortcomings in the Sustainability Report were identified by the Inspector who requested in an Interim Report on the Examination³ that these be addressed in a Revised Sustainability Report. Consultation during March/April 2015 yielded further required amendments relating to the consideration of reasonable options in respect of development to the north east of the City. In addition, a series of Proposed Main Modifications have been suggested, four of which are considered to require appraisal. Consequently, the following principal amendments are made in this Revised SA Report:

Appraisal of Further Reasonable Options

Consultation on the revised SA Report of March 2015 has prompted the need for the consideration of further reasonable options related to a proposed urban extension at Sutton Coldfield. To date, two strategic options have

² The likely overspill figure is derived from figures in the submitted BDP

³ Planning Inspectorate (2015) EXAMINATION OF THE BIRMINGHAM DEVELOPMENT PLAN 2031 [BDP] - INSPECTOR'S INTERIM FINDINGS



been appraised: “around 5,000 dwellings” and “up to 10,000 dwellings”. For completeness two further options are appraised: a small site (or number of small sites) in the range of 500 to 3,000 dwellings, and a mid-range option of around 7,500 dwellings. These additional options are appraised on a comparable basis to the existing options to determine a preferred scale of development. Reasons for selecting the preferred option and rejecting alternatives, including sites which could accommodate these scales of development, are set out. The analysis of reasonable alternatives at the site level is set out at Chapter 5.

Policy Appraisal

As part of Proposed Main Modifications to the BDP, the Inspector has identified the need for SA work on the following:

- ▶ PMM26 (Policy GA6 Peddimore – a reduction in the size of the Peddimore employment site)
- ▶ PMM58 (New Policy TP15A Minerals – safeguarding of minerals)
- ▶ PMM78 (Amended Policy TP33 Provision for Gypsies, Travellers and Travelling Showpeople – proposed site allocations)
- ▶ PMM84/PMM85 (Policy TP40 Public Transport - definition of additional Sprint / Rapid transit routes).

These amendments are considered as part of this Revised SA Report.

Likely significant effects of the Birmingham Development Plan

The spatial strategy proposed by the BDP centres on regeneration-led growth, supported by limited strategic allocations on greenfield land which, along with development spread across adjacent authorities, help to meet the overall housing need for the City. The following table sets out an appraisal of the performance of the strategic approach of the BDP against the SA Objectives which, for this exercise, have been grouped by theme.

Predicted effects of the BDP by SA Objective

SA Theme	SA Objectives	Potential Positive Effects	Potential Negative Effects
1. Natural resources and waste	<p>1. Resource Use: Use natural resources such as water and minerals efficiently.</p> <p>7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.</p> <p>8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.</p>	<p>The intended scale of growth over the next 20 years, if properly managed, should contribute to greater efficiency in the use of land through the regeneration of brownfield sites, for example. The relatively compact nature of the City provides a useful template for future development.</p>	<p>In order to avoid inefficient use of scarce land resources, there will have to be particular attention paid to the co-ordination of site development. This will need to include dialogue with adjacent authorities over, for example, the functioning of Birmingham International Airport as part of the City's growth aspirations, and the channelling of regeneration efforts into the Black Country.</p> <p>The need to use greenfield land to meet the City's housing requirement is a significant, but probably unavoidable negative effect, although one which can be mitigated through design of a SUE and integration with existing communities.</p>
2. CO ₂ emissions	<p>2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient</p>	<p>There is the opportunity to pioneer the introduction of technologies which help to reduce per capita</p>	<p>Overall CO₂ emissions could well increase associated with population and economic growth. This will</p>

SA Theme	SA Objectives	Potential Positive Effects	Potential Negative Effects
	<p>design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.</p> <p>3. Renewable Energy: Encourage development of alternative and renewable resources.</p> <p>4. Energy Efficiency: Reduce overall energy use through energy efficiency.</p> <p>5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.</p> <p>6. Reduce the need to travel: Ensure development reduces the need to travel.</p> <p>9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.</p>	<p>emissions as part of new development.</p>	<p>require monitoring and co-ordination with complementary City-wide strategies such as the Climate Change Strategy. There is the potential for contradiction between the aspirations for Birmingham to be a world city, and the impacts of the increased travel that this is likely to generate.</p>
3. Climate change adaptation	<p>10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.</p>	<p>There are significant opportunities for the Birmingham Plan to contribute climate change adaptation across the City through the siting of development and its design.</p>	<p>Care will have to be taken to ensure that the capacity of the City to adapt to climate change impacts is not compromised by growth plans.</p>
4. Historic environment, landscape, biodiversity and geodiversity	<p>12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.</p> <p>13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.</p> <p>14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.</p>	<p>Growth brings the opportunity to enhance the quality of natural and cultural assets through attention to the siting and quality of development. Commitments to the protection of natural and cultural assets and the provision of green infrastructure should provide a sound basis for moving forward.</p>	<p>Growth in Birmingham of the scale proposed could well place pressures on the City's natural resources, given their relatively limited extent. Particular attention will therefore need to be paid to ensuring that any compromises in how natural resources are used yield a net gain.</p>
5. Pollution	<p>15. Air Quality: Minimise air pollution levels and create good quality air.</p> <p>16. Water Quality: Minimise water pollution levels and create good quality water.</p> <p>17. Soil Quality: Minimise soil pollution levels and create good quality soil.</p> <p>18. Noise: Minimise noise pollution levels.</p>	<p>Overall pollution levels have been declining and this has the potential to continue as a result of the use of high standards of new development, modal shift in transport towards more walking and cycling and public transport provision to reduce dependence on the private car.</p>	<p>Growth in the population and activity of the City could contribute to increased pollution levels, notwithstanding increases in walking and cycling and efficiencies in transport provision.</p>
6. Economic growth	<p>20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.</p> <p>21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.</p>	<p>Economic growth provides the opportunity to ensure that the City benefits in a wide range of respects, including distribution amongst all sectors of society and the renewal of infrastructure. The spatial division of these benefits will need particular scrutiny to ensure that the most is being</p>	<p>Careful attention will have to be paid to ensuring that all sectors of Birmingham's population benefit from greater economic activity.</p>

SA Theme	SA Objectives	Potential Positive Effects	Potential Negative Effects
		made of existing and potential assets.	
7. Communities, healthy lifestyles and equality	<p>11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.</p> <p>19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.</p> <p>22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.</p> <p>23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.</p> <p>24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.</p> <p>25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.</p> <p>26. Crime: Reduce crime, fear of crime and antisocial behaviour.</p> <p>28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.</p>	The aspirations to create a world city based on significant housing and economic growth should create opportunities to create a more liveable city, whilst not compromising the quality of what already exists. The creation of Sustainable Neighbourhoods should make a significant contribution towards achieving greater self-sufficiency, in turn contributing towards securing environmental targets. The initiative holds the potential to be the focus for a range of City-wide strategies which together will work towards sustainability aspirations.	The impacts of development will have to be scrutinised against a range of indicators over the medium to long term, recognising that there could be unfulfilled aspirations and a range of unintended consequences such as greater inequality amongst some groups or areas of the City.
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	The housing growth aspired to should create opportunities to provide for a greater choice of, and access to, housing across the City.	The location and type of new housing will have monitored to ensure that the housing delivered meets needs and does not compromise other objectives such as the maintenance and improvement of quality of life.

Birmingham's Growth Proposals

The BDP's proposals for delivering growth across the City in a balanced fashion reflect the aspirations of the NPPF for delivering sustainable development. The NPPF identifies that: "*The purpose of the planning system is to contribute to the achievement of sustainable development*" (paragraph 6), that "*Local Plans are the key to delivering sustainable development that reflects the vision and aspirations of local communities*" (paragraph 150), and that: "*local planning authorities should seek opportunities to achieve each of the economic, social and environmental dimensions of sustainable development, and net gains across all three*" (paragraph 152). The BDP seeks to demonstrate how these aspirations might be achieved in the context of significant growth in levels of housing and employment, making best use of existing assets, notably brownfield land and the potential for investment in strategic transport infrastructure to improve the functioning of the City.

The sustainability performance of the policies is largely positive, with many significant positive relationships and no instances of significant negative effects. The principle of a regeneration-led strategy, advocated by the BDP since the issues and options stage represents a logical and justifiable strategy approach for a City the size and complexity of Birmingham which contains significant tracts of brownfield land and communities in need of regeneration. These redevelopment opportunities already exist or will become available as part of the development cycle, along with areas which require rejuvenation, economically, socially and environmentally to varying degrees.

The Sustainable Appraisal of Options⁴ concluded that: *“The various effects associated with each option presents dilemmas in the selection of a preferred solution to the demands for growth of the City associated with projected population increase. The baseline strategy of accommodating growth within the existing urban envelope using sustainable neighbourhoods as the focus for development remains, but needs to be modified through additional land allocation. Over-intensification of the existing urban area threatens not only quality of life (notably through the erosion of limited open space resources and over-burdening of services), but also the capacity of the City to respond to future economic growth where employment land is used for housing. The appraisal concludes that, notwithstanding issues associated with loss of greenfield land and effects on nature conservation and cultural heritage, a sustainable urban extension on land to the north east of the City presents a relatively sustainable solution to accommodating the additional housing required.”*

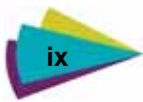
The BDP spatial development strategy

The proposed growth areas, strategic sites and other sites all demonstrate a relatively strong sustainability performance, being located in relative proximity to existing transport and service infrastructure whilst providing opportunities for incorporating measures which will help to mitigate impacts, such as best practice design delivering energy efficient development, green infrastructure and on the larger sites renewable energy generation and distribution. A SUE of around 5,000 dwellings at Langley, west of the A38, and a 71ha strategic employment site at Peddimore, east of the A38 is proposed. In respect of the appraisal of size and location of a SUE and a strategic employment site to the north east of Birmingham, the table below summarises the options chosen and reasons for their choice over reasonable alternatives.

Choice of Options over reasonable alternatives in respect of the Urban Extension and Strategic Employment Site

Option Chosen	Reasons for Selecting Option	Reasonable Alternatives Considered	Reasons for rejecting reasonable alternatives
STRATEGIC HOUSING OPTIONS			
Urban extension of around 5,000 dwellings	<ul style="list-style-type: none"> More predictable housing delivery rates within a reasonable timescale with associated infrastructure provision linked to clear trigger points. Lower cumulative impacts on landscape, biodiversity and cultural heritage. Preferable to a series of small sites as can be masterplanned as a single development with 	<ul style="list-style-type: none"> Extension of up to 10,000 dwellings Extensions of around 7,500 dwellings Extension(s) of 500 to 3,000 dwellings 	<p>Up to 10,000 dwellings</p> <ul style="list-style-type: none"> Impacts on current road infrastructure. Significant uncertainties over future provision of infrastructure associated with phasing of housing delivery, particularly if development areas were not adjacent to one another. Cumulative impacts on higher value landscape areas, biodiversity interests and the historic environment. <p>Around 7,500 dwellings</p> <ul style="list-style-type: none"> Impacts on current road infrastructure.

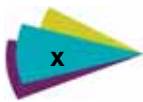
⁴ Sustainability Appraisal of Options Consultation (October 2012)



Option Chosen	Reasons for Selecting Option	Reasonable Alternatives Considered	Reasons for rejecting reasonable alternatives
	<p>appropriate infrastructure provision.</p>		<ul style="list-style-type: none"> • Uncertainties over future provision of infrastructure associated with phasing of housing delivery, particularly if development areas were not adjacent to one another. • Cumulative impacts on higher value landscape areas, biodiversity interests and the historic environment. <p>Extensions of 500 to 3,000 dwellings</p> <ul style="list-style-type: none"> • Pressures added to existing infrastructure, particularly roads and service provision. • Car-reliant transport in absence of additional investment. • Absence of opportunity to create sense of place.

HOUSING SITE OPTIONS

<p>Area C (Langley SUE)</p> <ul style="list-style-type: none"> • Relatively low landscape impacts, being a mixture of medium and low sensitivity to residential development • Relative proximity to the provision of higher order services. • Best performance in respect of transport accessibility (by all modes of transport) sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity (albeit with impacts on some significant junctions on the A38 and Heartlands Spine Road). 		<p>Area A Hill Wood</p>	<ul style="list-style-type: none"> • Relatively greater landscape and biodiversity impacts. • Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.
		<p>Area B West of M6 Toll</p>	<ul style="list-style-type: none"> • Relatively greater landscape and biodiversity impacts. • Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.
		<p>Area D East of Sutton Coldfield Bypass</p>	<ul style="list-style-type: none"> • Relatively remote from existing higher order services. • Greater reliance on car-based transport (affecting travel reduction, climate change and air quality objectives). • Challenges associated with developing sense of place for new community with no direct connection to an existing settlement.
		<p>Site A2 Hill Wood (bounded by Hillwood Road and Hillwood Common Road)</p>	<ul style="list-style-type: none"> • Relatively greater landscape and biodiversity impacts. • Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.
		<p>Site B2 West of M6 Toll (south of Tamworth Road)</p>	<ul style="list-style-type: none"> • Relatively greater landscape and biodiversity impacts. • Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.
		<p>Site C2 West of Sutton Coldfield Bypass at Walmley</p>	<ul style="list-style-type: none"> • Similar performance to Area C but a smaller site (193ha vs 273ha)



Option Chosen	Reasons for Selecting Option	Reasonable Alternatives Considered	Reasons for rejecting reasonable alternatives
EMPLOYMENT SITE OPTIONS			
Area D (Peddimore Strategic Employment Site)	Relatively limited landscape and biodiversity impacts. Proximity to motorway network offering good accessibility for intended uses.	Area C	<ul style="list-style-type: none"> Area C lies in relative proximity to the residential areas of Walmley with potential noise and air quality impacts.

Concentration of the majority of growth on sustainable neighbourhoods throughout the City will help to maintain and reinforce community vitality, and absorb pressures for the outward growth of the City. Concentrating development in existing centres provides wider sustainability benefits through limiting the need to travel (particularly cross-town trips), providing alternative travel options based around public transport, walking and cycling, and in so doing reducing air pollution. Potential problems associated with 'town-cramming', such as loss of open spaces and the character of localities can be mitigated through the development and application of policies on design.

Many sustainability problems result from the progressive accumulation of small and indirect effects and the failure to address these can induce further changes, notably the deterioration in housing quality, local retail decline and absence of open space management. There is inevitable uncertainty associated with trying to anticipate these interactions and impacts, but where negative effects are predicted, these reflect the likely impacts of growth in respect of additional resource use, waste generation and pollution. To an extent, these are inevitable by-products of growth, although as intended in a number of implementation policies, can be mitigated through striving for higher standards of building design and encouraging behavioural change in transport habits, for example.

Delivering sustainable development across Birmingham

Overall the BDP will help to deliver sustainable development for the City, directly and indirectly improving quality of life for residents, workers and visitors through delivering housing stock and services which better match needs, wealth creation, a sustainable transport system and an environmental setting which responds to the demands of growth and the challenges associated with climate change. These aspirations will be supported by various corporate initiatives to support sustainable growth, notably Leading Green City (March 2013) which sets out an ambitious vision for re-casting Birmingham's environmental footprint through energy generation and use and travel behaviour, and supporting strategies⁵.

The impacts of the BDP proposals acting and in combination with those of adjacent authorities will require close monitoring. The BDP relies upon neighbouring authorities for the delivery of part of its growth and these requirements will inevitably impact upon sustainability issues in these areas, notably on greenfield land take, traffic generation and service provision. Growth across the sub-region and region as a whole resulting from the plans of all authorities (albeit at different stages) is likely to result in a greater strength and complexity of cross-area commuting patterns, with consequences for key indicators such as air quality, congestion and neighbourhood coherence. The extent to which these impacts can be managed will depend upon the effectiveness of mitigation policies in BDP and other plans (such as those promoting a modal shift and greater self-containment) and their close monitoring will be required.

As part of the assessment of proposed policies, no significant negative effects were encountered, reflecting the pragmatic tone of the policies and the balanced approach to sustainable development which is being strived for. The assessment, perhaps inevitably, is characterised by numerous instances of uncertainty, either in the

⁵ Your Green and Healthy City SPD (2013); Birmingham's Health and Well-being Strategy (2013); Birmingham's Green Living Spaces Plan (2012)

relationship between policies and sustainability objectives or whether a particular effect will be realised. This reflects the contingent nature of spatial planning, which relies on wider interactions such as economic health. However, the BDP seeks to create the framework within which there can be balanced economic growth whilst providing for the needs of existing and future residents, in the context of environmental protection and enhancement.

In light of fulfilling the demands of the NPPF for sustainable development, one area of particular uncertainty is the extent to which, through the Duty to Co-operate, the City’s development requirements can be met. Around 40,000 dwellings will need to be provided in adjacent areas, seeking to reflect the interrelationship between the City of Birmingham and its surrounding city-region as evidenced through patterns of commuting, strategic employment and provision of retail and cultural services⁶.

There are significant uncertainties over the likely sustainability implications of accommodating around 40,000 dwellings in surrounding authorities, given the absence of detail at this stage of where this portion of Birmingham’s housing need might go. Exploration of strategic housing and employment provision across the City region is being undertaken through the GBSLEP Spatial Plan for Recovery and Growth, and conclusions on the appropriate spatial balance of development across the West Midlands could be reached which support or modify the aspirations of the BDP.

Mitigation

The following recommendations are made in respect of refinement and implementation of the BDP:

Topic/Policy	Recommendation
VISION, OBJECTIVES and STRATEGY	
BDP Vision	No recommendations
Strategic Objectives	The BDP Objectives has been appraised against the SA Objectives and found to be broadly compatible. Where potential incompatibilities exist, these are inherent (for example between growth and resource use), or can be mitigated through the implementation of policies throughout the plan (for example in relation to the promotion of sustainable neighbourhoods as part of housing growth).
Strategy	No recommendations, apart from close monitoring of the impacts of policy implementation in order to ensure that this is effective and meeting the aspirations set out in the objectives and strategy.
PLANNING FOR GROWTH	
PG1: Overall Levels of Growth PG2: Birmingham as an International City PG3: Place Making	<p>Notwithstanding some potential negative effects associated with some SA Objectives, overall this policy group is effective in communicating the intentions of sustainable growth across Birmingham which will drive the delivery of the Plan’s vision and objectives. In doing so, there is perhaps opportunity to cross reference policies or groups of policies which will help to deliver these intentions, such as the intention to create sustainable neighbourhoods (Policy TP26) which reflect and translate many of the growth aspirations.</p> <p>PG1: Reference in the policy to the role of regeneration and the creation of sustainable neighbourhoods would be a useful addition.</p> <p>PG2: The policy might be strengthened through the addition of reference to the importance of protecting the existing environmental qualities of the City.</p> <p>PG3: The policy might benefit from reference to the creation of ‘sustainable neighbourhoods’ (TP26) and defining precisely how these might look and function.</p>

⁶ See Roger Tym & Partners (January 2013) Birmingham Strategic Housing Market Assessment, chapter 13

Topic/Policy	Recommendation
SPATIAL DELIVERY OF GROWTH	
<p>GA1: City Centre</p> <p>GA2: Greater Icknield</p> <p>GA3: Aston, Newtown and Lozells</p> <p>GA4: Sutton Coldfield Town Centre</p> <p>GA5: Langley Sustainable Urban Extension</p> <p>GA6: Peddimore</p> <p>GA7: Bordesley Park</p> <p>GA8: Eastern Triangle</p> <p>GA9: Selly Oak and South Edgbaston</p> <p>GA10: Longbridge</p>	<p>The AAP and masterplan-led approach to these areas provides significantly more detail on implementation and the balancing of economic, social and environmental objectives. Nevertheless, greater emphasis in this suite of policies needs to be placed on achieving balanced growth that is ensuring that strong and rapid change does not cause undesirable side-effects such as the compromising of environmental quality. This is particularly the case with the City Centre but also applies to other growth areas on a lesser scale and in different ways where particular issues such as greenspace or air quality could be prominent. Cross-referencing to selected implementation policies would therefore be beneficial as well as re-assurance over the monitoring of key effects such as the provision of greenspace as part of new development.</p> <p>GA1: The dangers of benefits not spreading to deprived communities must be recognised, as should the need to ensure that environmental enhancement accompanies economic growth and physical change, and the role of independent retailing in adding to character to the City. The policy could be strengthened by reference to these issues.</p> <p>GA4: The policy could perhaps be improved through reference to environment and design quality, sense of place and synergy with the overall strategy of the BDP.</p> <p>GA9: The policy could useful include reference to how the area might function in combination with the intended investment into the City Centre.</p>
ENVIRONMENT AND SUSTAINABILITY	
<p>TP1: Reducing the City's Carbon Footprint</p> <p>TP2: Adapting to Climate Change</p> <p>TP3: Sustainable Construction</p> <p>TP4: Low and Zero Carbon Energy Generation</p> <p>TP5: Low Carbon Economy</p> <p>TP6: Managing Flood Risk</p> <p>TP7: Green Infrastructure Network</p> <p>TP8: Biodiversity and Geodiversity</p> <p>TP9: Open Space, Playing Fields and Allotments</p> <p>TP10: Green Belt</p> <p>TP11: Sports Facilities</p> <p>TP12: Historic Environment</p> <p>TP13: Sustainable Management of the City's Waste</p> <p>TP14: New and Existing Waste Facilities</p> <p>TP15: Location of Waste Management Facilities</p> <p>TP15A: Minerals</p>	<p>Whilst this suite of policies is in the main complementary to one another, they would benefit from more cross-referencing demonstrating key relationships, between Green Infrastructure and climate change for example.</p> <p>The supporting text of Policy TP9 (Open Space, Playing Fields and Allotments) would benefit from further clearer links to Policy TP7 (Green Infrastructure) (and vice versa) in order to help demonstrate how these closely related policies are related and need to be delivered together.</p> <p>Ideally this group of policies should set out in quantitative terms the likely capacity requirements which are referred to. Further justification of the approach should be set out in the supporting text.</p>
ECONOMY AND NETWORK OF CENTRES	
<p>TP16: Portfolio of Employment Land and Premises</p> <p>TP17: Regional Investment Sites</p> <p>TP18: Core Employment Areas</p> <p>TP19: Protection of Employment Land</p> <p>TP20: The Network and Hierarchy of Centres</p>	<p>Whilst the package of new employment land proposals and protection of key employment areas is likely to be beneficial overall, greater clarification would be helpful on how the benefits will be spread City-wide and complement other policy aspirations. Reference to partner strategies on education and social inclusion could be helpful in this regard, as would cross-referencing of policies, for example in relation to tourism and environmental protection.</p> <p>TP18: The interaction with other policies for employment provision (notably TP16, TP17 and TP10) could perhaps be identified.</p>

Topic/Policy	Recommendation
<p>TP21: Convenience Retail Provision</p> <p>TP22: Small Shops and Independent Retailing</p> <p>TP23: Promoting a Diversity of Uses within Centres</p> <p>TP24: Tourism and Tourist Facilities</p> <p>TP25: Local Employment</p>	<p>TP19: The interaction with other policies for employment provision (notably TP16, TP17, TP18 and TP25) could perhaps be identified.</p> <p>TP20: The relationship with complementary policies such as TP16, TP23, TP25 and TP26 could be referenced to identify the importance of a strategic overview of the type and location of employment provision. What, for example, might be the implications of City Centre growth and how is the competition between centres such as Longbridge and Northfield likely to be managed to ensure the sustainable growth of each?</p> <p>TP21, 22& 23: The policies could perhaps be enhanced through reference to the promotion of sustainable neighbourhoods.</p>
HOMES AND NEIGHBOURHOODS	
<p>TP26: Sustainable Neighbourhoods</p> <p>TP27: The Location of New Housing</p> <p>TP28: The Housing Trajectory</p>	<p>Reference to Sustainable neighbourhoods in all related policies would be helpful in demonstrating an integrated approach to housing strategy across the City, anticipating future approaches to its spatial character.</p> <p>TP26: What the policy currently doesn't do and which might be strengthened by is reference strategies for the delivery of these aspirations, sectorally and spatially. In principle, many of the proposed regeneration areas (Aston, Bordesley, Icknield Loop, Eastern Triangle) could pioneer some of the initiatives, although much will depend upon available investment.</p>
<p>TP29: The Type and Size of New Housing</p> <p>TP30: Affordable Housing</p> <p>TP31: Housing Regeneration</p> <p>TP32: Student Accommodation</p> <p>TP33: Provision for Gypsies, Travellers and Travelling Showpeople</p> <p>TP34: The Existing Housing Stock</p> <p>TP35: Education</p> <p>TP35: Health</p>	<p>Further explanation could be given regarding mix and tenure of replacement housing and whether balanced communities can be encouraged when municipal housing estates are renewed without a loss of social housing.</p>
CONNECTIVITY	
<p>TP37: A Sustainable Transport Network</p> <p>TP38: Walking</p> <p>TP39: Cycling</p> <p>TP40: Public Transport</p> <p>TP41: Freight</p> <p>TP42: Low Emission Vehicles</p> <p>TP43: Traffic Congestion and Management</p> <p>TP44: Accessibility Standards for New Development</p> <p>TP45: Digital Communications</p>	<p>Further consideration should be given to how the connectivity policies are likely to work in concert and with other policies throughout the Plan to achieve more sustainable outcomes for the BDP as a whole. For example, could the policy relating to cycling be linked to those on green infrastructure, health promotion and sustainable communities? Reference to clear strategies which will help to deliver the goals of sustainable transport policies would be helpful in promoting an integrated, City-wide approach.</p> <p>TP39: The policy could benefit from cross-referencing with other Policies such as TP25: Sustainable Neighbourhoods and the range of policies on encouraging sustainable transport.</p> <p>TP40: Implementation of the policy will be of particular importance in realising Sustainable Neighbourhoods and to this end cross-referencing to Policy TP26 would be helpful in demonstrating an integrated approach.</p>

Consultation

This SA Report is published alongside the Submission Birmingham Development Plan. Copies of the previous SA documents referred to in this SA Report can be found at: <http://www.birmingham.gov.uk/corestrategy>

Monitoring

It is a requirement of the SEA Directive to establish how the significant sustainability effects of implementing the plan, programme or strategy will be monitored, helping to:

- ▶ identify the significant effects of the plan;
- ▶ isolate unforeseen effects;
- ▶ ensure that there is action to offset any undesirable significant effects; and
- ▶ provide a baseline for ongoing monitoring of the plan.

Monitoring needs to be focused on significant sustainability effects and a suite of proposed indicators and targets are set out in the main report. The final monitoring framework will be published alongside the adopted BDP and accompany BCC's AMR, and could share some of the indicators in the AMR.

Post Adoption Statement

Following adoption of the BDP, a SA Post Adoption Statement will be produced, setting out the following:

- ▶ how environmental considerations have been integrated into the BDP;
- ▶ how the SA Report has been taken into account;
- ▶ how opinions expressed in relation to the BDP and SA Report have been taken into account;
- ▶ the reasons for choosing the BDP as adopted, in light of the reasonable alternatives considered; and
- ▶ the measures to be taken to monitor any significant environmental effects associated with implementation of the BDP.



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1. Introduction

1.1 The Requirement for SA/SEA

This document is the Sustainability Appraisal (SA) Report prepared to accompany the Submission version of the Birmingham Development Plan (BDP). The regulations contained within the Planning and Compulsory Purchase Act and the guidance set out in the NPPF identify that SAs should meet the requirements of EU Directive 2001/42/EC, Strategic Environmental Assessment (SEA), otherwise known as the 'SEA Directive'. The SEA Directive requires the iterative assessment of the effects of certain plans and programmes on the environment. In this context, the Directive's main areas of emphasis are to contribute to the integration of environmental considerations into the preparation and adoption of plans to promote sustainable development. The SEA Directive and SEA Regulations that transpose the Directive into UK Law, state that the SEA must consider the following topic areas:

- ▶ biodiversity;
- ▶ population;
- ▶ human health;
- ▶ flora and fauna;
- ▶ soil;
- ▶ water;
- ▶ air;
- ▶ climate change;
- ▶ material assets;
- ▶ cultural heritage; and
- ▶ landscape.

The SEA Directive defines environmental assessment as a procedure comprising:

- ▶ the preparation of an Environmental Report on the likely significant effects of the draft plan or programme;
- ▶ undertaking consultation on the draft plan or programme and the accompanying Environmental Report;
- ▶ taking into account the Environmental Report and the results of consultation in decision making; and
- ▶ providing information when the plan or programme is adopted showing how the results of the assessment have been taken into account.

SEA is required to be undertaken alongside the preparation of the plan to which it relates to allow alternatives to be incorporated, ensuring that environmental, social and economic implications are taken account of in emerging strategies and policies.

Although the SA and SEA process are separate appraisals, it is possible to combine these processes into a single assessment (as per the guidance set out in the NPPF). This single assessment is able to cover significant environmental, social and economic effects of implementing plans or programmes.



The Sustainability Appraisal (SA) incorporates the requirements of the Strategic Environmental Assessment (SEA) Directive and has been undertaken in line with former guidance issued by ODPM (2005) in '*Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*'.

1.2 Purpose of the Report and Background to the Appraisal

The purpose of the SA Report is to promote sustainable development through the integration of sustainability considerations into the proposed BDP. This SA Report reports the results of the assessment and sets out proposed mitigation measures to enhance the sustainability performance of the BDP and a monitoring framework to track the performance of the BDP against significant sustainability issues identified as part of the assessment.

This SA Report is the latest stage in the appraisal process which has accompanied the evolution of the BDP, the previous reports being:

- ▶ Sustainability Appraisal Scoping Report (2006, revised 2010 and 2012);
- ▶ Interim Sustainability Appraisal of Issues and Options (2008);
- ▶ Interim Sustainability Appraisal of Preferred Options (2010);
- ▶ Interim Sustainability Appraisal of Options Consultation (December 2012); and
- ▶ Interim Sustainability Appraisal of Proposed Site Allocations (September 2013).

1.3 The Birmingham Development Plan and consultation

The BDP sets out policies and proposals for the development of the City to the year 2031. The plan aspires to balance environmental, economic and social considerations as part of growth, and its spatial strategy is based around four themes:

- ▶ Planning for high quality places – The City's future growth will be pursued in the most sustainable way practicable reducing the City's carbon footprint and creating resilient and adaptive environments. All future development will need to be supported by suitable social infrastructure and set within environments that reflect the character and history of the City.
- ▶ Planning for growing population – Accommodating as much of the City's housing requirement as possible within the local authority's boundary. In delivering the principles of sustainable neighbourhoods we will seek to ensure that a wide choice of housing sizes, types and tenures is provided to community needs including homes for families, for the elderly and appropriate levels of affordable housing.
- ▶ Planning for a prosperous economy - Six Economic Zones will be created to provide the clustering of economic activity within high quality business environments that are supported by the right infrastructure. A thriving network of centres will be a significant driver for growth and central to delivering new office and retail development and other services to support communities throughout the City.
- ▶ Planning for improved connectivity and delivery of infrastructure - Major planned improvements to the City's national and international accessibility will be brought about by the continued expansion of Birmingham Airport. New and improved routes for pedestrians and cycle priority will be promoted connecting the network of centres, residential areas, employment opportunities and open countryside.

The BDP and its attendant SAs have been through a series of formal consultation stages, culminating in its submission to the Secretary of State for Examination. At all stages, representations have been considered and responded to, with the proposed BDP amended accordingly.

1.4 Compliance with the SEA Directive

Table 1.1 summaries where in the Sustainability Report the various requirements of the SEA Directive have been addressed.

Table 1.1 Information required by the SEA Directive and relevant sections in the Sustainability Report

SEA Directive requirement	Where covered in the SA Report
Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated.	This report and predecessors.
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes.	Section 3 and Appendix F
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Sustainability issues facing the City (section 2.7 and baseline data set out in Appendix E).
c) The environmental characteristics of areas likely to be significantly affected.	Sustainability issues facing the City (section 2.7 and baseline data set out in Appendix E).
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.	Sustainability issues facing the City (section 2.7 and baseline data set out in Appendix E).
e) The environmental protection objectives established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation.	Scoping Report (January 2008, July 2010, October 2012).
f) 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 interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects).	Analysis of significant effects (Table 4.3 and Appendix B).
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	Policy analysis (section 4.4) and recommendations (Table 6.2)
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Methodology (section 2) and profile of the BDP (section 3.2) Data limitations are identified in Appendix D.
i) A description of measures envisaged concerning monitoring in accordance with Art. 10.	Set out in section 6.3.
j) A non-technical summary of the information provided under the above headings.	Non-technical summary.
The report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Art. 5.2).	This report.



1.5 Structure of the Sustainability Report

The remainder of this Report is structured as follows:

- ▶ chapter 2 sets out the methodology used to undertake the appraisal;
- ▶ chapter 3 considers the BDP, its evolution and the principal aspects of the Plan - its objectives, strategy and policies - which are to be appraised
- ▶ chapter 4 sets out the results of the appraisal of the BDP
- ▶ chapter 5 summarises the overall results of the assessment
- ▶ chapter 6 analyses the overall effects of the BDP and proposed mitigation and monitoring measures
- ▶ chapter 7 details the next steps in the appraisal process

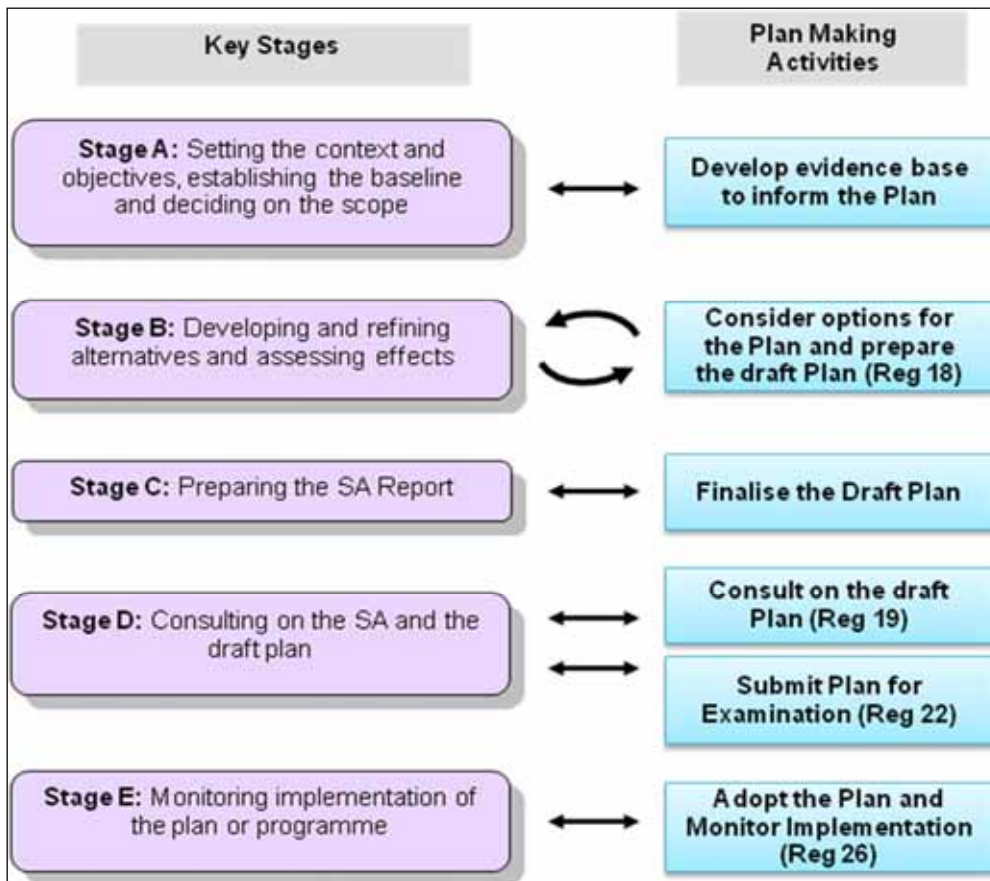
2. Appraisal Methodology

2.1 Approach to the Appraisal

The approach adopted to the assessment of the BDP has sought to meet the requirements of both SEA and SA (chapter 7 sets out how the requirements of the SEA Directive have been met in the preparation of this report) and from this point forward, reference to SA in this report should be taken as including SEA.

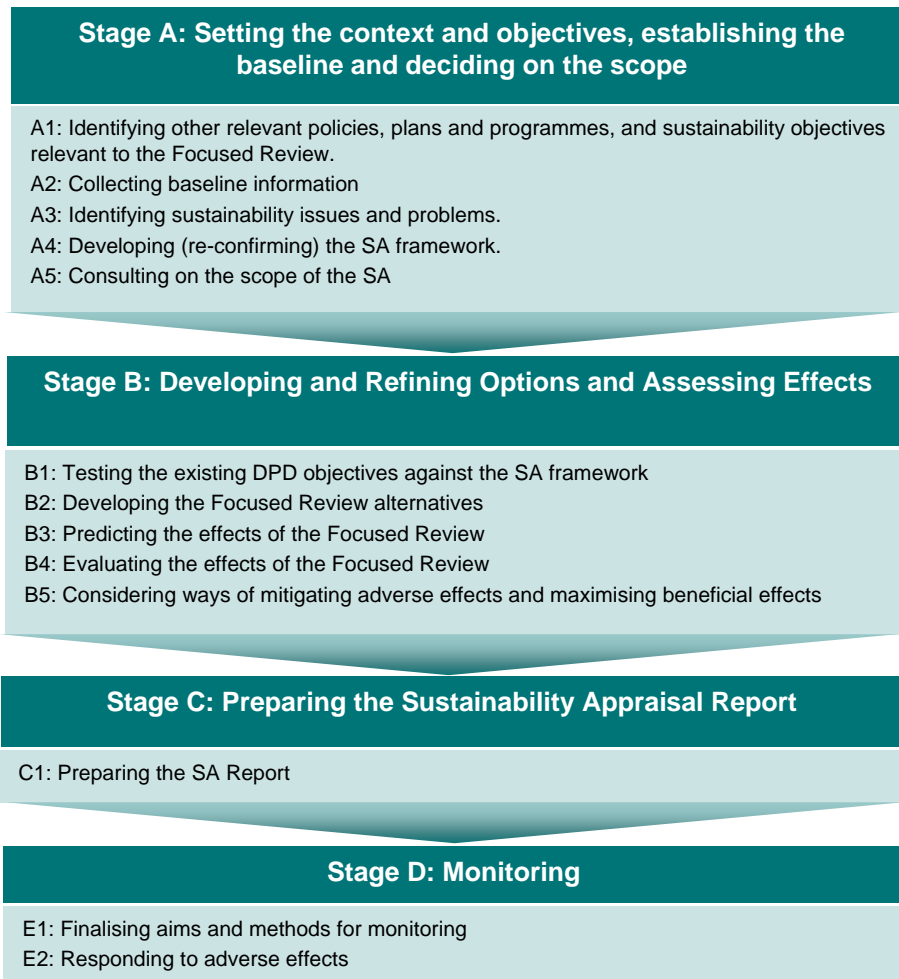
There are five key stages in the SA process which are shown in Figure 2.1 together with their relationship with the development of the BDP.

Figure 2.1 Stages of the SA Process (as identified in ODPM Guidance)



The approach adopted for the assessment of the DPD has sought to meet both the requirements of Sustainability Appraisal and Strategic Environmental Assessment. An integrated SA and SEA process can be defined as ‘an appraisal of the economic, environmental and social effects of a plan from the outset of the preparation process to allow decisions to be made that accord with sustainable development’. The stages involved in this process are outlined in Figure 2.2.

Figure 2.2 Detail of the Sustainability Appraisal Stages



2.2 Geographic and temporal scope

The spatial scope the SA principally relates to administrative area of the City of Birmingham, but also takes into account sub-regional, regional and national impacts where appropriate. Birmingham's position as the principal settlement of the West Midlands means that its environmental, social and economic role and impact reach far beyond its immediate boundaries, with attendant implications for key sustainability issues such as carbon emissions, housing provision and wealth creation. The assessment considers sustainability issues and effects in relation to the short term (1-5years), medium term (5-10 years) and longer term, (10-20years), the latter being the intended lifespan of the BDP (to 2031).

2.3 Habitats Regulations Assessment

The Habitats Directive (92/43/EEC) requires 'appropriate assessment' of plans and projects that are likely to have a significant impact on Natura 2000 sites (Special Protection Areas and Special Areas of Conservation). This Directive was passed into UK law under *The Conservation (Natural Habitats, &c.) Regulations 1994*, which proposed that Appropriate Assessment did not apply to land use plans. However, a judgement from the European Court of Justice found that this interpretation was incorrect and failed to properly transpose the European provisions into UK law, and that appropriate assessment does apply to land use plans. Therefore the 1994

Regulations have been amended to make appropriate assessment of relevant plans and strategies a requirement where a significant effect on a Natura 2000 site is likely.

Guidance on Appropriate Assessment states that plans should be 'screened' to determine whether appropriate assessment would be necessary. This is undertaken by assessing whether the LDF is likely to be significant effects on a Natura 2000 site through the policies and proposals contained within it. This screening determination should take into account the qualities of the Natura 2000 sites in the area, as well as their vulnerabilities.

Birmingham City Council has undertaken a HRA Screening⁷ to determine whether significant effects are likely on European designated sites.

2.4 Review of Plans, Policies 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. The updated Scoping Report (Autumn 2012) reviewed plans, policies and programmes in order to establish the economic, environmental and social objectives contained within them, allowing key sustainability drivers and synergies to be identified. The BDP has a direct and indirect relationship with a wide range of international, national, regional and local plans and is likely to support or interact with these. Appendix E sets out this review, based on the documents set out in Table 2.1. Some of the programmes established at EU level have required the preparation of various separate strategies, notably the River Basin Management Plans under the Water Framework Directive and air quality management plans under the Air Quality Directive. A variety of local plans have been, or are being prepared within Birmingham in advance of the BDP, including Area Action Plans for Longbridge, Aston and Bordesley and the City Centre Masterplan. These form a central part of the BDP's area-based regeneration strategy.

Table 2.1 Plans, Programmes and Strategies Relevant to the Birmingham Development Plan

International
EU (1992) Conservation of Natural Habitats and Wild Fauna and Flora (92/43/EEC, Habitats Directive)
EU (1996) Ambient Air Quality Assessment and Management (96/62/EC, Air Quality Framework Directive)
EU (2000) Directive on Establishing a Framework for Community Action in the Field of Water Policy (2000/60/EC, The Water Framework Directive)
EU (2005) Clean Air Strategy
EU (2008) Directive on Waste (2006/12/EC, Waste Framework Directive)
UNFCCC (1997) Kyoto Protocol to the UN Framework Convention on Climate Change
UNFCCC (2009) Copenhagen Accord (Climate Change)
Council of Europe (2006) European Landscape Convention
Council of Europe (1985) Convention on the Protection of the Architectural Heritage of Europe
EU (2007) Floods Directive
EU (1991) Urban Waste Water Treatment Directive
European Commission (1999) The Landfill Directive
EC (2007) Together for Health: A Strategic Approach for the EU 2008-2013

⁷ UE Associates (2010) HRA Screening of the Birmingham Plan



The Pan-European Biological and Landscape Diversity Strategy (1995)

National

- CLG (2012) National Planning Policy Framework (NPPF)
- CLG (2012) National Planning Policy Framework Technical Guidance
- CLG (2011) The Localism Act
- CLG (2011) The Community Infrastructure Levy Regulations
- DECC (2008) UK Climate Change Act 2008
- DCMS (2007) Heritage Protection for the 21st Century
- Defra (2003) The Water Environment (Water Framework Directive) (England and Wales) Regulations
- Defra (2007) Guidance for Local Authorities on Implementing Biodiversity Duty
- Defra (2011) Biodiversity 2020: A Strategy for England's wildlife and ecosystem services
- Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 2)
- Defra (2011) Government Review of Waste Policy in England
- Defra (2008) Future Water, the Government's Water Strategy for England (Feb 08)
- Defra (2009) Safeguarding our Soils: A Strategy for England
- Defra (2011) Natural Environment White Paper; The natural choice: securing the value of nature
- Defra (2011) Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services
- Defra & HM Government (2011) Water White Paper; Water for Life
- Defra and Environment Agency (2011) National Flood and Coastal Erosion Risk Management Strategy for England
- HM Government (2010) The Air Quality Standards 2010
- HM Government (2010) Flood and Water Management Act, 2010
- HM Government (2012) Draft Water Bill
- 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.
- Forestry Commission (2005): Trees and Woodlands Nature's Health Service
- HM Government (2006) Climate Change The UK Programme
- HM Government (2010) The Conservation of Habitats and Species Regulations 2010

Regional

- Severn Trent Water Resources Management Plan (2010)
- Severn Trent Water Sewage Management Plan (2009)
- Environment Agency Humber River Basin Management Plan (2009)
- Environment Agency Trent Catchment Flood Management Plan (2010)
- The Greater Birmingham and Solihull Local Enterprise Partnership Strategy (2013)



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

Local

Birmingham City Council (1997) Nature Conservation Strategy for Birmingham
Birmingham City Council (1999) Regeneration Through Conservation: Birmingham Conservation Strategy
Birmingham City Council (2004) Archaeology Strategy
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 & Bromsgrove District Council (2009) Longbridge Area Action Plan
Birmingham City Council (2009) Sutton Coldfield Town Centre Regeneration Framework
Birmingham City Council (2010) The Birmingham Area Investment Prospectus
Birmingham City Council (2010) Birmingham Climate Change Action Plan 2010+
Birmingham City Council (2010) Birmingham Climate change action plan 2010+
Birmingham City Council (2011) Birmingham Multi Agency Flood Plan
Birmingham City Council (2011) Birmingham Big City Plan City Centre Masterplan
Birmingham City Council (Jan 2012) Level 1 & 2 Strategic Flood Risk Assessment
Birmingham City Council (2012) Places for the Future SPD
Birmingham City Council (2012) Level 1 & 2 Strategic Flood Risk Assessment
Birmingham City Council (2012) Shopping and Local Centres SPD
Birmingham City Council (2012) Aston, Newtown and Lozells Area Action Plan
Birmingham City Council (2013) Birmingham's Green Living Spaces Plan
Birmingham City Council (2013) Birmingham Health and Well-being Strategy
Birmingham City Council (2014) Preferred Option Bordesley Park AAP
Birmingham City Council (2014) Draft Greater Icknield Masterplan

2.5 Baseline Review and its evolution without the Birmingham Development Plan

The Scoping Report reviews the current state of the environment, economy and society and trends across the City. This assists with the identification of issues and opportunities which should be addressed through the BDP, and with ongoing monitoring as the BDP is implemented. The baseline data assembled in the Scoping Report provides an evidence base for identifying sustainability issues across the City, and directly informs the SA Framework

(section 3.1) and subsequent assessment of the way in which the BDP is likely to contribute to sustainable development. Table 2.2 summarises the key sustainability issues and opportunities identified in the Scoping Report and the baseline data assembled for the Scoping Report is set out in Appendix D.

The SEA Regulations require that information is provided on “... *the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan.*” Where possible trends in the baseline data are described, and their evolution is taken to mean a continuation of the existing Unitary Development Plan.

Table 2.2 Key Sustainability Issues Identified in the Scoping Report

Sustainability Topic	Key Sustainability Issues
1. Resource Use	New additional water management measures or water resources needed to ensure there is sufficient water for new housing proposed in the current and revised Regional Spatial Strategy. Resource Use is linked to issues related to water quality.
2. Sustainable Design, Construction and Maintenance	There are several examples of good design in Birmingham, but more could be done in the future to regenerate certain parts of the City. Sustainable Design, Construction and Maintenance is linked to issues related to energy efficiency, climate change mitigation and adaptation and housing.
3. Renewable Energy	Use of renewable energy could be significantly improved. Renewable Energy is linked to issues related to climate change mitigation and adaptation.
4. Energy Efficiency	Recent developments have shown evidence of energy efficiency, but the large number of old properties in the City will need improving to make them more energy efficient, building on current initiatives. Energy Efficiency is linked to issues related to renewable energy, sustainable design construction and maintenance, housing and social and environmental responsibility.
5. Sustainable Transport	Although the city has good public transport infrastructure, it needs expanding and upgrading to help minimise the high level of car use in Birmingham. A commitment is set out to achieve this. Emphasis will be placed on 'smarter travel', discouraging unnecessary journeys and encouraging people to use public transport. Congestion is a significant issue at certain times on both road and rail. Sustainable Transport is linked to issues related to air quality, reducing the need to travel, health, climate change mitigation and adaptation.
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 and encouraging people to use public transport. 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 between 2002/03-2010/11 from 23% to 10.37%. Given European and National targets it is likely this trend 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. Efficient Use of Land is linked to issues related to soil quality, natural landscape, built and historic environment, biodiversity culture, sport and recreation and sense of place.
9. Reducing Climate Change	Birmingham's residents and businesses emit over 6.6 million tonnes of CO ₂ per year. If global emissions are not reduced Birmingham could see average annual temperatures rise by 1.5°C by 2020 and winter rise by 1.3°C and 3.7°C and 2.9°C 4.5°C by 2080. Reducing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.

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

Sustainability Topic	Key Sustainability Issues
20. Economy and Equality	<p>Birmingham is the major employment centre for the West Midlands Recent trends show an increase in service sector jobs, a continued decline in manufacturing jobs and an increase in unemployment.</p> <p>Birmingham still has a high proportion of economically inactive people e.g. students, people caring full-time for relatives. Unemployment is higher than the national average. The economic activity rate for Black and Minority Ethnic residents is far higher than that for white residents.</p> <p>There is significant disparity in terms of average household income between Birmingham's constituencies.</p> <p>Economy and Equality is linked to issues related to poverty, learning and skills, equality, housing and community involvement.</p>
21. Learning and Skills	<p>The proportion of people in Birmingham with few or no qualifications is above the national average, but improvements are being made in educational achievement. The percentage of Birmingham residents with a NVQ Level of 3 or above has been increasing since 2002⁸.</p> <p>The percentage of residents on Job Seekers Allowance has increased significantly since November 2007. Whether this trend will continue is likely to depend on wider national economic trends.</p> <p>Learning and Skills is linked to issues related to economy and equality, community involvement, equality, poverty and social and environmental responsibility</p>
22. Community Involvement	<p>Birmingham experiences very varied election turnouts from constituency to constituency, ranging from a 44.2% in Ladywood, to a 60.4% in Sutton Coldfield. The Sustainable Community Strategy indicates that in 2006, 40% of people agreed that they can influence decisions that affect their local area, an improvement of 22% from 2004.</p> <p>Community Involvement is linked to issues related to economy and equality, learning and skills, poverty, sense of place and housing.</p>
23. Equality	<p>Birmingham has a relatively youthful population composed of people from a wide variety of national, ethnic and religious backgrounds. There are inequalities relating to access to services such as to jobs and health services, which are partly to do with geographical location, but partly to do with social and economic disadvantage. There is generally good accessibility in most places at most times for those households without a car, due to the extensive bus network. Two particular problems have been identified with access for unemployed people to attend job interviews and with access to major NHS hospitals by public transport.</p> <p>Equality is linked to issues related to economy and equality, learning and skills, community involvement, poverty, crime and housing.</p>
24. Poverty	<p>About 40% of Birmingham's residents live in areas that are in the most deprived 10% in England. Concentrations are very high in wards to the east, north and west of the City Centre and also in Tyburn and Kingstanding Wards to the north of the M6 motorway. Unemployment rates are above the national average.</p> <p>Poverty is linked to issues related to health, crime, community involvement, learning and skills and equality.</p>
25. Health	<p>The number of residents feeling in poor health is higher than the national average, and people in Birmingham have generally less healthy lifestyles than the English average. Life expectancy in Birmingham is below the England average.</p> <p>Health is linked to issues related to air quality, water quality, biodiversity, natural landscape, culture, sport and recreation, equality and crime.</p>
26. Crime	<p>Birmingham has the lowest overall crime rate of the eight major English cities. There have been over 5,300 less victims of crime based on figures for April to June 2012, compared to the same period in 2009.</p> <p>Crime is linked to issues related to poverty, equality, learning and skills and housing.</p>
27. Housing	<p>Birmingham faces several issues relating to housing such as the increase in the number of households and the need for improvement in the social housing stock.</p> <p>House prices in Birmingham peaked in January 2008 and sharply declined through to 2010, and now have stabilised. Clearly however sales volumes have declined by over 50% since October 2006. This suggests that the affordability of housing for poorer families and first-time buyers has declined due to other national economic conditions.</p> <p>Housing is linked to issues related to poverty, equality, built and historic environment, natural landscape, sense of place, resource use, energy efficiency and sustainable design, construction and maintenance.</p>

⁸ https://www.nomisweb.co.uk/reports/lmp/la/2038431965/subreports/quals_time_series/report.aspx

Sustainability Topic	Key Sustainability Issues
28. Culture/Sport/ Recreation	<p>Birmingham has many strengths in this area and is internationally recognised for sports and exhibitions.</p> <p>The City's popularity amongst international visitors has increased and is now the fourth most popular city in the UK.</p> <p>Culture/Sport/Recreation is linked to issues related to health, poverty, community involvement, biodiversity, natural landscape, sense of place and efficient use of land.</p>

2.6 Development of the Sustainability Objectives and Framework

The sustainability objectives developed to help appraise the performance of the BDP have been informed by the baseline evidence, the consideration of the key sustainability issues for Birmingham, the review of plans and programmes and the comments received during the consultation of the SA Scoping Report. Broadly, the objectives present the preferred environmental, social or economic outcome which typically involves minimising detrimental effects and enhancing positive effects. They have been formulated to allow for an assessment of the key effects of the implementation of the BDP by covering key environmental, social and economic issues. The SA Objectives and associated guide questions are set out in Table 2.3.

Table 2.3 SA Objectives and Guide Questions

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to...	Principal SEA Directive Topic
1. Natural resources and waste	1. Resource Use: Use natural resources such as water and minerals efficiently.	<ul style="list-style-type: none"> Incorporate energy efficiency measures into new land use and developments, redevelopment and refurbishment? Promote and support resource efficient technologies? Reward efficient resource use? Reduce water consumption? 	Material assets
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	<ul style="list-style-type: none"> Divert resources away from the waste stream, including the use of recycled materials where possible? 	Material assets
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	<ul style="list-style-type: none"> Encourage the efficient use of land and minimise the loss of greenfield land? Value and protect the biodiversity/geodiversity (of previously developed land and buildings)? 	Material assets
2. CO ₂ emissions	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	<ul style="list-style-type: none"> Reduce dependence on fossil fuels? Increase the number of buildings which meet recognised standards for sustainability? 	Material assets
	3. Renewable Energy: Encourage development of alternative and renewable resources.	<ul style="list-style-type: none"> Reduce dependence on fossil fuels? Promote and support the development of new high value and low impact technologies, especially resource efficient technologies and environmental technology initiatives? 	Material assets

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to...	Principal SEA Directive Topic
		<ul style="list-style-type: none"> Increase the proportion of energy generated from renewable and low carbon sources, including micro generation, CHP, district heating and transportation? 	
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	<ul style="list-style-type: none"> Reduce energy consumption? 	Material assets
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	<ul style="list-style-type: none"> Reduce road traffic congestion, pollution and accidents? Encourage walking and cycling? Reduce travel by private car? Promote accessibility for disabled people? 	Material assets
	6. Reduce the need to travel: Ensure development reduces the need to travel.	<ul style="list-style-type: none"> Reduce traffic volumes? Reduce average journey length? 	Material assets
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	<ul style="list-style-type: none"> Reduce emissions of greenhouse gases by reducing energy consumption? 	Climatic factors
3. Climate change adaptation	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	<ul style="list-style-type: none"> Minimise the risk of flooding from rivers and watercourses to people and property? Reduce the risk of damage to property from storm events? Protect, enhance and extend green infrastructure resources? Address climate change adaptation for biodiversity fragmentation? 	Climatic factors
4. Historic environment, landscape, biodiversity and geodiversity	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	<ul style="list-style-type: none"> Protect and enhance features of built and historic environment and landscape? 	Cultural heritage
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	<ul style="list-style-type: none"> Safeguard and enhance the character of the local landscape and local distinctiveness? Improve the landscape quality and character of the countryside? 	Landscape
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	<ul style="list-style-type: none"> Use approaches that improve the resilience of natural systems such as linking fragmented habitats where possible? Conserve and enhance natural/semi-natural habitats and conserve and enhance species diversity? Lead to habitat creation delivering BAP priorities? 	Biodiversity, flora and fauna
5. Pollution	15. Air Quality: Minimise air pollution levels and create good quality air.	<ul style="list-style-type: none"> Improve air quality? Reduce CO₂ emissions? 	Air
	16. Water Quality: Minimise water pollution levels and create good quality water.	<ul style="list-style-type: none"> Improve water quality? 	Water
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	<ul style="list-style-type: none"> Maintain and enhance soil quality? 	Soil

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to...	Principal SEA Directive Topic
		<ul style="list-style-type: none"> Minimise the loss of soils to development? 	
	18. Noise: Minimise noise pollution levels.	<ul style="list-style-type: none"> Reduce noise pollution? Propose mitigation measures to minimise noise pollution? 	Human health
6. Economic growth	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	<ul style="list-style-type: none"> Encourage and support a culture of enterprise and innovation, including social enterprise? Improve business development and enhance competitiveness? Promote growth in key sectors? Reduce unemployment, especially amongst disadvantaged groups? 	Population
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	<ul style="list-style-type: none"> Ensure that Birmingham's workforce is equipped with the skills to access high quality employment opportunities suited to the changing needs of Birmingham's economy whilst recognising the value and contribution of unpaid work? 	Population
7. Communities, healthy lifestyles and equality	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	<ul style="list-style-type: none"> Improve the satisfaction of a diverse range of people with the neighbourhoods where they live? 	Population
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	<ul style="list-style-type: none"> Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? Encourage good employee relations and management practices? Encourage ethical trading? 	Population
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	<ul style="list-style-type: none"> Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? Encourage engagement in community activities for example through the establishment of social and cultural facilities that address the needs of equalities groups? Increase the ability of people to influence decisions? 	Population
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	<ul style="list-style-type: none"> Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation? Ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location? 	Population
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	<ul style="list-style-type: none"> Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation? Reduce household poverty, especially the proportion of children living in poor households? 	Population

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to...	Principal SEA Directive Topic
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	<ul style="list-style-type: none"> • Provide equitable access to health services? • Provide sufficient areas of accessible natural greenspace? 	Human health
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	<ul style="list-style-type: none"> • Reduce crime? • Reduce the fear of crime amongst all social and cultural groups? 	Population
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	<ul style="list-style-type: none"> • Encourage participation in sport and cultural activities for all the diverse communities in Birmingham? 	Population
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	<ul style="list-style-type: none"> • Reduce homelessness? • Increase the range and affordability of housing for all social and cultural groups? • Reduce the number of unfit homes? 	Material assets

2.7 Key sustainability issues and opportunities

Key sustainability issues of relevance to Birmingham and its role within the wider City Region have been identified from the Scoping Report and the BDP, with attendant opportunities identified. Table 2.4 summarises the key issues and opportunities which could be taken through the BDP (and other strategies and policies) to address these issues.

Table 2.4 Key Sustainability Issues and Opportunities

SA Theme	Key Issues	Opportunities and Interrelationships
SA Theme 1: Natural resources and waste	<p>The key impacts here are associated with the relationships between the level of growth proposed in the BDP Strategy and the significant demand for natural resources (minerals, water and land) and the production of waste.</p> <p>Minerals: There will be a significant demand for minerals to derive building materials for the construction of new dwellings plus supporting employment development (such as new offices and factories) and infrastructure (roads for example). The impacts associated with the demand for minerals will include:</p> <ul style="list-style-type: none"> • Environmental impacts from mining and quarrying operations: to source the minerals there could be impacts associated with noise, air quality and ecology for example (although operational minerals sites will have controls to mitigate their impacts). These impacts are likely to be felt outside of Birmingham itself (where there are no active mineral workings) into neighbouring areas in the wider region (such as Staffordshire for example, which has a number of active mineral sites). • Increased CO₂ emissions: associated with the transport of these materials and relating to the embodied energy involved in the creation of these materials, with CO₂ emissions a key contributor to global climate change. The transport of these materials may also have impacts locally associated with works traffic to and from sites (particularly on local air quality). 	<p>Support reductions in the volume and type of waste going to landfill.</p> <p>Support alternative methods of waste management, such as through waste minimisation and recycling.</p> <p>Encourage the re-use and recycling of construction waste in developments through planning conditions.</p> <p>Maximise the efficient use of land.</p> <p>Consider the effects of development on water quality, both surface water and groundwater.</p> <p>Encourage the use of SuDS in new development, and the re-use of rainwater.</p> <p>Attention to these issues and opportunities will help address climate change and the City's responses to it, the protection of</p>

SA Theme	Key Issues	Opportunities and Interrelationships
	<p>Water: There will be a significant demand for water to supply new homes, businesses and other users. However, according to Severn Trent, there is sufficient existing and planned supply “to support the significant growth projections for this zone” [the Birmingham Water Resource Zone]⁹.</p> <p>Land: There will be a demand for land to accommodate the significant levels of development proposed. Land is also a valuable resource, particularly greenfield land which may have an agricultural, ecological, archaeological and recreational value when compared to vacant, underused or derelict brownfield sites within the existing urban area (although it is noted that brownfield sites may have ecological value too). The focus of SA Objective 8 is to ensure an efficient use of land through maximising the potential from brownfield sites rather than using greenfield ones but given the levels of growth proposed, particularly under higher growth options, there may be insufficient supply of brownfield sites to deliver this.</p> <p>The Strategic Housing Land Availability Assessment and Employment Land Capacity Study¹⁰ identifies that there are sufficient sites within the existing urban area to deliver around 51,782 dwellings over the period 2011-2031¹¹.</p> <p>With respect to employment land there is considered to be a shortfall in land for B1 in the short term and B8 in the longer term. To respond to this shortfall may also require suitably located greenfield sites but this will need to link closely with new housing provision as this is likely to be the key driver for growth.</p> <p>An alternative to bringing forward greenfield sites to meeting higher growth targets could be to further intensify the existing urban area through higher densities and relaxation of policies protecting open spaces and the historic environment (i.e. the mature suburbs) however this could conflict with a number of other SA objectives with respect to local air quality through increased traffic congestion (SA Theme 5), Birmingham’s ability to respond to climate change (see SA Theme 3) and to protect features of the historic and natural environment within the main urban area (SA Theme 4).</p> <p>Waste: The level of development proposed will also increase waste. There are two types of waste considered here:</p> <ul style="list-style-type: none"> • waste arising from the construction of new development (and therefore linked with an efficient use of natural resources); and • waste arising from the new homes, businesses and other uses once occupied. <p>There are environmental impacts relating to the disposal of non-recyclable waste, where this needs to go to landfill. It is important to note that with respect to waste in the construction sector the Government has a target for zero waste to landfill by 2020 and at the local level BCC aims to reach a domestic recycling and composting rate 40% by 2026 (from a current level of around 30%). Consideration also needs to be given to the existing and planned capacity of waste disposal infrastructure to provide services to new development.</p>	<p>biodiversity, health and well-being of the population and the City’s economy through encouraging innovation.</p>

⁹ Severn Trent Water Resources Management Plan

¹⁰ Birmingham City Council (September 2014) Strategic Housing Land Availability Assessment

¹¹ Comprising: 38,395 identified sites, 8,435 unidentified sites, 4,159 completions, and 793 vacant dwellings returned to use.

SA Theme	Key Issues	Opportunities and Interrelationships
<p>SA Theme 2: CO₂ emissions</p>	<p>BCC is committed to securing reductions in CO₂ emissions, with the Sustainable Community Strategy setting a target for a 60 per cent reduction in emissions by 2026. The main source of emissions is likely to come from the built environment and transport, both of which are sources that the BDP can influence.</p> <p>New development will create an additional demand for energy to provide electricity, heating and cooling for the new homes, businesses, shops, schools and other buildings. Where this energy demand is met through power stations dependant on fossil fuels (coal fired power stations for example), rather than zero or low carbon systems¹², this new development will lead to increases in CO₂ emissions, which cumulatively will contribute to global emissions and future climate change. It is important to note that just one per cent of the energy currently consumed in Birmingham is from zero and low carbon sources.</p> <p>The levels of growth proposed will increase the overall number of 'trips' within the City, for new residents to travel from their homes to work, access services, shops, leisure and recreation. Associated with economic growth in particular will be the associated growth in the transport of goods and labour. Where trips are reliant on petrol (or diesel) powered vehicles this could lead to significant increases in CO₂ emissions and therefore contribute to global emissions and future climate change. In addition to contributing to global CO₂ emissions, transport growth will also have impacts at the local and regional level, for example in relation to air quality and congestion, which are explored in more detail under SA Themes 5 and 6.</p> <p><i>Birmingham International Airport (BIA): Although outside of BCC's administrative boundary, BIA (which lies in Solihull Borough) and Birmingham are inextricably linked; the airport is central to aspirations for Birmingham to be seen as a 'global city' and to support economic growth with respect to international trade and tourism. A planning application for significant expansion of BIA was approved by Solihull Metropolitan Borough Council in 2009¹³ This application is for an extended runway, new air traffic control tower and improvements to the airport's supporting infrastructure. Essentially, the aim of these proposals is to provide BIA with the capacity to enable long-haul flights, seen as important to the regional economy in terms of promoting international trade, in-bound tourism and the Birmingham's aspiring role as a global city. Air travel is seen as a significant contributor to CO₂ emissions and future climate change. It is therefore an important factor when considering sustainability impacts given the potential contribution of an expanded airport to CO₂ emissions and global climate change (as a result of more capacity and more flights). The Environmental Statement states that CO₂ emissions are likely to increase by 37% to 2030 as a result of the current expansion proposals. This is not a straightforward issue for this SA and the BDP to address however because:</i></p> <ul style="list-style-type: none"> • The airport is outside of Birmingham's authority boundary and within Solihull Metropolitan Borough limiting the scope for the BDP to have a <i>direct</i> influence on expansion (unless the expansion was into Birmingham). • An expanded airport could have a range of benefits for Birmingham, particularly in economic terms, which would need to be weighed against environmental concerns. 	<p>Use of renewable energy could be significantly improved.</p> <p>Although the city has good public transport infrastructure, it needs expanding and upgrading to help minimise the high level of car use in Birmingham. A commitment is set out to achieve this. Emphasis will be placed on 'smarter travel', discouraging unnecessary journeys and encouraging people to use public transport. Congestion is a significant issue at certain times on both road and rail.</p> <p>These measures will contribute to addressing climate change and ultimately the health and well-being of the population and success of the City's economy.</p>
<p>SA Theme 3: Climate change adaptation</p>	<p>Current evidence, based on a review of the potential impacts of climate change at the regional level¹⁴ and the Climate Change Action Plan 2010+ suggests that the City will need to be prepared for a range of potential impacts including increases in flooding, summer droughts and a greater probability of extreme weather events (heat waves and extreme floods for example). By 2050 climate change could be characterised as follows:</p> <ul style="list-style-type: none"> • An increase in annual temperature, with most of this accounted for with warmer summers (where average summer temperatures could increase by 	<p>Ensure that specific adaptation measures are put in place, for example:</p> <ul style="list-style-type: none"> • Directing development away from areas at risk of flooding.

¹² Zero carbon systems include wind turbines, solar thermal and solar photovoltaic. Low carbon systems include air or ground source heat pumps or combined heat and power (CHP) for example.

¹³ <http://www.solihull.gov.uk/planningservices/15089.htm>

¹⁴ The Potential Impacts of Climate Change in the West Midlands, Entec UK Ltd for Sustainability West Midlands, January 2004

SA Theme	Key Issues	Opportunities and Interrelationships
	<p>30C) and further exacerbated by the urban heat island effect. The potential for temperatures to exceed 40oC in the summer is also increasingly likely.</p> <ul style="list-style-type: none"> An increase in rainfall and the potential for storms in the winter months. In the summer, rainfall is likely to decrease but will be of a greater intensity when it does rain. An increase in other extreme events, such as the tornado experienced by the City's southern suburbs in the summer of 2007. 	<ul style="list-style-type: none"> Considering the location of key infrastructure and vulnerability to climate change Incorporation of sustainable urban drainage at a strategic scale to reduce the impacts of surface water run-off and flooding, which could also link with green infrastructure. Protecting and enhancing green infrastructure. Incorporating passive design techniques and include higher levels of green space, vegetation and shading in new development.
<p>SA Theme 4: Historic environment, landscape, biodiversity and geodiversity</p>	<p>Historic environment: The key impacts here are likely to relate to the impacts of new development and infrastructure on Birmingham's historic environment, including scheduled ancient monuments, listed buildings, conservation areas, registered parks and gardens and canal network. Birmingham has 27 designated conservation areas, mainly located within attractive suburbs and within historic parts of the City Centre, and 13 ancient monuments of national importance.</p> <p>Landscape: New development will have an impact on the City's landscapes both within the existing urban area (parks, gardens and other greenspace) and outside of urban area where greenfield development is required. Within the main urban area the impacts could relate to development pressures on landscape features including parks, gardens and water courses. Outside the City, the major opportunity for greenfield development lies to the north/north-east of the town (Sutton Coldfield) so the impacts of greenfield development on the surrounding landscape would more likely be felt here.</p> <p>Biodiversity: The City accommodates a range of designated sites of nature conservation importance and will have other non-designated areas which make an important contribution to biodiversity. This will include both previously developed land and buildings and greenfield sites. New development will have a detrimental impact on ecology and biodiversity where this involves the loss of habitats or leads to activities which will adversely impact on these features.</p> <p>Geodiversity: Concerns the variety of rocks, minerals and landforms and the processes which have informed these features over time. There could be impacts outside of the City in relation to the demand for minerals to build new homes, businesses and infrastructure (explored under SA Theme 1).</p> <p>Open space: More than one fifth of the city consists of open space. There is a great variety of open space provision including parks, nature reserves, allotments, golf courses and playing fields. Many of these areas are linked by rivers, watercourses and canals forming an inter-connected network which extends into areas beyond Birmingham's boundary and which is of great importance in promoting biodiversity. 16% of Birmingham's land area is designated as Green Belt.</p>	<p>Protection and enhancement of cultural assets through development briefs, for example.</p> <p>Habitat protection, improvement and creation through strategies, policy and their implementation.</p> <p>Attention to the quality of the townscape through development management.</p> <p>A healthy and attractive environment is important to the health and well-being of the population and quality of life more generally, and is related to a successful economy, particularly for visitors.</p>
<p>SA Theme 5: Pollution</p>	<p>Air pollution: The whole of Birmingham was designated an Air Quality Management Area (AQMA) in 2003 to help improve air quality in the City. The main pollutant is nitrogen dioxide (NO₂), arising from both transport and industry.</p> <p>Water pollution: The proportion of Birmingham's waterways which are of a good biological or chemical quality is significantly below national and regional averages.</p> <p>Soil pollution: Outside of the urban area to the north and north-east of the city as well as to the south west are areas of Grade 3 (moderate to good quality)</p>	<p>The detailed monitoring of pollution levels should be related to the potential impact that new development could have on these.</p> <p>Pollution loadings have direct and indirect impacts on human health and well-being and quality of life in general.</p>

SA Theme	Key Issues	Opportunities and Interrelationships
	<p>agricultural land which could clearly be impacted on where greenfield development is proposed.</p> <p>Noise pollution: The key impacts here are likely to relate to the specific of particular development proposals rather than direct impacts associated with the levels of growth proposed, notwithstanding that an expanded BIA could have a potential impact in terms of increased air traffic over the city.</p>	
<p>SA Theme 6: Economic growth</p>	<p>Birmingham is a major employment centre drawing in workers from across the West Midlands region to the City Centre. Managers, senior officials and professionals make up about 35% of persons commuting into Birmingham, compared with 23% of the city's working residents. However, worklessness remains a significant issue. At 49.4%, Birmingham's employed residents (excluding self-employed) is noticeably below the regional rate of 58.6%. The female rate is much lower than the male rate, and both are lower in Birmingham than the national averages. Some 34.3% of Birmingham's population is economically inactive (neither working nor seeking work). This is 10.9 points higher than the national rate. The female rate of 43.8% is 19.4 points higher than the male rate. The West Midlands has one of the highest economic inactivity rates in England. Birmingham in particular has a high unemployment rate and low employment rate. The non-white economic inactivity rate is 42%, significantly higher than the white rate of 24%. Both rates are above the England averages of 32% and 20% respectively.</p> <p>Birmingham lies at the heart of the West Midlands Region and there are therefore important links between Birmingham and adjoining areas. The main international gateway to Birmingham is provided by Birmingham International Airport and Birmingham International Station, which adjoin the NEC complex. This area is also a major source of employment. It lies in Solihull Borough, just to the east of Birmingham. The quality of the transport links between this area and Birmingham city centre is a key issue. There are close links between the residential areas of East Birmingham and those of North Solihull. Both are regeneration priorities and there is a need to ensure that a consistent approach is taken. Improving access to jobs is important in both these areas. There is a significant amount of in-commuting to Birmingham from adjoining areas, and in particular South East Staffordshire (Lichfield and Tamworth), Solihull, South Warwickshire (Stratford-on-Avon) and North Worcestershire (Redditch, Bromsgrove and Worcester). Providing high quality public transport links, in particular by rail between these areas and Birmingham is important.</p> <p>The main impact that the BDP will have on economic growth relates to whether or not it provides a sufficient and flexible supply of employment land and premises, attractive to developers and investors wishing to expand or establish themselves in Birmingham. There is potentially a shortfall in the supply of B1 and B8 employment land that will need to be addressed through the proposals of the BDP. Economic growth and housing growth (SA Theme 8) are inextricably linked in sustainability terms since the new housing will be required to accommodate existing and new labour supply. The City's (TTWA) extends north to Tamworth and south towards Redditch¹⁵, but ensuring a suitable balance and match between employment and housing supply (affordable and of a range of types and sizes) within the City is important in terms of 'self-containment' and reducing people's need to travel larger distances between home and work. Pressure for housing development has led to the depletion of the stock of employment land in the City. Consideration therefore needs to be given to the balance of housing and employment land, taking into account factors such as:</p> <ul style="list-style-type: none"> • the changing employment structure of the City; • changing demands from business in respect of the type, amount and location of land required; and • the availability of a skilled workforce to meet the needs of existing and future businesses. 	<p>Provide a range of employment sites at a variety of scales.</p> <p>Support employment development in specific sectors that will contribute to Birmingham's economic health and/or meet the demands of the workforce e.g. for small business and apprenticeships.</p> <p>Economic growth is closely related to the health and well-being of the population, and aspirations to advance equality of opportunity.</p>

¹⁵ Office for National Statistics, Travel to Work Areas

SA Theme	Key Issues	Opportunities and Interrelationships
<p>SA Theme 7: Communities, healthy lifestyles and equality</p>	<p>Birmingham is densely populated at 37.4 persons per hectare. The population is relatively young with about 45% of residents under 30 compared with the national average of 37%. Demographic trend projections from the National Statistics Office for the period 2006-2026 point to growing numbers in all age groups except 15-29. The projections show a 12% growth in the number of Birmingham's residents aged 65 or older, but this is noticeably lower than the 43% national increase. In contrast the number of children in Birmingham is expected to increase by 10%, compared with the national growth of only 2%. The City contains a significant percentage of Black and Minority Ethnic (BME) citizens and this section of the population is predicted to increase in future years. 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 peripheral areas.</p> <p>The BDP will have a range of impacts on Birmingham's existing and new communities relating to the new growth that it proposed in terms of meeting people's housing needs and opportunities for employment. It will also impact on their ability to access education, healthcare and other services, considering the capacity of existing facilities and opportunities for enhancement aligned with proposed growth.</p>	<p>Aligning growth and development to areas where investment in existing healthcare facilities is to be targeted and where new facilities are proposed. New healthcare facilities can also be funded in part from new development.</p> <p>Provision of green infrastructure including routes for walking and cycling, retaining existing playing fields, sports pitches, parks and gardens and leisure centres and providing new ones. This could also have wider benefits in terms of responding to climate change adaptation, reducing CO₂ emissions by allowing for walking and cycling instead of the car, ecological benefits in terms of new habitat creation and flood attenuation.</p>
<p>SA Theme 8: Housing</p>	<p>Birmingham contains a wide range and quality of housing. There is a relatively low proportion of detached housing and higher proportions of terraced housing and flats. Two and three bedroom dwellings predominate. In recent years the city has seen major new residential developments and substantial clearance programmes. Between 2001 and 2009 almost 26,000 new dwellings were completed, many of which were new apartments in the City Centre. Over the same period about 9,400 dwellings were demolished. The supply of land for housing within the city boundary is constrained due to the extent of built up area, and the fact that the majority of open land on the edge of the city is designated as Green Belt.</p> <p>The key impacts relate to whether or not the BDP provides enough housing, in the right locations and of the right type. There will need to be a suitable supply of both market and affordable housing to meet the needs of existing and new residents. The availability of housing also has significant linkages with economic growth, in terms of providing local housing to house the labour force. A failure to provide sufficient housing within the City to support economic growth could lead to unsustainable travel patterns with high levels of 'in-commuting' and undermining self-containment.</p>	<p>Developing a strategy of regeneration, through city centre and sustainable neighbourhoods.</p> <p>Ensuring that there is a range housing types to meet demand, including affordable housing, and mixed use developments</p> <p>Ensuring that housing is located within reasonable access of services and public transport.</p> <p>Provision of housing to meet local needs is important for the well-being of communities and the local economy.</p>



3. The Birmingham Development Plan

3.1 Vision, Objectives and Spatial Strategy

The BDP sets out the following vision for the evolution of the City by 2031:

“By 2031 Birmingham will be renowned as an enterprising, prosperous, innovative and green city that has delivered sustainable growth meeting the needs of its population and strengthened its global competitiveness.

Birmingham’s residents will be experiencing a high quality of life, living within attractive and well-designed sustainable neighbourhoods. The choice and affordability of housing will be meeting the needs of all and local jobs and services will be accessible by a range of sustainable transport choices.

The City’s economy will be strong and prosperous built around a diverse base of economic activities and supported by a skilled workforce. The City Centre will have expanded accommodating major new prime office developments and a series of exciting destinations boosting the cultural, leisure and retail offer. The network of thriving local centres will reflect the diversity of the City and the needs of local people.

The historic environment and sense of place of localities throughout the City will have been enhanced. The City will have achieved high sustainability credentials with resilient, adaptive environments with all new developments built to high standards of design.”

In setting a preferred state for the City in 2031, the Vision incorporates aspirations for sustainable development, seeking to balance of environmental, economic and social considerations as part of growth. The BDPs spatial strategy is based around four themes:

<p>Planning for high quality places</p>	<p>The City’s future growth will be pursued in the most sustainable way practicable reducing the City’s carbon footprint and creating resilient and adaptive environments.</p> <p>New development will need to be built to the highest sustainability standards, helping to generate wider benefits in terms of the quality of the environment and carbon reduction, be energy efficient, using renewable resources, and minimising the production of waste.</p> <p>All future development will need to be supported by suitable social infrastructure and set within environments that reflect the character and history of the City.</p> <p>Across the City all development must be well-designed, accessible and safe. Schools, health care facilities, shops and other services need to be available in accessible locations along with parks, sports facilities and well-maintained local public open space, forming part of a wider ‘green infrastructure network’ threading through the City and linking to the open countryside beyond.</p> <p>Historic assets in all their forms will be promoted and conserved in supporting the delivery of distinctive places. Equally the biodiversity and geodiversity will be critical components in delivering a high quality of life and contribute to the quality of the environment and future green credentials of the City. Birmingham’s wide variety of natural environments will be protected and enhanced with new opportunities for wildlife and biodiversity to flourish encouraged.</p>
<p>Planning for a growing population</p>	<p>The strategy of the BDP is to accommodate as much of the City’s housing requirement as possible within the local authority’s boundary. The land that is available to the City to accommodate future development is limited. Alongside the BDP a wider growth strategy for the Greater Birmingham and Solihull Local Enterprise Partnership area and other adjoining authorities will set out how and where the remaining housing could be delivered. This will reflect the historic trends where adjoining authorities have accommodated a proportion of the City’s growth on the basis of the travel to work patterns and wider economic benefits of housing delivery.</p> <p>In delivering the principles of sustainable neighbourhoods we will seek to ensure that a wide choice of housing sizes, types and tenures is provided to community needs including homes for families, for the elderly and appropriate levels of affordable housing. The contribution that ‘mature suburbs’ make to the quality and choice within the City’s housing stock will continue to be recognised and these areas protected.</p> <p>Over the period 2011 to 2031 our focus will be on delivering as much of the new housing that the City needs within the urban area as possible. Brownfield and other available sites within the existing built-up area</p>

including major developments such as Greater Icknield, the Southern Gateway and Longbridge will be the priority.

While development in the urban area will be prioritised there is a limit to the amount of available space to accommodate the City's growing population. The release of land from the Green Belt will be phased over the Plan period. Development in these locations will need to deliver the principles of sustainable neighbourhoods.

Planning for a prosperous economy

Six Economic Zones will be created to provide the clustering of economic activity within high quality business environments that are supported by the right infrastructure. The Economic Zones include an Advanced Manufacturing Hub at the East Aston Regional Investment Site, ITEC Park at the Longbridge Regional Investment Site, Life Sciences Campus around the QE Hospital and Birmingham University Campus, Environmental District at Tyseley, Food Hub at IMI and The City Centre Enterprise Zone (EZ). The EZ, covering 26 sites in the City Centre, will play a key role in delivering high quality office accommodation for growth in business, financial and professional services, digital media and creative industries. Beyond these Economic Zones the City's Core Employment Areas will play an important role in accommodating the requirements of a wide range of economic sectors. These Core Employment Areas provide the City's main employment opportunities and include the Regional Investment Sites and other high quality areas such as The Hub, Witton and in Washwood Heath at the former sites of Alstom and LDV.

Outside these areas other land in employment use will continue to be protected and the provision of accommodation for SME's will be supported. Marginal industrial land of poor quality that no longer meets the requirements of the market or businesses may be promoted for redevelopment to alternative uses.

A thriving network of centres will be a significant driver for growth and central to delivering new office and retail development and other services to support communities throughout the City. The priority will be to promote retail and office development within the defined centres and resist development that would undermine the strength of the network.

The City Centre will continue to be strengthened as a centre for financial and business services, and as a destination for shopping, business tourism and major cultural events with world class conference facilities and venues. Five areas of transformation will deliver the growth to strength the role of the City Centre, investing in new high quality buildings and public spaces and creating new vibrant destinations. This growth will be coupled with a focus on promoting the distinctive character of the Quarters.

Sutton Coldfield Town Centre as a sub-regional centre is capable of accommodating significant additional comparison retail floorspace and some office space.

Perry Barr, Selly Oak and Meadway as district growth centres accommodating both retail and office uses at lower levels to the City Centre and sub-regional centres.

A network of some 70 other district and neighbourhood centres accommodating more limited levels of growth supporting local needs

Planning for improved connectivity and delivery of infrastructure

Major planned improvements to the City's national and international accessibility will be brought about by the continued expansion of Birmingham Airport. The expected development of the High Speed rail link will provide further opportunities to build on this success and enhance the City's connectivity.

New and improved routes for pedestrians and cycle priority will be promoted connecting the network of centres, residential areas, employment opportunities and open countryside.

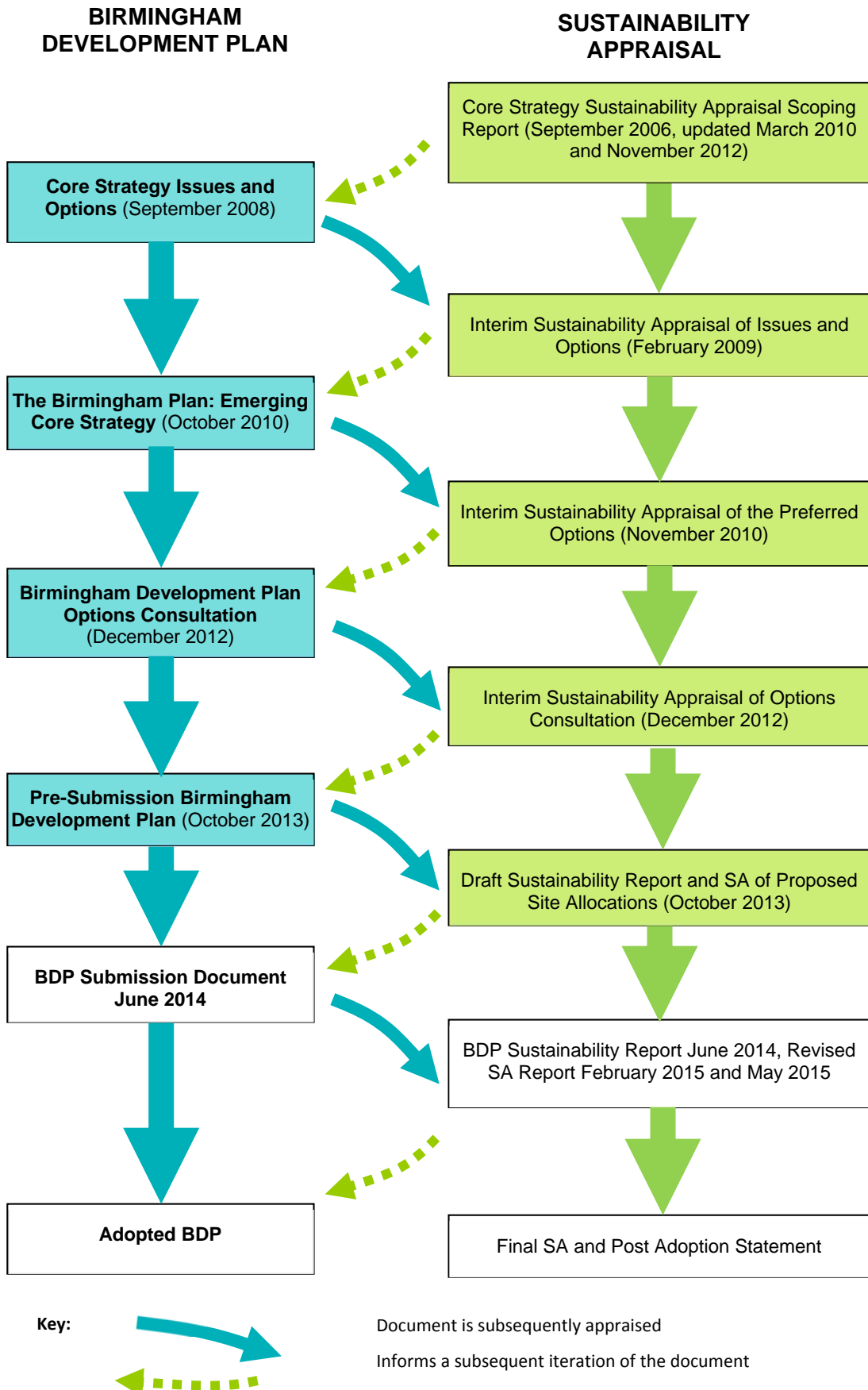
These investments will help to reduce car dependency and encourage use of public transport and non-motorised forms of transport such as cycling and walking. In support of these activities which generate a high number of trips will be encouraged to locations which have high levels of accessibility or where the infrastructure can be provided to enable sustainable modes to be promoted.

State of the art digital networks will be made available throughout the City. This is an essential step in ensuring that Birmingham can fulfil its potential as a centre of innovation drawing on the strong academic and research base established in the City's universities.

3.2 Evolution of the Birmingham Development Plan and its Appraisal

Figure 3.1 summarises the evolution of the BDP and its relationship with Sustainability Appraisal.

Figure 3.1 Evolution of the BDP and SA



Early phases

The BDP has evolved through a number of distinct phases, originating in 2008 with the identification of issues and options for the period to 2026. Accompanied by the SA Scoping Report¹⁶ and an Interim Sustainability Appraisal¹⁷, the Issues and Options document (2009) presented three options for the growth of the City as follows

Table 3.1 Options appraisal 2009

	Option 1	Option 2	Option 3
Number of additional dwellings 2006-2026	50,600 2,500 dwellings per annum (dpa)	55,000-60,000 2,750-3,000 dpa	Up to 65,000 3,250 dpa
SPATIAL STRATEGY			
Housing	<u>50,000 within the core of the city</u> City centre focus with high density developments. Steps taken to ensure more family housing. A sustainable urban neighbourhood at Longbridge. No changes to Green Belt required.	<u>As per Option 1 plus 5,000-10,000 more within city</u> Development in the city centre but also in three key centres: Perry Barr, Selly Oak and the Meadway. Significant housing redevelopment/renewal of east and south western parts of the city supported by around four further sustainable neighbourhoods (in addition to Longbridge) No changes to Green Belt anticipated.	<u>As per Options 1 and 2 plus further 5,000-10,000 on urban extensions</u> In addition to strategy under Option 2, urban extensions will also be necessary, requiring selective reviews of the Green Belt: - north/north-east of the City (into Lichfield District); and/or - south of the City (into Bromsgrove District).
Focus for regeneration	Three estates in Kings Norton as well as at Newtown and Aston. Western Growth Corridor would remain a key regeneration programme.	Same as under Option 1, but Eastern Corridor also identified.	Same as under Option 2, but Green Belt development phased to ensure brownfield focus.

Option 2 was considered to be the more sustainable option by virtue of focusing on the creation of series of sustainable urban neighbourhoods within the City, providing an uplift in housing provision and avoiding development on greenfield land.

A Preferred Options Document was produced in 2010 which proposed a level of growth of around 50,600 dwellings to be accommodated within the existing urban area through a regeneration-based strategy. This 2010 Interim Sustainability Appraisal¹⁸ accompanying the Preferred Options Document again tested the various growth options, including sub-options of Option 2:

- ▶ **Option 1:** baseline - current growth of 50,600 (2,500 dwellings per annum [dpa]).
- ▶ **Option 2a:** baseline + 10% (up to 55,000 (2,750 dpa)).
- ▶ **Option 2b:** baseline +20% (up to 60,000 [3,000 dpa]).
- ▶ **Option 3:** baseline +30% (up to 65,000 [3,250 dpa]).

The 2010 Interim Sustainability Appraisal recommended that on sustainability grounds Option 2b was to be preferred reflecting additional housing provision without compromising the character of the City through over-

¹⁶ Entec/AMEC (2008, 2010, 2012) Sustainability Appraisal of the Birmingham Development Plan Scoping Report

¹⁷ Entec (2009) Birmingham City Council - Interim Sustainability Appraisal of the Core Strategy Issues and Options

¹⁸ Entec (2010) Sustainability Appraisal of the Birmingham Plan - Interim Sustainability Appraisal of the Core Strategy Preferred Options

intensive development. The main sustainability issue identified for Option 2b was the level of development in the existing urban area and the likely pressures on features within the natural and historic environment and make it harder to incorporate strategic-scale measures for climate change adaptation.

Options Consultation 2012

The need to revisit the level of housing requirement in light of the new estimates of the projected growth of the City's population, the Options Consultation of Autumn 2012 made the case for the need for the allocation of additional greenfield land and set out where development might potentially be located through a sustainable urban extension (SUE). This is effectively Option 3 of the issues and options document, accompanied by slightly revised objectives and a revised suite of policies which reflect a more strategic and positive approach to the growth of the City. A 2012 Interim Sustainability Appraisal¹⁹ assessed various options relating to the proposed approach, namely:

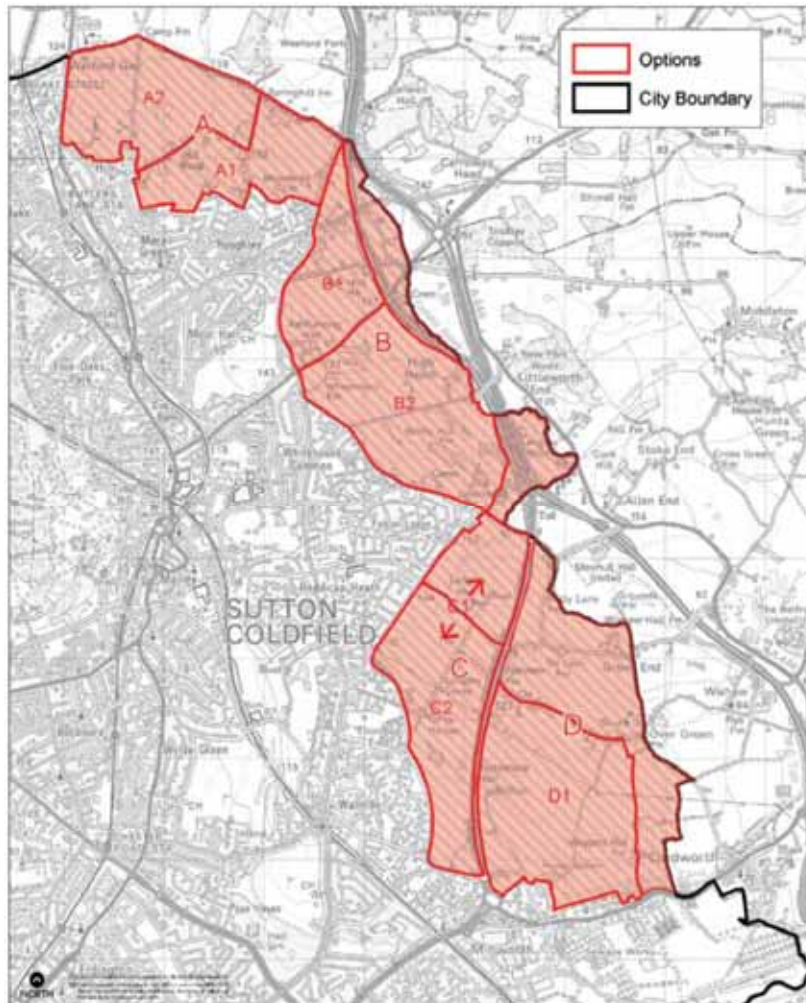
- ▶ Option 1: Do nothing i.e. not seeking to accommodate the additional projected growth (i.e. the level of growth proposed in the Preferred Option [2010]).
- ▶ Option 2: Accommodate additional projected growth within the existing urban area.
- ▶ Option 3: Strategic Green Belt Release to accommodate a SUE and strategic employment site (plus sub-options relating to individual sites):
 - Area A: Hill Wood, East of Watford Gap (two sub-options).
 - Area B: West of the M6 Toll (two sub-options).
 - Area C: West of the Sutton Coldfield Bypass, Walmley (two sub-options).
 - Area D: East of the Sutton Coldfield Bypass, Walmley.

In testing the option of a SUE against alternatives of not providing for the additional growth or further concentration of development in the urban area, the latter, it was concluded, involved unacceptably high densities of development and the likely loss of open spaces and employment land. A well-planned SUE in the right location, by contrast, could achieve a sustainable solution through providing a scale of development that could support an appropriate level of infrastructure and service provision and potentially be relatively self-contained. This would not be achieved through a series of small sites, even in proximity to one another, because key infrastructure needs to be carefully phased as part of site delivery and wider masterplanning.

The Green Belt/greenfield sites were assessed by Birmingham City Council²⁰ land to the north east of Birmingham was concluded to be the only area that could reasonably accommodate a SUE, meaning that land to the north east of Birmingham around Sutton Coldfield was the only reasonable alternative, as divided into areas A, B, C and D and component sub-options (see Figure 3.2).

¹⁹ AMEC (2012) Sustainability Appraisal of the Birmingham Development Plan - Interim Sustainability Appraisal of the Options Consultation Document

²⁰ Birmingham City Council (September 2013) Green Belt Options Assessment

Figure 3.2 Green Belt areas considered in the 2012 options consultation²¹

A Revised Sustainability Report

During Examination of the BDP, a number of shortcomings in the Sustainability Report were identified by the Inspector who requested in an Interim Report on the Examination²² that these be addressed in a Revised Sustainability Report. In particular, there was a need to demonstrate the appraisal of all reasonable alternatives in respect of potential scale of SUE and sites which could potentially make up a SUE, in accordance with the latest guidance on Sustainability Appraisal²³. Consultation during March/April 2015 yielded further suggested amendments relating to the consideration of reasonable options in respect of development in the Green Belt to the north east of the City. In addition, a series of Proposed Main Modifications have been suggested, four of which are considered to require appraisal.

²¹ Birmingham City Council (October 2012) Birmingham Plan 2031 Green Belt Options Appendix

²² Planning Inspectorate (2015) EXAMINATION OF THE BIRMINGHAM DEVELOPMENT PLAN 2031 [BDP] - INSPECTOR'S INTERIM FINDINGS

²³ Dept for Communities and Local Government (February 2014) Planning Policy Guidance

Appraisal of Further Reasonable Options

Consultation on a revised SA Report of March 2015 has prompted the inclusion within the Revised SA further reasonable options related to a proposed urban extension at Sutton Coldfield. To date, two strategic options have been appraised: “around 5,000 dwellings” and “up to 10,000 dwellings”. For completeness two further options are appraised: a small site (or number of small sites) in the range of 500 – 3,000 dwellings, and a mid-range option of around 7,500 dwellings. These additional options are appraised on a comparable basis to the existing options to determine a preferred scale of development. Reasons for selecting the preferred option, and rejecting alternatives are set out.

Chapter 4 (Section 4.6) sets out the appraisal of the performance of the reasonable options, including the appraisal of sites A, B, C and D and sub-options to accommodate an extension of around 5,000 dwellings and the appraisal of sites C and D to accommodate a 71ha employment site.

Policy Appraisal

As part of his consideration of Proposed Main Modifications to the BDP, the Inspector has identified the need for SA work on the following:

- ▶ PMM26 (Policy GA6 Peddimore – a reduction in the size of the Peddimore employment site)
- ▶ PMM58 (New Policy TP15A Minerals – safeguarding of minerals)
- ▶ PMM78 (Amended Policy TP33 Provision for Gypsies, Travellers and Travelling Showpeople – proposed site allocations)
- ▶ PMM84/PMM85 (Policy TP40 Public Transport - definition of additional Sprint / Rapid transit routes).

In detail, these are:

PMM26 (Policy GA6 Peddimore):

“Peddimore will deliver **80 71** ha of new employment land.....”

Amend the final sentence of the High Quality Design and Landscaping section as follows:

“Development should not ~~encroach~~ take place outside the developable area shown on Plan 10, and building heights close to the northern and eastern edges of that area should be carefully controlled in order to limit their visual impact onto the higher ground/ridge to the north and east which screen longer distance views of the development from the wider Green Belt.”

Amend the first paragraph of the Access Improvements section as follows:

“.....should be linked to the Langley Sustainable Urban Extension, ~~the adjoining residential areas proposed to the east of the A38~~ and the North Birmingham cycle network. Routes are

Amend the second paragraph of the Access Improvements section as follows:

“New bus connections including ‘Sprint’/Rapid Transit services, will be required.....”

Amend the final sentence of the fourth paragraph of the Access Improvements Section as follows: “The implementation of an agreed plan, including Freight Management, will be a requirement on all development occupiers.”

Add the following before the final paragraph:

“Development will need to consider impacts on soil resources during construction and operation, adhering to Defra’s Code of Practice to protect soil.”

Add the following at the end of the policy:

“Prior to development commencing an investigation should be undertaken into the existence of mineral deposits on the site, and any workable minerals should be extracted.”

Reasoning: To ensure that the visual impact of the proposed development is minimised, to correct an error, include ‘a commitment to the provision of ‘Sprint’ /Rapid Transit services and Freight Management and to ensure that soil and mineral resources are protected.

PMM58 (New Policy TP15A Minerals)

Add additional policy as follows:

“Minerals

Introduction

6.91 The delivery of the growth strategy set out in this Plan will require the use of a significant amount of aggregates and other minerals. Although there are no active mineral workings within the city, it is important that potentially valuable mineral deposits are not sterilised, and that minerals infrastructure is protected.

Policy TP15A Minerals

Prior to the commencement of development on any site of over 5 hectares, an investigation should be undertaken into the existence of mineral deposits on the site and any workable minerals should be extracted.

Minerals infrastructure, including sites for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material, and any associated bulk transport facilities will be protected. Proposals that would lead to the loss of such facilities without adequate replacement will normally be refused.

Why we have taken this approach

6.92 There are no active mineral workings within Birmingham, and this has been the position for many years. However there are known to be mineral deposits within the city boundary, including deposits which extend beneath the existing built-up area. Where major development/redevelopment schemes take place, it is important that any workable minerals are identified and extracted in order to prevent them from being sterilised.

6.93 The Council’s policies for the management of waste seek to encourage the recycling of construction and demolition waste. This can make an important contribution to meeting the demand for aggregates within the city. The Council will therefore seek to protect facilities associated with this, and minerals infrastructure generally.

6.94 The Council will continue to work in partnership with the other Metropolitan Authorities to produce and keep up-to-date a Local Aggregates Assessment and will continue to contribute to the work of the Regional Aggregates Working Party”

Reason: To ensure any workable minerals are protected.

PMM78 (Policy TP 33 Provision for Gypsies, Travellers and Travelling Showpeople)

Add an additional sentence at the beginning as follows:

“The following sites are allocated to provide for accommodation for gypsies and travellers:

Hubert St/Aston Brook St East

Rupert St/Proctor St”

Revise the first sentence of the submitted policy as follows:

“The provision of Other proposals for accommodation for Gypsies, Travellers and Travelling Showpeople will be supported on suitable sites in sustainable locations permitted where...”

Delete the first and second bullet points:

- ~~There is a demonstrated need for Gypsy and Traveller Travelling Showpeople accommodation in the City identified by a regional, sub-regional or local need assessment.~~
- ~~The site would not unacceptably adversely affect the character of the immediate or surrounding area, and there would be no significant unacceptable adverse impact on the amenity of nearby residents or on the operations of adjoining land uses.~~

Amend the third bullet point as follows:

- “The site is of sufficient size to accommodate pitches/plots of an appropriate size, and, in the case of Travelling Showpeople, to accommodate appropriate levels of storage space.”

Amend the fifth bullet point as follows:

- “The site is accessible to shops, schools, health facilities and employment opportunities ~~by public transport, on foot or by cycle~~ and is capable of being served by services such as mains water, sewerage and power and waste disposal.”

Delete the final sentence :

~~“In applying the above criteria the City Council will seek to ensure that there is an even distribution of sites across the City.”~~

Reason: For clarity and to reflect the requirements of national policy and to allocate sites to meet the needs of gypsies and travellers in line with the conclusions of the updated Gypsy and Traveller Assessment.

PMM84 (Policy TP40 Public Transport):

Amend the third bullet of the Bus and Coach section as follows:

“...through initiatives such as ~~SMART routes and other~~ bus priority measures and infrastructure.”

Amend bullet 3 of the rail section as follows:

“The provision of new stations at Kings Heath, Hazelwell and Moseley on the Camp Hill route, **Castle Vale**, Walmley, **Sutton Coldfield Town Centre** and Sutton Park on the Sutton Park route ~~and~~ at the Fort and Castle Vale on the Tamworth route ~~and at Soho Road on the Wolverhampton and Walsall route.~~”

Add at the end of the rail section:

“The Council will continue to protect land within the designated HS2 Safeguarding Area. The area covered by the most recently issued Safeguarding Direction, at the time of the adoption of this plan, is shown on the Policies Map. Further updated Safeguarding Directions, which would supersede the HS2 Safeguarding Area shown on the Policies Map, may be issued by the Secretary of State for Transport and will be available at <http://www.hs2.org.uk/developing-hs2/safeguarding>”

Add the following at the end of the first paragraph of the Rapid Transit section:

“This will include cross-boundary routes, for example to the Black Country.”

Amend the second paragraph of the Rapid Transit section as follows;

“In particular support for:

- **A new Metro station at All Saints**
- An extension of the Midland Metro Tram network from New St to Centenary Square **and Five Ways Edgbaston.**
- ~~Bus Rapid Transit routes from the City Centre along the Walsall Road and Hagley Road.~~

- A rapid transit link between the City Centre and Birmingham Airport and the proposed HS2 interchange in Solihull.
- An extension of the Midland Metro Tram network to Eastside and the Curzon Street High Speed 2 station.
- Additional SPRINT/Rapid Transit routes with cross city centre links on a number of key corridors including but not limited to:
 - Birmingham City Centre – Walsall
 - Birmingham City Centre – Quinton
 - Birmingham City Centre – Bartley Green
 - Birmingham City Centre – Longbridge
 - Birmingham City Centre – Airport (via East Birmingham)
 - Birmingham City Centre – Airport (via A45)
 - Birmingham City Centre – Maypole/Druids Heath
 - Birmingham City Centre – Sutton Coldfield
 - Birmingham City Centre – Kingstanding
 - Outer Circle/Route 11 Orbital”

Reason: For accuracy, consistency and completeness and to reflect the HS2 proposals.

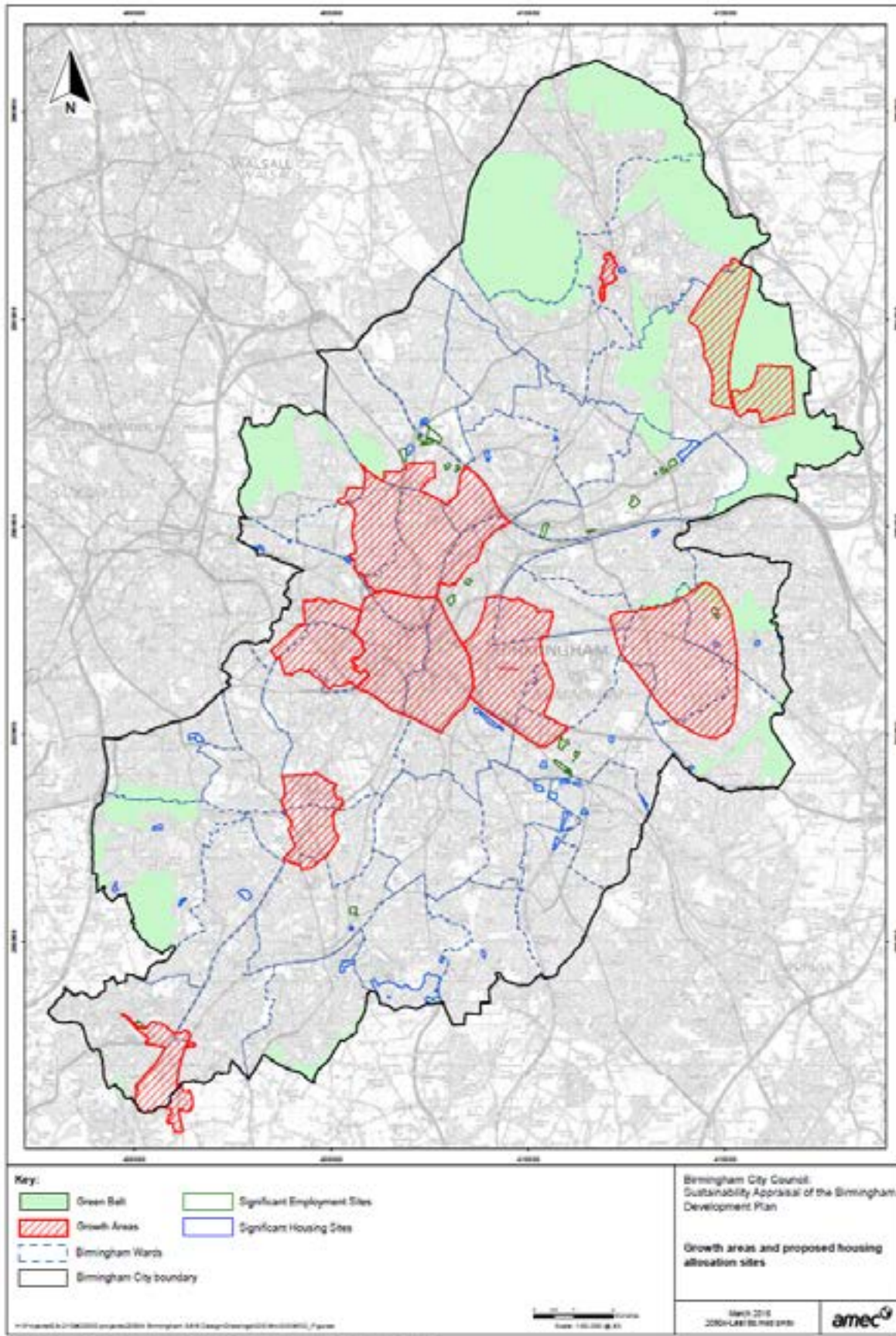
3.3 Delivery of the BDP

The proposed allocations for the BDP are set out in Table 3.2 and Figure 3.3.

Table 3.2 Proposed growth area allocations

Area	Housing (dwellings)	Office (m ²)	Retail (m ²)	Employment Sites (ha)
Growth Areas				
City Centre	12,800	700,000	160,000	0
Greater Icknield	3,000	0	0	0
Aston, Newtown & Lozells AAP	700	10,000	20,000	20
Sutton Coldfield	0	20,000	30,000	0
Sustainable Urban Extension	6,000	0	0	0
Peddimore	0	0	0	80
Bordesley Park AAP	750	0	0	30
Eastern Triangle	1,000	5,000	15,000	0
Selly Oak and South Edgbaston	700	10,000	25,000	0
Longbridge AAP	1,450	10,000	20,000	25
Total	26,400	755,000	270,000	155

Figure 3.3 Proposed Growth Areas and Strategic Housing and Employment Allocations





4. Sustainability Appraisal of the Birmingham Development Plan

4.1 Compatibility of Objectives

The ODPM SA Guidance (2005) recommends that the compatibility of the Plan Objectives against the SA Objectives is assessed. A compatibility analysis was undertaken within the Scoping Report, but the BDP Objectives have evolved slightly from previous versions of the BDP and this analysis reflects those proposed for the Submission Plan. The BDP Objectives are:

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 while allowing the City to grow.
7. To strengthen Birmingham as a learning City with quality institutions.
8. To encourage better health and well-being through the provision of new and existing recreation and leisure facilities linked to good quality public open space.
9. To protect and enhance the City's heritage and historic environments.
10. To conserve 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 4.1 sets out a compatibility matrix of the Plan Objectives against the SA Objectives.

Table 4.1 Compatibility between BDP Objectives and Sustainability Objectives

Sustainability Theme	1. Natural resources and waste								2. CO ₂ emissions								3. Climate change adaptation		4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth		7. Communities, healthy lifestyles and equality								8. Housing
	Sustainability Objectives	1. Resource Use	7. Waste Minimisation	8. Efficient use of land	2. Sust. Design & Construction	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsibility	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing								
1. A City of sustainable neighbourhoods	✓	N	✓	✓	✓	✓	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	N	✓	N	✓	✓	✓	✓	✓	?	?									
2. Providing for a population increase	?	?	✓	✓	?	✓	✓	✓	?	?	?	?	?	?	?	✓	?	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓									
3. A prosperous, enterprising economy	X	✓	X	✓	✓	✓	✓	✓	X	X	✓	X	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									
4. A national and international role	X	?	?	?	?	?	?	X	X	X	✓	?	?	?	?	?	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									
5. A connected City	✓	✓	✓	✓	?	?	✓	✓	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									

Sustainability Theme	1. Natural resources and waste										2. CO ₂ emissions										3. Climate change adaptation										4. Historic environment, landscape, biodiversity and geodiversity										5. Pollution										6. Economic growth										7. Communities, healthy lifestyles and equality										8. Housing									
	Sustainability Objectives										BDP Objectives										Sustainability Objectives										BDP Objectives										Sustainability Objectives										BDP Objectives										Sustainability Objectives										BDP Objectives									
	1. Resource Use	2. Sustainable Energy	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	7. Waste Minimisation	8. Efficient use of land	9. Reduce climate change	10. Manage Climate Change	11. Sense of Place	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	19. Social and Env. Responsibility	20. Economy and Equality	21. Learning and Skills	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	27. Housing	28. Culture/Sport/Recreation																																																				
	1. Resource Use	2. Sustainable Energy	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	7. Waste Minimisation	8. Efficient use of land	9. Reduce climate change	10. Manage Climate Change	11. Sense of Place	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	19. Social and Env. Responsibility	20. Economy and Equality	21. Learning and Skills	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	27. Housing	28. Culture/Sport/Recreation																																																				
	6. A sustainable City	7. A learning City	8. Health and well-being	9. Protection of heritage assets	10. Protection of natural environments	11. Infrastructure for growth																																																																										
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																																																				
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Key: ✓ Compatible ✗ Potentially Incompatible N Neutral relationship ? Uncertain relationship

Table 4.2 provides commentary on the scoring presented in Table 4.1, concentrating on potential incompatibilities which should be noted (although not necessarily resolved) and taken into account in considering any mitigation measures or alternative approaches. In some cases, potential impacts such as that of economic growth on biodiversity or climate change will be addressed through policy measures in the BDP aimed at protecting and enhancing the environment, for example. In other cases, such as providing for an increase in the City's population, the way in which such an objective is implemented will be critical, where provision can be made for housing development in combination with environmental enhancement.

Table 4.2 Analysis of the Compatibility between BDP Objectives and Sustainability Appraisal Objectives

BDP Objective	Comments
To develop Birmingham as a City of sustainable neighbourhoods that are safe, diverse and inclusive with locally distinctive character.	In principle, there is a high degree of compatibility between this Objective and the majority of SA Objectives, particularly in the context of the regeneration-led strategy of the BDP which inherently seeks to pursue development which complements and improves the existing character of the City. Nevertheless, there are uncertainties associated with issues such as sustainable travel which will need to be addressed.
To make provision for a significant increase in the City's population	The intended scale of growth over the Plan period is unprecedented, and as such will inevitably compromise the delivery of other objectives to a lesser or greater degree. A range of uncertain relationships therefore exist which will require attention through policy implementation and long-term monitoring, notably in relation to potential impacts on biodiversity, air quality, water quality and the built and historic environment, all of which could come under increasing pressure as a result of significant population increases. This is balanced by the significant opportunities to invest in sustainable travel and renewable energy, for example. As with other policy areas, the implementation of policy to mitigate local and City-wide impacts will be critical to address these uncertainties.
To create a prosperous, successful and enterprising economy with benefits felt by all	Investment in economic development is potentially accompanied by a range of compromises in respect of environmental quality (either through direct land-take or the effects of increased transport activity), although in many cases these impacts could be mitigated through appropriate implementation. The BDP's approach of concentrating employment development in strategic locations should in itself help to contain impacts. The role of Birmingham the key economic driver in the West Midlands and further afield is critical, with the need to balance potentially adverse impacts with the benefits which wealth creation brings.
To promote Birmingham's national and international role	The interactions associated with this Objective are arguably amongst the most uncertain and potentially difficult. The ambition for Birmingham to have a higher national and international profile will inevitably create pressures in respect of transport growth, for example, and hence CO ₂ emissions, as well as demands on land for infrastructure development. The consideration of cross-boundary impacts is critical, with the location of Birmingham Airport in Solihull close functional interdependencies between the two plan areas. Aside from the range of uncertainties associated with the impacts on natural resources, which characterise the relationship between this Objective and the SA Objectives, potentially positive relationships exist in the promotion of economic and social development.
To provide high quality connections throughout the City and with other places including encouraging the increased use of public transport, walking and cycling	The provision of quality transportation links is essential to create a sustainable city and assists in contributing to a number of wider goals such as minimising the impact of climate change. Consequently, there are a wide range of positive relationships which can be realised if properly implemented, in particular the opportunity to capitalise on the concentration of activity in sustainable neighbourhoods.
To create a more sustainable city that minimises its carbon footprint and waste while allowing the City to grow	Attention on creating more sustainable city should yield positive relationships across a wide range SA Objectives, if fully implemented. However, the extent to which economic development aspirations might be fulfilled and compromises required in respect of housing delivery could be needed. As yet, proof of how to secure a balance between these aspirations is not available.
To strengthen Birmingham as a learning City with quality institutions	The objective to increase the opportunities for the local residents of Birmingham to learn and develop is likely to generally accord with SA Objectives, particularly in respect of promoting economic development and greater social equity through giving individuals and communities greater choice over their futures.

BDP Objective	Comments
To encourage better health and well-being through the provision of new and existing recreation and leisure facilities linked to good quality public open space	The aspiration to raise the level of the population's health and well-being contributes to a wide range SA Objectives, particularly those seeking to improve the quality of people's lives. Carefully implemented, the natural connections between these Objectives can be reinforced.
To protect and enhance the City's heritage and historic environments	The protection of the City's heritage is likely to accord with a number of the SA Objectives. It is noted however that several relationships are uncertain as to whether conservation could restrict development from being located in a more sustainable location for example.
To conserve Birmingham's natural environments, allowing biodiversity and wildlife to flourish	As with the cultural heritage, the protection of the City's environmental assets is considered to accord with a number of the SA Objectives, with no obvious incompatibilities. However, several relationships are uncertain, for example whether conservation priorities could restrict development from being located in a more sustainable location for example.
To ensure that the City has the infrastructure in place to support its future growth and prosperity.	As with economic development and the promotion of Birmingham's national and international role, there a range of uncertainties over the compatibility between investment in infrastructure and realising aspirations for limiting climate change for example. Inevitably, much will depend on implementation at the local level (which in turn can be mitigated), but the overall and long term impact of such development will have to be monitored.

4.2 Birmingham Development Plan Strategy – sustainability analysis

The spatial strategy proposed by the BDP centres on regeneration-led growth, supported by limited strategic allocations on greenfield land which, along with development spread across adjacent authorities, help to meet the overall housing need for the City. Table 4.3 sets out an appraisal of the performance of the strategic approach of the BDP against the SA Objectives which, for this exercise, have been grouped by theme.

Table 4.3 Appraisal of Key Elements of the BDP Strategic Approach

SA Theme	SA Objectives	Key Strategic Element(s)	Potential Positive Effects	Potential Negative Effects
1. Natural resources and waste	<p>1. Resource Use: Use natural resources such as water and minerals efficiently.</p> <p>7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.</p> <p>8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.</p>	<p>The Scale of Growth</p> <p>Climate Change</p> <p>Green Belt and Green Infrastructure</p>	<p>The intended scale of growth over the next 20 years, if properly managed, should contribute to greater efficiency in the use of land through the regeneration of brownfield sites, for example. The relatively compact nature of the City provides a useful template for future development.</p>	<p>In order to avoid inefficient use of scarce land resources, there will have to be particular attention paid to the co-ordination of site development. This will need to include dialogue with adjacent authorities over, for example, the functioning of Birmingham International Airport as part of the City's growth aspirations, and the channelling of regeneration</p>

SA Theme	SA Objectives	Key Strategic Element(s)	Potential Positive Effects	Potential Negative Effects
				<p>efforts into the Black Country.</p> <p>The need to use greenfield land to meet the City's housing requirement is a significant, but probably unavoidable negative effect, although one which can be mitigated through design of a SUE and integration with existing communities.</p>
2. CO ₂ emissions	<p>2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.</p> <p>3. Renewable Energy: Encourage development of alternative and renewable resources.</p> <p>4. Energy Efficiency: Reduce overall energy use through energy efficiency.</p> <p>5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.</p> <p>6. Reduce the need to travel: Ensure development reduces the need to travel.</p> <p>9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.</p>	<p>The Scale of Growth</p> <p>Climate Change</p> <p>The City Centre</p> <p>Modernising Infrastructure</p> <p>Quality of Life</p>	<p>There is the opportunity to pioneer the introduction of technologies which help to reduce per capita emissions as part of new development.</p>	<p>Overall CO₂ emissions could well increase associated with population and economic growth. This will require monitoring and co-ordination with complementary City-wide strategies such as the Climate Change Strategy. There is the potential for contradiction between the aspirations for Birmingham to be a world city, and the impacts of the increased travel that this is likely to generate.</p>
3. Climate change adaptation	<p>10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.</p>	<p>Climate Change</p> <p>Green Belt and Green Infrastructure</p>	<p>There are significant opportunities for the Birmingham Plan to contribute climate change adaptation across the City through the siting of development and its design.</p>	<p>Care will have to be taken to ensure that the capacity of the City to adapt to climate change impacts is not compromised by growth plans.</p>
4. Historic environment, landscape, biodiversity and geodiversity	<p>12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.</p> <p>13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.</p> <p>14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.</p>	<p>The City Centre</p> <p>Mature Suburbs</p> <p>Quality of Life</p>	<p>Growth brings the opportunity to enhance the quality of natural and cultural assets through attention to the siting and quality of development. Commitments to the protection of natural and</p>	<p>Growth in Birmingham of the scale proposed could well place pressures on the City's natural resources, given their relatively limited extent. Particular attention will</p>

SA Theme	SA Objectives	Key Strategic Element(s)	Potential Positive Effects	Potential Negative Effects
			cultural assets and the provision of green infrastructure should provide a sound basis for moving forward.	therefore need to be paid to ensuring that any compromises in how natural resources are used yield a net gain.
5. Pollution	<p>15. Air Quality: Minimise air pollution levels and create good quality air.</p> <p>16. Water Quality: Minimise water pollution levels and create good quality water.</p> <p>17. Soil Quality: Minimise soil pollution levels and create good quality soil.</p> <p>18. Noise: Minimise noise pollution levels.</p>	The Scale of Growth Climate Change	Overall pollution levels have been declining and this has the potential to continue as a result of the use of high standards of new development, modal shift in transport towards more walking and cycling and public transport provision to reduce dependence on the private car.	Growth in the population and activity of the City could contribute to increased pollution levels, notwithstanding increases in walking and cycling and efficiencies in transport provision.
6. Economic growth	<p>20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.</p> <p>21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.</p>	The Scale of Growth The Network of Local Centres The High-Tech Belt and RIS Core Employment Areas Modernising Infrastructure Quality of Life	<p>Economic growth provides the opportunity to ensure that the City benefits in a wide range of respects, including distribution amongst all sectors of society and the renewal of infrastructure.</p> <p>The spatial division of these benefits will need particular scrutiny to ensure that the most is being made of existing and potential assets.</p>	Careful attention will have to be paid to ensuring that all sectors of Birmingham's population benefit from greater economic activity.
7. Communities, healthy lifestyles and equality	<p>11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.</p> <p>19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.</p> <p>22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.</p>	The Scale of Growth Green Belt and Green Infrastructure Sustainable Neighbourhoods Mature Suburbs Quality of Life	The aspirations to create a world city based on significant housing and economic growth should create opportunities to create a more liveable city, whilst not compromising the quality of what already exists. The creation of Sustainable Neighbourhoods should make a significant	The impacts of development will have to be scrutinised against a range of indicators over the medium to long term, recognising that there could be unfulfilled aspirations and a range of unintended consequences such as greater inequality amongst some

SA Theme	SA Objectives	Key Strategic Element(s)	Potential Positive Effects	Potential Negative Effects
	<p>23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.</p> <p>24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.</p> <p>25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.</p> <p>26. Crime: Reduce crime, fear of crime and antisocial behaviour.</p> <p>28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.</p>		contribution towards achieving greater self-sufficiency, in turn contributing towards securing environmental targets. The initiative holds the potential to be the focus for a range of City-wide strategies which together will work towards sustainability aspirations.	groups or areas of the City.
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	The Scale of Growth City Centre Quality of Life	The housing growth aspired to should create opportunities to provide for a greater choice of, and access to, housing across the City.	The location and type of new housing will have to be monitored to ensure that the housing delivered meets needs and does not compromise other objectives such as the maintenance and improvement of quality of life.

4.3 The BDP Policies: Sustainability Analysis

Since the Preferred Options Report (November 2010), the Plan policies have been refined and reflect the more focused approach of the BDP. The sustainability performance of the suite of policies proposed for the BDP is set out in Appendix A, whilst Table 4.4 summarises the results of the assessment. The appraisal used the following assessment criteria:

++	Major Positive Impact	+	Positive Impact	0	Neutral Impact	-	Negative Impact	--	Major Negative Impact	#	No Relationship	?	Uncertain Relationship
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The effects were also forecast in terms of: permanence (permanent or temporary; scale (within the Plan area or transboundary); and timescale (short term [1-5 years], medium term [5-10 years] or longer term [10+years]). In addition, cumulative, synergistic and cross-boundary effects were identified where relevant.

Table 4.4 Summary of the Sustainability Performance of the Proposed Policies of the BDP

Sustainability Theme	1. Natural resources and waste		2. CO ₂ emissions						3. Climate change adaptation	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing					
	1. Resource Use	7. Waste Minimisation	8. Efficient use of land	2. Sust. Design & Construction	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/ Sport/ Recreation	27. Housing	
Sustainability Objectives	BDP Policy																												
PLANNING FOR GROWTH																													
PG1: Overall Levels of Growth	-	-	+	+	+	+	+	+	0	+	+	+	0	?	#	0	+	+	+	+	+	+	+	+	+	0	++	++	?
PG2: Birmingham as an International City	-	-	0	+	+	+	?	-	-	+	+	0	0?	#	#	-?	+	+	+	#	#	+	+	+	#	#	+	#	#
PG3: Place Making	+	+	++	++	+	+	++	++	+	+	++	+	+	#	#	0	+	+	++	+	+	+	+	+	+	+	++	++	++
SPATIAL DELIVERY OF GROWTH																													
GA1: The City Centre	+	+	++	++	++	++	++	++	+	?	?	++	+	#	-	#	#	-	++	++	++	+	+	?	?	++	++	+	
GA2: Greater Icknield	+	+	++	++	++	++	++	++	+	+	++	+	+	?	#	0	++	++	++	+	+	+	+	+	+	+	++	++	++
GA3: Aston, Newtown and Lozells	+	+	++	++	++	++	++	++	+	+	++	+	+	?	#	0	++	++	++	+	+	+	+	+	+	+	++	++	++

Sustainability Theme	1. Natural resources and waste							2. CO ₂ emissions							3. Climate change adaptation	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth			7. Communities, healthy lifestyles and equality							8. Housing
	Sustainability Objectives							BDP Policy							10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/ Sport/ Recreation	27. Housing	
GA4: Sutton Coldfield Town Centre	+	+	++	++	+	+	+	++	+	?	+?	+	+	?	#	#	0	+	+	+?	+	+	+	+	+	+	?	?	+	++				
GA5: Langley Sustainable Urban Extension	0	+	-	+	+	+	+	0	+	+	0	0	0	0	0	0	0	+	+	++	++	#	+	+	+	+	#	+	+					
GA6: Peddimore	0	+	-	+	+	+	0	0	0	+	0	+	0	0	0	0	0	++	+	+	#	0	+	#	#	#	#	#	#					
GA7: Bordesley Park	+	+	++	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	++	+	+	+	+	+	+	+	++	++				
GA8: Eastern Triangle	+	+	+	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	++	+	+	+	+	+	+	+	++	++				
GA9: Selly Oak and South Edgbaston	+	+	++	++	+	+	++	++	+	+	+	+	+	+	#	#	0	+	+	+	+	+	+	+	+	+	?	++	++					
GA10: Longbridge	+	+	++	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	++	+	+	+	+	+	+	++	++					
ENVIRONMENT AND SUSTAINABILITY																																		
TP1: Reducing the City's Carbon Footprint	++	++	++	++	++	++	++	++	+	+	+	#	#	++	#	#	#	+	+	+	+	+	+	+	+	?	#	#	#	+				

Sustainability Theme	1. Natural resources and waste							2. CO ₂ emissions							3. Climate change adaptation	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth		7. Communities, healthy lifestyles and equality							8. Housing
	Sustainability Objectives							BDP Policy							10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/ Sport/ Recreation	27. Housing
TP2: Adapting to Climate Change	+?	#	#	++	++	++	#	#	++	++	++	?	?	?	#	#	#	#	+	+	?	+	+	?	?	?	#	#	#	?			
TP3: Sustainable Construction	++	++	++	++	++	++	#	#	++	++	++	+?	#	#	#	#	#	#	++	++	++	+	+	+	#	#	#	#	#	++			
TP4: Low and Zero Carbon Energy Generation	++	++	#	++	++	++	++	+	++	++	++	+?	#	#	++	#	#	#	++	++	++	+	+	+	+	#	#	#	#	++			
TP5: Low Carbon Economy	++	++	#	++	++	++	++	+	++	++	++	+?	#	#	++	#	#	#	++	++	++	+	+	+	#	#	#	#	#	+			
TP6: Managing Flood Risk	#	#	#	#	#	#	#	#	#	++	++	+	+?	+?	#	+	#	#	+	#	#	#	#	+	#	#	#	#	#	++			
TP7: Green Infrastructure Network	#	#	#	#	#	#	+	+	+	++	++	+	++	++	+	+	#	+	+	++	++	+	+	+	#	++	+	++	++	+			
TP8: Biodiversity and Geodiversity	#	#	#	#	#	#	#	#	#	+	+	++	++	+	+	#	#	+	+	++	++	+	+	+	#	++	#	++	++	+			
TP9: Open Space, Playing Fields and Allotments	#	#	#	#	#	#	+	+	+	+	+	+	+	+	+	#	#	+	+	++	++	+	+	+	#	++	+	++	++	++			
TP10: Green Belt	#	#	++	#	#	#	#	+	#	#	#	++	++	++	++	+	+	#	0	#	+	+	#	#	#	++	#	++	++	0			
TP11: Sports Facilities	#	#	#	#	#	#	+	+	+	#	#	#	#	#	#	#	#	+	+	+	+	+	+	#	++	+	++	++	+				

Sustainability Theme	1. Natural resources and waste							2. CO ₂ emissions							3. Climate change adaptation	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth		7. Communities, healthy lifestyles and equality							8. Housing	
	Sustainability Objectives							BDP Policy								10. Manage Climate Change	12. Built and Historic Env.	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/ Sport/ Recreation	27. Housing	
TP12: Historic Environment	#	#	#	+	#	#	#	#	#	#	#	++	+	#	#	#	#	#	+	#	++	+	+	#	#	#	#	#	++	0				
TP13: Sustainable Waste Management	++	++	+	#	++	+	+	+	+	#	#	#	+#	#	#	#	#	#	+	#	#	#	#	#	#	#	#	#	#	#				
TP14: New and Existing Waste Facilities	++	++	+	#	++	+	+	+	+	#	#	#	+#	#	#	#	#	#	+	#	#	#	#	#	#	#	#	#	#	#				
TP15: Location of Waste Management Facilities	+	++	+	#	++	+	+	+	+	#	#	#	+#	#	#	#	#	#	+	#	#	#	#	#	#	#	#	#	#	#				
TP15A: Minerals	++	++	++	#	#	+	+	#	+	#	#	#	+#	#	#	#	#	#	+	#	#	#	#	#	#	#	#	#	#	#				
ECONOMY AND NETWORK OF CENTRES																																		
TP16: Portfolio of Employment Land and Premises	+	+	+	++	++	++	+	+	+	?	0	?	?	0	?	#	#	#	++	++	#	#	#	+	+	?	#	#	#	#				
TP17: Regional Investment Sites	+	+	+#	+	+#	+	+#	+#	?	#	?	?	?	?	#	#	#	?	++	++	?	#	#	+#	+#	#	#	#	#	#				
TP18: Core Employment Areas	+	+	+	+	+	+	+#	+#	?	#	?	?	?	?	#	#	#	?	++	++	?	#	#	+#	+#	#	#	#	#	#				

Sustainability Theme	1. Natural resources and waste							2. CO ₂ emissions							3. Climate change adaptation	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth		7. Communities, healthy lifestyles and equality							8. Housing	
	1. Resource Use	7. Waste Minimisation	8. Efficient use of land	2. Sust. Design & Construction	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality		16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/ Sport/ Recreation	27. Housing					
Sustainability Objectives	BDP Policy																																	
TP19: Protection of Employment Land	+	+	+	+	+	+	?	?	?	#	+	#	#	#	#	#	++	++	?	#	#	+	+	#	#	#	#	#	#					
TP20: Network and Hierarchy of Centres	#	#	+	+	#	#	+	++	+	#	+	#	#	#	#	#	++	+	++	#	#	+	+	#	#	+	+	+	+					
TP21: Convenience Retail Provision	#	#	+	#	#	#	++	++	+	#	++	#	#	#	#	#	++	+	++	+	+	+	+	+	+	?	+	++	++					
TP22: Small Shops and Independent Retailing	#	#	+	#	#	#	++	++	+	#	++	#	#	#	#	#	++	+	++	+	+	+	+	+	+	?	+	++	++					
TP23: Promotion of Diversity of Uses within Centres	#	#	+	#	#	#	++	++	+	#	++	#	#	#	#	#	++	+	++	+	+	+	+	+	+	?	+	++	++					
TP24: Tourism and Tourist Facilities	#	0	#	#	#	#	0?	-	-	#	++	+	+	0	#	#	0	++	+	++	#	+	+	+	#	+	++	++	#					
TP25: Local Employment	+	+	+	+	+	+	++	++	+	#	+	#	#	#	#	#	++	++	?	#	#	+	+	#	#	#	#	#	#					
HOMES AND NEIGHBOURHOODS																																		
TP26: Sustainable Neighbourhoods	++	++	++	++	++	++	++	++	++	+	+	++	+	+	#	+	++	++	++	+	+	+	+	+	+	+	+	+	++					

Sustainability Theme	1. Natural resources and waste							2. CO ₂ emissions							3. Climate change adaptation	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth		7. Communities, healthy lifestyles and equality							8. Housing
	1. Resource Use	7. Waste Minimisation	8. Efficient use of land	2. Sust. Design & Construction	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/ Sport/ Recreation	27. Housing					
Sustainability Objectives	BDP Policy																																
TP27: Location of New Housing	0	#	+	+	+	+	++	++	?	?	+	+	?	?	#	#	#	+	#	+	+	+	+	+	+	+	+	++					
TP28: Housing Trajectory	-	0	?	+	+	+	+	+	?	?	?	?	?	#	#	#	#	+	#	+	+	+	+	+	+	+	+	++					
TP29: Type, Size and Density of New Housing	+	+	++	++	+	+	+	+	?	?	+	+	#	#	#	#	#	+	#	+	#	+	+	+	#	#	#	++					
TP30: Affordable Housing	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	+	#	+	+	++	++	++	+	#	#	++					
TP31: Housing Regeneration	+	+	++	++	+	+	+	+	?	?	+	+	?	#	#	#	#	+	#	+	#	+	+	+	+	#	#	++					
TP32: Student Accommodation	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	+	+	+	+	?	?	#	#	#	#	+					
TP33: Provision for Gypsies, Travellers and Travelling Showpeople	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	+	+	++	++	++	#	#	#	+					
TP34: Existing Housing Stock	+	+	+	?	?	?	+	+	+	#	+	+	#	#	#	#	#	#	+	+	+	+	+	?	?	?	+						
TP35: Education	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	++	++	#	+	+	++	++	+	++	+	++					

Sustainability Theme	1. Natural resources and waste							2. CO ₂ emissions							3. Climate change adaptation	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth		7. Communities, healthy lifestyles and equality							8. Housing
	Sustainability Objectives							BDP Policy							10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/ Sport/ Recreation	27. Housing
TP36: Health	#	#	#	#	#	#	++	+	+	+	+	+	+	++	++	++	++	#	+	+	#	+	+	+	+	++	?	++	#	++	+		
CONNECTIVITY																																	
TP37: Sustainable Transport Network	+	#	++	++	++	++	++	++	++	+	#	+	+	#	++	#	#	++	++	+	+	++	++	+	+	+	++	++	#	+	#		
TP38: Walking	++	#	++	++	++	++	++	++	++	+	#	+	+	#	++	#	#	++	++	#	+	++	++	+	+	++	++	#	+	#			
TP39: Cycling	++	#	++	++	++	++	++	++	++	+	#	+	+	#	++	#	#	++	++	#	+	++	++	+	+	++	++	#	+	#			
TP40: Public Transport	+	#	++	++	++	++	++	++	++	+	#	+	+	#	+	#	#	++	++	+	+	++	++	+	+	++	++	#	+	#			
TP41: Freight	+	#	+	0	0	?	?	0	+	+	#	#	#	#	+	#	#	+	++	#	#	#	#	#	#	#	#	+	#	#			
TP42: Low Emission Vehicles	++	++	#	#	+	+	++	0	+	+	+	+	#	+	++	+	#	+	+	+	+	#	#	#	#	#	+	#	#	#			
TP43: Traffic and Congestion Management	?	#	+	+	#	#	+	?	0	#	?	?	?	0	#	#	#	?	++	#	?	+	+	+	+	?	#	#	#				

Sustainability Theme	Sustainability Objectives		BDP Policy	
8. Housing	27. Housing	++	++	#
	28. Culture/ Sport/ Recreation	++	++	+
7. Communities, healthy lifestyles and equality	26. Crime	#	#	#
	25. Health	++	++	#
	24. Poverty	++	++	+
	23. Equality	++	++	+
	22. Community Involvement	++	++	+
	19. Social and Env. Resp.	+	+	+
	11. Sense of Place	++	++	#
	21. Learning and Skills	++	++	++
	20. Economy and Equality	++	++	++
	18. Noise	+	+	#
5. Pollution	17. Soil Quality	#	#	#
	16. Water Quality	#	#	#
	15. Air Quality	+	+	#
	14. Biodiversity	#	#	#
4. Historic environment, landscape, biodiversity and geodiversity	13. Natural Landscape	#	#	#
	12. Built and Historic Env.	+	+	#
	10. Manage Climate Change	#	#	#
	9. Reduce climate change	+	+	+
3. Climate change adaptation	6. Reduce the need to travel	++	++	+
	5. Sustainable Transport	++	++	#
	4. Energy Efficiency	#	#	#
	3. Renewable Energy	#	#	#
	2. Sust. Design & Construction	++	++	#
	8. Efficient use of land	#	#	#
2. CO ₂ emissions	7. Waste Minimisation	#	#	#
	1. Resource Use	#	#	+
	1. Natural resources and waste	#	#	#
	1. Resource Use	#	#	+
1. Natural resources and waste	1. Resource Use	#	#	+
	1. Resource Use	#	#	+
Sustainability Theme	TP44: Accessibility Standards for New Development	#	#	#
	TP45: Digital Communications	+	+	#

4.4 Policy Analysis

Planning for Growth

Policies: PG1 Overall Levels of Growth; PG2 Birmingham as an International City; PG3 Place Making

Commentary

The overall effects of this policy area are likely to be variable, as the policy aspiration of growth inevitably brings benefits and disbenefits associated with increased levels of activity. Resource consumption, for example, is likely to be higher, with attendant increases in travel and challenges associated with the provision of sustainable transport solutions to meet changing levels and patterns of movement. There are also potentially negative effects on some objectives related to resource use, waste, CO₂ emissions and noise related to increased development leading to higher energy consumption and travel.

The effects on communities, health and equality are potentially positive or significantly positive, reflecting wealth generation, the provision of houses, jobs and services, and the intention to balance growth with place-making through high standards of design and the creation of more sustainable transport opportunities, for example. However, given the complexity and the deep-rooted nature of deprivation in some areas, there is a degree of uncertainty in relation to whether deprived areas will fully benefit from these opportunities, with certain areas and groups of the population have historically been disadvantaged in respect of local job opportunities and the environmental quality of their locality. The strategy of regeneration through Growth Areas set out in the spatial delivery of growth (policies GA1-GA10) should begin to address this issue.

The balancing of positive and negative effects will be a particular challenge for the implementation of policy, particularly over the longer term where cumulative and synergistic effects are likely to be felt, and the City-wide contribution can be measured against both past performance and that of comparable urban areas.

In light of fulfilling the demands of the NPPF for sustainable development, one area of particular uncertainty is the extent to which, through the Duty to Co-operate, the City's development requirements can be met. Around 40,000 dwellings will need to be provided in adjacent areas, seeking to reflect the interrelationship between the City of Birmingham and its surrounding City-region as evidenced through patterns of commuting, strategic employment and provision of retail and cultural services²⁴.

There are significant uncertainties over the likely sustainability implications of accommodating around 40,000 dwellings in surrounding authorities, given the absence of detail at this stage of where this portion of Birmingham's housing need might go. It is understood that exploration of strategic housing and employment provision across the City region is being undertaken through the GBSLEP Spatial Plan for Recovery and Growth, and conclusions on the appropriate spatial balance of development could be reached which support or modify the aspirations of the BDP.

What are the likely secondary, cumulative and synergistic effects?

This set of policies could have a large number of interrelated effects, acting cumulatively, such as overall improvements in the quality of life of residents through regeneration activity. However the exact nature of such effects is very difficult to predict and will require close monitoring in terms of where investment and growth is occurring.

Recommendations

Notwithstanding some potential negative effects associated with some SA Objectives, overall this policy group is effective in communicating the intentions of sustainable growth across Birmingham

²⁴ See Roger Tym & Partners (January 2013) Birmingham Strategic Housing Market Assessment, chapter 13

which will drive the delivery of the Plan's vision and objectives. In doing so, there is perhaps opportunity to cross reference policies or groups of policies which will help to deliver these intentions, such as the intention to create sustainable neighbourhoods (Policy TP26) which reflect and translate many of the growth aspirations.

Spatial Delivery of Growth

Policies: GA1 City Centre; GA2 Greater Icknield; GA3 Aston, Newtown & Lozells; GA4 Sutton Coldfield Town Centre; GA7 Bordesley Park; GA8 Eastern Triangle; GA9 Selly Oak & South Edgbaston; GA10 Longbridge

This suite of policies form the spatial strategy of regeneration-led growth of the City, centred on a range of localities, through mixed use development and environmental enhancement. The overall effects are likely to be positive and in many cases very positive, reflecting the logic of regeneration as the basis for efficient resource use, community coherence and synergies between aspects of growth. Inevitably there are possible negative effects on some sustainability objectives and uncertainties associated with others. This is most clearly shown in relation to the City Centre where there are significant opportunities to create developments which incorporate outstanding energy efficiency measures, use innovations such as district heating (already pioneered in the City Centre) and which reduce the need to travel. In principle, the benefits of investment in the City Centre should be reflected in greater employment and social opportunities. By contrast the potentially negative effects of concentrating growth here relate to poorer air quality, noise, and uncertainties over the benefits for certain sectors of the community of this growth. For the growth areas focused on existing neighbourhoods, such as in the Eastern Triangle, the benefits of investment are more clearly positive, given their current problems. Past experience, such as the regeneration of Castle Vale provides a positive role model for the beneficial effects of change.

What are the likely secondary, cumulative and synergistic effects?

Cumulatively, the concentration of housing and economic growth within the existing urban area, headed by the City Centre and complemented by regeneration-led approaches to peripheral areas, is highly likely to be positive and contribute to the sustainable development of the City as a whole and its sub-region.

Recommendations

The AAP and masterplan-led approach to these areas provides significantly more detail on implementation and the balancing of economic, social and environmental objectives. Nevertheless, greater emphasis in this suite of policies needs to be placed on achieving balanced growth that is ensuring that strong and rapid change does not cause undesirable side-effects such as the compromising of environmental quality. This is particularly the case with the City Centre but also applies to other growth areas on a lesser scale and in different ways where particular issues such as greenspace or air quality could be prominent. Cross-referencing to selected implementation policies would therefore be beneficial as well as re-assurance over the monitoring of key effects such as the provision of greenspace as part of new development.

Green Belt Growth Areas

Policies: GA5 Langley Sustainable Urban Extension; GA6 Peddimore

The proposed release of Green Belt land for housing and employment development to the west and east of the A38 at Walmley, Sutton Coldfield reflects the need to respond to identified growth needs for the City which cannot realistically be met within the current built-up area as well as (in the case of strategic employment) Birmingham's role as a key regional economic driver²⁵. The expansion of the City's footprint inevitably entails negative effects across some sustainability objectives (notably the impact on natural resources and the efficient use of land), but the overall sustainability effects are

²⁵ Birmingham City Council (2012) Employment Land Review & Warwick Economics and Development (2012) Employment Land Study for Economic Zones and Key Sectors in Birmingham

likely to be positive in the context of creating (in the case of the urban extension) a mixed use development which encourages relative self-containment and could enhance the environmental quality of the area through green infrastructure, for example. The allocation of employment land entails a less positive picture, given the intended land uses, but there are also opportunities for mitigation of effects through good masterplanning. In both cases, the justification release centres on the balance to be struck between accommodating development within the existing urban area and meeting wider development needs. The regeneration-led strategy of the BDP seeks to make best use of existing resources, but recognises that there is a limit to this without an unacceptable degradation of environmental quality (such as building on recreational open spaces), and also the specific needs of the City's and the Region's economy. Careful appraisal of options for Green Belt release has assisted the process of identifying where development is likely to result in least impact and yield greatest benefit.

What are the likely secondary, cumulative and synergistic effects?

Cumulatively, whilst there are immediate sustainability impacts associated with the loss of natural resources, the overall sustainability impacts are likely to be positive, associated with the provision of houses and jobs and contributing to the development of the City as a whole and its Region. Appendix B appraises options relating to the scale of a Sustainable Urban Extension demonstrating how cumulative impacts are likely to vary, particularly in respect of the sustainability implications of delivery. Depending on whether a smaller or larger urban extension is finally proposed, further modifications could be required (i.e. the need to release more Green Belt land) to take account of differing scales of growth.

Recommendations

The masterplan-led approach to these areas will provide more detail on implementation and the mitigation measures which will help to offset negative impacts. Nevertheless, it is important that such change genuinely realises potential benefits associated with development and cross-referencing to other implementation policies would be helpful in this regard.

Environment and sustainability

Policies: TP1 Reducing the City's Carbon Footprint; TP2 Adapting to Climate Change; TP3 Sustainable Construction; TP4 Low and Zero Carbon Energy Generation; TP5 Low Carbon Economy; TP6 Managing Flood Risk

Commentary

These policies address the climate change agenda through a variety of means, with the net effect likely to be a positive contribution to securing sustainable development over the long term, as measured by indicators such as carbon reduction and the 'proofing' of the City against climate change effects. As with overall growth for the City, the long-term effectiveness of the policy approach will be dependent upon the quality of policy implementation on individual sites which cumulatively contribute to the City's performance. Innovation in energy generation (such as neighbourhood energy schemes) will be required, and given the scale of the City, there could be significant opportunities to experiment and adopt leading-edge technologies. Whilst the promotion of Sustainable Neighbourhoods could provide opportunities through new development to address climate change, the policies may have less effect on existing communities where less development is foreseen, including those living in deprived neighbourhoods. Much may depend on how the Plan's policies together with Birmingham's Climate Change Action Plan are implemented. However, in applying the CHP policy to new developments, the refurbishment of municipal housing estates would provide an opportunity for more CHP schemes to be installed which would be beneficial for those living in social housing.

What are the likely secondary, cumulative and synergistic effects?

Implemented in full and acting in concert, the cumulative effect of these policies should be significant over the longer term, resulting in a tangible shift in the City's contribution to climate change and its ability to respond to its impacts.

Recommendations

Whilst this suite of policies is in the main complementary to one another, they would benefit from more cross-referencing demonstrating key relationships, between Green Infrastructure and climate change for example.

Policies: TP7 Green Infrastructure Network; TP8 Biodiversity and Geodiversity; TP9 Open Space, Playing Fields and Allotments; TP10 Green Belt; TP11 Sports Facilities; TP12 Historic Environment

Commentary

Perceived quality of life for citizens, workers and visitors is a good indicator of sustainability and this suite of policies should on balance help to secure a range of benefits which are both needed and demanded. These policies have a broadly positive effect on the SA objectives, although the extent to which they are likely to make a difference to the quality of life across the City will be dependent upon their interaction both between themselves and with other policy areas, and implementation over the plan period and beyond. Perhaps more than any other policy area, the linkages with other strategies and programmes will be fundamental to securing effective outcomes. The principle of establishing a sufficient quantity of accessible, good quality open space is likely to lead to positive social effects, although there is some uncertainty regarding the effects as quality standards are not clearly defined in the policy or supporting text. Policies covering sport and recreational uses and this should deliver a range of sustainability benefits. The dual use of school sports facilities will be encouraged and this will have the advantage of opening up these facilities to the wider community which could be good for community cohesion and social integration.

What are the likely secondary, cumulative and synergistic effects?

There are significant secondary effects from the provision of open space and recreation facilities in terms of health, adapting to climate change (through flood risk management), biodiversity and landscape. Open space is likely to have cumulative effects in relation to overall quality of life improvements allied to improvements in housing, transport and employment opportunities. This policy will work together with other policies including that on Green Infrastructure to deliver cumulative benefits.

Recommendations

The supporting text of Policy TP9 (Open Space, Playing Fields and Allotments) would benefit from further clearer links to Policy TP7 (Green Infrastructure) (and vice versa) in order to help demonstrate how these closely related policies are related and need to be delivered together.

Policies TP13 Sustainable Management of the City's Waste; TP14 New and Existing Waste Facilities; TP15 Location of Waste Management Facilities; TP15A Minerals

Commentary

These policies should on balance advance sustainability objectives particularly in relation to natural resource use and CO₂ emissions, although the overall impact effect will be dependent on the quality of implementation at specific sites and require a long-term perspective on effectiveness. The policies have a number of uncertain effects as information on the potential requirements for new non-landfill capacity is limited. There are significant opportunities associated with the creation of innovative approaches to waste management and the linking of this to economic opportunities and neighbourhood management. An overall reduction in reliance in landfill for Birmingham's waste is

likely to improve environmental conditions in the medium to long term. Expansion of existing waste sites, the creation of new facilities, and/or the use of different technologies (e.g. gasification and pyrolysis) may lead to localised environmental effects and there will therefore be a need for developers and planners proposing any new or expanded waste management sites to undertake an assessment on the impact on the surrounding population. The introduction of a policy on Minerals extraction to avoid sterilisation through development under Proposed Main Modifications reflects the opportunity to secure the efficient use of resources.

What are the likely secondary, cumulative and synergistic effects?

Likely to be beneficial over the longer term as more efficient and effective waste disposal methods are put in place with cumulative benefits for reducing climate change alongside other initiatives to reduce emissions. Achieving synergistic benefits could be significant on City-wide basis and be representative of the City's willingness and ability to find innovative solutions to this fundamental issue of sustainability.

Recommendations

Ideally this group of policies should set out in quantitative terms the likely capacity requirements which are referred to. Further justification of the approach should be set out in the supporting text.

Economy and network of centres

Policies: TP16 Portfolio of Employment Land and Premises; TP17 Regional Investment Sites; TP18 Core Employment Areas; TP19 Protection of Employment Land; TP24 Tourism and Tourist Facilities; TP25 Local Employment

Commentary

The keynote of the strategy for employment is a diversity of provision through a hierarchical approach which matches population growth and contributes to the City's overall performance. Whilst the net sustainability effect of the policy area should be positive, there will inevitably be, as with other policy areas, trade-offs which could compromise sustainability performance, notably transport and the effect of growth on the natural environment in particular localities. Proposals to retain and protect core employment areas, to develop regional investment sites, and to maintain a portfolio of employment sites should be beneficial to the unemployed. Indeed the Strategy recognises the need to create employment sites close to areas of deprivation and high unemployment e.g. East Aston. The gap between the job opportunities and the ability of those in areas of need to fill them remains a concern. In particular, the strategy of providing sites for high technology development should create opportunities for diversifying the economy away from a traditional reliance on manufacturing. However, these are likely to be highly skilled jobs which may be less available to existing lower skilled workers. The policy may not offer more employment opportunities to those already at a disadvantage in the labour market. Close monitoring of these effects is likely to be required.

Some minor negative effects in respect of promoting tourism and tourist facilities have been identified, relation to travel reduction and climate change, as well as neutral effects across related objectives such as pollution and sustainable transport. Given the City's ambitions to be an international tourism and business destination, it is inevitable that such negative impacts will occur, and it would perhaps be helpful if the policy acknowledged these pressures and where other policies such as sustainable transport might help to ameliorate them.

What are the likely secondary, cumulative and synergistic effects?

Cumulatively, implementation of the policies should help to create a City with a more diverse and thus robust employment base, in so doing providing benefits across the City in terms of quality of life for all residents. The implementation of the policies will have to be adaptable to meet prevailing macro (i.e. national) and micro (i.e. local) economic conditions. The effects could therefore be unpredictable in both the short, medium and longer term.

Recommendations

Whilst the package of new employment land proposals and protection of key employment areas is likely to be beneficial overall, greater clarification would be helpful on how the benefits will be spread City-wide and complement other policy aspirations. Reference to partner strategies on education and social inclusion could be helpful in this regard, as would cross-referencing of policies, for example in relation to tourism and environmental protection.

Policies: TP20 The Network and Hierarchy of Centres; TP21 Convenience Retail Provision; TP22 Small Shops and Independent Retailing; TP23 Promoting a Diversity of Uses Within Centres

Commentary

The proposed policies perform relatively well against the SA objectives. The approach put forward should, if well implemented, be a fundamental part of a sustainable city, with locally-focused solutions to living and working, reducing the need to travel and creating a greater sense of place and community. It is acknowledged that the level and mix of retail service provision will vary over time and general macro-economic conditions, but investing in specific areas which are best suited to retaining a service function should help to create more robust neighbourhoods. The Strategy states that the City Council will work with developers, retailers and local traders through the area-based plans to address local retail needs, but how this will affect those living in areas of retail need will depend on implementation.

What are the likely secondary, cumulative and synergistic effects?

Cumulative and synergistic effects could be significant as the aspirations for greater self-containment are realised and spread to adjacent areas and become models for the establishment of the approach elsewhere in the City. This could lead to significant effects on the economy and on quality of life across the City.

Recommendations

Greater cross-referencing with supporting policies would be helpful, particularly in respect of transport and connectivity, along with the relationship between these policies and the creation of Sustainable Neighbourhoods. Further supporting text regarding the justification for the hierarchy of centres would be beneficial.

Homes and Neighbourhoods

Policies: TP26 Sustainable Neighbourhoods; TP27 The Location of New Housing; TP28 The Housing Trajectory; TP35 Education; TP36 Health

Commentary

The proposed policies perform well in terms of their potential to deliver positive sustainability effects, although there is some uncertainty regarding environmental effects which will depend on the scale and exact locations of housing development. In so doing, there is the opportunity to address a range of other issues such as linking housing and jobs, provision of accessible greenspace and the creation of a sense of place. Much depends upon implementation, but in principle, the range and direction of policies associated with housing provision should help to advance sustainability across the City. Taking a long-term perspective is particularly important as decisions on the location and type of housing are fundamental in setting the character of the City over the next 50-100 years. It is noted that the policy on Sustainable Neighbourhoods requires all new development to be accessible to jobs, shops and services by transport modes other than the car, and these aspects are further elaborated in other policies in the BDP. New housing developments also offer the opportunity to create sustainable places to live with services such as retail, health, leisure and community facilities located within the development so that disabled people, young children, older people and carers have accessible facilities within easy reach. This is also likely to engender a sense of community.

What are the likely secondary, cumulative and synergistic effects?

Cumulatively, the effects could be significant where the policies begin to affect relatively large proportions of the affordable housing market, for example, particularly in specific locations where demand is particularly acute.

Recommendations

Reference to Sustainable neighbourhoods in all related policies would be helpful in demonstrating an integrated approach to housing strategy across the City, anticipating future approaches to its spatial character.

Policies: TP29 The Type, Size and Density of New Housing; TP30 Affordable Housing; TP31 Housing Regeneration; TP32 Student Accommodation; TP33 Provision for Gypsies, Travellers and Travelling Showpeople; TP34 The Existing Housing Stock

Commentary

The effects of these policies are likely to be broadly positive although there is some uncertainty regarding some environmental effects which will depend on the detail of implementation. Plans for the demolition, regeneration and refurbishment on municipal housing estates in Policy TP31 should impact positively on lower income households, if better housing is provided. The policy does not make it clear whether the replacement of housing will maintain the existing mix and tenure of dwellings. There could be differing effects depending on whether there is direct replacement of social housing on these estates or if a mix of tenures is provided. The former provides less opportunity to create a balanced community whilst the latter might potentially lead to net loss of social housing. The policy reference to improving other related community facilities should have beneficial sustainability effects. The proposed allocation of sites within Policy TP33 should help to ensure adequate provision over the plan period.

What are the likely secondary, cumulative and synergistic effects?

An improvement in the existing housing stock combined with design standards is likely to have secondary effects on overall quality of life. Combined with other plan policies and initiatives there could be significant positive cumulative effects on social and environmental conditions across the City.

Recommendations

Further explanation could be given regarding mix and tenure of replacement housing and whether balanced communities can be encouraged when municipal housing estates are renewed without a loss of social housing.

Connectivity

Policies: TP37 A Sustainable Transport Network; TP38 Walking; TP39 Cycling; TP40 Public Transport; TP41 Freight; TP42 Low Emission Vehicles; TP43 Traffic Congestion and Management; TP44: Accessibility Standards for New Development; TP45: Digital Communications

Commentary

Transport is one of the key challenges for sustainable development, both in terms of reducing the need to travel and the impact of the modes of travel when movement does occur. The focus of the policies on creating a more sustainable city-wide transport network and innovation through digital connectivity is likely to have positive effects on SA objectives relating to CO₂ emissions, the economy and communities. Specific policies relating to cycling and walking should yield positive effects, although there is the opportunity to more explicitly tie these into complementary policies such as those relating to healthy and sustainable communities to ensuring the maximum benefits are secured.

The accessibility standards for new development are useful and should help to directly benefit new and existing residents.

Overall the policies have been assessed as having generally positive effects against the majority of SA Objectives, although there are a number of uncertainties associated with the Policy TP43 on Traffic and Congestion Management. Here, the effects of investment in the road network on natural resources and pollution load, for example, could yield mixed results according to the character of specific localities. The policy promotes a diversity of approaches to managing the highway network across the City which taken together should lead to more sustainable outcomes, although close monitoring of their effects will be required. Policy TP40, as part of Proposed Main Modifications, sets out proposals for a series of Sprint Services and Rapid Transit routes across the City is to ensure that the BDP is aligned with the transport strategy contained within the 'Birmingham Connected' (previously Birmingham Mobility Action Plan) document. These are key routes which have been identified as having the potential for higher capacity public transport and are related to the creation of a genuinely integrated mass transit system in order to reduce congestion and address sustainability concerns across the City. There is no specific timescale for the delivery of individual routes.

What are the likely secondary, cumulative and synergistic effects?

The cumulative and synergistic effects will depend upon the interaction between this policy area and those of housing and employment, where integration in provision will be critical. Close monitoring of these interactions will be necessary to help ensure and that unintended consequences of policy implementation are identified.

Recommendations

Further consideration should be given to how the connectivity policies are likely to work in concert and with other policies throughout the Plan to achieve more sustainable outcomes for the BDP as a whole. For example, could the policy relating to cycling be linked to those on green infrastructure, health promotion and sustainable communities? Reference to clear strategies which will help to deliver the goals of sustainable transport policies would be helpful in promoting an integrated, City-wide approach.

4.5 Observations on the Performance of the Policies by Sustainability Theme including Cumulative, Secondary and Synergistic Effects

Overview

The analysis presented in Table 4.4 shows the sustainability performance of the policies to be largely positive, with many significant positive relationships and no instances of significant negative effects. The principle of a regeneration-led strategy, advocated by the BDP since the issues and options stage represents a logical and justifiable strategy approach for a City the size and complexity of Birmingham which contains significant tracts of brownfield land. These redevelopment opportunities already exist or will become available as part of the development cycle, along with areas which require rejuvenation, economically, socially and environmentally.

Many sustainability problems result from the progressive accumulation of small and indirect effects and the failure to address these as they develop and which induce further changes, notably the deterioration in housing quality, local retail decline and absence of open space management. There is inevitable uncertainty associated with trying to anticipate these interactions and impacts, but where negative effects are predicted, these reflect the likely impacts of growth in respect of additional resource use, waste generation and pollution. To an extent, these are inevitable by-products of growth, although as intended in a number of implementation policies can be mitigated through striving for higher standards of building design and encouraging behavioural change in transport habits, for example.

Overall the BDP will help to deliver sustainable development for the City, directly and indirectly improving quality of life for residents, workers and visitors through the creation of a housing stock and

services which better match needs, job and wealth creation which fit the City's multiple economic roles, a sustainable transport system, and an environmental setting which responds to the demands of growth and the challenges associated with climate change. These aspirations will be supported by various corporate initiatives to support sustainable growth, notably Leading Green City (March 2013) which sets out an ambitious vision for re-casting Birmingham's environmental footprint through energy generation and use and travel behaviour, and supporting strategies²⁶.

The impacts of the BDP proposals acting and in combination with those of adjacent authorities will require close monitoring. The BDP relies upon neighbouring authorities for the delivery of its growth and these requirements will inevitably impact upon sustainability issues in these areas, notably on greenfield land take, traffic generation and service provision. Growth across the sub-region and region as a whole resulting from the plans of all authorities (albeit at different stages) is likely to result in a greater strength and complexity of cross-area commuting patterns, with consequences for key indicators such as air quality, congestion and neighbourhood coherence. The extent to which these impacts can be managed will depend upon the effectiveness of mitigation policies in BDP and other plans (such as those promoting a modal shift and greater self-containment) and their close monitoring will be required.

As part of the assessment no significant negative effects were encountered, reflecting the pragmatic tone of the policies and the balanced approach to sustainable development which is being strived for. The assessment, perhaps inevitably, is characterised by numerous instances of uncertainty, either in the relationship between policies and sustainability objectives or whether a particular effect will be realised. This reflects the contingent nature of spatial planning, which relies on wider interactions such as economic health. However, the BDP seeks to create the framework within which there can be balanced economic growth whilst providing for the needs of existing and future residents, in the context of environmental protection and enhancement.

Natural Resources and Waste

The strategy of regeneration which seeks to accommodate a significant proportion of the proposed growth within the urban area will help to protect greenfield land within the City boundary and beyond. The greenfield development that is proposed is likely to result in negative effects being the loss of a resource, but this is counterbalanced by the positive attributes of proposals for an urban extension. The creation of waste is an inevitable by-product of growth and will have negative effects where the City already struggles to manage its waste. Proposals for waste minimisation and management across the City (Policies TP13-15) as a whole should help to temper this impact, although the impacts of their implementation will need to be closely monitored.

CO₂ Emissions

New development and associated travel activity will contribute to CO₂ emissions which, in turn, affect the City's contribution to climate change. However, the BDPs strategy of seeking to develop sustainable neighbourhoods (Policy TP26), promote energy efficiency (Policies TP1 and TP3) and change travel behaviour (TP38-40) will all contribute to mitigating these effects and meeting the City's ambitious targets for CO₂ reduction over the longer term. Nevertheless, overall emissions which result from the interaction of these policies will require close monitoring to judge their effectiveness and potential adjustments made in future plan reviews if progress is not being made.

Climate Change Adaptation

The ability of the City to adapt to the effects of climate change will depend on both direct intervention through provision for increased flood risk, and city-greening to cope with higher summer temperatures, for example, but also in indirect influence over travel behaviour through encouraging more walking, cycling and the use of sustainable transport modes (Policies TP38-40).

²⁶ Your Green and Healthy City SPD (2013); Birmingham's Health and Well-being Strategy (2013); Birmingham's Green Living Spaces Plan (2012)

Historic Environment, Landscape, Biodiversity and Geodiversity

The policies focused on the protection and enhancement of biodiversity, geodiversity and cultural heritage assets (Policies TP8; TP12) will overall have a positive impact on sustainability objectives. There are potential areas of negative impacts and uncertainty, however, associated, for example, with the impacts of regeneration on biodiversity assets (where sites have acquired biodiversity value) and how efforts to mitigate and adapt to climate change might affect the character and use of natural assets where compromises might have to be made on the use of available land. This could include the development of sustainable drainage schemes and the conversion of buildings to be more energy efficient. Equally, policies promoting use of brownfield land and the 'densification' of the urban area generally (Policies TP26 and TP27) could compromise the existing character of parts of the City. Generally however, the proposed policies, in combination with strategies for implementation, will help to promote the interests and contribution of these factors to the improvement of quality of life for residents, workers and visitors across Birmingham.

Pollution

Pollution is an undesirable consequence of growth and human activity and there is an inevitable tension between policies which promote economic growth, housing development and infrastructure provision and the City-wide effects which will accompany them. This could particularly be the case with the promotion of Birmingham as an International City (Policy PG2), for example, which entails increases in flows of businesses and visitors. Policies promoting energy efficiency, modal shift in transport use and mixed use developments will help to temper the generation and impacts of pollution through improving air quality (the whole of the City being an AQMA), for example, but close monitoring of these effects will be required notably in relation to noise which can be a significant issue in some areas.

Economic Growth

The sustainable growth of the City's economy is an important focus of the BDP, to be realised through a structured approach to the protection and provision of strategic and locally-significant employment land and policies which promote economic diversification (Policies TP16-25). Encouraging a mix of uses in the proposed growth areas will also help to achieve a balanced outcome, particularly for areas which require comprehensive regeneration and where the promotion of community identity is important. The important links between economic growth and transport provision and investment are recognised (Policies TP17 and 18), although the precise outcomes of these interactions is not certain, particularly in respect of the overall and more localised effects of congestion.

Communities, Healthy Lifestyles and Equality

The overall effect of the BDP policies on the communities across the City should prove to be positive, as measured by policies which promote sustainable communities through good urban design, access to services and the provision of recreational opportunities which will help to improve health (Policies TP7, 9, 11, and 26). However, the deep and wide-ranging issues associated with deprivation in particular parts of the City demand attention across policy areas throughout the BDP and the outcomes (notwithstanding examples of good practice) can be difficult to predict and the problems intractable. The balance between housing growth and access to services will have to be closely monitored, particularly where large-scale re-development is anticipated.

Housing

Access to good quality, affordable housing in the right places is a key objective of the BDP and the proposed strategy and associated policies should help to ensure that this is worked towards, through a combination of market provision and intervention by housing associations, the latter being of particular significance in areas of weak demand, as is the setting of targets for the provision of affordable housing in market-led developments. Whether the outcomes aspired to will be achieved in practice depends on the interaction of an array of factors, but the BDP sets an appropriate framework through which there can, over the longer term, be balanced provision of housing for all.

4.6 The Spatial Strategy of the BDP

The BDP proposes the following strategy to accommodate the projected growth needs for Birmingham to 2031:

Policy PG1 Overall Levels of Growth

Over the period 2011 to 2031 the following levels of growth will be planned for within Birmingham's administrative boundary to support its growing population and the ongoing strengthening and diversification of its economy:

- 51,100 additional homes.
- 2 Regional Investment Sites of 20 and 25 hectares and a 80 hectare employment site at Peddimore.
- A minimum 5 year reservoir of 96 hectares of land for employment use.
- About 270,000m² gross of comparison retail floorspace by 2026.
- A minimum of 745,000m² gross of office floorspace in the network of centres primarily focused on the City Centre.
- New waste facilities to increase recycling and disposal capacity and minimise the amount of waste sent directly to landfill.

Why we have taken this approach

4.3 Birmingham has continually needed to adapt and change to meet the challenges presented and ensure it meets the needs of its population.

4.4 Over the period to 2031 the City faces new challenges and opportunities. One of the most significant challenges is the growth in the City's population and the resultant pressures this places on services, jobs and infrastructure.

4.5 The 2008-based Office of National Statistics (ONS) projections indicate that by 2031 Birmingham's population will rise by 150,000. The DCLG household projections indicate that this will mean an increase of 80,000 in the number of households.

4.6 To meet the needs of this growing population and ensure the City capitalises on its status and past investment the BDP seeks to plan for significant levels of new growth.

4.7 In the case of housing the City Council has sought to maximise the level of housing delivery within the built-up area of the City. However, it is not possible to achieve the levels of new housing development which would be required to meet this need within the City boundary. This reflects the fact that the land supply within the City is limited, even when Green Belt development options are considered. To meet the rest of Birmingham's housing need options outside the City's boundaries will need to be explored.

4.8 The City Council will seek to work collaboratively with neighbouring authorities to secure the development of further homes to contribute toward meeting Birmingham's housing requirement over the period to 2031. This will need to take account of the latest available population and household projections.

4.9 In order to provide employment for the City's growing population and reduce existing levels of unemployment and worklessness an additional 100,000 jobs need to be created. The levels of employment land provision proposed aim to enable this to be achieved and are supported by the Employment Land and Office Targets Study and the Employment Land Study for Economic Zones and Key Sectors.

4.10 The proposed levels of comparison retail development are in line with the Birmingham Retail Need Assessment (BRNA) Update (2013) and support the City's position as one of the UK's top retail destinations. The retail provision will also allow the network of centres to thrive serving their local communities.

The proposed strategic housing allocations are:

- ▶ Former Yardley Sewage Works - Redevelopment for around 350 new dwellings and enhancements to the Cole Valley.
- ▶ Longbridge - The former MG Rover plant at Longbridge will be redeveloped in line with the adopted Area Action Plan. This will include a minimum of 1,450 new dwellings on three sites.
- ▶ Aston, Newtown & Lozells – Provision of around 700 dwellings across this Area Action Plan area
- ▶ Greater Icknield - Will provide up to 3,000 new homes on six sites within a new Sustainable Neighbourhood, where new family based models of urban living will be explored together with a full range of community facilities, local shopping and working opportunities, and better quality streets, parks, squares and gardens.
- ▶ Bordesley Park - This employment led mixed use development will include the provision of around 750 new dwellings over several sites.

- ▶ Stechford - Will be promoted as a focus for new residential development with potential for up to 400 new dwellings.
- ▶ Langley Sustainable Urban Extension - a new community of around 6,000 homes on land to the east of Sutton Coldfield

Figure 4.1 and Figure 4.2 map the distribution of growth areas and strategic sites across the City. As part of the Green Belt Assessment²⁷, a number of sites were assessed for their potential role as strategic housing sites to provide for the additional land required to meet the City's overall housing need. These sites are set out in Table 4.2 which indicates where Green Belt sites have been screened out of consideration as potential housing sites because of overriding nature conservation constraints and are therefore excluded from this Sustainability Appraisal exercise. The full appraisal of these sites is set out in Appendix C and summarised in Chapter 5.

Additional Site Allocations

All significant sites (over 35 dwellings or employment/retail land over 0.3ha) which are being proposed within the Site Delivery Plan²⁸ outside the Growth Areas (excluding those which are existing allocations or already have planning permission) have been appraised.

²⁷ Birmingham City Council (October 2013) Green Belt Assessment

²⁸ Birmingham City Council (2013) Site Delivery Plan

Figure 4.1 Growth Areas and Employment Sites

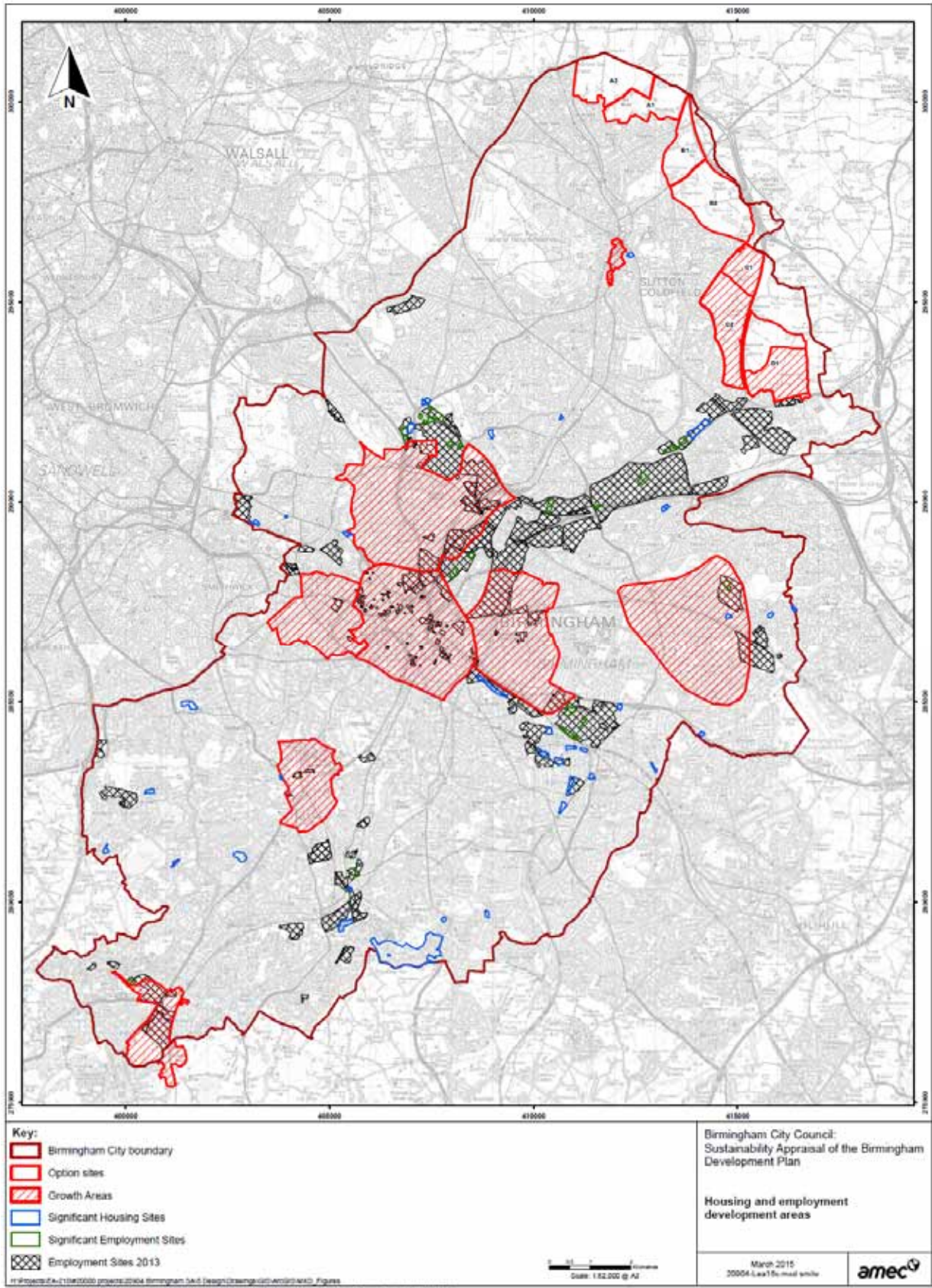


Figure 4.2 Growth Areas and Proposed Allocation Sites with Green Belt Areas Assessed

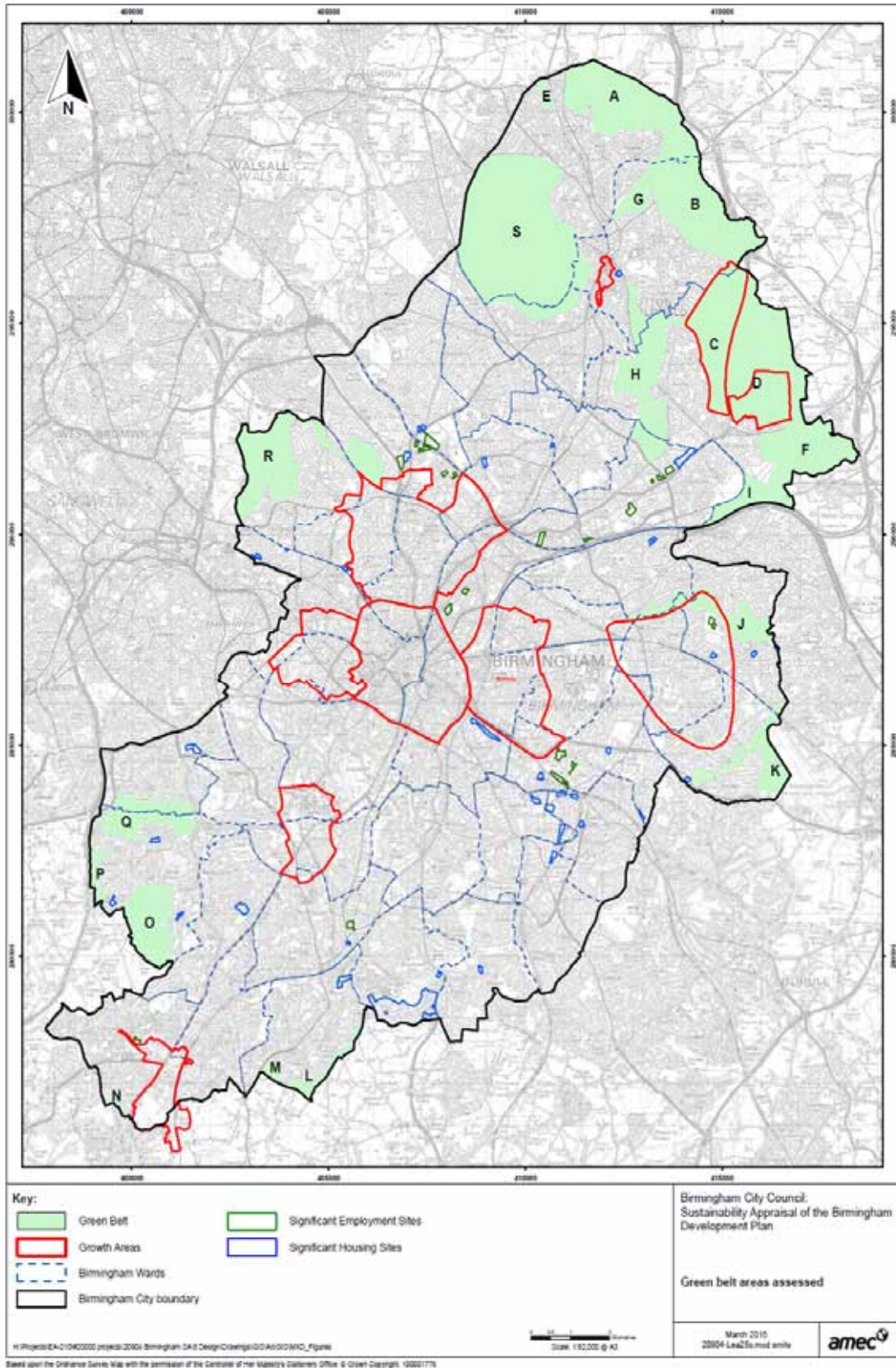


Table 4.5 Screening of sites

Site/Area	Scale/Proposals and reasons for exclusion from appraisal	Appraised?
GREENFIELD		
A1 – Hill Wood East of Watford Gap	134ha	Yes
A2 – Hill Wood East of Watford Gap	177ha	Yes
B1 – West of the M6 Toll	113ha	Yes
B2 – West of the M6 Toll	230ha	Yes
C1 – West of Sutton Coldfield Bypass, Walmley	274ha	Yes
C2 – West of Sutton Coldfield Bypass, Walmley	193ha	Yes
D – East of Sutton Coldfield Bypass, Walmley	268ha	Yes
E - Hill Hook	Small site covered by SINC, SLINC designations	No
F – Land west of Cudworth	Covered by SINC designation	No
G – Moor Hall Golf Course	Small site largely covered by SINC designation	No
H – Newhall Valley	Narrow site with nature conservation and Listed Building designations	No
I – Land west of Water Orton	Large covered by SINC designation	No
J – River Cole Valley (excl. Yardley Sewage Works)	Narrow, various SINC designations, flood risk	No
Yardley Sewage Works	350 dwellings on Green Belt site	Yes
K – Sheldon Country Park	Large SINC, flood risk, airport restriction	No
L – Land at Hawkesley	Narrow with SINC designations, extends beyond BCC boundary	No
M – Land at West Heath	Small site occupied by a golf course and playing fields	No
N – Land at Rednall	Covered by SINC	No
O – Land around Bartley & Frankley Reservoirs	Covered by SINC and SLINC designations	No
P – Part of Woodgate Valley Country Park	Covered by SINC and SLINC designations	No
Q – Woodgate Valley Country Park	Covered by SINC and SLINC designations	No
R – Sandwell Valley	Covered by SINC and SLINC designations, flood risk	No
S – Sutton Park	National Nature Reserve / SSSI	No
GROWTH AREAS		
City Centre	The City Core; Digbeth; Eastside; St George and St Chad; The Jewellery Quarter; Southside and Highgate; Westside and Ladywood	Yes
Sutton Coldfield Town Centre	Unknown number of dwellings	Yes
Aston/Newton/Lozells	Up to 700 dwellings	Yes
Greater Icknield	Up to 3,000 new homes on six sites within a new Sustainable Neighbourhood	Yes

Site/Area	Scale/Proposals and reasons for exclusion from appraisal	Appraised?
Bordesley Park	Around 750 new dwellings over several sites	Yes
Eastern Triangle	Around 1,000 dwellings in various locations including regeneration at Stechford, and The Meadway through the provision of mixed use development.	Yes
Selly Oak and South Edgbaston	Up to 700 new dwellings over several sites.	Yes
Longbridge	Around 1,450 new dwellings on three sites.	Yes

Strategic Employment Allocations

- ▶ Prologis Park, Minworth (32.5ha).
- ▶ The Hub, Witton (29ha).
- ▶ Washwood Heath (former Alstom/LDV) (55ha).
- ▶ Signal Point, Tyseley (7.64ha).
- ▶ The Longbridge RIS (25ha) will be developed in line with the detailed guidance contained within the Longbridge Area Action Plan, adopted in June 2009.
- ▶ The Aston RIS (20ha) will be developed in line with the principles established in the Aston, Newtown, Lozells Area Action Plan, adopted in July 2012. The RIS will provide for approximately 3,000 jobs.
- ▶ Peddimore (71ha).
- ▶ City Centre Enterprise Zone (25 sites in 7 clusters).

Strategic Retail Allocations

- ▶ City Centre (The City Core; Digbeth; Eastside; St George and St Chad; The Jewellery Quarter; Southside and Highgate; Westside and Ladywood).
- ▶ Sutton Coldfield, Selly Oak, Perry Barr and Meadway but there is also potential for growth in several of the District centres, notably Erdington, Mere Green, Northfield and Stirchley.

Sites Outside the Growth Areas

- ▶ Numerous sites across the City, detailed in Appendices C and D.

4.7 The Need for Site Assessment including reasonable alternatives

The emerging BDP identified that a significant proportion of the estimated housing provision for the City can be accommodated on brownfield sites, some of which benefit from planning permission. These sites have been identified through the SHLAA. In addition to identified sites, the City's housing requirement means that greenfield land is needed, which was the subject of previous iterations of plan preparation and sustainability appraisal²⁹. Here the principle of brownfield first followed by greenfield land release in proportion to meet additional growth requirements was appraised. The land which is likely to be required for strategic release has been the subject of a Green Belt Assessment³⁰, which considers the case for release in order to accommodate immediate needs, along with flexibility for

²⁹ Options Consultation (October 2012) and Sustainability Appraisal (October 2012)

³⁰ Birmingham City Council (October 2013) Green Belt Assessment

future requirements (as required by the NPPF). The sites presented for assessment (along with options) are considered to be able to deliver the BDP. The sustainability appraisal tests their performance and makes recommendations on how any adverse effects could be mitigated.

4.8 The Approach to the Assessment

The sites have been assessed in terms of their performance against the SA/SEA Framework Objectives that were developed for the Sustainability Appraisal Scoping Report and which have been used for all previous rounds of appraisal of the BDP. The summary results of the appraisal are set out in chapter 5 and in Appendix C. This SA draws on information from a variety of sources including: previous Sustainability Appraisals; input from BCC officers; the latest Strategic Housing Land Availability Assessment; Green Belt Assessment and Other assessments (e.g. consultants reports relating to specific sites). This SA has been produced to contribute to the ongoing plan-making process, by providing an appraisal of the proposed sites which will deliver the proposed spatial strategy. Sustainability Appraisal aids decisions rather than making them and the contents of this report should therefore be considered in this light.

The appraisal of sites (and options, where occurring and reasonable) was undertaken on the following sites across the City:

- ▶ housing sites (development locations);
- ▶ employment (strategic sites and core employment areas); and
- ▶ retail (centres identified for growth).

Some the sites already have planning permission but nevertheless count towards the land supply which will help to deliver the BDP (NPPF paragraph 47), whilst others have been appraised as part of other documents (e.g. AAPs). The following GIS surfaces were used to inform the assessment:

- ▶ Index of Multiple Deprivation;
- ▶ schools and healthcare services;
- ▶ cultural heritage (conservation areas, historic parks);
- ▶ flood zones;
- ▶ biodiversity;
- ▶ greenspaces; and
- ▶ transport communications.

These are mapped in Figures 4.3 - 4.9.

Figure 4.3 IMD Deciles 2010 (National Ranking)

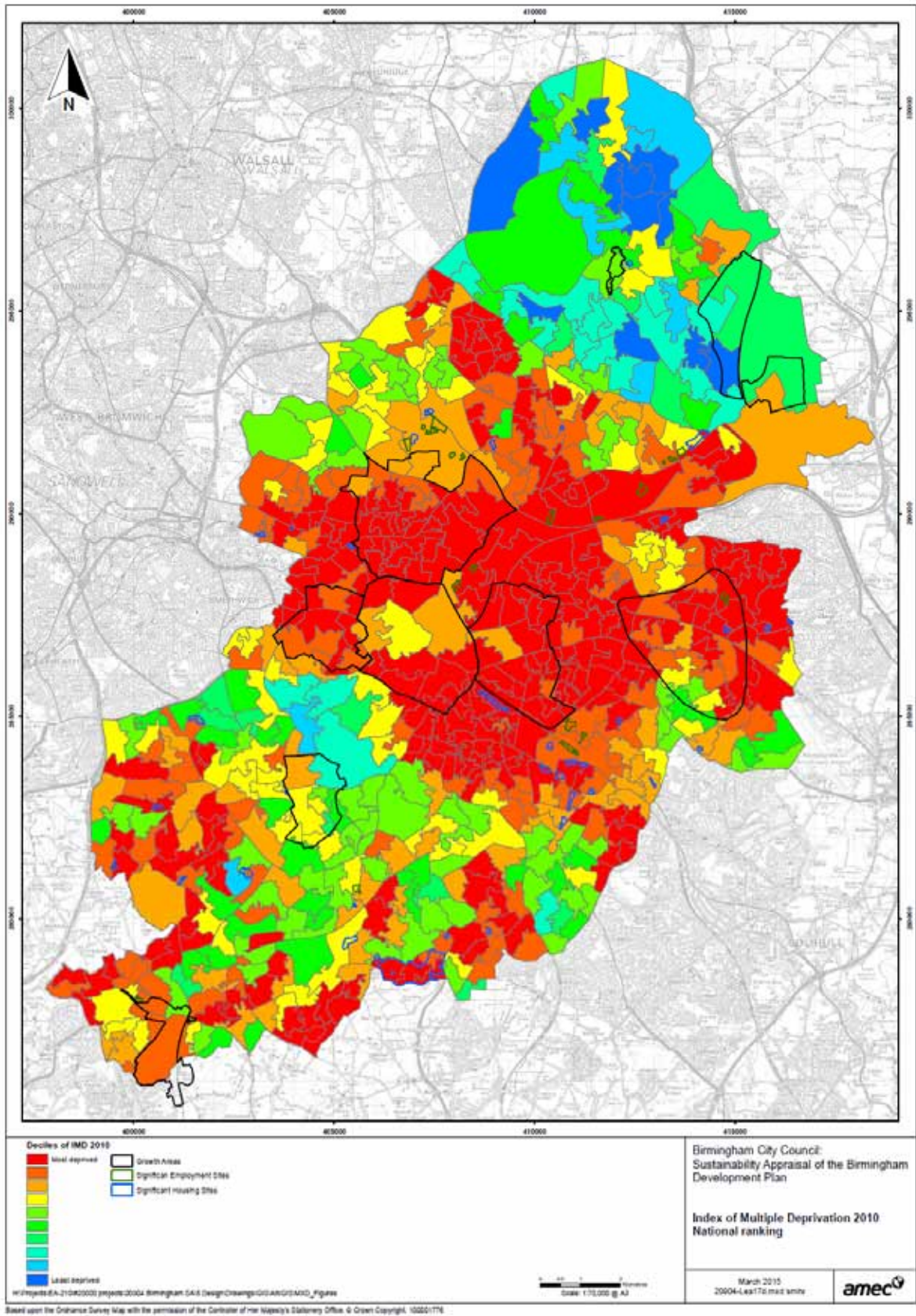


Figure 4.4 Schools

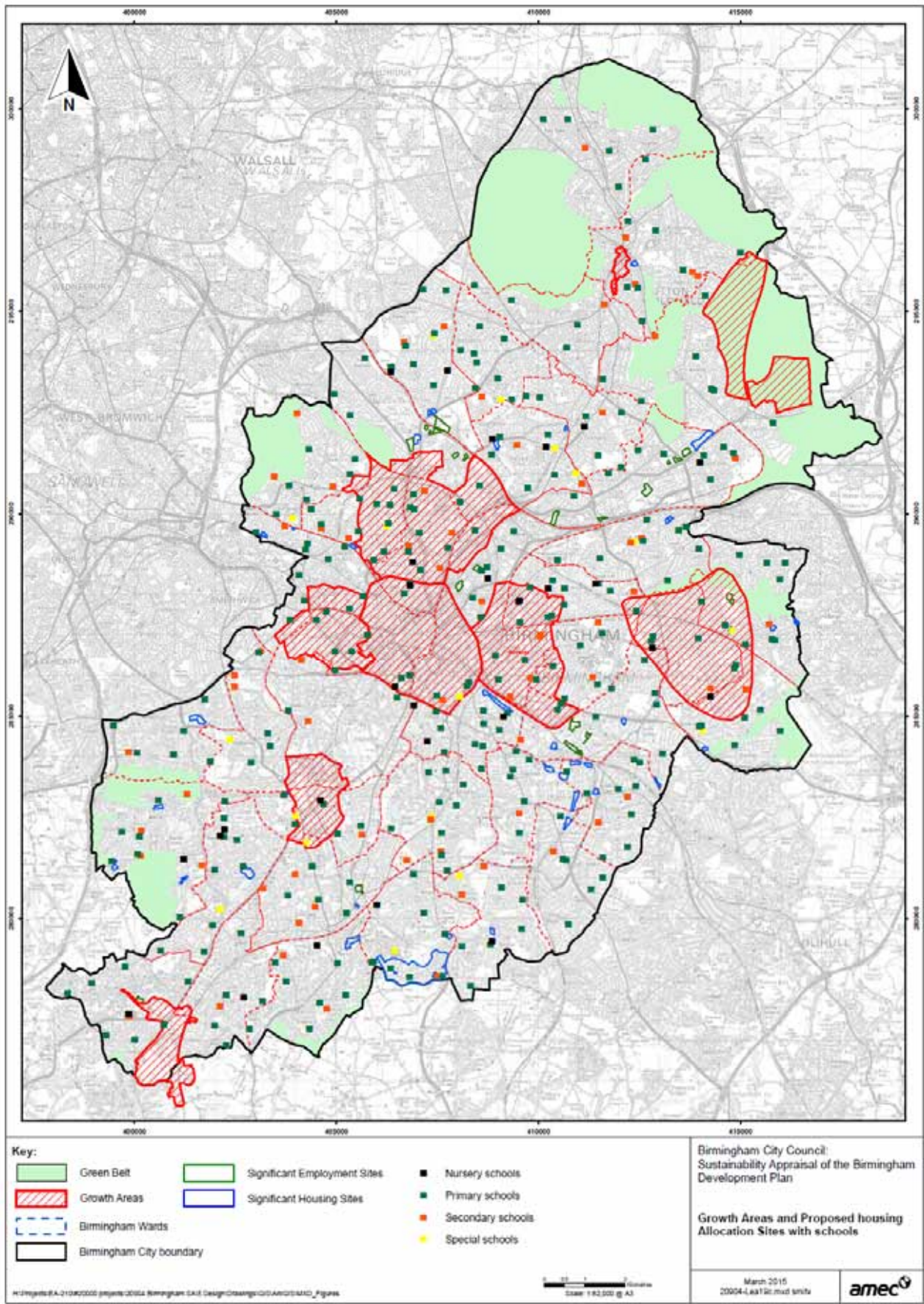


Figure 4.5 Cultural Heritage

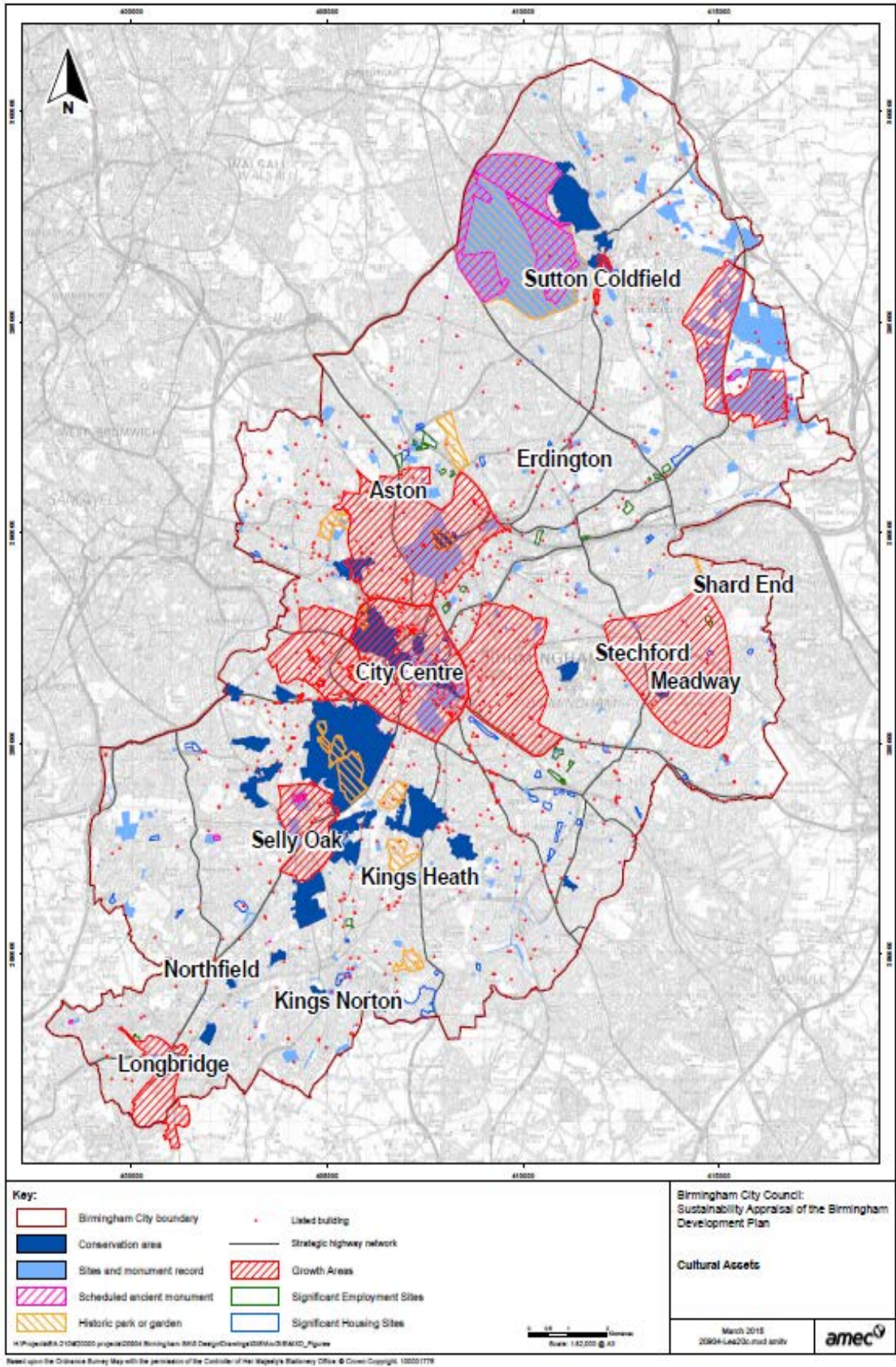


Figure 4.6 Flood Zones

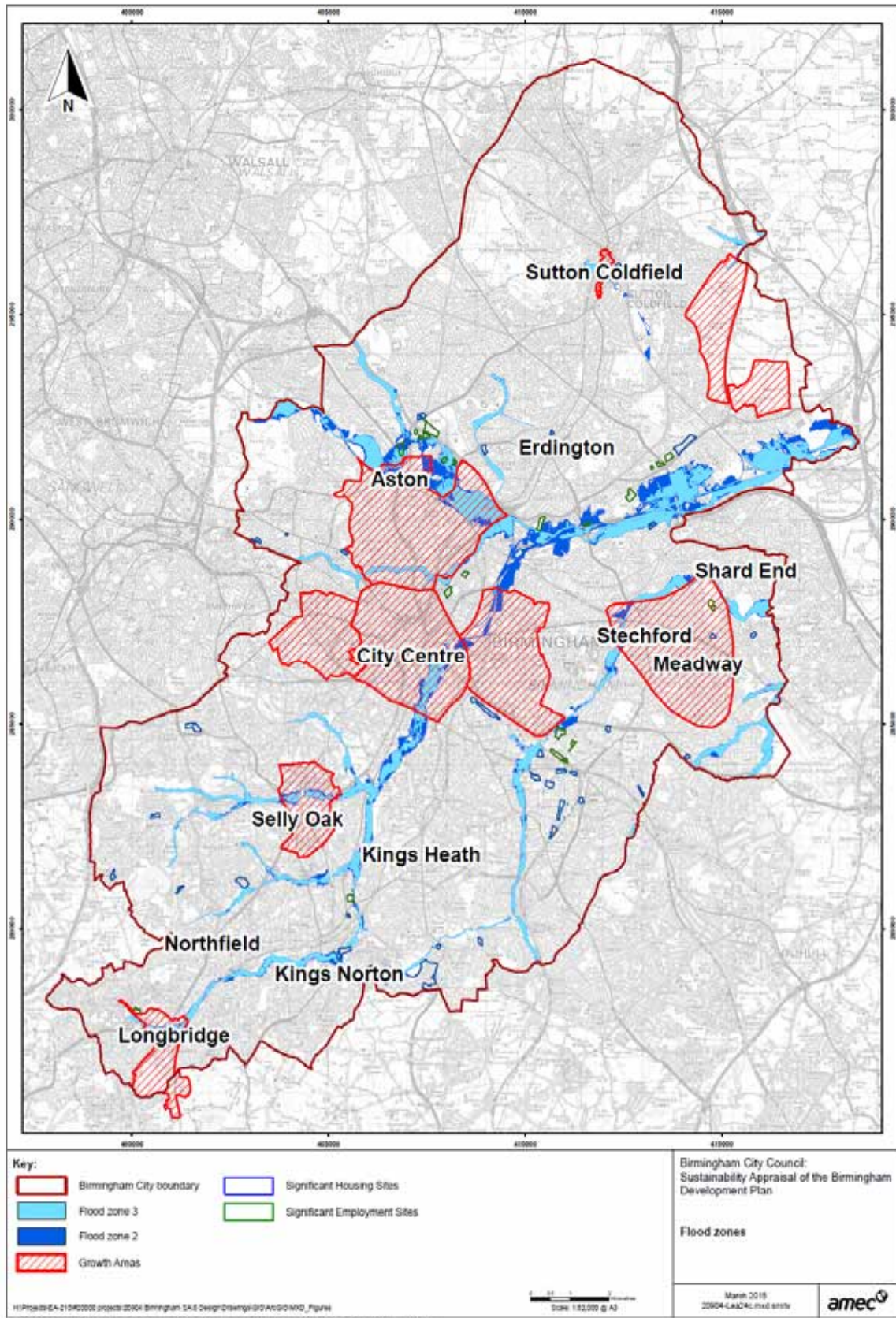


Figure 4.7 Biodiversity Assets

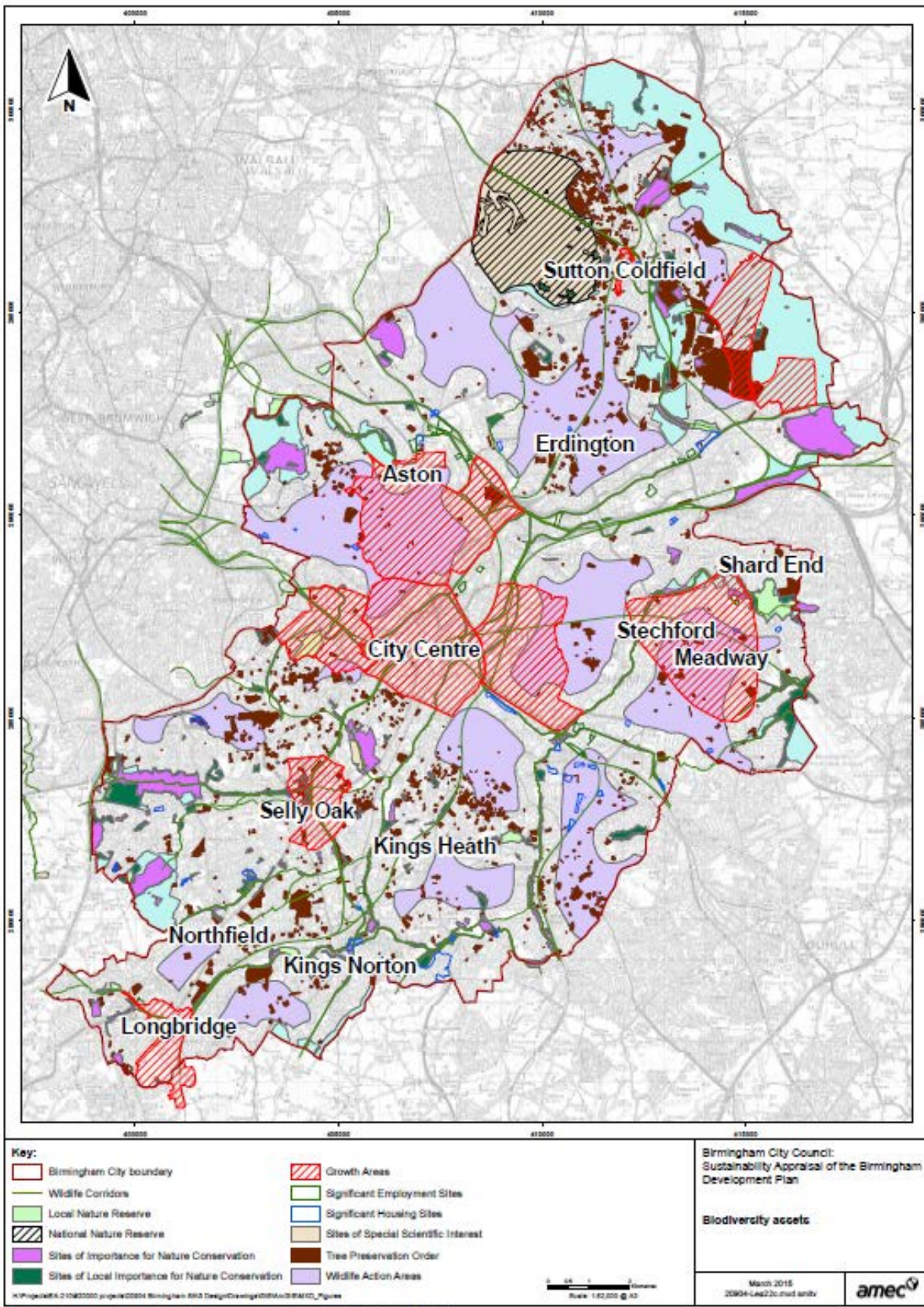


Figure 4.8 Open Spaces

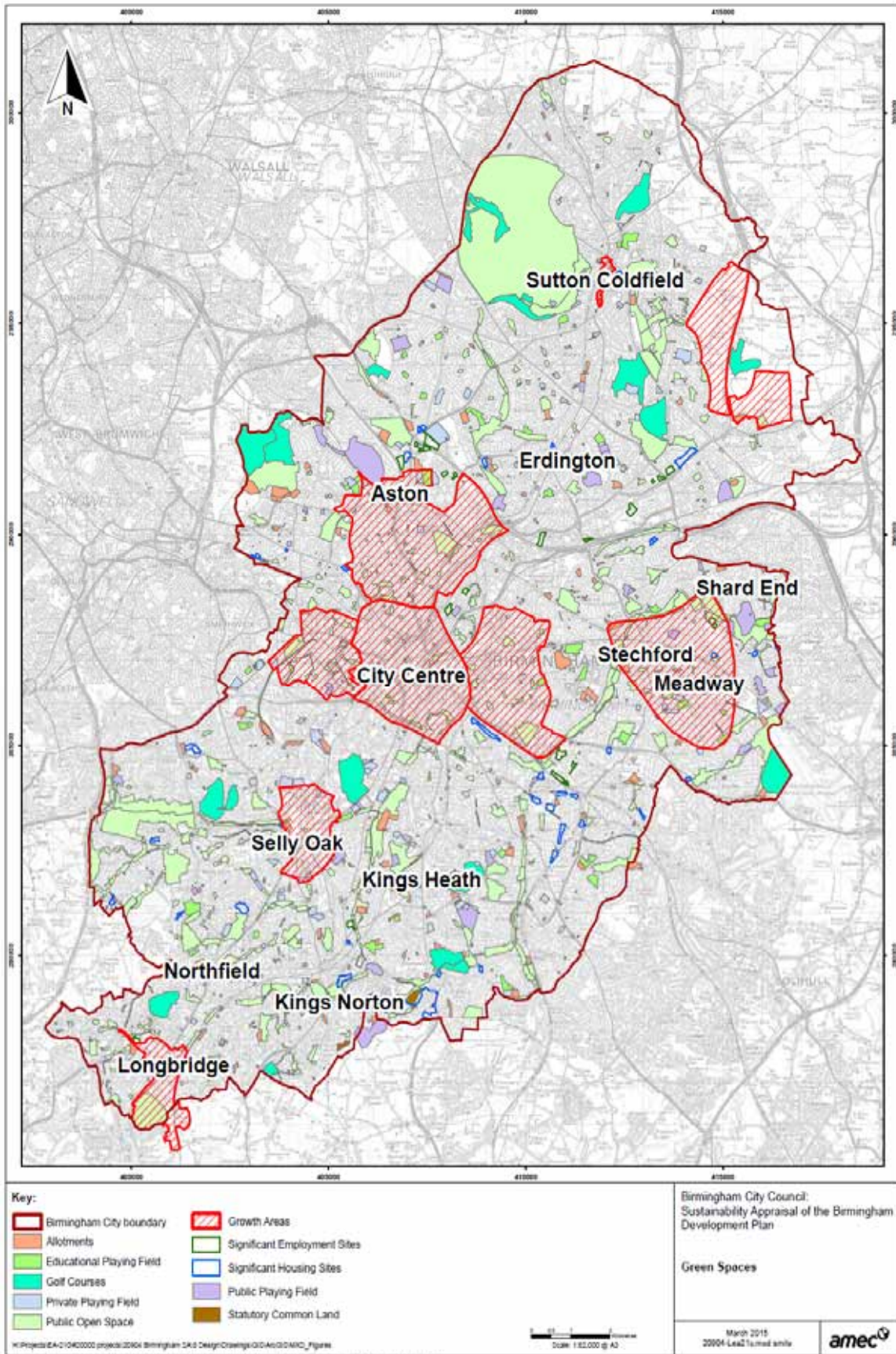
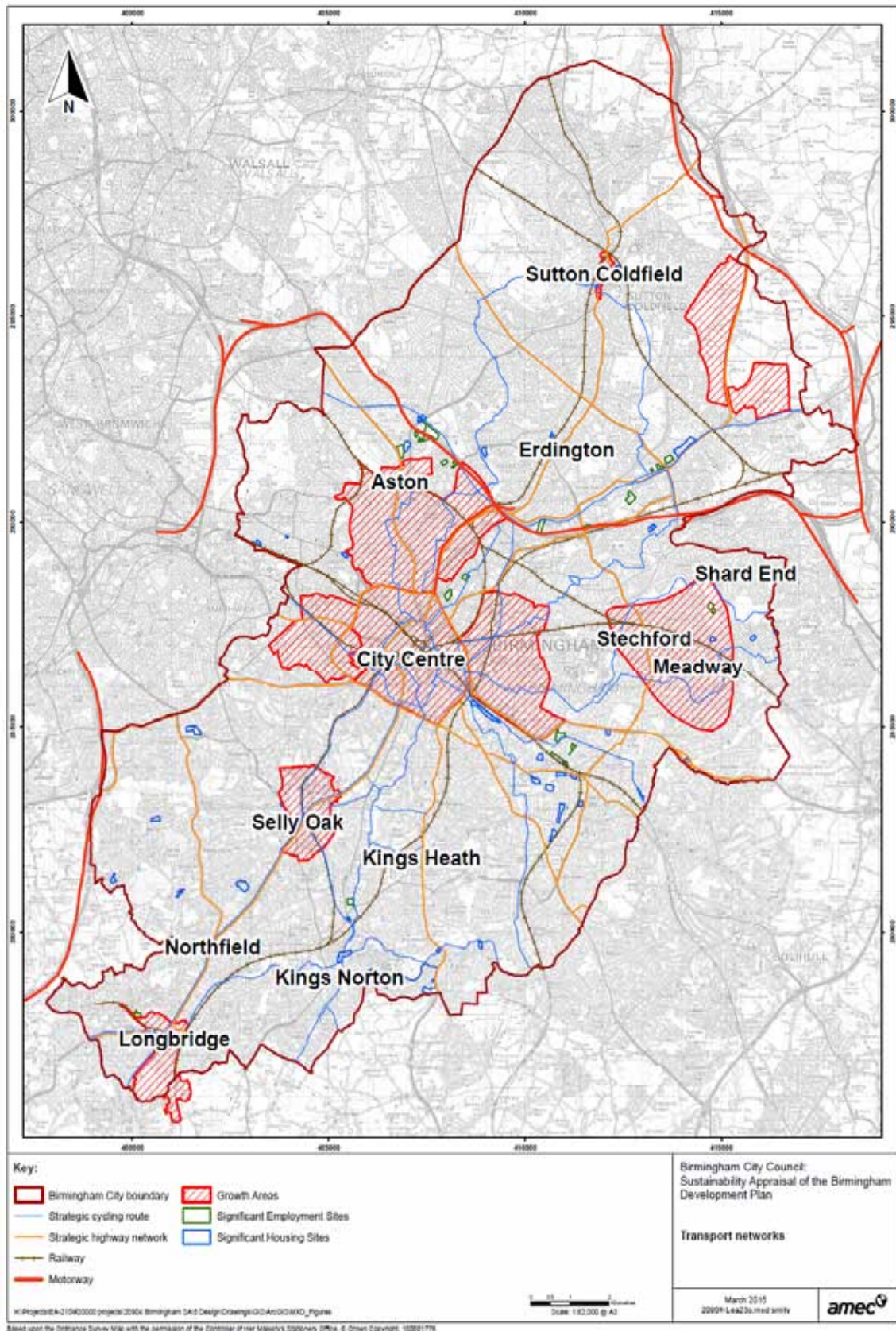


Figure 4.9 Transport Networks



4.9 Observations on the Context for the Strategic Allocations

The figures presented in section 4.8 help to put the proposed sites into their context in respect of a range of key aspects of sustainable development. On-line mapping was also used and selected site visits were made to check site context and key sustainability issues arising from the mapping work.

Significant considerations which help to inform the appraisal are:

- ▶ The spatial concentration of deprivation³¹ in a distinct ring around the City Centre, but also in clusters to the south and south west (Figure 4.3). Many of these areas are both relatively deprived (compared to the City as a whole) and are some of the most deprived areas in the country. Significant tracts of these areas are the focus for attention in the Growth Areas approach of the BDP, directing investment into the provision of homes and jobs as well as environmental enhancements to create sustainable neighbourhoods. However, in light of the overall housing need, regeneration also needs to be balanced with modest greenfield land release where capacity of the City has been reached. The multiple and interrelated challenges associated with attempting to transform some of the most deprived areas should not be underestimated and will extend beyond the plan period and demand significant resources. According to Birmingham City Council's analysis³²:
 - of Birmingham's population 40% live in areas described as in the most deprived 10% in England;
 - of the population live 23% in areas in the most deprived 5%;
 - Birmingham is ranked the third most deprived Core City (behind Liverpool and Manchester);
 - Birmingham is ranked the most deprived city on both income and employment deprivation, largely influenced by the size of the authority compared to other major cities;
 - Birmingham was also ranked as the most deprived authority in the Country on both these scales in 2004 and 2007;
 - deprivation in Birmingham is concentrated in a ring around the city centre;
 - over half (61%) the SOAs in Birmingham are ranked in the most deprived 25% in England on the overall Index;
 - two fifths of Birmingham SOAs are ranked in the most deprived 10% in England;
 - of Birmingham's SOAs 12 are in the most deprived 1% in the country, in Soho, Sparkbrook, Washwood Heath, Nechells, Bordesley Green, Stechford and Yardley North, Kings Norton and Brandwood; and
 - two SOAs are in the least deprived 5% in the country, one in Sutton Four Oaks and one in Sutton Trinity.
- ▶ Health and education provision across the City (Figure 4.4) is distributed according to partner strategies and resource planning mechanisms, although there will clearly need to be additional resources related to growth areas and specific allocations, notably the

³¹ Index of Multiple Deprivation 2010 by Super Output Area (SOA), calculated to reflect: Income Deprivation; Employment Deprivation; Health Deprivation and Disability; Education, Skills and Training Deprivation; Barriers to Housing and Services; Crime Deprivation; Living Environment Deprivation

³² See: <http://www.birmingham.gov.uk/cs/Satellite?c=Page&childpagename=Development-Planning%2FPageLayout&cid=1223383983302&pagename=BCC%2FCommon%2FWrapper%2FInlineWrapper>

sustainable urban extension at Walmley but also in specific areas where there are existing pressures which could be exacerbated through population growth.

- ▶ The spatial distribution of cultural assets across the City (Figure 4.5), particularly where these are clustered and Conservation Areas designated (such as in the City Centre and in the southern suburbs) will demand attention as part of growth proposals to ensure that the character of localities is not eroded through new development. This includes pressure from housing development but also changes in the patterns of retailing, particularly in the City Centre, where there are changes in the spatial structure and type of delivery³³.
- ▶ Flood risk (Figure 4.6) is principally confined to the corridors of the three main rivers and could affect development proposals within these areas. Overall, flood risk is not a significant constraint on development potential across the City, notwithstanding the localised occurrence of surface water flooding. A Local Flood Risk Management Strategy is currently being prepared to help address these issues.
- ▶ In respect of biodiversity assets (Figure 4.7), whilst there are important pockets of sites with nature conservation interest (principally around the fringes of the City), these are relatively limited. Indeed, significant areas which include the proposed Growth Areas have been identified as Wildlife Action Areas under Birmingham's Nature Conservation Strategy (1997) and there is the opportunity to promote these as part of the creation of sustainable neighbourhoods. The distribution of Tree Preservation Orders shows a notable clustering in the northern and southern suburbs which are important assets to be considered as part of development in these areas.
- ▶ Open space resources (Figure 4.8), as with nature conservation resources, show clustering in the northern and southern suburbs although there are significant areas to the east along the Cole Valley, for example. Open spaces are highly variable in character and quality, and detailed local assessment work should guide local standards of provision in accordance with the proposed policies of the BDP. The Green Living Spaces Plan (December 2012) establishes a framework for action City-wide through the integration of seven principles:
 - climate change adaptation;
 - watercourse management;
 - health improvement;
 - tree and woodland management;
 - greenway definition and enhancement;
 - eco-system management; and
 - Green Living Spaces creation.
- ▶ The hierarchy of transport networks across the City (Figure 4.9) is dominated by the M6 corridor to the north and the radial routes converging on the City Centre and its ring road. Railways show a similar radial pattern, as does an emerging network of strategic cycling routes. Combined, these resources are important factors in determining the current and potential sustainability performance of areas targeted for growth, through the consideration of factors such as traffic generation, access to public transport, CO₂ emissions and access to jobs and services.

The proposed Growth Areas within the existing built-up area of the City have in many cases been the subject of a significant amount of investment and the development of multi-agency approaches to addressing deep-rooted and severe issues associated with deprivation. Whilst the administrative and funding structures associated with intervention have changed (originally based around the current

³³ DTZ (April 2013) Birmingham City Centre Retail Assessment

Birmingham Local Investment Plan³⁴), the focus of attention on specific communities remains. Identified priority areas are:

- ▶ **South West Birmingham** - Frankley, Egghill, Kings Norton, Druids Heath;
- ▶ **North West Birmingham** - Lyndhurst, Kingstanding, Hockley, Lozells, Newtown, Birchfield, Aston, Witton, Ladywood; and
- ▶ **East Corridor** - Meadway, Garretts Green, The Radleys, Shard End, Saltley, Washwood Heath, Alum Rock.

Investment priorities are spatial and thematic, addressed according to local needs, with important links to sustainability objectives:

- ▶ **Spatial** - housing growth; place making; and
- ▶ **Thematic** - older people; learning disabilities; gypsies & travellers; carbon reduction; public and private sector stock improvement; economic wellbeing and worklessness.

Development proposals are set within the context of wider Council strategies notably Your Green and Healthy City SPD (2013), Birmingham's Health and Well-being Strategy (2013), Birmingham's Green Living Spaces Plan (2012) which together with the BDP address growth, regeneration and environmental enhancement across the City.

³⁴ Birmingham City Council and Homes and Communities Agency (2010) Birmingham Local Investment Plan 2010-2014



5. Summary of Assessment Results

5.1 Testing the Scale of a Sustainable Urban Extension (SUE)

The principle of meeting additional development requirements on land currently designated as Green Belt was explored at the Options Consultation Stage (2012) where it was proposed that a large site to the north east of Sutton Coldfield would present the best opportunity to deliver sustainability benefits through new infrastructure and service provision. Other greenfield sites around City were discounted on the basis of their size and/or nature conservation and flood risk constraints (see Table 4.5 above). In appraising the reasonable alternatives, the opportunity has been taken to make use of updated evidence from both Birmingham City Council (such as detailed historic environment assessments) and the promoters of land to the north east of Birmingham³⁵, in addition to that used for the original appraisal. Consequently, some of the scores of sites have been modified from the appraisal undertaken in September 2013.

An Interim Sustainability Appraisal (September 2013)³⁶ appraised the performance of various sub-options associated with delivering a Sustainable Urban Extension (SUE) on greenfield land at Sutton Coldfield. However, in light of discussion at the Examination of the BDP (October 2014) and comments made on the SA, it was decided that the appraisal should be re-visited in order to test the sustainability effects of a range of different scales of SUE including small sites, around 5,000 dwellings, around 7,500 dwellings and up to 10,000 dwellings³⁷, and thereafter the relative merits of different areas which could comprise a SUE (either singly or in combination) i.e. drawn from areas A, B, C and D. In addition, the accommodation of an employment site is to be appraised, using the reasonable alternatives of areas C and D.

Table 5.1 summarises the appraisal of four reasonable development scenarios for a potential sustainable urban extension. The appraisal in respect of individual sustainability objectives is set out at Appendix B. The scoring of the performance against the SA Objectives is as follows:

SIGNIFICANCE ASSESSMENT	DESCRIPTION
++	Likely to be very sustainable and contribute significantly to the SA Objective
+	Likely to be sustainable and contribute to the SA Objective
?	Uncertain impacts on the SA Objective
0	Neutral - option is unlikely to impact on the SA Objective
-	Likely to be unsustainable and have minor adverse impacts on the SA Objective
--	Likely to be very unsustainable and have a significant adverse impacts on the SA Objective
#	No clear relationship

³⁵ Notably in respect of housing delivery, transport infrastructure and landscape impacts. See:

- Birmingham City Council (June 2014) Birmingham Development Plan: Transport and Infrastructure Evidence Base and Strategy
- Birmingham City Council (October 2013) Green Belt Assessment
- Peter Brett Associates (January 2013) Housing delivery on Green Belt Options
- Peter Brett Associates (June 2014) Sutton Coldfield Green Belt Sites: Phase 2 Report of Study
- Turley (February 2014) Land North East of Birmingham: Sustainability Appraisal

³⁶ Amec (September 2013) Sustainability Appraisal of Proposed Site Allocations

³⁷ Realistically to be provided through two SUEs of around 5,000 dwellings each

Table 5.1 Summary appraisal of SUE development scenarios

Sustainability Theme	1. Natural resources and waste		2. CO ₂ emissions			3. Climate ch.	4. Historic env., landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality			8. Housing														
	Sustainability Objectives	SUE scenario	1. Resource Use	7. Waste Minimisation	8. Efficient use of land		2. Sust. Design & Construction	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change		10. Manage Climate Change	11. Natural Landscape	12. Built and Historic Env.		13. Air Quality	14. Water Quality	15. Noise	16. Soil Quality	17. Sense of Place	18. Learning and Skills	19. Economic and Equality	20. Social and Env. Resn	21. Community Involvement	22. Crime	23. Health	24. Poverty	25. Equality	26. Culture/Sport/Recreation
From 500 to 3,000 dwellings	0	0	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Around 5,000 dwellings	0	+	-	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Around 7,500 dwellings	0	+	-	+	+	+	+	+	+	0?	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Up to 10,000 dwellings	0	+	-	+	+	+	+	0?	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Commentary on character and sustainability performance of the scenarios

Whilst the development scenarios share some common aspects of their sustainability performance, there are a number of significant differentiating characteristics these being:

- ▶ A larger development (i.e. around 7,500 dwellings and up to 10,000 dwellings) will take more sensitive land (i.e. greenfield land with cumulative impacts on landscape, biodiversity and historic environment resources).
- ▶ A larger development will yield greater economic benefits to Birmingham through a larger workforce and household expenditure, and greater opportunities for the provision of affordable housing.
- ▶ There is an absence of any evidence which shows how the traffic impacts from a larger development could be accommodated on the current road network. No agreement with the Highways Agency has been reached in respect of a larger scheme creating considerable uncertainty over the traffic impacts of a larger development. The design, costing and impacts of additional transport infrastructure provision of larger schemes are unknown at this stage. The proximity of some of the option areas (e.g. B and C) could mean that the cumulative effects on, for example, highway infrastructure would be severe and/or would necessitate a greater range of interventions than if the areas were more remote from one another³⁸. Equally, the economies of scale associated with the provision of infrastructure would not be realised through two geographically separate areas (e.g. C and D or C and A).

³⁸ Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (paras 5.10-5.17)

- ▶ Evidence on housing delivery rates³⁹ suggests that a larger site (i.e. around 7,500 and up to 10,000 dwellings) would fail to deliver sufficient volumes of housing at the right time to provide adequate infrastructure, specifically: *“The inevitable consequence of [a] slower rate of delivery would be that trigger points for the provision of infrastructure would not be reached as per the anticipated trajectory. There is a risk that [the proposed option] would not deliver the critical mass of housing to trigger infrastructure provision if additional options were allocated. This would mean that provision of new infrastructure would be delayed and the pressure on existing infrastructure, whether roads utilities or schools, as capacity is neared would become significant.”* (PBA, 2014, para 5.11). The infrastructure delivery issue is important in light of the need to carefully consider realistic market delivery rates of new housing⁴⁰. The provision of secondary school places in particular is of critical significance in this area where existing schools are at capacity and have already undergone a round of expansion and future growth will need to be met through additional provision.⁴¹ Any new development would have to provide a secondary school of sufficient capacity to accommodate the additional pupils generated by the development, a scale which needs to be at least 4,000 dwellings⁴². Developments currently being planned and delivered elsewhere (for example at Leicester, Blaby, Ashford, Peterborough and Taunton) suggests that this threshold is being applied to new developments.
- ▶ The greater risk that not all the proposed housing associated with a larger scheme would be developed within a reasonable timescale is likely to result in key infrastructure and services not being delivered promptly or even at all. In turn this is likely to result in negative sustainability effects relating to, for example, the availability of sustainable transport⁴³, consequent impacts on travel reduction, CO2 emissions and air quality, and potential disadvantage to those on lower incomes who are more likely to rely on public transport and local service provision⁴⁴. Equally, a smaller scheme (or schemes) (i.e. 500 to 3,000 dwellings) are unlikely to be able to deliver sufficient new infrastructure to off-set the burden placed on existing provision by additional development⁴⁵.
- ▶ Concentrating development at one location would be more predictable with the provision of new infrastructure linked to specific trigger points within the phasing of delivery⁴⁶. A development of around 5,000 dwellings in a single location is preferable over a series of small sites because of the ability to deliver supporting infrastructure as part of a single masterplan which can be appropriately phased.

³⁹ Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (paras 5.11-5.12)

⁴⁰ See Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (paras 4.12-4.20) for refutation of unrealistically high delivery rates proposed by Savills. The delivery rates proposed by Savills were “substantially above” those provided by PBA who note that “in our experience, nowhere nationally within a similar size area as the Sutton Coldfield Green Belt ‘arc’ has the private development market delivered at anywhere near even the ‘conservative’ rates identified by Savills” (para 4.12). In addition, whilst “it is correct to note that there has been a limited land supply of big greenfield sites of estate housing ... it is wrong to suggest that simply allocating land would result in the market instantly delivering at maximum theoretical capacity” (para 4.14).

⁴¹ See Birmingham City Council (June 2014) Infrastructure Delivery Plan p.38

⁴² See TCPA (2007) Best Practice in Urban Extensions and New Settlements “A place needs to be large enough to support a secondary school. This means the number of homes will be in the range 4,000 – 5,000 at least.”

⁴³ Phil Jones Associates (2013) Birmingham Development Plan: Transport Analysis of Green Belt Options, para 4.4.3 “the existing public transport network does not penetrate any of the development sites, and in its current route pattern will not be able to meet the needs of the potential urban extensions. It is considered that that this scale of development would merit a step-change in public transport provision to meet overall transport sustainability aims; a purely incremental adaptation of the current public transport offer is considered inappropriate to meeting the City’s overall development aims.”

⁴⁴ Phil Jones Associates (2013) Birmingham Development Plan: Transport Analysis of Green Belt Options, para 3.3.1 “All developments require supporting facilities and services, and these should be located within a reasonable journey time. Larger developments may contain these services on site as secondary land uses and therefore be more self-sufficient, and, as journeys will naturally be shorter, they become sustainable.”

⁴⁵ This point was also raised by numerous respondents to the consultation on the emerging BDP.

⁴⁶ Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (para 5.17)

In light of the above, the overall conclusion is that an extension of around 5,000 dwellings to the north east of Birmingham is more sustainable. The demands on infrastructure provision associated with a development of around 7,500 dwellings and up to 10,000 dwellings, uncertainties over new infrastructure provision and additional impacts on land of higher environmental value land (greenfield, landscape and cultural heritage areas) would compromise its sustainability performance. Equally a smaller development (or developments) of 500 to 3,000 dwellings are of insufficient scale to deliver key infrastructure (notably education and public transport) which would contribute to them being relatively self-contained

5.2 Assessment of Alternative Strategic Housing and Employment Sites

This section summarises the assessment of alternative strategic sites which have been identified for housing and employment development across the city as well as retail and waste uses.

Following the conclusion that an urban extension of around 5,000 dwellings is the more sustainable of the four options in this location, the sustainability of effects of areas A, B, C and D in accommodating an urban extension of around 5,000 dwellings can be appraised. Table 5.2 sets out the summary appraisal of the sustainability performance of the reasonable alternatives of those areas and sub-areas which are large enough to accommodate an urban extension of around 5,000 dwellings. The full appraisal of the proposed sites is set out in Appendix C.

Strategic Site Options

- A1 - Hill Wood East of Watford Gap
- A2 - Hill Wood East of Watford Gap
- B1 - West of the M6 Toll
- B2 - West of the M6 Toll
- C1- West of A38, Walmley
- C2 - West of A38, Walmley
- D – East of A38, Curdworth

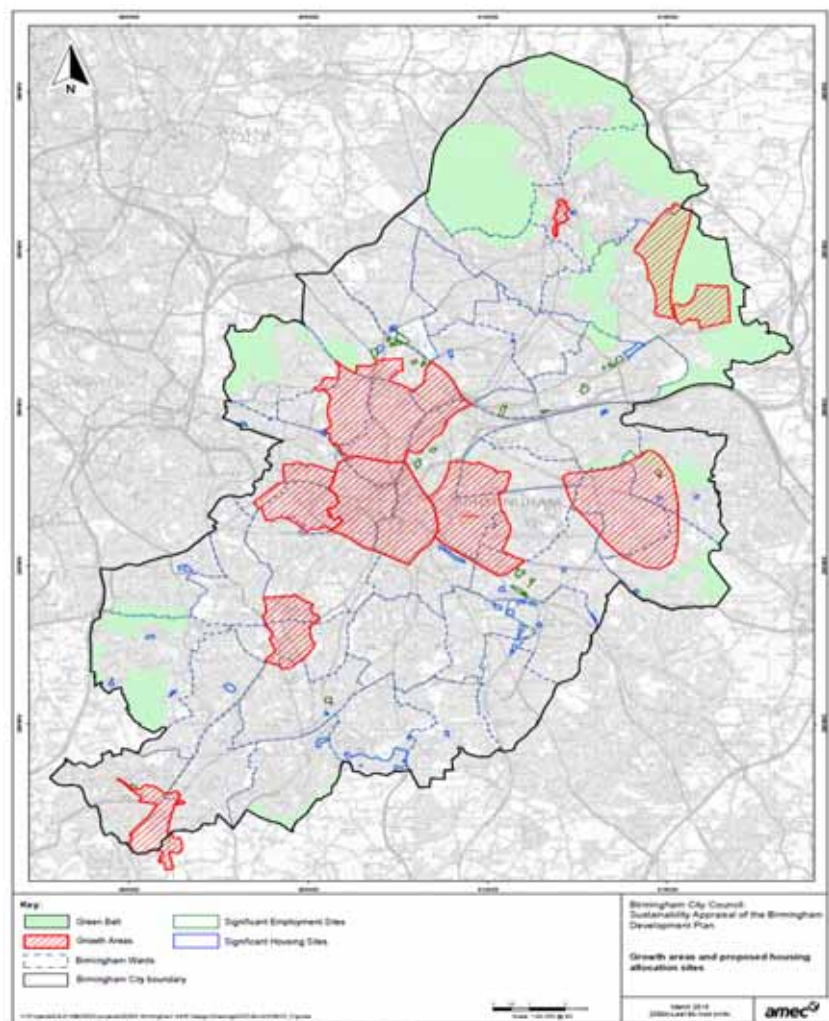


Table 5.2 Summary appraisal of areas A, B, C & D and sub-areas A2, B2 & C2 for an extension of around 5,000 dwellings

Sustainability Theme	1. Natural resources and waste								2. CO ₂ emissions								3. Climate change								4. Historic env., landscape, biodiversity and geodiversity								5. Pollution								6. Economic growth								7. Communities, healthy lifestyles and equality								8. Housing							
	1. Resource Use	7. Waste Minimisation	8. Efficient use of land	2. Sust. Design & Construction	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing																																				
Area A	0	+	-	+	+	+	0	+	0	+	0	-	-	0	0	0	+	+	+	+	#	0	+	+	#	+	+																																					
Area B	0	+	-	+	+	+	0	+	0	+	0	-	-	0	0	0	+	+	+	+	#	+	+	+	#	+	+																																					
Area C	0	+	-	+	+	+	+	+	0	+	0	0	0	0	0	0	+	+	+	+	#	+	+	+	#	+	+																																					
Area D	-	0	-	+	+	+	-	+	0	+	-	+	0	-	0	0	+	+	+	+	#	0	+	+	#	+	+																																					
Sub-area A2	0	+	-	+	+	+	0	+	0	+	0	0	-	0	0	0	+	+	+	+	#	0	+	+	#	+	+																																					
Sub-area B2	0	+	-	+	+	+	0	+	0	+	0	-	-	0	0	0	+	+	+	+	#	+	+	+	#	+	+																																					
Sub area C2	0	+	-	+	+	+	+	+	0	+	0	0	0	0	0	0	+	+	+	+	#	+	+	+	#	+	+																																					

Comparing potential development areas A, B, C and D for housing development, Area D performs poorly by virtue of its geography, being east of the A38 and therefore remote from existing service provision at Walmley and Sutton Coldfield, and impact on the historic environment. Notwithstanding aspirations for relative self-containment, there is likely to be greater reliance on car-based transport (affecting travel reduction, climate change and air quality objectives), and the challenges associated with developing sense of place for a new community with no direct connection to an existing settlement.

Area A exhibits relative remoteness from basic service provision, relatively high landscape impacts (being predominantly a mixture of high and medium sensitivity to development) and poorer sustainable transport provision, both existing and potential. Area A has relatively poor performance in respect of accessibility (scoring 45% (by all modes of transport) with a sustainability score of 25% (accessibility to facilities only by walking, cycling and public transport), and mid-range transport capacity performance (scoring 58%, with the potential to impact on A5127 Birmingham Road and Whitehouse Common corridor, where there are a significant number of critical junctions)⁴⁷.

Development on Area B would have relatively high landscape impacts (being a mixture of high and medium sensitivity to residential development) and biodiversity impacts⁴⁸. Area B has mid-range performance in respect of accessibility (scoring 53% (by all modes of transport) with a sustainability score of 37% (accessibility to facilities only by walking, cycling and public transport)), and the poorest

⁴⁷ Birmingham City Council (October 2013) Green Belt Assessment pp.31/32

⁴⁸ Birmingham City Council (October 2013) Green Belt Assessment pp.51/52/53

transport capacity performance (scoring 52%, constrained by the local highway network and east-west routes are congested in peak hours) ⁴⁹.

Area C exhibits relatively low landscape impacts, being a mixture of medium and low sensitivity to residential development⁵⁰ and proximity to the provision of higher order services. Area C also has the best performance in respect of accessibility (scoring 67% (by all modes of transport) with a sustainability score of 58% (accessibility to facilities only by walking, cycling and public transport)), and the best transport capacity performance (scoring 63%, with potential to impact on some significant junctions on the A38 and Heartlands Spine Road) ⁵¹.

Area D would have low landscape and biodiversity impacts but has poor performance in respect of impacts on the historic environment, accessibility (scoring 52% (by all modes of transport) with a sustainability score of 35% (accessibility to facilities only by walking, cycling and public transport)), and the best transport capacity performance (scoring 63%, with potential to impact on some significant junctions on the A38 and Heartlands Spine Road) ⁵²

The performance of sub-areas A2, B2 and C2 largely mirrors that of Areas A, B and C respectively, although the landscape impacts in respect of Area B2 are marginally less than the whole of Area B, as are the landscape impacts of Area A2.

It can be concluded that on balance, development on the whole of Area C offers a stronger sustainability performance than areas A, B and D. Whilst Area C2 on its own could accommodate a SUE of around 5,000 dwellings, it is logical to use the whole of Area C, thereby not leaving a remnant area of land to the north between the A38 and Fox Hollies Road.

Potential Development Areas for an 71ha Employment Site

Table 5.3 sets out the summary appraisal of the sustainability performance of the reasonable alternatives for the location of a 71ha employment site at areas C and D. The full appraisal is set out at Appendix D.

⁴⁹ Birmingham City Council (October 2013) Green Belt Assessment p.53

⁵⁰ Birmingham City Council (October 2013) Green Belt Assessment pp.60/61

⁵¹ Birmingham City Council (October 2013) Green Belt Assessment pp.61/62

⁵² Birmingham City Council (October 2013) Green Belt Assessment pp.70/71

Table 5.3 Summary appraisal of the sustainability effects of areas C and D in respect of a 71ha employment site

Sustainability Theme	1. Natural resources and waste	2. CO ₂ emissions	3. Climate change adaptation	4. Historic env, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing
Sustainability Objectives	1. Resource Use	2. Sust. Design & Constr.	9. Reduce climate change	12. Built and Historic Env.	15. Air Quality	20. Economy and Equality	23. Equality	27. Housing
Potential Development Areas	7. Waste Minimisation	3. Renewable Energy	10. Manage Climate Change	13. Natural Landscape	16. Water Quality	21. Learning and Skills	24. Poverty	28. Culture/Sport/Recreation
Area C	0	+	+	0	?	+	+	#
Area D	0	+	+	0	0	+	0	#

The sites have a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of employment provision, green infrastructure and renewable energy, particularly for a site of this size. Negative impacts are associated with the loss of greenfield land and impacts on CO2 emissions due to increased vehicle travel (for employees and businesses). Overall, Area D is the more sustainable of the two options having greater accessibility to the motorway network, less landscape and biodiversity impacts, and there being potential impacts on areas adjacent to Area C associated with noise and air quality arising from employment uses.

5.3 Key Sustainability Appraisal Outcomes

Overview

The BDP is a growth and regeneration-led strategy focusing on the transformation of a number of growth areas throughout the City, complemented by strategic allocations which meet specific needs. The housing need of approximately 89,000 dwellings over the plan period is to be delivered through provision for 51,000 dwellings within the City boundary and the remainder through agreement with adjacent authorities. Employment growth (of both strategic and local importance) and retail development is also to be provided for.

Proposed development sites have come forward through the periodically reviewed SHLAA⁵³, have existing planning permission or are allocations, and are of varying character, being principally brownfield but also using greenfield land to meet specific needs. Green Belt options have been tested in the Options Consultation (October 2012) and again through the Green Belt Assessment (October 2013) which has been prepared in light of additional survey work to test their relative merits, as well as analysis in this Sustainability Appraisal. Only those sites within Birmingham’s administrative

⁵³ Birmingham City Council (2014) Strategic Housing Land Availability Assessment (SHLAA)

boundary are appraised, notwithstanding the likely need to provide for additional development in the wider City Region to accommodate Birmingham’s growth needs.

The approach to the distribution of new development seeks to provide a reasonable balance between accommodating growth within the existing urban area (accounting for the majority of the housing and employment requirement), and providing for additional growth requirements through the allocation of greenfield land, using the principles of a sustainable urban extension to guide residential-led development, whilst also allocating land for strategic industrial purposes.

The Sustainable Appraisal of Options⁵⁴ concluded that: “The various effects associated with each option presents dilemmas in the selection of a preferred solution to the demands for growth of the City associated with projected population increase. The baseline strategy of accommodating growth within the existing urban envelope using sustainable neighbourhoods as the focus for development remains, but needs to be modified through additional land allocation. Over-intensification of the existing urban area threatens not only quality of life (notably through the erosion of limited open space resources and over-burdening of services), but also the capacity of the City to respond to future economic growth where employment land is used for housing. The appraisal concludes that, notwithstanding issues associated with loss of greenfield land and effects on nature conservation and cultural heritage, a sustainable urban extension on land to the north east of the City presents a relatively sustainable solution to accommodating the additional housing required.”

The proposed growth areas, strategic sites and other sites all demonstrate a relatively strong sustainability performance, being located in relative proximity to existing transport and service infrastructure whilst providing opportunities for incorporating measures which will help to mitigate impacts, such as best practice design delivering energy efficient development, green infrastructure and on the larger sites renewable energy generation and distribution.

In respect of the appraisal of location of a SUE and a strategic employment sites to the north east of Birmingham, Table 5.4 summarises the options chosen and reasons for their choice over reasonable alternatives.

Table 5.4 Choice of Options over reasonable alternatives in respect of the SUE and Strategic Employment Site

Option Chosen	Reasons for Selecting Option	Reasonable Alternatives Considered	Reasons for rejecting reasonable alternatives
STRATEGIC HOUSING OPTIONS			
Urban extension of around 5,000 dwellings	<ul style="list-style-type: none"> • More predictable housing delivery rates within a reasonable timescale with associated infrastructure provision linked to clear trigger points. • Lower cumulative impacts on landscape, biodiversity and cultural heritage. • Preferable to a series of small sites as can be masterplanned as a single development with appropriate infrastructure provision. 	<ul style="list-style-type: none"> • Extension of up to 10,000 dwellings • Extensions of around 7,500 dwellings • Extension(s) of 500 to 3,000 dwellings 	<p>Up to 10,000 dwellings</p> <ul style="list-style-type: none"> • Impacts on current road infrastructure. • Significant uncertainties over future provision of infrastructure associated with phasing of housing delivery, particularly if development areas were not adjacent to one another. • Cumulative impacts on higher value landscape areas, biodiversity interests and the historic environment. <p>Around 7,500 dwellings</p> <ul style="list-style-type: none"> • Impacts on current road infrastructure. • Uncertainties over future provision of infrastructure associated with phasing of housing delivery, particularly if development areas were not adjacent to one another.

⁵⁴ Sustainability Appraisal of Options Consultation (October 2012)

Option Chosen	Reasons for Selecting Option	Reasonable Alternatives Considered	Reasons for rejecting reasonable alternatives
			<ul style="list-style-type: none"> Cumulative impacts on higher value landscape areas, biodiversity interests and the historic environment. <p>Extensions of 500 to 3,000 dwellings</p> <ul style="list-style-type: none"> Pressures added to existing infrastructure, particularly roads and service provision. Car-reliant transport in absence of additional investment. Absence of opportunity to create sense of place.

HOUSING SITE OPTIONS

Area C (Langley SUE)	<ul style="list-style-type: none"> Relatively low landscape impacts, being a mixture of medium and low sensitivity to residential development Relative proximity to the provision of higher order services. Best performance in respect of transport accessibility (by all modes of transport) sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity (albeit with impacts on some significant junctions on the A38 and Heartlands Spine Road). 	Area A Hill Wood	<ul style="list-style-type: none"> Relatively greater landscape and biodiversity impacts. Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.
		Area B West of M6 Toll	<ul style="list-style-type: none"> Relatively greater landscape and biodiversity impacts. Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.
		Area D East of Sutton Coldfield Bypass	<ul style="list-style-type: none"> Relatively remote from existing higher order services. Greater reliance on car-based transport (affecting travel reduction, climate change and air quality objectives). Challenges associated with developing sense of place for new community with no direct connection to an existing settlement.
		Site A2 Hill Wood (bounded by Hillwood Road and Hillwood Common Road)	<ul style="list-style-type: none"> Relatively greater landscape and biodiversity impacts. Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.
		Site B2 West of M6 Toll (south of Tamworth Road)	<ul style="list-style-type: none"> Relatively greater landscape and biodiversity impacts. Relatively poor transport accessibility (by all modes of transport) transport sustainability (accessibility to facilities only by walking, cycling and public transport), and transport capacity.

Option Chosen	Reasons for Selecting Option	Reasonable Alternatives Considered	Reasons for rejecting reasonable alternatives
		Site C2 West of Sutton Coldfield Bypass at Walmley	<ul style="list-style-type: none"> Similar performance to Area C but a smaller site (193ha vs 273ha)

EMPLOYMENT SITE OPTIONS

Area D (Peddimore Strategic Employment Site)	Relatively limited landscape and biodiversity impacts. Proximity to motorway network offering good accessibility for intended uses.	Area C	<ul style="list-style-type: none"> Area C lies in relative proximity to the residential areas of Walmley with potential noise and air quality impacts.
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Concentration of the majority of growth on sustainable neighbourhoods will help to maintain and reinforce community vitality, and absorb pressures for the outward growth of the City. Concentrating development in existing centres provides wider sustainability benefits through limiting the need to travel (particularly cross-town trips), providing alternative travel options based around public transport, walking and cycling, and in so doing reducing air pollution. Potential problems associated with ‘town-cramming’, such as loss of open spaces and the character of localities can be mitigated through the development and application of policies on design.

There may be some site-specific environmental effects associated with the housing allocations, both positive and negative, depending on their location and characteristics, but BDP implementation policies seek to manage impacts and improve environmental performance (such as through energy efficiency and good design) which together will help to realise positive environmental effects. Social impacts are likely to be similarly positive, through the support of existing services and the provision of new ones where appropriate, and wider opportunities for the enhancement of green infrastructure and encouragement of more active modes of travel, for example. The maintenance and enhancement of economic vibrancy across the City is critical, and the allocations seek to provide such opportunities, supporting housing growth and reducing out-commuting.

Most of the proposed growth locations and sites demonstrate at worst neutral, but often positive or significantly positive performance in relation to key criteria such as sustainable transport, access to jobs and services and the opportunities to provide for affordable housing. This reflects the location of the proposed developments, largely within the current built-up area, using brownfield land and, using opportunities for regeneration to realise sustainable goals for the City, for example through the creation of sustainable neighbourhoods. Much rests on the quality of design and implementation, however, both in terms of avoiding negative impacts such as over-intensification, but also ensuring that new development makes the most of the potential associated with the provision of renewable energy, for example, or helps to realise green infrastructure improvements which in turn improve access to recreational opportunities.

The majority of sites outside the Growth Areas demonstrate a positive (or at worst neutral) performance, with the only potential negative effects relating to possible loss of informal open space or wildlife resources, both of which could be mitigated through masterplanning. On a number of sites, uncertainties exist over potential contamination which could have secondary sustainability effects such as water pollution, although again survey work and site remediation would address such issues. No instances of potential significant negative effects were identified. Overall, the sites perform well in respect of delivering housing and employment in the places where this is likely to most needed (notably in, or adjacent to, areas of relatively high deprivation) and can contribute to the achievement of sustainable neighbourhoods through the re-use of brownfield land and development of a sense of place through investment and redevelopment.

Inevitably, additional development compromises some sustainability objectives, notably atmospheric and noise pollution which are typically associated with traffic generation. However, any disbenefits

are outweighed by re-use of brownfield land in the case of the majority of proposed sites, the aspirations for the creation of sustainable neighbourhoods as part of regeneration, and the opportunities for a sustainable urban extension where significant greenfield land release is proposed. Here, the conclusions on the sustainability performance of release of greenfield land for strategic employment uses are more complex, but again to some degree effects can be mitigated through intelligent design.

In the case of a sustainable urban extension, whilst significant negative impacts are associated with the irreversible loss of greenfield land, there are significant opportunities to create a development which meets a range of sustainability objectives, *inter alia*: the development of services which meet new and existing needs, sustainable transport infrastructure, green infrastructure, and waste management measures.

Overall, the proposed sites contribute to meeting the sustainability aspirations of the BDP and whilst there are predicted negative effects which accompany growth which will require monitoring and perhaps mitigation, particularly at the site level, there should be positive effects.

Observations on Issues Arising and Recommendations

Notwithstanding the overall sustainability performance of the proposed sites, there are a number of issues which should be considered as part of site development as a whole to help ensure that sustainability objectives are worked towards. Some of these issues are addressed through good planning practice (notably the implementation of good design which has inherent sustainability qualities), but others require the consideration of how through integrated action sustainability outcomes can be more far-reaching. In light of this, the following recommendations are made:

- ▶ The need to avoid piecemeal development which could miss the opportunities associated with improving the sustainability of localities in general through the use of sustainable transport networks, for example. This entails all major development being strategy and masterplan-led, with clear references to their wider context and to the opportunities for synergies between adjacent areas.
- ▶ Close attention to design issues of areas and buildings will be critical in ensuring that high standards are achieved in practice, particularly in respect of ensuring the energy efficiency of new buildings, using opportunities to incorporate district heating networks, cycle and footpaths, and the incorporation of green infrastructure which serves multiple purposes.
- ▶ The use of City-wide initiatives to reinforce sustainability policies and practice e.g. for green infrastructure and nature conservation, will be critical in developing a rounded approach to sustainable neighbourhoods in particular but also the progression of the City on a more sustainable path. Work should progress on the development of detailed approaches to the enhancement of green infrastructure/biodiversity (advancing the Green Living Spaces Strategy), recreation, sustainable transport and access, local economic development and renewable energy.
- ▶ Clear links between housing and service provision and job creation as part of the concept of 'sustainable neighbourhoods' need to be established. Further work is required on establishing the form and function of such areas, in particular what changes to their current structure are needed to help create the conditions for more sustainable living and their integration with adjacent areas.



6. Overall Effects of the BDP and Proposed Mitigation and Monitoring

6.1 Sustainability Issues and Effects

Table 6.1 presents the key sustainability issues associated with implementation of the BDP and their likely effects.

Table 6.1 SA Themes and Objectives and Related Sustainability Issues and Effects

SA THEME	SA OBJECTIVES	KEY SUSTAINABILITY ISSUES	LIKELY SUSTAINABILITY EFFECTS
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New additional water management measures or water resources needed to ensure there is sufficient water for new housing proposed in the current and revised Regional Spatial Strategy. Resource Use is linked to issues related to water quality.	The key effects here concern the relationships between the level of growth proposed in the Birmingham Development Plan and the significant demand for natural resources (minerals, water and land) and the production of waste.
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	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 between 2002/03-2010/11 from 23% to 10.37%. Given European and National targets it is likely this trend 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: Encourage land use and development that optimises the use of previously developed land and buildings.	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. The efficient use of land is linked to issues related to soil quality, natural landscape, built and historic environment, biodiversity culture, sport and recreation and sense of place.	
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	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.	The City Council is committed to securing reductions in CO ₂ emissions, with the Sustainable Community Strategy setting a target for a 60% reduction in emissions by 2026. The main source of emissions is likely to come from the built environment and transport, both of which are sources that the Birmingham Development Plan can influence through encouraging the greater co-ordination of where people live and work to reduce the need for commuting. Currently, for example, some 50% of those who live and work in Birmingham commute by car, and this rises to around 75% of those who live outside Birmingham but work in Birmingham.
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Use of renewable energy could be significantly improved. Renewable Energy is linked to issues related to climate change mitigation and adaptation.	
	4. Energy Efficiency: Reduce overall energy	Recent developments have shown evidence of energy efficiency, but the large number of old properties in the	

SA THEME	SA OBJECTIVES	KEY SUSTAINABILITY ISSUES	LIKELY SUSTAINABILITY EFFECTS
	use through energy efficiency.	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: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	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. Reduce the need to travel: Ensure development reduces 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 and encouraging people to use public transport. Reducing the need to travel is linked to issues related to sustainable transport, air quality, health, climate change mitigation and adaptation and noise.	
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Birmingham's residents and businesses emit over 6.6 million tonnes of CO ₂ per year. If global emissions are not reduced Birmingham could see average annual temperatures rise by 1.5°C by 2020 and winter rise by 1.3°C and 3.7°C and 2.9°C 4.5°C by 2080. Reducing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.	
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including 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. There is limited information on this objective although it is recognised by the City Council that measures will need to be put in place to manage the unavoidable impacts of climate change. Managing Climate Change is linked to issues related to sustainable transport, reducing the need to travel, air quality, biodiversity health and natural landscape.	Current evidence, based on a review of the potential impacts of climate change at the regional level and the draft Birmingham Climate Change Action Plan, suggests that the City will need to be prepared for a range of potential impacts including increases in flooding, summer droughts and a greater probability of extreme weather events (heat waves and extreme floods for example).
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic	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	Historic environment: The key effects here are likely to relate to the impacts of new development and infrastructure on Birmingham's historic

SA THEME	SA OBJECTIVES	KEY SUSTAINABILITY ISSUES	LIKELY SUSTAINABILITY EFFECTS
AND GEODIVERSITY	environment and landscape.	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.	environment, including scheduled ancient monuments, listed buildings, conservation areas, registered parks and gardens and canal network. There are over 2,500 entries on the Scheduled Monuments Record, 14 Registered Parks and Gardens and 25 Conservation Areas, all potentially vulnerable to the pressures of urban intensification.
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's 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.	Landscape: New development is likely have an impact on the City's landscapes both within the existing urban area (parks, gardens and other greenspace) and outside of urban area where greenfield development is required. Within the main urban area the impacts could relate to development pressures on landscape features including parks, gardens and water courses. Outside the City, the major opportunities for greenfield development lie to the north/north east of the town (Sutton Coldfield) and to the south/south-west (beyond Longbridge) so the impacts of greenfield development (if required) on the surrounding landscape would more likely be felt here. Some 18% of the City's area is open space of varying kinds and urban intensification could have a significant impact on this through development and user pressures.
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	The City has 2 SSSIs and a number of other designated sites which cover approximately 10% of the City. The West Midlands Biodiversity Partnership has developed a number of area based projects which look at different ways of protecting biodiversity by reducing fragmentation of habitats and species. These areas are known as Biodiversity Enhancement Areas. In such areas biodiversity should improve. There is one Local Nature Reserve designated in order to protect its geodiversity. Biodiversity is linked to issues related to air quality, soil quality, water quality, natural landscape, health). Geodiversity is linked to issues related to water quality, soil quality and natural landscape.	Biodiversity: The City accommodates a range of designated sites of nature conservation importance and will have other non-designated areas which make an important contribution to biodiversity. This will include both previously developed land and buildings and greenfield sites. New development will have a detrimental impact on ecology and biodiversity where this involves the loss of habitats or leads to activities which will adversely impact on these features. Geodiversity: Concerns the variety of rocks, minerals and landforms and the processes which have informed these features over time. There could be impacts outside of the City in relation to the demand for minerals to build new homes, businesses and infrastructure (explored under SA Theme 1).
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	The whole of Birmingham 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	Air pollution: The whole of Birmingham was designated an Air Quality Management Area (AQMA) in 2003 to help improve air quality in the City. The main

SA THEME	SA OBJECTIVES	KEY SUSTAINABILITY ISSUES	LIKELY SUSTAINABILITY EFFECTS
		congestion and poor air quality. Given the allocation of an AQMA, air quality should improve within the City. Air Quality is linked to issues related to biodiversity, health, sustainable transport reducing the need to travel, climate change mitigation and adaptation).	pollutant is nitrogen dioxide (NO ₂), arising from both transport and industry. Water pollution: The proportion of Birmingham's waterways which are of a good biological or chemical quality is significantly below national and regional averages.
	16. Water Quality: Minimise water pollution levels and create good quality water.	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).	Soil pollution: Outside of the urban area to the north and north east of the city as well as to the south west are areas of Grade 3 (moderate to good quality) agricultural land which could clearly be impacted on where greenfield development is proposed.
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	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.	Noise pollution: The key effects here are likely to relate to the specific of particular development proposals rather than direct impacts associated with the levels of growth proposed, notwithstanding that an expanded BIA could have a potential impact in terms of increased air traffic over the city.
	18. Noise: Minimise noise pollution levels.	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, housing and health.	
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	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.	The main effect that the Birmingham Development Plan will have on economic growth relates to whether or not it provides a sufficient and flexible supply of employment land and premises, attractive to developers and investors wishing to expand or establish themselves in Birmingham.
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	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 ⁵⁵ . The percentage of residents on Job Seekers Allowance has increased significantly since November 2007. Whether this trend will continue is likely	

⁵⁵ https://www.nomisweb.co.uk/reports/lmp/la/2038431965/subreports/quals_time_series/report.aspx

SA THEME	SA OBJECTIVES	KEY SUSTAINABILITY ISSUES	LIKELY SUSTAINABILITY EFFECTS
		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.	
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Birmingham people are positive about their city; according to the Community Cohesion Strategy, opinion polls show that three quarters of people think it is a good place to live. No public open space is currently being lost, and environmental improvements have been made and continue to be made to various parts of the City. Sense of Place is linked to issues related to built and historic environment, natural landscape, housing, health, biodiversity, culture, sport and recreation and crime.	The Birmingham Development Plan will have a range of effects on Birmingham's existing and new communities relating to the new growth that it proposed in terms of meeting people's housing needs and opportunities for employment. It will also impact on their ability to access education, healthcare and other services, considering the capacity of existing facilities and opportunities for enhancement aligned with proposed growth.
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No information has been identified on this topic. Social and Environmental Responsibility is linked to issues related to equality, community involvement, learning and skills, economy and equality, waste reduction and minimisation.	
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	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: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	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 also related to 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: Address poverty and	About 40% of Birmingham's residents live in areas that are in the most deprived 10% in England.	

SA THEME	SA OBJECTIVES	KEY SUSTAINABILITY ISSUES	LIKELY SUSTAINABILITY EFFECTS
	disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	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: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting 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: Reduce crime, fear of crime and antisocial behaviour.	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.	
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	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.	
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	<p>Birmingham faces several issues relating to housing such as the increase in the number of households and the need for improvement in the social housing stock.</p> <p>House prices in Birmingham peaked in January 2008 and sharply declined through to 2010, and now have stabilised. Clearly however sales volumes have declined by over 50% since October 2006. This suggests that the affordability of housing for poorer families and first-time buyers has declined due to other national economic conditions. Housing is linked to issues related to poverty, equality, built and historic environment, natural landscape, sense of place, resource use, energy efficiency and sustainable design, construction and maintenance.</p>	<p>The key effects relate to whether or not the Birmingham Development Plan will provide enough housing, in the right locations and of the right type. There will need to be a suitable supply of both market and affordable housing to meet the needs of existing and new residents. The availability of housing also has significant linkages with economic growth, in terms of providing local housing to house the labour force. A failure to provide sufficient housing within the City to support economic growth could lead to unsustainable travel patterns with high levels of 'in-commuting' and undermining self-containment or, as a worst case, the decline of the City's economy.</p>

The approach to the distribution of new development seeks to provide a reasonable balance between accommodating growth within the existing urban area (accounting for the majority of the housing and employment requirement), and providing for additional growth requirements through the allocation of greenfield land, using the principles of a sustainable urban extension to guide residential-led development, whilst also allocating land for strategic industrial purposes.

The BDP’s proposals for delivering growth across the City in a balanced fashion reflect the aspirations of the NPPF for delivering sustainable development. The NPPF identifies that: “*The purpose of the planning system is to contribute to the achievement of sustainable development*” (paragraph 6), that “*Local Plans are the key to delivering sustainable development that reflects the vision and aspirations of local communities*” (paragraph 150), and that: “*local planning authorities should seek opportunities to achieve each of the economic, social and environmental dimensions of sustainable development, and net gains across all three*” (paragraph 152). The BDP seeks to demonstrate how these aspirations might be achieved in the context of significant growth in levels of housing and employment, making best use of existing assets, notably brownfield land and the potential for investment in strategic transport infrastructure to improve the functioning of the City.

In light of fulfilling the demands of the NPPF for sustainable development, one area of particular uncertainty is the extent to which, through the Duty to Co-operate, the City’s development requirements can be met. Around 40,000 dwellings will need to be provided in adjacent areas, seeking to reflect the interrelationship between the City of Birmingham and its surrounding city-region as evidenced through patterns of commuting, strategic employment and provision of retail and cultural services.

There are significant uncertainties over the likely sustainability implications of accommodating around 40,000 dwellings in surrounding authorities, given the absence of detail at this stage of where this portion of Birmingham’s housing need might go. It is understood that exploration of strategic housing and employment provision across the City region is being undertaken through the GBSLEP Spatial Plan for Recovery and Growth, and conclusions on the appropriate spatial balance of development could be reached which support or modify the aspirations of the BDP.

6.2 Influence of the Sustainability Appraisal on the Birmingham Development Plan

One function of the SA/SEA process is to provide recommendations on how the performance of the BDP might be improved through adjustment to the vision, objectives and policies being proposed. Based on the analysis in chapter 5 and policy analysis in Appendix A, Table 6.2 sets out recommendations for adjusting the BDP to enhance the sustainability of the outcomes associated with implementing the proposed plan.

Table 6.2 Recommendations to Improve the Sustainability Performance of the BDP

VISION, OBJECTIVES and STRATEGY	
BDP Vision	No recommendations
Strategic Objectives	The BDP Objectives has been appraised against the SA Objectives and found to be broadly compatible. Where potential incompatibilities exist, these are inherent (for example between growth and resource use), or can be mitigated through the implementation of policies throughout the plan (for example in relation to the promotion of sustainable neighbourhoods as part of housing growth).
Strategy	No recommendations, apart from close monitoring of the impacts of policy implementation in order to ensure that this is effective and meeting the aspirations set out in the objectives and strategy.

PLANNING FOR GROWTH

- PG1: Overall Levels of Growth**
- PG2: Birmingham as an International City**
- PG3: Place Making**

Notwithstanding some potential negative effects associated with some SA Objectives, overall this policy group is effective in communicating the intentions of sustainable growth across Birmingham which will drive the delivery of the Plan’s vision and objectives. In doing so, there is perhaps opportunity to cross reference policies or groups of policies which will help to deliver these intentions, such as the intention to create sustainable neighbourhoods (Policy TP26) which reflect and translate many of the growth aspirations.

PG1: Reference in the policy to the role of regeneration and the creation of sustainable neighbourhoods would be a useful addition.

PG2: The policy might be strengthened through the addition of reference to the importance of protecting the existing environmental qualities of the City.

PG3: The policy might benefit from reference to the creation of ‘sustainable neighbourhoods’ (TP26) and defining precisely how these might look and function.

SPATIAL DELIVERY OF GROWTH

- GA1: City Centre**
- GA2: Greater Icknield**
- GA3: Aston, Newtown and Lozells**
- GA4: Sutton Coldfield Town Centre**
- GA5: Langley Sustainable Urban Extension**
- GA6: Peddimore**
- GA7: Bordesley Park**
- GA8: Eastern Triangle**
- GA9: Selly Oak and South Edgbaston**
- GA10: Longbridge**

The AAP and masterplan-led approach to these areas provides significantly more detail on implementation and the balancing of economic, social and environmental objectives. Nevertheless, greater emphasis in this suite of policies needs to be placed on achieving balanced growth that is ensuring that strong and rapid change does not cause undesirable side-effects such as the compromising of environmental quality. This is particularly the case with the City Centre but also applies to other growth areas on a lesser scale and in different ways where particular issues such as greenspace or air quality could be prominent. Cross-referencing to selected implementation policies would therefore be beneficial as well as re-assurance over the monitoring of key effects such as the provision of greenspace as part of new development.

GA1: The dangers of benefits not spreading to deprived communities must be recognised, as should the need to ensure that environmental enhancement accompanies economic growth and physical change, and the role of independent retailing in adding to character to the City. The policy could be strengthened by reference to these issues.

GA4: The policy could perhaps be improved through reference to environment and design quality, sense of place and synergy with the overall strategy of the BDP.

GA9: The policy could useful include reference to how the area might function in combination with the intended investment into the City Centre.

ENVIRONMENT AND SUSTAINABILITY

- TP1: Reducing the City’s Carbon Footprint**
- TP2: Adapting to Climate Change**
- TP3: Sustainable Construction**
- TP4: Low and Zero Carbon Energy Generation**
- TP5: Low Carbon Economy**
- TP6: Managing Flood Risk**
- TP7: Green Infrastructure Network**
- TP8: Biodiversity and Geodiversity**
- TP9: Open Space, Playing Fields and Allotments**
- TP10: Green Belt**
- TP11: Sports Facilities**

Whilst this suite of policies is in the main complementary to one another, they would benefit from more cross-referencing demonstrating key relationships, between Green Infrastructure and climate change for example.

The supporting text of Policy TP9 (Open Space, Playing Fields and Allotments) would benefit from further clearer links to Policy TP7 (Green Infrastructure) (and vice versa) in order to help demonstrate how these closely related policies are related and need to be delivered together.

Ideally this group of policies should set out in quantitative terms the likely capacity requirements which are referred to. Further justification of the approach should be set out in the supporting text.

TP12: Historic Environment

TP13: Sustainable Management of the City's Waste

TP14: New and Existing Waste Facilities

TP15: Location of Waste Management Facilities

TP15A: Minerals

ECONOMY AND NETWORK OF CENTRES

TP16: Portfolio of Employment Land and Premises

TP17: Regional Investment Sites

TP18: Core Employment Areas

TP19: Protection of Employment Land

TP20: The Network and Hierarchy of Centres

TP21: Convenience Retail Provision

TP22: Small Shops and Independent Retailing

TP23: Promoting a Diversity of Uses within Centres

TP24: Tourism and Tourist Facilities

TP25: Local Employment

Whilst the package of new employment land proposals and protection of key employment areas is likely to be beneficial overall, greater clarification would be helpful on how the benefits will be spread City-wide and complement other policy aspirations. Reference to partner strategies on education and social inclusion could be helpful in this regard, as would cross-referencing of policies, for example in relation to tourism and environmental protection.

TP18: The interaction with other policies for employment provision (notably TP16, TP17 and TP10) could perhaps be identified.

TP19: The interaction with other policies for employment provision (notably TP16, TP17, TP18 and TP25) could perhaps be identified.

TP20: The relationship with complementary policies such as TP16, TP23, TP25 and TP26 could be referenced to identify the importance of a strategic overview of the type and location of employment provision. What, for example, might be the implications of City Centre growth and how is the competition between centres such as Longbridge and Northfield likely to be managed to ensure the sustainable growth of each?

TP21, 22& 23: The policies could perhaps be enhanced through reference to the promotion of sustainable neighbourhoods.

HOMES AND NEIGHBOURHOODS

TP26: Sustainable Neighbourhoods

TP27: The Location of New Housing

TP28: The Housing Trajectory

Reference to Sustainable neighbourhoods in all related policies would be helpful in demonstrating an integrated approach to housing strategy across the City, anticipating future approaches to its spatial character.

TP26: What the policy currently doesn't do and which might be strengthened by is reference strategies for the delivery of these aspirations, sectorally and spatially. In principle, many of the proposed regeneration areas (Aston, Bordesley, Icknield Loop, Eastern Triangle) could pioneer some of the initiatives, although much will depend upon available investment.

TP29: The Type and Size of New Housing

TP30: Affordable Housing

TP31: Housing Regeneration

TP32: Student Accommodation

TP33: Provision for Gypsies, Travellers and Travelling Showpeople

TP34: The Existing Housing Stock

TP35: Education

TP35: Health

Further explanation could be given regarding mix and tenure of replacement housing and whether balanced communities can be encouraged when municipal housing estates are renewed without a loss of social housing.

CONNECTIVITY

TP37: A Sustainable Transport Network

Further consideration should be given to how the connectivity policies are likely to work in concert and with other policies throughout the Plan to achieve

TP38: Walking	<p>more sustainable outcomes for the BDP as a whole. For example, could the policy relating to cycling be linked to those on green infrastructure, health promotion and sustainable communities? Reference to clear strategies which will help to deliver the goals of sustainable transport policies would be helpful in promoting an integrated, City-wide approach.</p> <p>TP39: The policy could benefit from cross-referencing with other Policies such as TP25: Sustainable Neighbourhoods and the range of policies on encouraging sustainable transport.</p> <p>TP40: Implementation of the policy will be of particular importance in realising Sustainable Neighbourhoods and to this end cross-referencing to Policy TP26 would be helpful in demonstrating an integrated approach.</p>
TP39: Cycling	
TP40: Public Transport	
TP41: Freight	
TP42: Low Emission Vehicles	
TP43: Traffic Congestion and Management	
TP44: Accessibility Standards for New Development	
TP45: Digital Communications	

The SA/SEA process has helped to shape the BDP through a number of means, including:

- ▶ close working between consultants and planning officers during the development of the BDP;
- ▶ a Scoping workshop attended by a wide range of stakeholders to help identify key issues and discuss how the BDP could best respond to their interests;
- ▶ assessment of emerging stages of the BDP, including options and policies, for: issues and options, preferred options, further options and the Pre-Submission BDP; and
- ▶ a seminar on sustainable neighbourhoods involving a wide range of community stakeholders to explore the idea and practice of sustainable neighbourhoods, in turn helping to inform their role within the BDP.

6.3 Monitoring

It is a requirement of the SEA Directive to establish how the significant sustainability effects of implementing the plan, programme or strategy will be monitored, helping to:

- ▶ identify the significant effects of the plan;
- ▶ isolate unforeseen effects;
- ▶ ensure that there is action to offset any undesirable significant effects; and
- ▶ provide a baseline for ongoing monitoring of the plan.

However, as former guidance on Sustainability Appraisal of RSS and LDDs noted (ODPM 2005): “it is not necessary to monitor everything, or monitor an effect indefinitely. Instead monitoring needs to be focused on significant sustainability effects”.

Table 6.3 sets out proposed indicators for monitoring the sustainability impacts of the BDP. The final monitoring framework will be published alongside the adopted BDP and accompany BCC’s AMR, and could share some of the indicators in the AMR.

Table 6.3 SA Objectives and Potential Indicators

SA Theme	SA Objectives	Potential Indicators
1. Natural resources and waste	1. Resource Use: Use natural resources such as water and minerals efficiently.	<ul style="list-style-type: none"> • Minerals, construction materials and water demand arising from new development.
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	<ul style="list-style-type: none"> • Proportion of waste recycled. • Proportion of waste sent to EfW plants.

SA Theme	SA Objectives	Potential Indicators
		<ul style="list-style-type: none"> Proportion of waste landfilled.
	<p>8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.</p>	<ul style="list-style-type: none"> Percentage of dwellings built on previously developed land. Average density of new housing.
2. CO ₂ emissions	<p>2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.</p>	<ul style="list-style-type: none"> Number of new buildings exceeding Building Regulations.
	<p>3. Renewable Energy: Encourage development of alternative and renewable resources.</p>	<ul style="list-style-type: none"> Renewable energy capacity installed by type.
	<p>4. Energy Efficiency: Reduce overall energy use through energy efficiency.</p>	<ul style="list-style-type: none"> Number of new buildings exceeding Building Regulations. Energy efficiency of the housing stock
	<p>5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.</p>	<ul style="list-style-type: none"> Percentage of trips by public transport into Birmingham City Centre. Proportion of trips made by bicycle.
	<p>6. Reduce the need to travel: Ensure development reduces the need to travel.</p>	<ul style="list-style-type: none"> Road traffic mileage and congestion.
	<p>9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.</p>	<ul style="list-style-type: none"> CO2 emissions by source. Energy efficiency of the building stock.
3. Climate change adaptation	<p>10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.</p>	<ul style="list-style-type: none"> Number of properties at risk from flooding. New development allowed in Flood Zones 2 and 3 New development incorporating SuDS.
4. Historic environment, landscape, biodiversity and geodiversity	<p>12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.</p>	<ul style="list-style-type: none"> Listed Building/Ancient Monuments at risk. Conservation Areas with management plans. Applications requiring archaeological mitigation strategies.
	<p>13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.</p>	<ul style="list-style-type: none"> Where land is not managed for biodiversity, active management for recreation.
	<p>14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.</p>	<ul style="list-style-type: none"> Area of habitat under management. Area of habitat in good and improving condition. Area of habitat created/managed as part of off-setting. Area of habitat created directly as part of new development.
5. Pollution	<p>15. Air Quality: Minimise air pollution levels and create good quality air.</p>	<ul style="list-style-type: none"> Changes in Birmingham's AQMA.
	<p>16. Water Quality: Minimise water pollution levels and create good quality water.</p>	<ul style="list-style-type: none"> Watercourses of good chemical and biological quality.

SA Theme	SA Objectives	Potential Indicators
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	<ul style="list-style-type: none"> Area of contaminated land reclaimed.
	18. Noise: Minimise noise pollution levels.	<ul style="list-style-type: none"> No specific indicator identified.
6. Economic growth	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	<ul style="list-style-type: none"> Gross Value Added. Employment rates. Average earnings Business diversity. Business creation. Tourism spend. Employment land availability. Business premises vacancy rates. Employment land lost to other uses.
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	<ul style="list-style-type: none"> Access to pre-school education/care. Educational attainment. Access to further education opportunities. Access to apprenticeships in areas of particular needs. Business surveys of staff/skill shortages.
7. Communities, healthy lifestyles and equality	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	<ul style="list-style-type: none"> Application of City-wide design guidance. Developments granted with design-specific conditions.
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	<ul style="list-style-type: none"> Participation by business in community enhancement schemes (e.g. skills development, volunteering, environmental works).
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	<ul style="list-style-type: none"> Participation in local elections. Participation in voluntary activity. Access to councillors/MPs. Access to the internet.
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	<ul style="list-style-type: none"> Percentage of new residential development within 30mins public transport time of a GP, hospital, primary and secondary school, employment and a major shopping centre.
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	<ul style="list-style-type: none"> Access to local services. IMD score/rank. Employment levels Average earnings
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	<ul style="list-style-type: none"> Wards falling within the lowest 20% IMD Health Domain. Access to health services. Road safety.
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	<ul style="list-style-type: none"> Recorded crime levels. Surveys on safety and fear of crime.

SA Theme	SA Objectives	Potential Indicators
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	<ul style="list-style-type: none">• Participation in sport.• Quantity and quality of sports facility provision.• Access to open space and sports facilities.
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	<ul style="list-style-type: none">• Housing completions.• Affordable housing as a proportion of completions.• Households classified as homeless.• Households in over-crowded dwellings• Quality of dwelling stock.



7. Examination of the Birmingham Development Plan and Next Steps

7.1 Examination of the Birmingham Development Plan

This SA Report is published alongside the Submission Birmingham Development Plan.

Copies of the previous SA documents referred to in this SA Report can be found at:

<http://www.birmingham.gov.uk/corestrategy>

7.2 Finalising the SA Report and Post Adoption Statement

Following adoption of the BDP, a SA Post Adoption Statement will be produced, setting out the following:

- ▶ how environmental considerations have been integrated into the BDP;
- ▶ how the SA Report has been taken into account;
- ▶ how opinions expressed in relation to the BDP and SA Report have been taken into account;
- ▶ the reasons for choosing the BDP as adopted, in light of the reasonable alternatives considered; and
- ▶ the measures to be taken to monitor any significant environmental effects associated with implementation of the BDP.

7.3 Post Adoption

Following adoption of the BDP, there will need to be monitoring of any significant effects identified. This can take place alongside monitoring of the BDP and published as part of the Annual Monitoring Report.



Appendix A

Appraisal of Birmingham Development Plan Policies

Appraisal Scoring Key

++	Major Positive Impact	+	Positive Impact	0	Neutral Impact	-	Negative Impact	--	Major Negative Impact	#	No Relationship	?	Uncertain Relationship
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PG1: Overall Levels of Growth																														
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality				8. Housing													
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport /Recreation	27. Housing		
Assessment Score	-	-	+	+	+	+	+	+	0	+	+	+	+	0	?	#	0	+	+	+	+	+	+	+	+	+	+	0	++	++

Commentary: The levels of growth which are sought to be accommodated reflect the outcome of a complex and long-running set of factors. As such, providing for housing and employment needs is necessary and prudent and the strategy of regeneration first, providing houses and jobs together represents a coherent approach to addressing the challenges faced by the City. Whilst there are potential pressures on the environment in achieving the predicted levels of growth (such as increased air pollution) which will require close monitoring, there are also significant opportunities for environmental enhancement as part of regeneration and addressing issues of social exclusion across the City's most deprived areas. There are strong links to all of the delivery policies (TP1-35) as well as PG3: Place Making. With regard to PG3, reference in the policy to the role of regeneration and the creation of sustainable neighbourhoods would be a useful addition.

In light of fulfilling the demands of the NPPF for sustainable development, one area of particular uncertainty is the extent to which, through the Duty to Co-operate, the City's development requirements can be met. Around 40,000 dwellings will need to be provided in adjacent areas, seeking to reflect the interrelationship between the City of Birmingham and its surrounding city-region as evidenced through patterns of commuting, strategic employment and provision of retail and cultural services. There are significant uncertainties over the likely sustainability implications of accommodating around 40,000 dwellings in surrounding authorities, given the absence of detail at this stage of where this portion of Birmingham's housing need might go.

Likelihood/Certainty: Where implemented, likely to be realised, both positively and negatively, but uncertainties over the extent of implementation.

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

PG2: Birmingham as an International City																													
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessment Score	-	-	0	+	+	+	+	+	-	-	+	+	0	+	0?	#	#	-?	+	+	+	#	#	+	+	#	#	+	#

Commentary: The aspiration to promote Birmingham's role as a city of international importance potentially brings with it economic and social benefits through creating opportunities for business and employment and wealth creation, leading to a virtuous circle of investment, business activity and innovation, building on the City's existing and emerging economic strengths. The challenges are ensuring that investment is balanced spatially and temporally, benefitting all citizens through addressing issues exclusion, as well as ensuring that there is not undue pressure on environmental resources through infrastructure development or demand for additional land resources. Notwithstanding the City's regional and sub-regional role, it will be important to ensure that the benefits of additional investment accruing are captured for the benefit of the City and not diffused to adjacent areas. There are important links to complementary policies PG2, GA1 and TP1-4. The policy might be strengthened through the addition of reference to the importance of protecting the existing environmental qualities of the City.

Likelihood/Certainty: Likely to be realised, both positively and negatively

Geographical scale: City-wide and beyond

Temporary or Permanent: Permanent

Timing: Medium to long term

PG3: Place Making								
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing
SA Objective	1. Resource Use 7. Waste Reduction & Min. 8. Efficient use of land	2. Sustainable Design 3. Renewable Energy 4. Energy Efficiency	5. Sustainable Transport 6. Reduce the need to travel 9. Reduce climate change	10. Manage Climate Change 12. Built and Historic Env. 13. Natural Landscape	14. Biodiversity 15. Air Quality 16. Water Quality	17. Soil Quality 18. Noise 20. Economy and Equality	21. Learning and Skills 11. Sense of Place 19. Social and Env. Responsib. 22. Community Involvement	23. Equality 24. Poverty 25. Health 26. Crime 27. Housing 28. Culture/Sport/Recreation
Assessment Score	+	+	++	++	+	+	+	++

Commentary: The policy presents the opportunity to protect and enhance existing neighbourhoods and develop new ones through attention on regeneration and the creation of attractive and high quality places in tandem with strategic and local economic growth. The extent to which such balanced development can be achieved very much depends on the starting point of particular localities, but the opportunities to contribute to City-wide environmental enhancement and social inclusion are significant. Securing consistency of design quality will be important and the policy might benefit from reference to this, and this has implications for the creation of 'sustainable neighbourhoods (Policy TP11) and defining precisely how these might look and function.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide, and in specific localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

GA1: City Centre																														
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality			8. Housing														
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing		
Assessment Score	+	+	++	++	++	++	++	++	+	+	+	+	#	-	#	#	-	++	++	++	+	+	+	+	+	+	?	?	++	+

Commentary: Promotion of the role of the City Centre as a focus for economic and social advancement of the interests of the City is fundamental to delivering the BDP and realising its wider ambitions for greater economic opportunity and social inclusion. The clear strategy which is of proven delivery capacity and capability is highly likely to realise the goals sets for it, although in doing so, the dangers of benefits not spreading to deprived communities must be recognised, as should the need to ensure that environmental enhancement accompanies economic growth and physical change, and the role of independent retailing in adding to character to the City. The policy could be strengthened by reference to these issues. There are strong links to policies PG1, PG2 and implementation policies TP1, TP3, and TP 5-9.

Likelihood/Certainty: Likely to be realised, both positively and negatively.

Geographical scale: City centre, City-wide, sub-regionally

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



GA2: Greater Icknield																												
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	+	+	++	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	+	+	+	+	+	+	++	++

Commentary: The comprehensive redevelopment of this area offers the opportunity to put into practice the creation of a sustainable neighbourhood which is both relatively self-contained but which also fits into its wider context, being adjacent to the City Centre, for example. Investment in housing and employment should be characterised by a balanced social mix and environmental enhancement which fits into the City-wide green infrastructure network. Much will be dependent upon a masterplan which recognises this wider fit. There are strong links to policies GA1 and GA4, as well as implementation policies TP5, TP11, TP15 and TP16.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: Locality and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



GA3: Aston, Newtown and Lozells																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality			8. Housing																			
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	+	+	++	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	+	+	+	+	+	+	+	++	++

Commentary: The regeneration focus of this policy, founded on an approved AAP, presents the opportunity to realise a revitalised community which more effectively meets the aspirations for the provision of economic and social opportunity. The extent to which these aspirations are able to be realised depends on wider economic circumstances and the ability to attract investment into an area which suffers from multiple disadvantage, and there is a danger of continued marginalisation as attention is focused on the adjacent areas of Eastside, Greater Icknield and the City Centre.

Likelihood/Certainty: Likely to be realised

Geographical scale: Locality

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



GA4: Sutton Coldfield Town Centre																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality				8. Housing													
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	+	+	++	++	+	+	+	++	+	?	++	+	+	?	#	#	0	+	+	++	+	+	+	+	+	?	?	+	++

Commentary: Direction of development to Sutton Coldfield should bring economic, social and environmental benefits though increased investment, job creation and service provision. However, development needs to be of an appropriate type which complements existing uses and does not result in over-intensification and loss of sense of place. Application of the SPD on development in this locality will be important in helping to achieve this balance. There are important links to policies GA1, and implementation policies TP5-8 and TP11. The policy could perhaps be improved through reference to environment and design quality, sense of place and synergy with the overall strategy of the BDP.

Likelihood/Certainty: Highly likely to be realised, both positively and negatively.

Geographical scale: Sutton Coldfield and environs

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

GA5: Langley Sustainable Urban Extension																																																										
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions					3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution				6. Economic growth		7. Communities, healthy lifestyles and equality					8. Housing																																		
SA Objective	1. Resource Use			7. Waste Reduction & Min.			8. Efficient use of land		2. Sustainable Design		3. Renewable Energy		4. Energy Efficiency		5. Sustainable Transport		6. Reduce the need to travel		9. Reduce climate change		10. Manage Climate Change		12. Built and Historic Env.		13. Natural Landscape		14. Biodiversity		15. Air Quality		16. Water Quality		17. Soil Quality		18. Noise		20. Economy and Equality		21. Learning and Skills		11. Sense of Place		19. Social and Env. Responsib.		22. Community Involvement		23. Equality		24. Poverty		25. Health		26. Crime		28. Culture/Sport/Recreation		27. Housing	
Assessive Score	0	+	-	+	+	+	+	+	0	+	0	0	0	0	0	0	0	0	+	+	++	++	#	+	+	+	#	+	+	+	#	+	+																									

Commentary: The development of a sustainable urban extension offers the opportunity to create a relatively self-contained new neighbourhood which should contribute to the environmental enhancement of the locality through green infrastructure provision for example (which may help to offset air quality impacts) and the employment of high design standards in integrating new development with the existing urban area. Additional service and infrastructure provision provided as part of the development is likely to benefit the locality. The character of the development in respect of high quality design, the provision and use of sustainable transport, trip generation, and waste management for example, will determine its sustainability credentials, but these will only become apparent towards the end of the plan period and beyond.

Likelihood/Certainty: Likely to be realised, both positively and negatively.

Geographical scale: Locality

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



GA6: Peddimore																													
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessment Score	0	+	-	+	+	+	0	0	0	+	0	+	0	0	0	0	0	0	++	+	+	+	#	0	+	#	#	#	#

Commentary: The provision of high quality employment land is critical to the strategy of the BDP and existing constraints indicate the necessity of this allocation. There are negative sustainability effects such as loss of greenfield land, the historic environment and climate change, but the site's proximity to the motorway network will have sustainability benefits in respect of the type of uses proposed (i.e. HGVs having direct access to the strategic road network rather than impacting lower order roads) and opportunity to provide for a range of employment opportunities for existing and new residents in the immediate vicinity and further afield. Proposed Main Modifications to reduce the size of the allocation by 9ha to help lessen impacts on Green Belt and landscape resources to the north of the site. Whilst this is positive, the overall negative score in reflecting the loss of greenfield land remains.

Geographical scale: Locality

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



GA7: Bordesley Park																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing									
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	+	+	++	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	++	+	+	+	+	+	+	++	++

Commentary: The regeneration focus of this policy, founded on an approved AAP, presents the opportunity to realise a revitalised community which more effectively meets the aspirations for the provision of economic and social opportunity. The extent to which these aspirations are able to be realised depends on wider economic circumstances and the ability to attract investment into an area which suffers from multiple disadvantage, and there is a danger of continued marginalisation as attention is focused on the adjacent areas of Eastside and the City Centre.

Likelihood/Certainty: Likely to be realised, both positively and negatively.

Geographical scale: Locality

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



GA8: Eastern Triangle																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality		8. Housing																				
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	+	+	+	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	+	+	+	+	+	+	+	++	++

Commentary: The focus of development in this locality is primarily on the regeneration of existing housing areas to provide both new build and refurbished properties, with limited greenfield land release at Yardley Sewage Works, combined with employment development, public transport improvements and environmental enhancement using the Cole Valley as linear green infrastructure. The opportunities for creating neighbourhoods which are relatively socially, economically and environmentally sustainable is therefore significant, particularly where the regeneration of adjacent communities can be linked.

Likelihood/Certainty: highly likely to be realised

Geographical scale: Localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium to long term

GA9: Selly Oak and South Edgbaston																														
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions					3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing		
Assessive Score	+	+	++	++	+	+	++	++	+	+	+	+	+	+?	#	#	0	+	+	+	+	+	+	+	+	+	+	?	++	++

Commentary: The economic, social and environmental qualities of these areas are likely to be further advanced through the application of this policy, benefitting both the immediate locality and the wider southern suburbs. In principle, dangers of over-intensification and loss of local character will be controlled and ameliorated through the intended SPD for the area. The policy could usefully include reference to how the area might function in combination with the intended investment into the City Centre.

Likelihood/Certainty: Highly likely to be realised

Geographical scale: Locality and southern City

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

GA10: Longbridge																												
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing						
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	+	+	++	++	++	++	++	++	+	+	++	+	+	+	?	#	0	++	++	++	+	+	+	+	+	+	++	++

Commentary: Subject to comprehensive redevelopment and steered by an AAP, investment in this area is intended to make a significant contribution not only to local regeneration, but also to the wider economic growth of Birmingham, particularly along its strategic corridors. As such, the sustainability performance of the policy should be positive, although monitoring of unintended consequences of growth will be needed, for example to identify social exclusion in terms of access to jobs. Arguably, the AAP approach adopted at Longbridge presents a useful model for the sustainable development of a locality through a clear policy framework and ambitious masterplan.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: Locality and southern City

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium and long term



TP1: Reducing the City's Carbon Footprint																															
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution				6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing			
Assessment Score	++	++	++	++	++	++	++	++	+	+	+	#	#	++	#	#	#	+	+	+	+	+	+	+	+	+	?	#	#	#	+

Commentary: This is a particularly demanding policy but one which could deliver a range of sustainability benefits over the longer term and particularly beyond the plan period when the cumulative effects of climate change are likely to become increasingly felt, The policy relies on many others for delivery and as such has a high degree of uncertainty associated with it, but nevertheless presents an ambitious target which acts as an indicator of the sustainability performance of the plan more widely.

Likelihood/Certainty: Likely to be realised.

Geographical scale: Localities, City-wide, regionally, nationally and internationally

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP2: Adapting to Climate Change																													
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessment Score	+	?	#	#	++	++	++	#	#	++	++	?	?	?	#	#	#	#	+	+	?	+	+	?	?	?	#	#	?

Commentary: As with Policy TP22, this is a demanding policy for the design and implementation of new development and one which will test the commitment of the City to delivering its aspirations to address climate change and its likely impacts. The sustainability impacts are positive but again tempered by uncertainty as to the scale and speed of change which is likely to be required.

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP3: Sustainable Construction																												
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing							
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	++	++	++	++	++	++	#	#	++	++	+?	#	#	#	#	#	#	++	++	++	+	+	+	#	#	#	#	++

Commentary: As with Policy TP23, this is a demand policy which is likely to yield significant sustainability benefits over the longer term, but which will require close monitoring as to the effectiveness of its implementation. As part of the range and scale of new development which is intended, there is the opportunity to promote exemplar schemes which can be used to test technologies and rolled out more widely (see also TP25).

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP4: Low and Zero Carbon Energy Generation																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality		8. Housing																			
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	++	++	#	++	++	++	++	+	++	++	++?	#	#	++	#	#	#	++	++	+	+	+	+	+	#	#	#	++

Commentary: As for Policy TP24, the scale and diversity of new development which will be brought forward over the plan period presents significant opportunities to realise a step-change in the application of energy efficiency, complementing existing schemes and setting new benchmarks for what is expected and can be realised in the sustainability performance of developments. As such the sustainability potential of the policy is significant, albeit with the usual caveats over the extent and timing of implementation.

Likelihood/Certainty: Likely to be realised.

Geographical scale: Localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP5: Low Carbon Economy								
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing
SA Objective	1. Resource Use 7. Waste Reduction & Min. 8. Efficient use of land	2. Sustainable Design 3. Renewable Energy 4. Energy Efficiency 5. Sustainable Transport 6. Reduce the need to travel	9. Reduce climate change 10. Manage Climate Change	12. Built and Historic Env. 13. Natural Landscape 14. Biodiversity	15. Air Quality 16. Water Quality	17. Soil Quality 18. Noise 20. Economy and Equality	11. Sense of Place 19. Social and Env. Responsib. 22. Community Involvement	27. Housing 28. Culture/Sport/Recreation 26. Crime 25. Health 24. Poverty 23. Equality
Assessment Score	++	++	+	++	++	++	+	+

Commentary: The policy complements policies TP22-25 by setting aspirations for taking economic advantages from the shift in the City’s approach to energy use and climate change with strongly associated benefits across a range of economic, social and environmental criteria.

Likelihood/Certainty: Likely to be realised.

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP6: Managing Flood Risk																												
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing							
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	#	#	#	#	#	#	#	#	#	++	+	+?	+?	#	+	#	#	+	#	#	#	#	+	#	#	#	#	++

Commentary: Implementation of this policy is closely associated with the City's SFRA and LFRMS, the latter being tested for its sustainability credentials. As such there is no reason to doubt that the policy will have positive sustainability effects across a range of objectives, whilst it is acknowledged that in some localised circumstances, compromises could have to be made.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: City-wide and localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP7: Green Infrastructure Network																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality					8. Housing																	
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	#	#	#	#	#	#	+	+	+	++	+	++	++	+	+	#	+	+	+	++	+	+	+	#	++	+	++	+	+

Commentary: The promotion of the City’s GI network will be central to meeting a range of objectives, including health and well-being, biodiversity and climate change adaptation. The policy should therefore help to make a positive contribution as part of strategy development and implementation through the Green Living Spaces Plan and the development management process. The policy would benefit from directly referencing its role in achieving a range of sustainability objectives and perhaps the need for a separate GI Strategy which would help to develop and implement a practical approach to delivering co-ordinated action across the City.

Likelihood/Certainty: Highly likely to be realised
Geographical scale: City-wide
Temporary or Permanent: Permanent, subject to effective implementation
Timing: Medium to long term

TP8: Biodiversity and Geodiversity																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality			8. Housing																		
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	#	#	#	#	#	#	#	#	#	+	+	++	++	+	+	#	#	+	+	++	+	+	+	#	++	#	++	+

Commentary: The sustainability benefits associated with the protection and enhancement of biodiversity are widely recognised and this policy should help to advance these interests across a range of interests. Implemented in the context of a range of other strategies cited in the policy, there should in principle be no negative effects, although close monitoring will be required both for potential negative effects such as loss of habitats, but also whether there is sufficient activity in promoting biodiversity interests in a strategic fashion to the benefit of a range of other plan and policy objectives.

Likelihood/Certainty: Highly likely to be realised.
Geographical scale: City-wide
Temporary or Permanent: Permanent, subject to effective implementation
Timing: Short, medium and long term

TP9: Open Space, Playing Fields and Allotments																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality				8. Housing																		
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessment Score	#	#	#	#	#	#	+	+	+	+	+	+	+	+	+	#	#	+	+	++	+	+	+	+	++	+	++	++	++

Commentary: The provision of good quality, accessible open space is fundamental to securing many of the sustainability aspirations of the BDP, in particular the creation of sustainable neighbourhoods which meet the immediate needs of a wide range of the population. Various strategies and their evidence bases reinforce the protection and provision of recreational green spaces, and this policy is a natural complement to those, which, acting in concert, should yield positive outcomes across a range of sustainability objectives. As with GI, close monitoring of policy implementation will be required to ensure that there is no undue erosion of minimum standards and where possible additional provision.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium and long term

TP10: Green Belt																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality				8. Housing													
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	#	#	++	#	#	#	#	+	#	#	++	++	++	++	+	+	#	0	#	+	+	#	#	#	#	++	#	++	0

Commentary: The protection of the Green Belt is a key part of national planning policy and fundamental to ensuring that the regeneration-led strategy of the BDP can be implemented. Notwithstanding the need to release areas of Green Belt to meet housing and employment needs, the principle of protection remains and thus conveys positive sustainability benefits across a range of objectives, notably in the protection of environmental resources for future generations, encouraging healthier lifestyles through its recreational role (particularly in the river valleys), and the promotion of the efficient use of land through brownfield development. Nevertheless, there are disbenefits relating to potential effects on job creation and the provision of housing in the places where people wish to live. However, these latter elements are part of a wider national planning debate.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium and long term

TP11: Sports Facilities								
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing
SA Objective	1. Resource Use 7. Waste Reduction & Min. 8. Efficient use of land	2. Sustainable Design 3. Renewable Energy 4. Energy Efficiency	5. Sustainable Transport 6. Reduce the need to travel 9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env. 13. Natural Landscape 14. Biodiversity	15. Air Quality 16. Water Quality 17. Soil Quality	18. Noise 20. Economy and Equality 21. Learning and Skills 22. Community Involvement 23. Equality 24. Poverty 25. Health 26. Crime	27. Housing 28. Culture/Sport/Recreation
Assessment Score	# # #	# # #	+ + +	#	# # # # #	# # #	+ + + + + + +	# + ++ ++ +

Commentary: The policy has the potential to meet a range of sustainability objectives through the contribution that sport and recreation make to quality of life, well-being, education and the economy for example. As such, only positive effects are predicted, although notwithstanding the various strategies underpinning sports facilities protection and enhancement, there could well be uncertainty associated with implementation. This will require close monitoring to ensure that full use is being made of the potential of this resource, particularly where additional development is anticipated.

Likelihood/Certainty: Highly likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium and long term

TP12: Historic Environment																															
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution				6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing									
SA Objective	1. Resource Use		7. Waste Reduction & Min.		8. Efficient use of land		2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	#	#	#	+	#	#	#	#	#	#	#	#	++	+	#	#	#	#	#	#	+	#	++	+	+	#	#	#	#	++	0

Commentary: In principle, the effects of the implementation of the policy should be positive, where it seeks to find an accommodation between the needs of the changing City and maintaining a sense of identity through protecting cultural heritage assets of various kinds. Protection of these assets should complement objectives associated with enhancing quality of life and economic development through the promotion of tourism for example, although there are potential uncertainties associated with the intensification of the urban area in accommodating housing and the demands of economic development in some localities. There is no reason to doubt that the intentions of cultural heritage protection will be significantly compromised.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium and long term

TP13: Sustainable Management of the City's Waste																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	++	++	+	#	++	+	+	+	+	#	#	#	#	+?	#	#	#	+	#	#	#	#	#	#	#	#	#	#

Commentary: Waste management is one of more significant challenges facing the City, and the intention to seek to minimise waste production yields a range of positive outcomes for sustainable development across the City. There remain uncertainties, however, associated with the lack of capacity in the City to deal with waste and the attendant reliance on waste export, particularly in the context of a likely increase in the waste stream associated with additional development.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP14: New and Existing Waste Facilities																													
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessment Score	++	++	+	#	++	+	+	+	+	#	#	#	#	+?	#	#	-?	+	#	#	#	#	#	#	#	#	#	#	#

Commentary: Recognition of the need to increase the City's capacity to deal with waste through recycling, energy recovery and management yields in-principle positive relationships across many SA Objectives, although there remain uncertainties as to the effectiveness and speed of the response in relation to the scale and urgency of the challenge.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP15: Location of Waste Management Facilities																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	+	++	+	#	++	+	+	+	+	#	#	#	#	+-?	#	#	-?	+	#	#	#	#	#	#	#	#	#	#

Commentary: The intention to seek the sensitive co-location of waste management facilities with complimentary uses such as industrial areas should yield positive outcomes, notwithstanding uncertainties associated with capacity to meet demand and delivery of that capacity over time and space. The opportunities to combine the need for waste management with renewable energy generation could be significant in some localities.

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP15A: Minerals																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions		3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality										8. Housing						
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	++	++	++	#	#	+	+	#	+	#	#	#	#	+?	#	#	-?	#	#	#	#	#	#	#	#	#	#	#

Commentary: Whilst there are no active minerals workings within the City boundary, it is important that potential reserves are not sterilised through development. This policy helps to ensure the sustainable use of these resources through extraction prior to development, along with the protection of facilities which enable the recycling of aggregates.

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP16: Portfolio of Employment Land and Premises																												
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality					8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	+	+	+	++	++	++	+	+	+	?	0	?	?	0	?	#	-?	++	++	#	#	#	+	+	?	#	#	#

Commentary: This policy offers a balanced approach to the protection and promotion of employment land, providing opportunities for growth across all economic sectors, ultimately to the benefit of all sectors of the population. However, possible additions to the policy could include references to the intention to create sustainable neighbourhoods, the interactions with and provision for sustainable transport and the need to closely monitor how portfolio of land is evolving over the plan period.

Likelihood/Certainty: Highly likely to be realised, both positively and negatively

Geographical scale: City and region-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP17: Regional Investment Sites																												
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing							
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	+	+	+	+	+	+	+	+	?	#	?	?	?	?	#	#	?	++	++	?	#	#	+	+	#	#	#	#

Commentary: Creation of a series of high profile employment sites which seek to boost the economic performance of the City through significant inward investment should result in meeting a wide range of sustainability objectives, particularly through the spread effects of such development. Inevitably, however, there are questions as to how far such developments have localised environmental impacts, help to meet social goals and whether there is disproportionate attention on these sites as the expense of investment elsewhere across the City.

Likelihood/Certainty: Highly likely to be realised,

Geographical scale: City and region-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP18: Core Employment Areas																																																									
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions					3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity				5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing																																		
SA Objective	1. Resource Use		7. Waste Reduction & Min.		8. Efficient use of land			2. Sustainable Design		3. Renewable Energy		4. Energy Efficiency		5. Sustainable Transport		6. Reduce the need to travel		9. Reduce climate change		10. Manage Climate Change		12. Built and Historic Env.		13. Natural Landscape		14. Biodiversity		15. Air Quality		16. Water Quality		17. Soil Quality		18. Noise		20. Economy and Equality		21. Learning and Skills		11. Sense of Place		19. Social and Env. Responsib.		22. Community Involvement		23. Equality		24. Poverty		25. Health		26. Crime		28. Culture/Sport/Recreation		27. Housing	
Assessive Score	+		+		+			+		+		+?		+?		?		#		?		?		?		?		#		#		?		++		++		?		#		#		+?		+?		#		#		#		#			

Commentary: Similar to Policies TP1 and TP2, this policy should result in positive sustainability performance across a range of indicators, but the interaction with other policies for employment provision (notably TP1, TP2 and TP10) could perhaps be identified.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP19: Protection of Employment Land																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing									
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	+	+	+	+	+	+	+	+	?	#	+	#	#	#	#	#	#	++	++	?	#	#	+	+	#	#	#	#

Commentary: Similar to Policies TP1, TP2 and TP3, this policy should result in positive sustainability performance across a range of indicators, but the interaction with other policies for employment provision (notably TP1, TP2, TP3 and TP10) could perhaps be identified.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP20: The Network and Hierarchy of Centres																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality					8. Housing											
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	#	#	+	+	#	#	+	++	+	#	+	#	#	#	#	#	#	++	+	++	++	#	#	+	+	#	#	+	+

Commentary: This policy is likely to result in positive sustainability impacts across a range of indicators, although the relationship with complementary policies such as TP1, TP8, TP10 and TP11 could be referenced to identify the importance of a strategic overview of the type and location of employment provision. What, for example, might be the implications of City Centre growth and how is the competition between centres such as Longbridge and Northfield likely to be managed to ensure the sustainable growth of each?

- Likelihood/Certainty:** Highly likely to be realised
- Geographical scale:** Localities and City-wide
- Temporary or Permanent:** Permanent, subject to effective implementation
- Timing:** Medium to long term

TP21: Convenience Retail Provision; TP22: Small Shops and Independent Retailing; TP23: Promoting a Diversity of Uses within Centres																															
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing																							
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing			
Assessive Score	#	#	+	#	#	#	++	++	+	#	++	#	#	#	#	#	#	++	+	++	+	+	+	+	+	+	+	+	?	+	++

Commentary: These policies are likely to have positive sustainability effects through the promotion of local economic development, and access to local services for all sectors of the population. The policies could perhaps be enhanced through reference to the promotion of sustainable neighbourhoods.

Likelihood/Certainty: Highly likely to be realised

Geographical scale: Localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium and long term

TP24: Tourism and Tourist Facilities																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality			8. Housing															
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	#	0	#	#	#	#	0?	-	-	#	++	+	+	0	#	#	0	++	+	++	#	+	+	+	#	+	++	#

Commentary: Whilst this policy will help to advance the interests of economic development across the City, and ultimately social progress through the provision of job opportunities for example, there are uncertainties as to precisely where the benefits will be most realised (City Centre?) and whether the investment should also focus on environmental enhancements which will help to broaden and reinforce the tourism 'offer'.

Likelihood/Certainty: highly likely to be realised, both positively and negatively

Geographical scale: City-centre and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Short, medium and long term

TP25: Local Employment																														
SA Theme	1. Natural Resources and Waste			2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing									
SA Objective	1. Resource Use	7. Waste Reduction & Min.		8. Efficient use of land	2. Sustainable Design		3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	+		+	+	+	+	+	++	++	+	#	+	#	#	#	#	#	#	++	++	?	#	#	+	+	#	#	#	#	

Commentary: This policy recognises the importance of securing employment opportunities in those localities most in need, as measured by the significant levels of un- and under-employment in inner city areas and edge of city estates. Addressing this issue is significant to securing sustainable development because of the range of issues typically attached to economic inactivity, including social exclusion, health problems and crime. As such the possible scores positively across a range of criteria, notwithstanding the uncertainty which needs to be attached to many of the relationships, reflecting the deep-seated nature of the causes of the problems which will, in some cases, take generations to solve.

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP26: Sustainable Neighbourhoods								
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing
SA Objective	1. Resource Use 7. Waste Reduction & Min. 8. Efficient use of land	2. Sustainable Design 3. Renewable Energy 4. Energy Efficiency 5. Sustainable Transport 6. Reduce the need to travel	9. Reduce climate change 10. Manage Climate Change	11. Manage Climate Change 12. Built and Historic Env. 13. Natural Landscape 14. Biodiversity	15. Air Quality 16. Water Quality 17. Soil Quality	18. Noise 19. Social and Env. Responsib. 20. Economy and Equality 21. Learning and Skills	22. Community Involvement 23. Equality 24. Poverty 25. Health 26. Crime 27. Housing	28. Culture/Sport/Recreation 29. Sense of Place
Assessment Score	++	++	++	++	++	++	++	++

Commentary: This policy is central to advancing the quality and robustness of new and existing communities across the City. As such the policy intention scores positively for most criteria, although there is inevitably a degree of uncertainty associated with its implementation, being a long-term and potentially investment-intensive process. However, establishing the basis for the design and location (for example in relation to sustainable transport modes) of such communities is a critical foundation for their progressive delivery, and joining up to form networks of such places over time. What the policy currently doesn't do and which might be strengthened by is reference strategies for the delivery of these aspirations, sectorally and spatially. In principle, many of the proposed regeneration areas (Aston, Bordesley, Icknield Loop, Cole Valley) could pioneer some of the initiatives, although much will depend upon available investment.

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP27: The Location of New Housing																												
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing						
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	0	#	+	+	+	+	++	++	?	?	+	+	?	?	#	#	#	+	#	+	+	+	+	+	+	+	+	++

Commentary: The policy intention to guide the location of new housing according to a range of criteria yields a generally positive sustainability assessment, reflecting prudent resource use and the opportunity to create communities which are served by public transport, and offer opportunities for access to jobs and services. Nevertheless, uncertainties exist in respect of the effectiveness of this approach to delivery and the dangers of certain sites remaining unattractive to development by virtue of their location or viability, for example.

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP28: The Housing Trajectory																												
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing						
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	-	0	?	+	+	+	+	+	?	?	?	?	?	?	#	#	#	+	#	+	+	+	+	+	+	+	+	++

Commentary: Delivery of Birmingham’s housing requirement will demand a sustained effort to meet actual and latent demand as well as the aspirations of the BDP for sustainable communities. In principle, the policy will secure positive sustainability performance across a range of criteria, although there is a degree of uncertainty attached to whether the pace of development can be sustained in light of the complexities of site character and the dynamics of the property market. See also policy GA2.

Likelihood/Certainty: Likely to be realised, both positively and negatively.

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP29: The Type, Size and Density of New Housing																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing																					
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessment Score	+	+	++	++	+	+	+	+	+	+	?	+	+	#	#	#	#	#	+	#	#	+	#	+	+	+	#	#	++

Commentary: Promoting the right kind of development is as important and targeting the right places. The policy seeks address the diverse needs of existing and changing populations, as well as recognising the problems associated with increasing the density of development in traditionally low density areas, and the need to apply adequate design considerations. The sustainability performance of the policy reflects the potential benefits of the policy for social and environmental criteria, as well as the uncertainties associated with delivery.

Likelihood/Certainty: Highly likely to be realised
Geographical scale: Localities and City-wide
Temporary or Permanent: Permanent, subject to effective implementation
Timing: Medium to long term



TP30: Affordable Housing																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing																					
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessment Score	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	+	#	#	+	+	++	++	++	++	+	#	++

Commentary: The provision of affordable housing will be central to achieving wider aspirations for community regeneration across the City as well as helping to deliver mixed communities in areas of new development. As such the policy meets a range of social sustainability criteria, although there are uncertainties over the capacity to deliver the proportion of affordable dwellings which is sought across all developments without issues of viability arising.

Likelihood/Certainty: Likely to be realised

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP31: Housing Regeneration																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality		8. Housing																				
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	+	+	++	++	+	+	+	+	+	+	?	+	+	?	#	#	#	#	+	#	#	#	+	+	+	+	+	#	++

Commentary: The strategy of promoting the regeneration and renewal of existing housing estates is fundamental to delivering the City's housing requirement but also the range of economic, social and environmental objectives which accompany housing delivery. This policy should assist this process in delivering both new and enhanced dwellings in estates across the City, as well as the causes and symptoms of decline which typify them.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP32: Student Accommodation																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing										
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	+	+	+	#	+	+	?	?	#	#	+

Commentary: Meeting the needs of specific sectors of the population such as students aids the sustainability performance of the BDP, particularly where other benefits such as economic development can be secured, in this case assisting the provision of education-related jobs and services and strong links to business development through an educated workforce.

Likelihood/Certainty: highly likely to be realised

Geographical scale: Localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP33: Provision for Gypsies, Travellers and Travelling Showpeople

SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing																						
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing		
Assessive Score	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	+	+	++?	++	++	+	#	#	+

Commentary: A structured approach to providing for the travelling community helps to meet a range of sustainability criteria, including improvements in equality of access, poverty reduction through increased opportunity and health improvement. Proposed Main Modifications in respect of this policy required the allocation of two sites which could help meet the needs of this sector of the population (see site appraisal).

Likelihood/Certainty: Likely to be realised.

Geographical scale: Localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP34: The Existing Housing Stock																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality			8. Housing													
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	+	+	+	?	?	?	+	+	+	#	+	+	#	#	#	#	#	#	#	+	+	+	+	+	?	?	?	+

Commentary: Addressing the issue of empty homes should yield a range sustainability benefits, although the complexity of the issue does mean that there is uncertainty associated with its deliver, particularly spatially where there are persistent issues.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP35: Education																													
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing																					
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing	
Assessive Score	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	++	++	#	+	+	++	++	+	++	+	++	++

Commentary: The provision of educational capacity is complex and lead by other strategies such as the Education Development Plan. Nevertheless, the contribution of the policy to realising sustainable development is significant through the economic and social benefits accruing from the adequate spatial provision of educational opportunities at all levels.

Likelihood/Certainty: Highly likely to be realised.

Geographical scale: Localities and City-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP36: Health																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality				8. Housing												
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	#	#	#	#	#	#	++	+	+	+	+	++	++	++	++	++	+	+	#	+	+	+	++	?	++	#	++	+

Commentary: This is one of the more challenging areas for policy delivery and holds the potential to realise positive social, environmental and economic benefits. As such the intentions of the policy in itself and the range of partner policies required to ensure its delivery mean that its sustainability performance is strong, albeit caveated with a degree of uncertainty over the extent and effectiveness of its implementation, reflecting the scale and complexity of the issue. The policy could be enhanced through reference to the specific context within which it is to be implement (such as through sustainable neighbourhoods (TP11)) and the development of partner strategies (such as for Green Infrastructure) to help deliver the policy.

Likelihood/Certainty: Likely to be realised.

Geographical scale: Localities and city-wide

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP37: A Sustainable Transport Network								
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing
SA Objective	1. Resource Use 7. Waste Reduction & Min. 8. Efficient use of land	2. Sustainable Design 3. Renewable Energy 4. Energy Efficiency 5. Sustainable Transport 6. Reduce the need to travel 9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env. 13. Natural Landscape 14. Biodiversity	15. Air Quality 16. Water Quality 17. Soil Quality	18. Noise 20. Economy and Equality 21. Learning and Skills	11. Sense of Place 19. Social and Env. Responsib. 22. Community Involvement 23. Equality 24. Poverty 25. Health 26. Crime	27. Housing 28. Culture/Sport/Recreation
Assessment Score	+ #	++ ++ ++ ++ ++ ++ +	#	+ +	# #	++ ++ ++ +	+ ++ ++ ++ ++ ++ +	+ #

Commentary: Changing the way in which people travel through modal shift and investment in network improvements is likely to contribute positively to a wide range of sustainability objectives, creating a more sustainable environment through lowering emissions, for example, contributing to economic development through more efficient connectivity and social progress through greater community engagement with the way in which travel is undertaken. The role of Sustainable Neighbourhoods in helping to realise this policy is likely to be critical.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide, and in specific localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



TP38: Walking																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality				8. Housing												
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	++	#	++	++	++	++	++	++	+	#	+	+	#	++	#	#	++	#	#	+	++	+	+	+	++	#	+	#

Commentary: As with Policies TP3 and TP5, the potential benefits of encouraging and creating the conditions for more walking activity are wide-ranging and could make a fundamental contribution to making Birmingham a more sustainable City.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide, and in specific localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP39: Cycling																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity		5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality				8. Housing												
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	++	#	++	++	++	++	++	++	+	#	+	+	#	++	#	#	++	#	#	+	++	+	+	+	++	#	+	#

Commentary: As with Policies TP3 and TP4, the potential benefits of encouraging and creating the conditions for more walking activity are wide-ranging and could make a fundamental contribution to making Birmingham a more sustainable City.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide, and in specific localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP40: Public Transport																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions						3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing						
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	+	#	++	++	++	++	++	++	+	#	+	+	#	+	#	#	+	++	+	+	++	+	+	+	++	#	+	#

Commentary: The provision and enhancement of public transport is fundamental to realising a more sustainable form and function to the City, and as such a policy to promote investment in network improvements should yield a wide range of sustainability benefits. Proposed Main Modifications to the Plan included identification of additional Sprint/Rapid Transit routes is to ensure that the BDP is aligned with the transport strategy contained within the 'Birmingham Connected' (previously Birmingham Mobility Action Plan) document. These are key routes which have been identified as having the potential for higher capacity public transport to help meet the aspiration for the creation of a genuinely integrated mass transit system in order to reduce congestion and address sustainability concerns across the city. There is no specific timescale for the delivery of individual routes.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide, and in specific localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP41: Freight																												
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions				3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing						
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessment Score	+	#	+	0	0	?	?	0	+	#	#	#	#	+	#	#	+	++	#	#	#	#	#	#	#	#	#	#

Commentary: Enhancement of the City's capacity and efficiency in handling freight should on balance have neutral or positive effects on sustainability objectives, although in some respects these are uncertain and dependent upon implementation and the characteristics of the receiving areas for significant development.

- Likelihood/Certainty:** Likely to be realised
- Geographical scale:** City-wide, and in specific localities
- Temporary or Permanent:** Permanent, subject to effective implementation
- Timing:** Medium to long term

TP42: Low Emission Vehicles																												
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions		3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality							8. Housing									
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	++	++	#	#	+	+	++	0	+	+	+	#	+	++	+	#	+	+	+	+	+	#	#	#	+	#	#	#

Commentary: The promotion of low-emission vehicles and associated infrastructure presents the opportunity to make a bold statement of the intentions of the City to directly address CO2 emissions and also demonstrate how transport within the City can be moved onto a more sustainable footing more generally through changes in travel behaviour including choice of vehicle. This is clearly a long term project, particularly in terms of infrastructure provision, but represents the start of wider changes, which could include economic opportunities given Birmingham's manufacturing strengths.

- Likelihood/Certainty:** Likely to be realised
- Geographical scale:** City-wide, and in specific localities
- Temporary or Permanent:** Permanent, subject to effective implementation
- Timing:** Medium to long term

TP43: Traffic Congestion and Management																												
SA Theme	1. Natural Resources and Waste		2. CO ₂ emissions			3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity			5. Pollution			6. Economic growth	7. Communities, healthy lifestyles and equality						8. Housing								
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
Assessive Score	?	#	+	+	#	#	+	?	0	#	?	?	?	0	#	#	?	++	#	?	+	+	+	+	?	#	#	+

Commentary: The sustainability effects of this policy are likely to be variable, where there are important economic benefits to be gained from more efficient movement around the City, but potential environmental issues associated with enabling more traffic to use existing roads such as impacts on air quality. The policy could benefit from cross-referencing with other Policies such as TP11: Sustainable Neighbourhoods and the range of policies on encouraging sustainable transport.

Likelihood/Certainty: Likely to be realised
Geographical scale: City-wide, and in specific localities
Temporary or Permanent: Permanent, subject to effective implementation
Timing: Medium to long term

TP44: Accessibility Standards for New Development																															
SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing																							
SA Objective	1. Resource Use	7. Waste Reduction & Min.	8. Efficient use of land	2. Sustainable Design	3. Renewable Energy	4. Energy Efficiency	5. Sustainable Transport	6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Equality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Responsib.	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing			
Assessive Score	#	#	#	++	#	#	++	++	+	#	+	#	#	+	#	#	+	++	++	++	++	+	++	++	++	++	++	++	++	++	++

Commentary: By ensuring that new development is well located in respect of community services, a significant positive contribution to sustainable development objectives across environmental, economic and social themes is likely. Implementation of the policy will be of particular importance in realising Sustainable Neighbourhoods and to this end cross-referencing to Policy TP11 would be helpful in demonstrating an integrated approach.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide, and in specific localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term

TP45: Digital Communications

SA Theme	1. Natural Resources and Waste	2. CO ₂ emissions	3. Climate change adapt.	4. Historic environment, landscape, biodiversity and geodiversity	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing
SA Objective	1. Resource Use 7. Waste Reduction & Min. 8. Efficient use of land	2. Sustainable Design 3. Renewable Energy 4. Energy Efficiency 5. Sustainable Transport 6. Reduce the need to travel	9. Reduce climate change	10. Manage Climate Change	11. Built and Historic Env. 12. Natural Landscape 13. Biodiversity	14. Air Quality 15. Water Quality 16. Soil Quality 17. Noise	18. Economy and Equality 19. Learning and Skills 20. Sense of Place 21. Social and Env. Responsib. 22. Community Involvement 23. Equality 24. Poverty 25. Health 26. Crime	27. Housing 28. Culture/Sport/Recreation
Assessment Score	+	#	#	#	#	#	#	#

Commentary: Enhancement of the City's IT infrastructure is fundamental to economic development, but could also yield wider benefits in terms of social inclusion and the creation of more self-contained neighbourhoods where commuting is reduced for example, and more people have greater opportunities to access on-line information.

Likelihood/Certainty: Likely to be realised

Geographical scale: City-wide, and in specific localities

Temporary or Permanent: Permanent, subject to effective implementation

Timing: Medium to long term



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Appendix B

Appraisal of differing scales of a Sustainable Urban Extension

Appraisal Criteria

SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Appraisal Criteria
1. Natural resources and waste	1. Resource Use: Use natural resources such as water and minerals efficiently.	<ul style="list-style-type: none"> Incorporate energy efficiency measures into new land use and developments, redevelopment and refurbishment? Promote and support resource efficient technologies? Reward efficient resource use? Reduce water consumption? 	Assumed to be part of good design
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	<ul style="list-style-type: none"> Divert resources away from the waste stream, including the use of recycled materials where possible? 	<ul style="list-style-type: none"> Are there opportunities to contribute to waste recycling either on- or off-site?
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	<ul style="list-style-type: none"> Encourage the efficient use of land and minimise the loss of greenfield land? Value and protect the biodiversity/geodiversity (of previously developed land and buildings)? 	<ul style="list-style-type: none"> Is the site located on greenfield land?
2. CO2 emissions	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	<ul style="list-style-type: none"> Reduce dependence on fossil fuels? Increase the number of buildings which meet recognised standards for sustainability? 	Assumed to be part of good design
	3. Renewable Energy: Encourage development of alternative and renewable resources.	<ul style="list-style-type: none"> Reduce dependence on fossil fuels? Promote and support the development of new high value and low impact technologies, especially resource efficient technologies and environmental technology initiatives? Increase the proportion of energy generated from renewable and low carbon sources, including micro 	<ul style="list-style-type: none"> Are there opportunities to contribute to the use of renewable energy generation either on- or off-site?

SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Appraisal Criteria
		generation, CHP, district heating and transportation?	
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	<ul style="list-style-type: none"> Reduce energy consumption? 	Assumed to be part of good design
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	<ul style="list-style-type: none"> Reduce road traffic congestion, pollution and accidents? Encourage walking and cycling? Reduce travel by private car? Promote accessibility for disabled people? 	<ul style="list-style-type: none"> Is the site within walking distance (800 metres) of an existing public transport node? Is the site likely to require/include new infrastructure to support the use of sustainable methods of travel?
	6. Reduce the need to travel: Ensure development reduces the need to travel.	<ul style="list-style-type: none"> Reduce traffic volumes? Reduce average journey length? 	
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	<ul style="list-style-type: none"> Reduce emissions of greenhouse gases by reducing energy consumption? 	
3. Climate change adaptation	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	<ul style="list-style-type: none"> Minimise the risk of flooding from rivers and watercourses to people and property? Reduce the risk of damage to property from storm events? Protect, enhance and extend green infrastructure resources? Address climate change adaptation for biodiversity fragmentation? 	<ul style="list-style-type: none"> Is the site within flood risk zone 2, 3a / b? Is the site likely to increase flood risk elsewhere? Is the site at risk of flooding from other sources? Is there capacity on site for mitigation measures e.g. green infrastructure?
4. Historic environment, landscape, biodiversity and geodiversity	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	<ul style="list-style-type: none"> Protect and enhance features of built and historic environment and landscape? 	<ul style="list-style-type: none"> Is the site in proximity to (including its setting): Scheduled Monument, Listed Building, Conservation Area, Historic Park or Garden, or other historic or cultural feature?
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	<ul style="list-style-type: none"> Safeguard and enhance the character of the local landscape and local distinctiveness? Improve the landscape quality and character of the countryside? 	<ul style="list-style-type: none"> Is the site in proximity to designated landscape areas?

SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Appraisal Criteria
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	<ul style="list-style-type: none"> Use approaches that improve the resilience of natural systems such as linking fragmented habitats where possible? Conserve and enhance natural/semi-natural habitats and conserve and enhance species diversity? Lead to habitat creation delivering BAP priorities? 	<ul style="list-style-type: none"> Is the site in proximity to SSSI, NNR, LNR, Ancient Woodland, or other sensitive designated or non-designated receptors?
5. Pollution	15. Air Quality: Minimise air pollution levels and create good quality air.	<ul style="list-style-type: none"> Improve air quality? Reduce CO2 emissions? 	<ul style="list-style-type: none"> Will the local road networks experience a significant increase in traffic or emissions or congestion as a result of the new development?
	16. Water Quality: Minimise water pollution levels and create good quality water.	<ul style="list-style-type: none"> Improve water quality? 	<ul style="list-style-type: none"> Are any vulnerable water bodies within the proximity of the site? Is the site within a ground water protection zone?
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	<ul style="list-style-type: none"> Maintain and enhance soil quality? Minimise the loss of soils to development? 	<ul style="list-style-type: none"> Will the development lead to the loss, or compromise the quality, of soil?
	18. Noise: Minimise noise pollution levels.	<ul style="list-style-type: none"> Cause noise pollution? Propose mitigation measures to minimise noise pollution? 	<ul style="list-style-type: none"> Is development of the site likely to significantly increase ambient noise levels?
6. Economic growth	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	<ul style="list-style-type: none"> Encourage and support a culture of enterprise and innovation, including social enterprise? Improve business development and enhance competitiveness? Promote growth in key sectors? Reduce unemployment, especially amongst disadvantaged groups? 	<ul style="list-style-type: none"> For major developments, will the development provide opportunities for job creation? Will the development encourage retail and business diversity? Does the site allow for mixed use development and multiple use spaces?
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	<ul style="list-style-type: none"> Ensure that Birmingham's workforce is equipped with the skills to access high quality employment opportunities suited to the changing needs of Birmingham's economy whilst recognising the value and contribution of unpaid work? 	
7. Communities, healthy lifestyles and equality	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage	<ul style="list-style-type: none"> Improve the satisfaction of a diverse range of people with the neighbourhoods where they live? 	<ul style="list-style-type: none"> Will new development require infrastructure improvements (utilities, roads, schools, greenspace) to support it? Is development on the site likely to contribute to sense of place?

SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Appraisal Criteria
	biodiversity, and promote local distinctiveness and sense of place.		
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	<ul style="list-style-type: none"> • Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? • Encourage good employee relations and management practices? • Encourage ethical trading? 	Assumed to be part of good design
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	<ul style="list-style-type: none"> • Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? • Encourage engagement in community activities for example through the establishment of social and cultural facilities that address the needs of equalities groups? • Increase the ability of people to influence decisions? 	Assumed to be part of good design
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	<ul style="list-style-type: none"> • Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation? • Ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location? 	<ul style="list-style-type: none"> • Is the site located within an area of high deprivation? Does the site provide for mixed use development? • Will the site be located within 800 metres of a primary school / within 4.8km of a secondary school? • Does the size of the development trigger the need for additional places in post-sixteen education? • Does the site include, where required, provision for new educational facilities? • Will the site be located within 800 metres of healthcare facilities? • Will the site be within walking and cycling distance of natural greenspace?
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	<ul style="list-style-type: none"> • Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation? • Reduce household poverty, especially the proportion of children living in poor households? 	
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	<ul style="list-style-type: none"> • Help provide equitable access to health services? • Provide sufficient areas of accessible natural greenspace? 	
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	<ul style="list-style-type: none"> • Reduce crime? • Reduce the fear of crime amongst all social and cultural groups? 	Assumed to be part of good design



SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Appraisal Criteria
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	<ul style="list-style-type: none"> Encourage participation in sport and cultural activities for all the diverse communities in Birmingham? 	<ul style="list-style-type: none"> Is there convenient access to sport, recreation and cultural facilities?
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	<ul style="list-style-type: none"> Reduce homelessness? Increase the range and affordability of housing for all social and cultural I groups? Reduce the number of unfit homes? 	<ul style="list-style-type: none"> Is the site/proposal of adequate size to trigger delivery of affordable housing? Will housing be supported by key services, employment, open space and/or other facilities on site?

The scoring of performance is as follows:

SIGNIFICANCE ASSESSMENT	DESCRIPTION
++	Likely to be very sustainable and contribute significantly to the SA Objective
+	Likely to be sustainable and contribute to the SA Objective
?	Uncertain impacts on the SA Objective
0	Neutral - option is unlikely to impact on the SA Objective
-	Likely to be unsustainable and have minor adverse impacts on the SA Objective
--	Likely to be very unsustainable and have a significant adverse impacts on the SA Objective
#	No clear relationship

SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	0	Opportunities for sustainable construction, plus advantage of on-site mineral extraction if viable.	0	Opportunities for sustainable construction, plus advantage of on-site mineral extraction if viable.	0	Opportunities for sustainable construction, plus advantage of on-site mineral extraction if viable.	0	Opportunities for sustainable construction, plus advantage of on-site mineral extraction if viable
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	0	Some opportunities for waste recycling facilities	+	Opportunities for large scale waste recycling facilities	+	Opportunities for large scale waste recycling facilities	+	Opportunities for large scale waste recycling facilities which are scalable
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	-	Greenfield	-	Greenfield	--	Greenfield - additional land-take	--	Greenfield - additional land-take
2. CO ₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible	+	Opportunities for design innovation and consistent implementation via design code/masterplan	+	Opportunities for design innovation and consistent implementation via design code/masterplan	+	Opportunities for design innovation and consistent implementation via design code/masterplan	+	Opportunities for design innovation and consistent implementation via design code/masterplan.

SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
	exceeding the requirements of the Building Regulations.								
	3. Renewable Energy: Encourage development of alternative and renewable resources.	+	Scale might support on-site renewables such as Combined Heat and Power/District Heating	++	Scale should support on-site renewables such as Combined Heat and Power/District Heating	++	Scale should support on-site renewables such as Combined Heat and Power/District Heating	++	Scale should support on-site renewables such as Combined Heat and Power/District Heating
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	+	Opportunities for design innovation and utilisation of renewable energy technology	+	Opportunities for design innovation and utilisation of renewable energy technology	+	Opportunities for design innovation and utilisation of renewable energy technology	+	Opportunities for design innovation and utilisation of renewable energy technology
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	-	Pressure on existing infrastructure and unlikely to deliver step-change in modal shift	+	Good design will encourage sustainable transport modes such as Light Rapid Transit and a network of cycleways/footways connected to, and reinforcing, links to existing service provision.	+	Good design will encourage sustainable transport modes such as Light Rapid Transit and a network of cycleways/footways connected to, and reinforcing, links to existing service provision, but uncertainty if site is fragmented.	0?	As for 5,000, but risk of non-delivery of a critical mass of housing that would trigger the required level of infrastructure, placing pressure on existing provision ⁵⁶ . Design, costing and impacts of additional transport infrastructure provision for this scale of development

⁵⁶ See: Peter Brett Associates (June 2014) Sutton Coldfield Green Belt Sites, Phase 2 Report of Study paras 5.10-5.17 and commentary below.



SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
									unknown at this stage.
	6. Reduce the need to travel: Ensure development reduces the need to travel.	-	Self-containment unlikely.	+	Opportunities for mixed use self-containment, such as access to schools, shops and other services.	+	Opportunities for mixed use self-containment, such as access to schools, shops and other services.	+	Opportunities for mixed use self-containment but dependent upon infrastructure phasing and hence risk of partial delivery, leading to potential for use of off-site facilities requiring more travel.
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	-?	Off-site travel dominates.	0	Carbon emissions minimised through design and functioning although car-based travel could contribute to emissions.	0?	Carbon emissions minimised through design and functioning although car-based travel could contribute to emissions, particularly if development is not contiguous.	-	As for 5,000, but CO2 emissions will be higher due to scale of development. Design, costing and impacts of additional transport infrastructure provision unknown at this stage.

SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	+	Opportunities to design in climate change mitigation and adaptation measures.	+	Opportunities to design in climate change mitigation and adaptation measures.	+	Opportunities to design in climate change mitigation and adaptation measures.	+	Opportunities to design in climate change mitigation and adaptation measures.
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	0	Impacts on historic environment, with greater opportunity to minimise impacts by selecting a less-sensitive area.	0	Impacts on historic environment, with greater opportunity to minimise impacts by selecting a less-sensitive area.	-	Additional impact through requirement to take areas with higher value assets.	-	Additional impact through requirement to take areas with higher value assets.
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	0	Impacts on historic environment, with greater opportunity to minimise impacts by selecting a less-sensitive area.	0	Impacts on historic environment, with greater opportunity to minimise impacts by selecting a less-sensitive area.	-	Greater impact through requirement to take areas with higher value assets.	-	Greater impact through requirement to take areas with higher value assets.
	14. Biodiversity: Value, protect, maintain, restore and re-create local	0	Opportunities to enhance and create habitats through green	0	Opportunities to enhance and create habitats through green	-	Cumulative impacts despite opportunities to enhance and	-	Cumulative impacts despite opportunities to enhance and

SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
	biodiversity and geodiversity.		infrastructure provision.		infrastructure provision.		create habitats through green infrastructure provision.		create habitats through green infrastructure provision.
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	-?	Unlikely to deliver critical mass required for public transport provision.	+	Opportunities for pollution minimisation through public transport provision, green infrastructure provision etc.	+	Opportunities for pollution minimisation through public transport provision, green infrastructure provision etc, although uncertainty over delivery.	0?	Opportunities for pollution minimisation through public transport provision, green infrastructure provision etc., but scale of development will generate more air pollution.
	16. Water Quality: Minimise water pollution levels and create good quality water.	+	Addressed as part of good design.	+	Addressed as part of good design.	+	Addressed as part of good design.	+	Addressed as part of good design.
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	+	Addressed as part of good design.	+	Addressed as part of good design.	+	Addressed as part of good design.	+	Addressed as part of good design.
	18. Noise: Minimise noise pollution levels.	+	Addressed as part of good design.	+	Addressed as part of good design.	+	Addressed as part of good design.	+	Addressed as part of good design.
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's	+	Residential-led development, but construction jobs and local workforce to meet economic growth.	+	Residential-led development, but construction jobs and local workforce to meet economic growth.	++	Residential-led development, but construction jobs and local workforce to meet economic growth.	++	Residential-led development, but construction jobs and availability of a greater local workforce to meet economic growth.

SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
	inhabitants.								
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	+	Residential-led development, but construction jobs.	+	Residential-led development, but construction jobs.	+	Residential-led development, but construction jobs.	+	Residential-led development, but construction jobs.
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	0	Limits to delivering sense of place at this scale.	+	Addressed as part of good design.	+?	Good design, but risk of partial delivery resulting in diminished sense of place.	+?	Good design, but risk of partial delivery resulting in diminished sense of place.
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	+	Some opportunities to establish community-led management structures such as for green infrastructure or community support.	++	Opportunities to establish community-led management structures such as for green infrastructure or community support.	++	Opportunities to establish community-led management structures such as for green infrastructure or community support.	++	Opportunities to establish community-led management structures such as for green infrastructure or community support.

SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	#	No relationship identified.	#	No relationship identified.	#	No relationship identified.	#	No relationship identified.
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	-	Unlikely to deliver jobs and services required to ensure equality of access, particularly for key services such as education and health.	+	Service delivery planned to ensure equality of access, particularly for education provision.	+	Service delivery planned to ensure equality of access, particularly for education provision.	++?	As for 5,000 dwellings but potential risk of new infrastructure being delayed leading to loss of opportunities for provision.
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	0	Unlikely to deliver jobs and services required to ensure equality of access	+	Service delivery planned to ensure equality of access.	+	Service delivery planned to ensure equality of access.	++?	As for 5,000 dwellings but potential risk of new infrastructure being delayed leading to loss of opportunities for provision.
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	+	Limited opportunity to masterplan for significant green spaces.	++	Masterplanning to provide opportunities for health improvement through green spaces and leisure provision.	++	Masterplanning to provide opportunities for health improvement through green spaces and leisure provision.	+++?	As for 5,000 dwellings but potential risk of new infrastructure being delayed leading to loss of opportunities for provision.
	26. Crime: Reduce crime, fear of crime and	#		#	No relationship identified.	#		#	No relationship identified.

SA THEME	SA OBJECTIVES	FROM 500 TO 3,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 5,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	AROUND 7,500 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY	UP TO 10,000 DWELLINGS SIGNIFICANCE ASSESSMENT	COMMENTARY
	antisocial behaviour.								
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	+	Limited opportunity to masterplan for significant green spaces.	++	Masterplanning to provide opportunities for health improvement through green spaces and leisure provision.	++	Masterplanning to provide opportunities for health improvement through green spaces and leisure provision.	++?	As for 5,000 units but potential risk of new infrastructure being delayed leading to loss of opportunities for provision.
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	+	Will provide affordable housing resources in line with BCC policy.	+	Will provide affordable housing resources in line with BCC policy.	+	Will provide affordable housing resources in line with BCC policy.	++?	Will provide significant affordable housing resources, but uncertainties over delivery and hence securing an appropriate housing mix.

Whilst the development scenarios share some common aspects of their sustainability performance, there are a number of significant differentiating characteristics these being:

- ▶ A larger development (i.e. around 7,500 dwellings and up to 10,000 dwellings) will take more sensitive land (i.e. greenfield land with cumulative impacts on landscape, biodiversity and historic environment resources).
- ▶ A larger development will yield greater economic benefits to Birmingham through a larger workforce and household expenditure, and greater opportunities for the provision of affordable housing.
- ▶ There is an absence of any evidence which shows how the traffic impacts from a larger development could be accommodated on the current road network. No agreement with the Highways Agency has been reached in respect of a larger scheme creating considerable uncertainty over the traffic impacts of a larger development. The design, costing and impacts of additional transport infrastructure provision of larger schemes are unknown at this stage. The proximity of some of the option areas (e.g. B and C) could mean that the cumulative effects on, for example, highway

infrastructure would be severe and/or would necessitate a greater range of interventions than if the areas were more remote from one another⁵⁷. Equally, the economies of scale associated with the provision of infrastructure would not be realised through two geographically separate areas (e.g. C and D or C and A).

- ▶ Evidence on housing delivery rates⁵⁸ suggests that a larger site (i.e. around 7,500 and up to 10,000 dwellings) would fail to deliver sufficient volumes of housing at the right time to provide adequate infrastructure, specifically: *“The inevitable consequence of [a] slower rate of delivery would be that trigger points for the provision of infrastructure would not be reached as per the anticipated trajectory. There is a risk that [the proposed option] would not deliver the critical mass of housing to trigger infrastructure provision if additional options were allocated. This would mean that provision of new infrastructure would be delayed and the pressure on existing infrastructure, whether roads utilities or schools, as capacity is neared would become significant.”* (PBA, 2014, para 5.11). The infrastructure delivery issue is important in light of the need to carefully consider realistic market delivery rates of new housing⁵⁹. The provision of secondary school places in particular is of critical significance in this area where existing schools are at capacity and have already undergone a round of expansion⁶⁰. Any new development would have to provide a secondary school of sufficient capacity to accommodate the additional pupils generated by the development, a scale which needs to be at least 4,000 dwellings⁶¹. Developments currently being planned and delivered elsewhere (for example at Leicester, Blaby, Ashford, Peterborough and Taunton) suggests that this threshold is being applied to new developments.
- ▶ The greater risk that not all the proposed housing associated with a larger scheme would be developed within a reasonable timescale is likely to result in key infrastructure and services not being delivered promptly or even not at all. In turn this is likely to result in negative sustainability effects relating to, for example, the availability of sustainable transport⁶², consequent impacts on travel reduction, CO2 emissions and air quality, and potential disadvantage to those on lower incomes who are more likely to rely on public transport and local service provision⁶³. Equally, a

⁵⁷ Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (paras 5.10-5.17)

⁵⁸ Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (paras 5.11-5.12)

⁵⁹ See Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (paras 4.12-4.20) for refutation of unrealistically high delivery rates proposed by Savills. The delivery rates proposed by Savills were “substantially above” those provided by PBA who note that “in our experience, nowhere nationally within a similar size area as the Sutton Coldfield Green Belt ‘arc’ has the private development market delivered at anywhere near even the ‘conservative’ rates identified by Savills” (para 4.12). In addition, whilst “it is correct to note that there has been a limited land supply of big greenfield sites of estate housing ... it is wrong to suggest that simply allocating land would result in the market instantly delivering at maximum theoretical capacity” (para 4.14).

⁶⁰ See Birmingham City Council (February 2015) Birmingham Education Sufficiency Requirements 2014 - 2019

⁶¹ See TCPA (2007) Best Practice in Urban Extensions and New Settlements “A place needs to be large enough to support a secondary school. This means the number of homes will be in the range 4,000 – 5,000 at least.”

⁶² Phil Jones Associates (2013) Birmingham Development Plan: Transport Analysis of Green Belt Options, para 4.4.3 “the existing public transport network does not penetrate any of the development sites, and in its current route pattern will not be able to meet the needs of the potential urban extensions. It is considered that that this scale of development would merit a step-change in public transport provision to meet overall transport sustainability aims; a purely incremental adaptation of the current public transport offer is considered inappropriate to meeting the City’s overall development aims.”

⁶³ Phil Jones Associates (2013) Birmingham Development Plan: Transport Analysis of Green Belt Options, para 3.3.1 “All developments require supporting facilities and services, and these should be located within a reasonable journey time. Larger developments may contain these services on site as secondary land uses and therefore be more self-sufficient, and, as journeys will naturally be shorter, they become sustainable.”



smaller scheme (or schemes) (i.e. 500 to 3,000 dwellings) are unlikely to be able to deliver sufficient new infrastructure to off-set the burden placed on existing provision by additional development⁶⁴.

- ▶ Concentrating development at one location would be more predictable with the provision of new infrastructure linked to specific trigger points within the phasing of delivery⁶⁵. A development of around 5,000 dwellings in a single location is preferable over a series of small sites because of the ability to deliver supporting infrastructure as part of a single masterplan which can be appropriately phased.

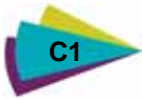
In light of the above, the overall conclusion is that an extension of around 5,000 dwellings in this location is more sustainable. The demands on infrastructure provision associated with a development of around 7,500 and up to 10,000 dwellings, uncertainties over new infrastructure provision and additional impacts on land of higher environmental value land (greenfield, landscape and cultural heritage areas) would compromise its sustainability performance. Equally a smaller development (or developments) of 500 to 3,000 dwellings are of insufficient scale to deliver key infrastructure (notably education and public transport) which would contribute to them being relatively self-contained.

⁶⁴ This point was also raised by numerous respondents to the consultation on the emerging BDP.

⁶⁵ Peter Brett Associates (June 2014) Sutton Coldfield Green Belt sites, Phase 2 Report of Study (para 5.17)



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Appendix C

Appraisal of proposed housing sites

This Appendix sets out the appraisal of sites which are intended to provide housing, employment and retail growth outside the Growth Areas which have been appraised separately (which account for around 13,000 dwellings and are principally located on brownfield land). Eight sustainability themes (grouping Sustainability Objectives) are used to appraise the performance of sites.

Summary of Development Proposals in the Growth Areas

Area	Housing (dwellings)	Office (m ²)	Retail (m ²)	Employment Sites (ha)
Growth Areas				
City Centre	12,800	700,000	160,000	0
Greater Icknield	3,000	0	0	0
Aston, Newtown & Lozells AAP	700	10,000	20,000	20
Sutton Coldfield	0	20,000	30,000	0
Sustainable Urban Extension	6,000	0	0	0
Peddimore	0	0	0	80
Bordesley Park AAP	750	0	0	30
Eastern Triangle	1,000	5,000	15,000	0
Selly Oak and South Edgbaston	700	10,000	25,000	0
Longbridge AAP	1,450	10,000	20,000	25
Total	26,400	755,000	270,000	155

Site Appraisal Criteria

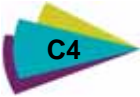
SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Site Appraisal Criteria
1. Natural resources and waste	1. Resource Use: Use natural resources such as water and minerals efficiently.	<ul style="list-style-type: none"> Incorporate energy efficiency measures into new land use and developments, redevelopment and refurbishment? Promote and support resource efficient technologies? 	Assumed to be part of good design



SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Site Appraisal Criteria
		<ul style="list-style-type: none"> Reward efficient resource use? Reduce water consumption? 	
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	<ul style="list-style-type: none"> Divert resources away from the waste stream, including the use of recycled materials where possible? 	<ul style="list-style-type: none"> Are there opportunities to contribute to waste recycling either on- or off-site?
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	<ul style="list-style-type: none"> Encourage the efficient use of land and minimise the loss of greenfield land? Value and protect the biodiversity/geodiversity (of previously developed land and buildings)? 	<ul style="list-style-type: none"> Is the site located on greenfield land?
2. CO2 emissions	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	<ul style="list-style-type: none"> Reduce dependence on fossil fuels? Increase the number of buildings which meet recognised standards for sustainability? 	Assumed to be part of good design
	3. Renewable Energy: Encourage development of alternative and renewable resources.	<ul style="list-style-type: none"> Reduce dependence on fossil fuels? Promote and support the development of new high value and low impact technologies, especially resource efficient technologies and environmental technology initiatives? Increase the proportion of energy generated from renewable and low carbon sources, including micro generation, CHP, district heating and transportation? 	<ul style="list-style-type: none"> Are there opportunities to contribute to the use of renewable energy generation either on- or off-site?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	<ul style="list-style-type: none"> Reduce energy consumption? 	Assumed to be part of good design
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	<ul style="list-style-type: none"> Reduce road traffic congestion, pollution and accidents? Encourage walking and cycling? Reduce travel by private car? Promote accessibility for disabled people? 	<ul style="list-style-type: none"> Is the site within walking distance (800 metres) of an existing public transport node? Is the site likely to require/include new infrastructure to support the use of sustainable methods of travel?
	6. Reduce the need to travel: Ensure development reduces the need to travel.	<ul style="list-style-type: none"> Reduce traffic volumes? Reduce average journey length? 	
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing	<ul style="list-style-type: none"> Reduce emissions of greenhouse gases by reducing energy consumption? 	



SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Site Appraisal Criteria
	emissions of greenhouse gases from transport, domestic, commercial and industrial sources.		
3. Climate change adaptation	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	<ul style="list-style-type: none"> Minimise the risk of flooding from rivers and watercourses to people and property? Reduce the risk of damage to property from storm events? Protect, enhance and extend green infrastructure resources? Address climate change adaptation for biodiversity fragmentation? 	<ul style="list-style-type: none"> Is the site within flood risk zone 2, 3a / b? Is the site likely to increase flood risk elsewhere? Is the site at risk of flooding from other sources? Is there capacity on site for mitigation measures e.g. green infrastructure?
4. Historic environment, landscape, biodiversity and geodiversity	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	<ul style="list-style-type: none"> Protect and enhance features of built and historic environment and landscape? 	<ul style="list-style-type: none"> Is the site in proximity to (including its setting): Scheduled Monument, Listed Building, Conservation Area, Historic Park or Garden, or other historic or cultural feature?
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	<ul style="list-style-type: none"> Safeguard and enhance the character of the local landscape and local distinctiveness? Improve the landscape quality and character of the countryside? 	<ul style="list-style-type: none"> Is the site in proximity to designated landscape areas?
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	<ul style="list-style-type: none"> Use approaches that improve the resilience of natural systems such as linking fragmented habitats where possible? Conserve and enhance natural/semi-natural habitats and conserve and enhance species diversity? Lead to habitat creation delivering BAP priorities? 	<ul style="list-style-type: none"> Is the site in proximity to SSSI, NNR, LNR, Ancient Woodland, or other sensitive designated or non-designated receptors?
5. Pollution	15. Air Quality: Minimise air pollution levels and create good quality air.	<ul style="list-style-type: none"> Improve air quality? Reduce CO2 emissions? 	<ul style="list-style-type: none"> Will the local road networks experience a significant increase in traffic or emissions or congestion as a result of the new development?
	16. Water Quality: Minimise water pollution levels and create good quality water.	<ul style="list-style-type: none"> Improve water quality? 	<ul style="list-style-type: none"> Are any vulnerable water bodies within the proximity of the site? Is the site within a ground water protection zone?
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	<ul style="list-style-type: none"> Maintain and enhance soil quality? Minimise the loss of soils to development? 	<ul style="list-style-type: none"> Will the development lead to the loss, or compromise the quality, of soil?
	18. Noise: Minimise noise pollution levels.	<ul style="list-style-type: none"> Cause noise pollution? Propose mitigation measures to minimise noise pollution? 	<ul style="list-style-type: none"> Is development of the site likely to significantly increase ambient noise levels?
6. Economic growth	20. Economy and Equality: Achieve a strong, stable and sustainable economy and	<ul style="list-style-type: none"> Encourage and support a culture of enterprise and innovation, including social enterprise? 	<ul style="list-style-type: none"> For major developments, will the development provide opportunities for job creation?



SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Site Appraisal Criteria
	prosperity for the benefit of all of Birmingham's inhabitants.	<ul style="list-style-type: none"> Improve business development and enhance competitiveness? Promote growth in key sectors? Reduce unemployment, especially amongst disadvantaged groups? 	<ul style="list-style-type: none"> Will the development encourage retail and business diversity? Does the site allow for mixed use development and multiple use spaces?
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	<ul style="list-style-type: none"> Ensure that Birmingham's workforce is equipped with the skills to access high quality employment opportunities suited to the changing needs of Birmingham's economy whilst recognising the value and contribution of unpaid work? 	
7. Communities, healthy lifestyles and equality	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	<ul style="list-style-type: none"> Improve the satisfaction of a diverse range people with the neighbourhoods where they live? 	<ul style="list-style-type: none"> Will new development require infrastructure improvements (utilities, roads, schools, greenspace) to support it? Is development on the site likely to contribute to sense of place?
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	<ul style="list-style-type: none"> Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? Encourage good employee relations and management practices? Encourage ethical trading? 	Assumed to be part of good design
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	<ul style="list-style-type: none"> Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? Encourage engagement in community activities for example through the establishment of social and cultural facilities that address the needs of equalities groups? Increase the ability of people to influence decisions? 	Assumed to be part of good design
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	<ul style="list-style-type: none"> Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation? Ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location? 	<ul style="list-style-type: none"> Is the site located within an area of high deprivation? Does the site provide for mixed use development? Will the site be located within 800 metres of a primary school / within 4.8km of a secondary school? Does the size of the development trigger the need for additional places in post-sixteen education?
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	<ul style="list-style-type: none"> Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by 	<ul style="list-style-type: none"> Does the site include, where required, provision for new educational facilities? Will the site be located within 800 metres of healthcare facilities?

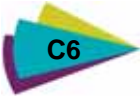


SA Theme	SA Objectives	Guide Questions: will the Birmingham Development Plan help to ...	Site Appraisal Criteria
		<ul style="list-style-type: none"> environmental damage and degradation? Reduce household poverty, especially the proportion of children living in poor households? 	<ul style="list-style-type: none"> Will the site be within walking and cycling distance of natural greenspace?
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	<ul style="list-style-type: none"> Provide equitable access to health services? Provide sufficient areas of accessible natural greenspace? 	
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	<ul style="list-style-type: none"> Reduce crime? Reduce the fear of crime amongst all social and cultural groups? 	Assumed to be part of good design
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	<ul style="list-style-type: none"> Encourage participation in sport and cultural activities for all the diverse communities in Birmingham? 	<ul style="list-style-type: none"> Is there convenient access to sport, recreation and cultural facilities?
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	<ul style="list-style-type: none"> Reduce homelessness? Increase the range and affordability of housing for all social and cultural groups? Reduce the number of unfit homes? 	<ul style="list-style-type: none"> Is the site/proposal of adequate size to trigger delivery of affordable housing? Will housing be supported by key services, employment, open space and/or other facilities on site?

SITE/AREA ASSESSMENT

The scoring of site performance is as follows:

SIGNIFICANCE ASSESSMENT	DESCRIPTION
++	Likely to be very sustainable and contribute significantly to the SA Objective
+	Likely to be sustainable and contribute to the SA Objective
?	Uncertain impacts on the SA Objective
0	Neutral - option is unlikely to impact on the SA Objective
-	Likely to be unsustainable and have minor adverse impacts on the SA Objective
--	Likely to be very unsustainable and have a significant adverse impacts on the SA Objective
#	No clear relationship



Housing Sites

Greenfield

In order to help meet Birmingham's housing need, a number of greenfield sites were considered for release as part of the Options Consultation (October 2012). In order to support a proposal to release Green Belt land, a Green Belt Assessment (BCC, October 2013) has been prepared. This document has been used to help inform the appraisal of greenfield sites to the north and east of Sutton Coldfield, in respect of landscape, biodiversity and transport connectivity and capacity⁶⁶. This updates and complements the mapping of service provision which helped to inform the appraisal of the options consultation document. The following figures (sourced from Birmingham City Council) help to inform the assessment:

- Natural and cultural constraints
- Urban green space
- Environmental management constraints
- Primary schools
- GPs and health centres
- Post offices
- All current facilities

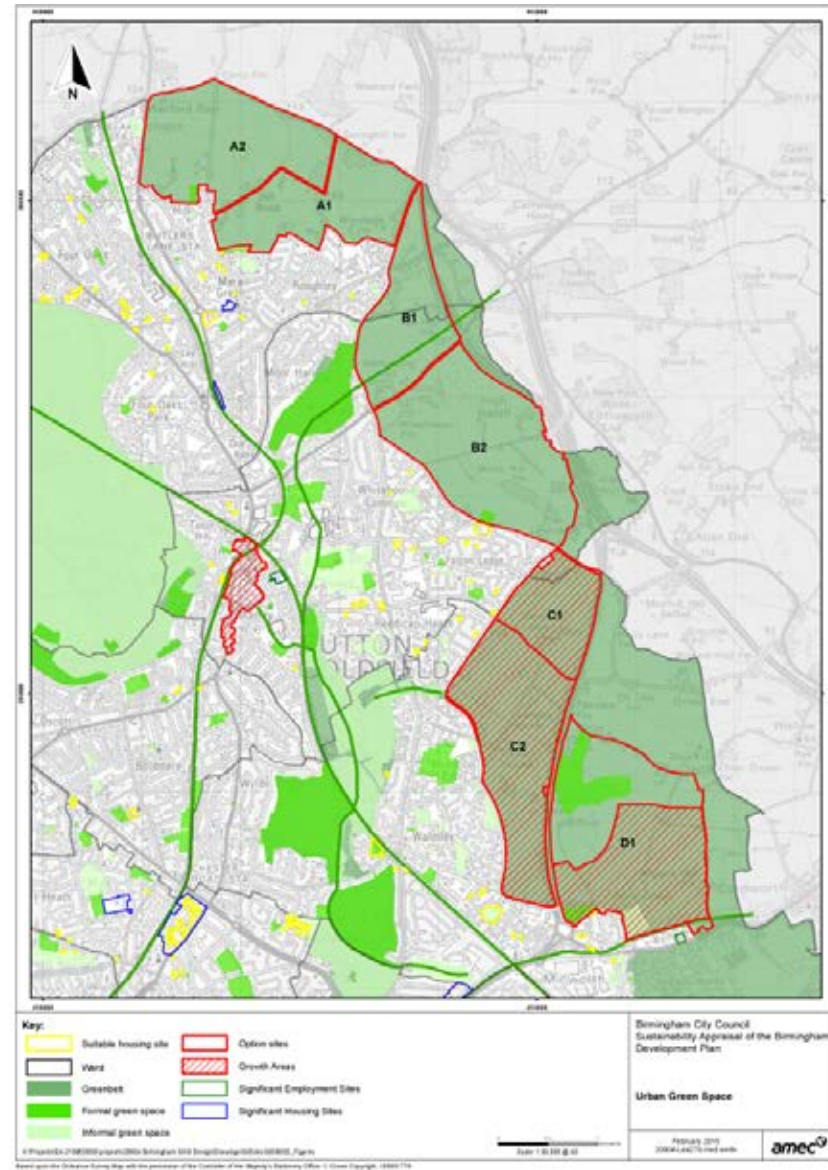
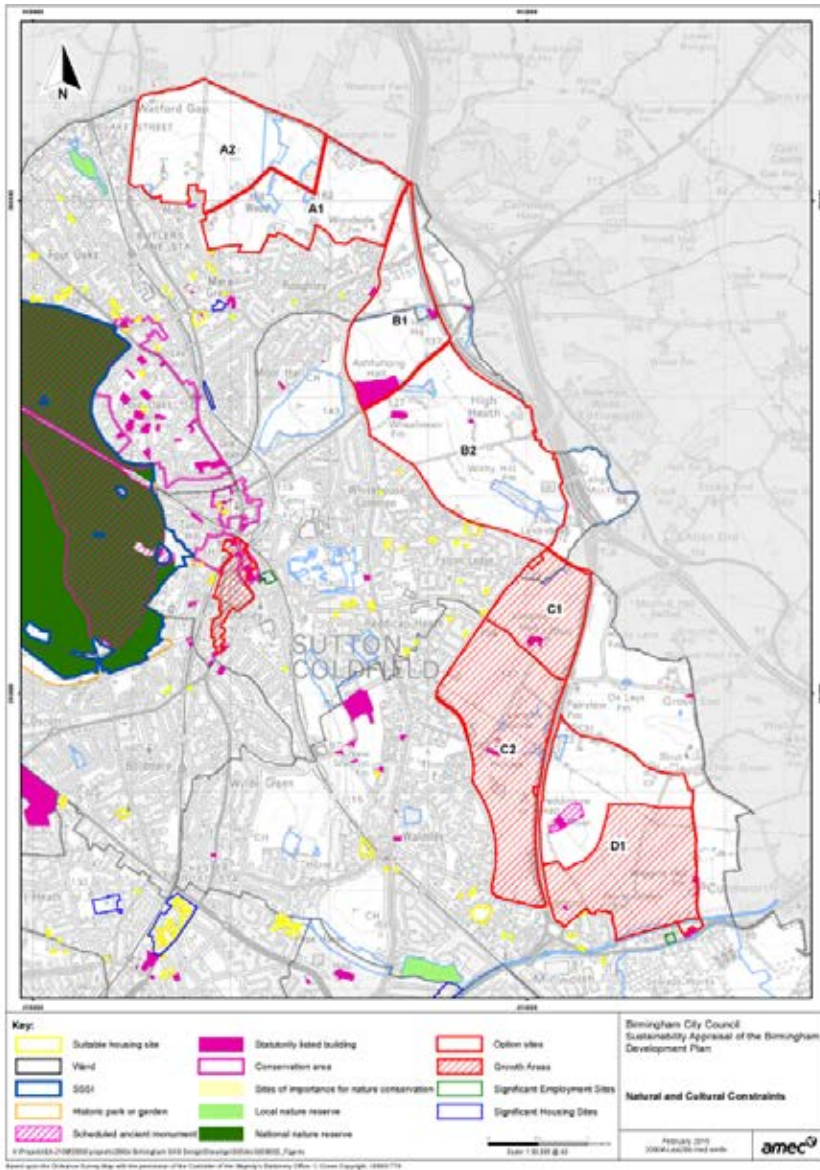
⁶⁶ Birmingham City Council (October 2013) Green Belt Assessment pp.25/26

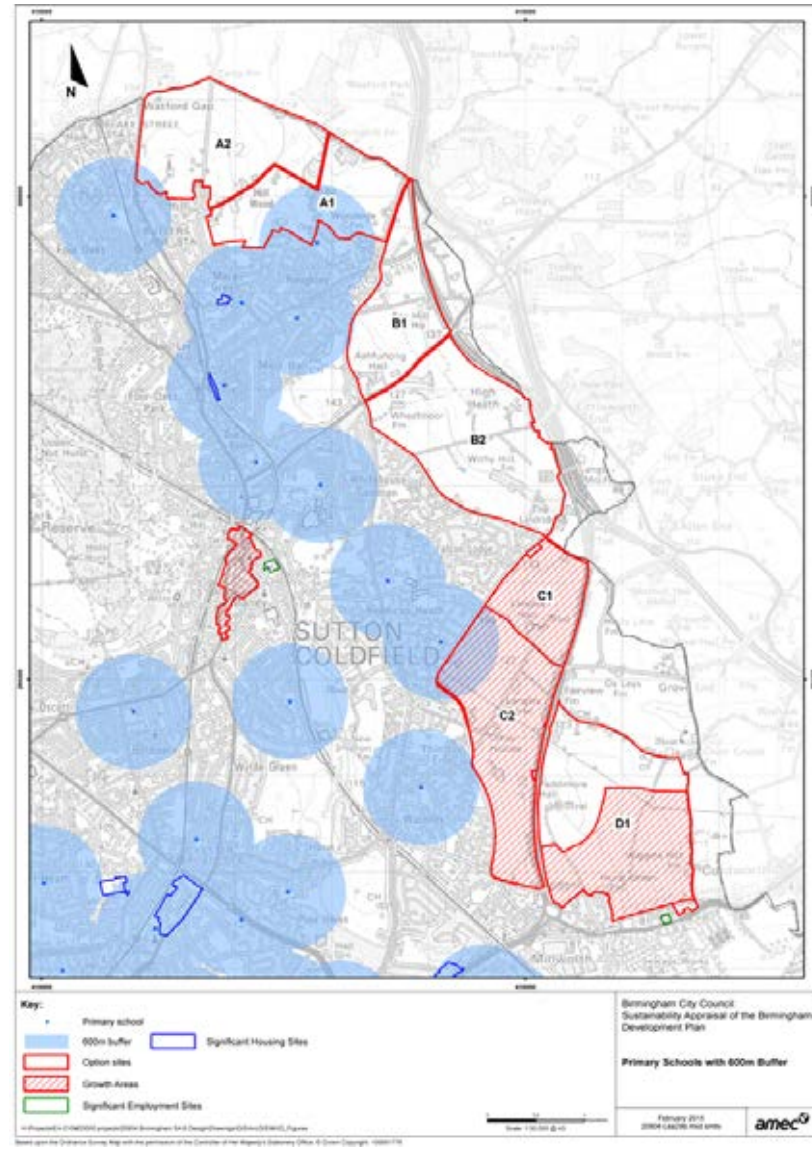
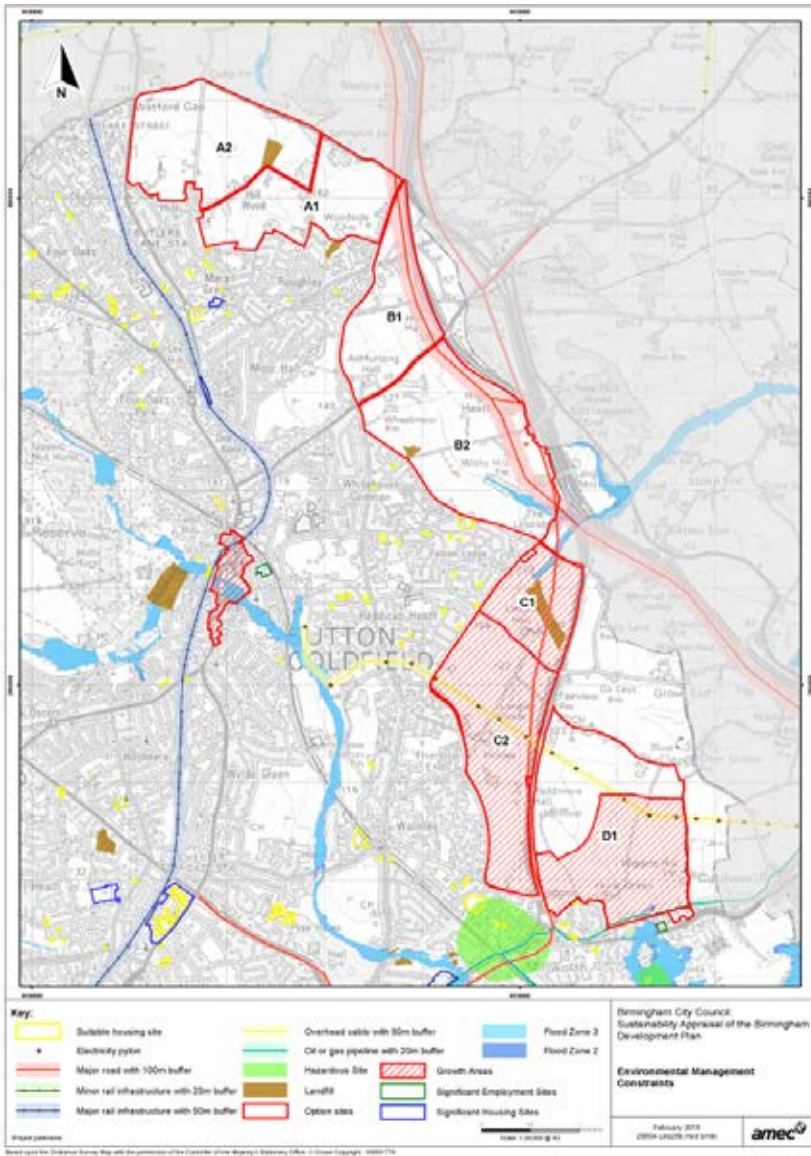
Landscape Sensitivity: *High* - of high importance, rare within its location or limited opportunity for replacement. Good condition and/or high tranquillity. *Medium* - of medium importance, other examples exist around its location or some opportunity for replacement. Good condition and/or high tranquillity. *Low* - of low importance, abundant around its location or easily replaced. Poor condition and/or low tranquillity.

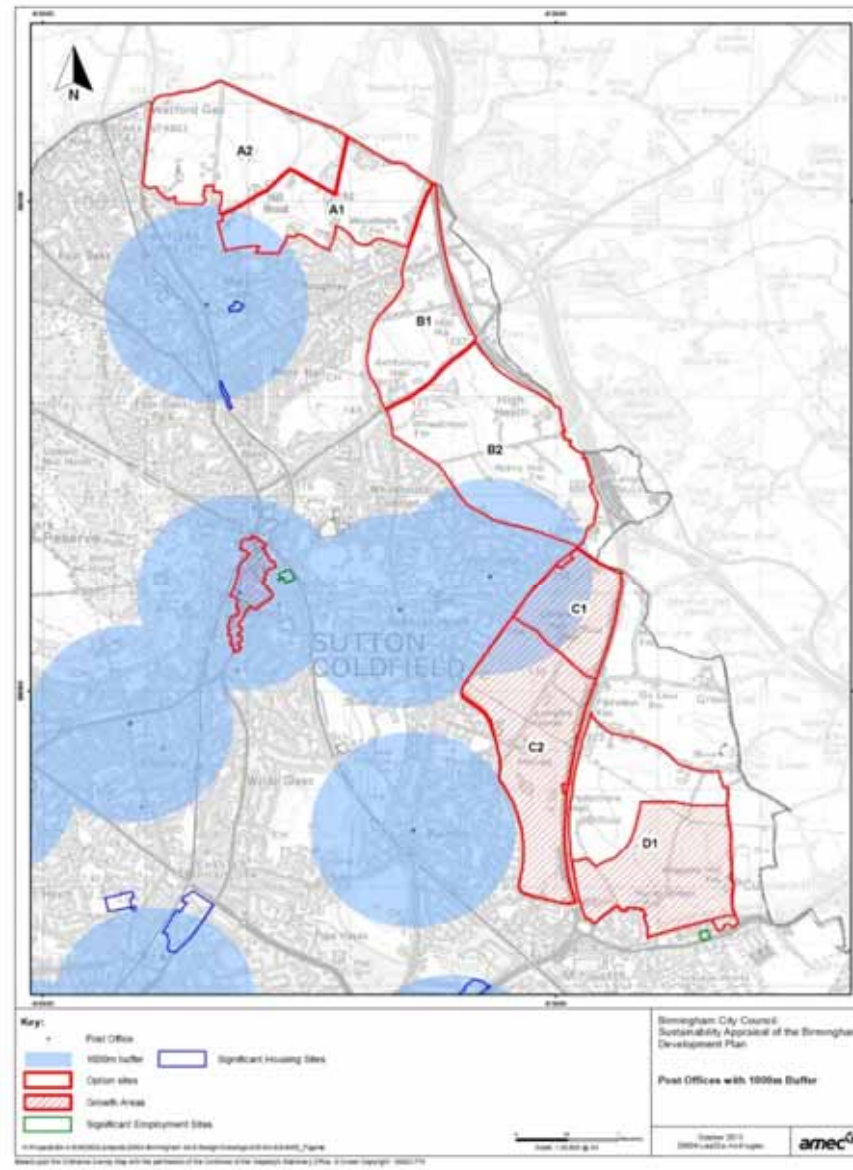
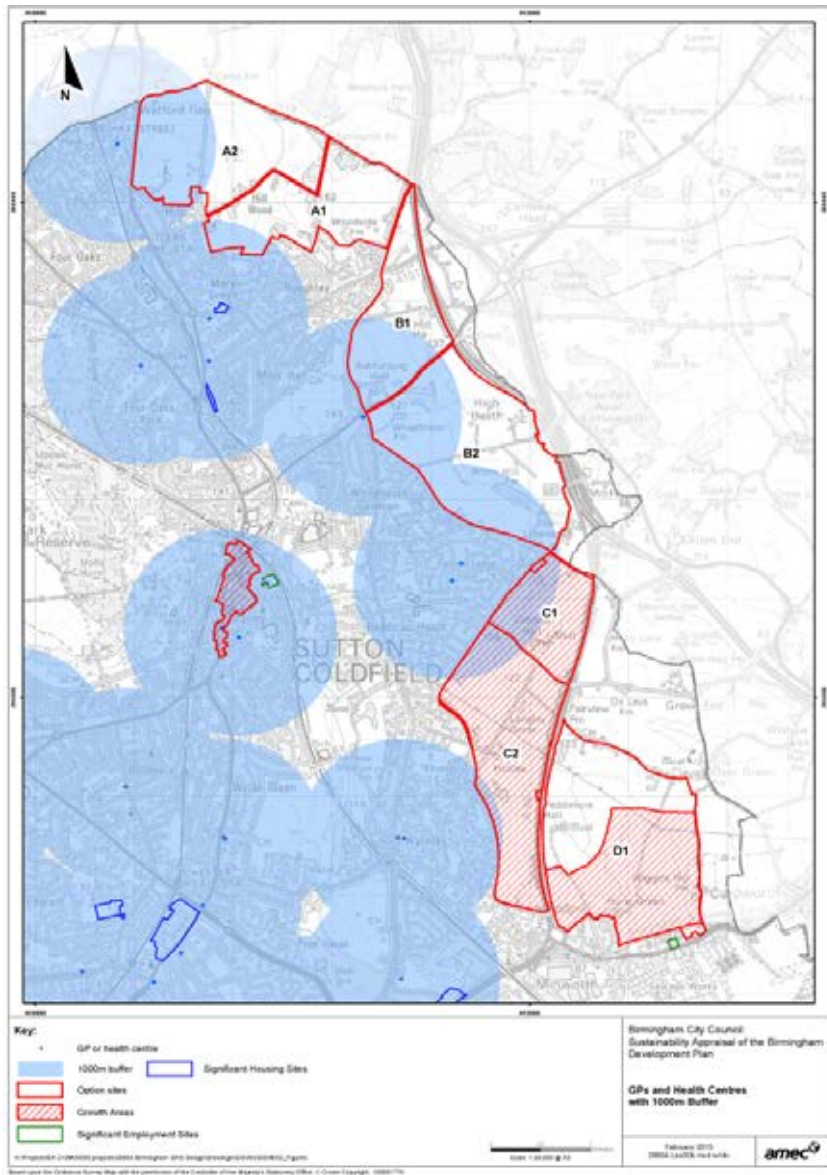
Visual Sensitivity: *High* - views across the area from residential property, parks or public rights of way. Distant views from within the area that are rare within the wider landscape. Limited opportunities to mitigate visual impact. *Medium* - views across the area from public property or users of recreational sites such as sports pitches. Middle distance views from within the area that have some rarity or are specific feature(s) within the landscape. Some opportunities to mitigate visual impact. *Low* - limited views into the area or views from a small number of higher sensitivity receptors, Views across the area from commercial property or transport routes. Limited and short distance views that are readily obtained elsewhere within the wider area. Visual impacts could be mitigated.

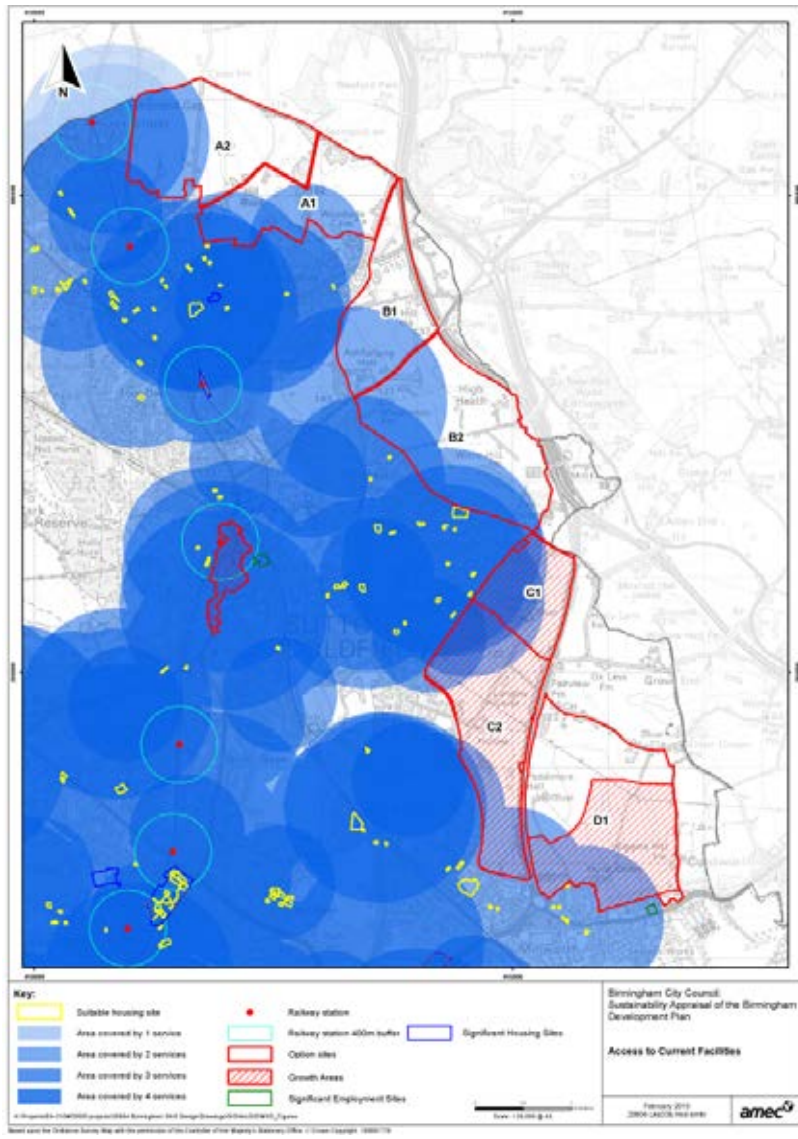
Transport Connectivity: A low percentage (0-33%) represents a remote location far from amenities with few alternatives for travel choice; A mid-range percentage (34-67%) represents a typical suburban area with reasonable access to a range of facilities via a choice of travel modes; A high percentage (68-100%) represents an edge of town centre location close to multiple facilities and high quality public transport networks.

Transport Capacity: A low percentage (0-33%) represents a constrained network, where pedestrian and cycle routes are severed, unsafe, indirect or uncomfortable to use and where car and HGV routes are operating at capacity with major delays; A mid-range percentage (34-67%) represents a typical suburban area in Birmingham, where car and HGV routes are congested mainly in the peak periods, and pedestrian and cycle routes are available but only of average quality; A high percentage (68-100%) represents a location where car and HGV routes are not congested and there are very good, direct, safe and comfortable pedestrian and cycle routes.











Area A: Hill Wood, East of Watford Gap

Area A1: Hill Wood (bounded by Weeford Road and Hillwood Road)

A 98ha site situated immediately to the north of the urban edge of Mere Green and Roughly.

Area A2: Hill Wood (bounded by Hillwood Road and Hillwood Common Road)

A 147ha site situated immediately to the north and east of Hill Wood and Mere Green.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA A1	AREA A2	AREA A OVERALL
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	0	0	0
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management reflecting potential scale of development.	+	+	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-	-	-
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+	+	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a larger site.	+	+	+
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+	+	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	There is access to Butlers Lane and Four Oaks stations to the west. Strategic road access is limited. Area A - Accessibility score of 45% (by all modes of transport); sustainability score of 25% (accessibility to facilities)	0	0	0



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA A1	AREA A2	AREA A OVERALL
		only by walking, cycling and public transport). Area A - Capacity score of 58%. Potential to impact on A5127 Birmingham Road and Whitehouse Common corridor, where there are a significant number of critical junctions.			
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Opportunities for self-containment through mixed use.	-	+	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to relative remoteness of the location.	0	0	0
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+	+	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Variable historic assets.	0	0	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Area A1 - Highly varied in landscape quality, with sensitivity to residential development high towards the north, lower towards the south. Area A2 - landscape sensitivity is low, but visual sensitivity is high due to the availability of distant views to the north west.	-	0	-
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Area A1 - overall the area is of moderate ecological value with some areas being of high ecological value.	-	-	-

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA A1	AREA A2	AREA A OVERALL
		Area A2 - supports habitats considered to be of moderate ecological value with some areas being of high ecological value and other areas of low ecological value			
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport.	-	0	-
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0	0	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0	0	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely.	0	0	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development.	+	+	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development.	+	+	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a new community at this scale (Area A2 and A).	+	+	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Opportunities to create a new community at this scale (Area A2 and A).	+	+	+
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#	#	#

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA A1	AREA A2	AREA A OVERALL
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Relative remoteness from higher order services, Mere Green local centre 1.6km and Sutton town centre 4.1km.	0	0	0
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.	+	+	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop GI links as part of a development.	+	+	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#	#	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Development could provide recreational opportunities through new provision of facilities.	+	+	+
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	A significant area which could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+	+	+

Overall commentary on character and sustainability performance

The sites (individually and overall) have a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing and employment provision, green infrastructure and renewable energy associated with development areas of this size. Equally, the relatively remote location, with limited existing infrastructure and landscape and biodiversity constraints mean that development would not meet a range of sustainability objectives.

Area B: West of M6 Toll

Area B1: **North of Tamworth Road**, A 43ha site between the urban edge of Roughley and the M6 Toll.

Area B2: **South of Tamworth Road**, A site of 109ha between the urban edge of Whitehouse Common/Falcon Lodge and the M6 Toll.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA B1	AREA B2	AREA B OVERALL
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	0	0	0
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management reflecting potential scale of development.	+	+	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-	-	-
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+	+	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a larger site.	+	+	+
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+	+	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	<p>Access to Four Oaks and Sutton Coldfield stations to the west and south west.</p> <p>Area B - Accessibility score of 53% (by all modes of transport); sustainability score of 37% (accessibility to facilities only by walking, cycling and public transport).</p> <p>Area B - Capacity score of 52%. Constrained by</p>	0	0	0



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA B1	AREA B2	AREA B OVERALL
		the local highway network. East-west routes are congested in peak hours.			
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Opportunities for self-containment through mixed use (Area B2 and B).	0	+	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to distance to service centres and ready access to strategic road network (A453/A38)	0	0	0
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+	+	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Various Listed Buildings and high potential for archaeological remains.	0	0	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Relatively high visual sensitivity on land to the north and south of the A453. Area B1 - Landscape sensitivity increases from north to south, being high between Fox Hill and Tamworth Road due to the presence of a range of properties overlooking the area and the openness and variety of views across the area and beyond. Area B2 - Landscape sensitivity of the northern part is high, medium on the southern part.	-	-	-
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Moderate ecological value. Area B1 supports some habitats that are considered to be of moderate and low ecological value together with some habitats of relatively high ecological value.	-	-	-



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA B1	AREA B2	AREA B OVERALL
		Area B2 supports some habitats that are considered to be of moderate and high ecological value together with some habitats of relatively low ecological value.			
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport.	0	0	0
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0	0	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0	0	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely.	0	0	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development?	+	+	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development?	+	+	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a new community at this scale (B2 and B).	0	+	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Opportunities to create a new community at this scale (B2 and B).	0	+	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA B1	AREA B2	AREA B OVERALL
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#	#	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Opportunities to create a new community at this scale (B2 and B).but would require significant new provision given relative distance from existing services.	0	+	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.	+	+	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop GI links as part of a development.	+	+	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#	#	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Development could provide recreational opportunities through new provision of facilities.	+	+	+
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+	+	+

Overall commentary on character and sustainability performance

Sites B1, B2 and B overall have a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing and employment provision, green infrastructure and renewable energy, although there are negative impacts associated with biodiversity, landscape, loss of greenfield land and impacts on CO2 emissions due to increased car travel. The opportunities for provision of green infrastructure at this scale of development could help to offset impacts on air quality.



Area C: West of Sutton Coldfield Bypass, Walmley

Area C1: A 274ha site located between the urban edge of Walmley / Reddicap Heath and the A38

Area C2: A 194ha site located between the urban edge of Walmley / Reddicap Heath and the A38

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA C1	AREA C2	AREA C OVERALL
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	0	0	0
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management reflecting potential scale of development.	+	+	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-	-	-
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+	+	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a site of this size (C2 and C).	+	+	+
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+	+	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Reasonable access to Sutton station to the west (3km) and limited direct access to the strategic road network could discourage car use. Area C - Accessibility score of 67% (by all modes of transport); sustainability score of 58% (accessibility to facilities only by walking, cycling and public transport).	+	+	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA C1	AREA C2	AREA C OVERALL
		Area C - Capacity score of 63%. Potential to impact on some significant junctions on the A38 and Heartlands Spine Road			
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Potential opportunities for self-containment through mixed use.	+	+	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to relative distance from services and employment.	0	0	0
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+	+	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Some Listed Buildings and historic landscape features.	0	0	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Area C - Landscape sensitivity of the majority of the area is low.	0	0	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Area C Supports some habitats of relatively low ecological value and some habitats of moderate and high ecological value.	0	0	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport, although opportunities for walking and cycling links to Sutton and for the provision of green infrastructure at this scale of development could help to offset impacts.	0	0	0
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0	0	0



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA C1	AREA C2	AREA C OVERALL
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0	0	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely.	0	0	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development	+	+	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development.	+	+	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a new community at this scale.	++	++	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Opportunities to create a new community at this scale.	++	++	++
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#	#	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Relatively good access to higher order services, Walmley local centre 1.6km and Sutton town centre 3.0km.	+	+	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.	+	+	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT		
			AREA C1	AREA C2	AREA C OVERALL
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop GI links as part of a development.	+	+	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#	#	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Development could provide recreational opportunities through new provision of facilities.	+	+	+
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+	+	+

Overall commentary on character and sustainability performance

Areas C1, C2 and C overall have a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing provision, proximity to existing service provision, green infrastructure, creation of a sense of place and renewable energy generation. Negative impacts are associated with the loss of greenfield land and impacts on CO2 emissions due to increased car travel. The opportunities for provision of green infrastructure at this scale of development could help to offset impacts on air quality.



AREA D: Land to the east of the Sutton Coldfield Bypass

A 268ha site located to the east of the A38 at Curdworth

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	-
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management reflecting potential scale of development.	0
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a site of this size.	+
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Remote from sustainable transport provision. Accessibility score of 52% (by all modes of transport); sustainability score of 35% (accessibility to facilities only by walking, cycling and public transport). Capacity score of 63%. Potential to impact on some significant junctions on the A38 and Heartlands Spine Road	-
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Potential opportunities for self-containment through mixed use.	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to relative distance from services and employment.	0



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Limited historic assets generally, although presence of one large SAM.	-
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Landscape sensitivity of the majority of the area is low.	+
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Supports some habitats of relatively low ecological value and some habitats of moderate and high ecological value.	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport, although the provision of green infrastructure at this scale of development could help to offset impacts.	-
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely.	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development.	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a new community at this scale.	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by	Opportunities to create a new community at this scale.	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	example.		
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Poor access to higher order services.	0
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop GI links as part of a development.	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Development could provide recreational opportunities through new provision of facilities.	+
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+

Overall commentary on character and sustainability performance

Whilst a relatively self-contained community might be provided at this location, the area's relative remoteness from existing service provision, particularly in respect of sustainable transport and education, and the presence of a Scheduled Ancient Monument, means that overall the sustainability credentials of the site are compromised.

Former Yardley Sewage Works

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Brownfield but informal open space	+
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Site is located in proximity to transport infrastructure (Lea Hall station) and City Centre (3 miles to the west)	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Close proximity to service provision and sources of employment	++
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Site is not within flood risk zone and site could contribute to flood risk management associated with the River Cole	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Opportunities to enhance biodiversity	+
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	An accessible site forming a logical extension to the existing built-up area	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	An accessible site forming a logical extension to the existing built-up area	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	An accessible site forming a logical extension to the existing built-up area	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Proximity to open space and opportunities to provide walking and cycling access to services and jobs	++
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Proximity to open space and opportunities to provide walking and cycling access to services	++
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	The scale of the site (8ha/350 dwellings) offers opportunities for affordable housing provision.	++

Overall commentary on character and sustainability performance

This is a highly sustainable location which is in close proximity to existing residential areas (Shard End/Colehall), transport infrastructure (Lea Hall station) and employment opportunities in the immediate vicinity and the City Centre 3 miles to the west. The scale of the development (350 dwellings) is likely to make a contribution to supporting and enhancing local service provision and could provide a proportion of affordable housing.

Growth Areas

City Centre (Policy GA1)

“In order to strengthen the role of the city on a national and international basis there will be an emphasis on delivering major new investment in retail and office provision. Alongside its important economic and visitor role the City Centre is home to a growing residential population which



will continue to expand in the future. This will happen in the context of the wider aspiration of providing a high quality environment and delivering a diverse mix of uses vital to a vibrant city centre.

To support this growth and ensure the ongoing success of the City Centre the traditional core will be expanded, incorporating significant new office, retail, residential, civic and cultural uses. The City Centre has potential to accommodate in the region of 13,500 dwellings, 700,000 sq metres of office floorspace and 160,000 sq metres of retail floorspace.

Residential development will continue to be supported throughout the city centre where it delivers well-designed dense living environments matched with high quality private and communal open spaces. Developments will need to provide flexible and adaptable accommodation meeting a range of needs including for families.

In order for the City Centre to maintain and develop its position as a top visitor destination and driver of the City's economy significant levels of growth will be accommodated. The majority of this growth will be accommodated in the following strategic locations:

Eastside – *supporting the areas ongoing regeneration the City Core's expansion eastwards will require well designed mixed use developments including office, residential, learning and leisure.*

Southern Gateway - *The Southern Gateway will be the focus for the expansion of the City Core southwards through the redevelopment of the wholesale markets site delivering a vibrant new destination for the City. Residential will form an important element as part of the future mix of uses with opportunities to stimulate the regeneration of wider area.*

New Street Southside - *Acting as the catalyst for the wider regeneration of the City Centre the redeveloped New Street Station, opening in 2015, will transform the arrival experience and create new linkages.*

Westside - *The Westside area incorporating the redevelopment of Paradise Circus and Arena Central will see well designed mixed use office led development.*

The Snow Hill District - *Accommodating the eastern expansion of the central office core the areas transformation will incorporate key office and mixed use developments around Snow Hill Station.*

The Quarters - *The City Centre is formed by seven quarters with the City Core at its heart. Within each quarter varying degrees of change are proposed that relate to the overarching objectives of delivering ambitious growth whilst supporting the distinctive characteristics of each quarter. The distinctive role of the different quarters of the city centre will be consolidated and strengthened.*

The City Core – *Providing an exceptional visitor and retail experience with a diverse range of uses set within a high quality environment.*

Digbeth – *Creating a thriving creative and cultural hub with high a quality, exciting and easily accessible environment.*

Eastside – *maximising its role as an area for learning and technology realising its extensive development opportunities and the integration of new High Speed Two terminus.*

St George and St Chad – *Maintain the area's important employment role and industrial activity complemented by mix of uses around the canal and improved connections bringing the area closer to the City Core*

The Jewellery Quarter – *Creating an urban village supporting the areas unique heritage with the introduction of a diverse mix of uses and radically improved connections to the City Core.*



Southside and Highgate – Supporting the areas cultural, entertainment and residential environments complemented by high quality public spaces and pedestrian routes.

Westside and Ladywood – Creating a vibrant mixed use area combining the cultural, commercial and residential offer into a dynamic well connected area.”

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Significant opportunities to implement renewable e.g. district heating	++
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Additional development will help to support and extend sustainable travel options throughout the City Centre.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to services and jobs reduces the need to travel.	++
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Proximity to services and jobs reduces travel, although intensification of development could increase the heat island effect.	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Focusing housing development on the City Centre quarters will assist their regeneration, although intensification of development could compromise the historic character of some areas.	+
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Limited or no impact given the urbanised character of the City Centre, with relatively few opportunities for systematic enhancement.	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Limited or no impact given the urbanised character of the City Centre.	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Further intensification of development could increase air pollution.	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	Further intensification of development could add to the pollution load.	?
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	Limited or no impact given the urbanised character of the City Centre.	0
	18. Noise: Minimise noise pollution levels.	Further intensification of development could increase noise pollution.	?
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Whilst the BDP promotes balanced growth, there is a risk that employment sites come under pressure for residential development.	?
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Opportunities to develop learning and skills provision as part general increase in the volume and diversity of business activity.	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a distinctive urban character through the Quarters approach, although potential dangers of over-intensification.	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Scale of existing and potential development should promote access to a range of accessible services and employment opportunities.	++
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Scale of existing and potential development should promote access to a range of accessible services and employment opportunities.	++
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to promote walking and cycling throughout the City Centre.	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Opportunities to promote participation in cultural and sporting activities.	+
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Significant opportunities to provide a range of housing types to meet identified needs and demands.	++

Overall commentary on character and sustainability performance

The intensification of development across the City Centre is likely to lead to a range of positive effects, principally associated with increasing opportunities for access to a range of housing, service and employment provision, whilst helping regeneration efforts. Nevertheless, the likely

effects are complex and potential impacts on levels of pollution, biodiversity, cultural heritage and climate change will have to be carefully managed. The area is covered by a separate masterplan – The Big City Plan – which details development principles and specific land allocations and interrelationships using the ‘Quarters’ approach detailed in Policy GA1

Greater Icknield (Policy GA2)

“Greater Icknield consists of seven main development sites covering an area of 324ha of largely unused and semi-derelict land. The area has the potential to play a major role in meeting the City’s challenging growth agenda set out in Policy PG2. It is anticipated that Greater Icknield will provide 3,000 new homes founded upon the principles of creating sustainable neighbourhoods as set out in this plan. New family based models of urban living will be explored and will be supported by a full range of community facilities, local shopping and working opportunities, and better quality streets, parks, squares and gardens. Connections by public transport, walking and cycling will be enhanced including links to the City Centre utilising the canal network and existing primary routes.”

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++

SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in the area and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to service provision and sources of employment	++
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	New build offers significant opportunities for implementing high standards of design and construction.	++
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Opportunity to create/restore/enhance biodiversity.	+
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	++

SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place, particularly in response to comprehensive redevelopment which could secure a distinct and relatively self-contained community.	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to provide walking and cycling access to services and jobs	++
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Limited access to open spaces but opportunities to provide walking and cycling access to services	0
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Sites should offer opportunities for affordable housing provision.	++

Overall commentary on character and sustainability performance

The scale of the development opportunity in this location and the intention to create a relatively self-contained neighbourhood should help to secure aspirations for sustainable development which could be exemplary. Much will depend upon implementation, however, and the success of creating employment opportunities, for example and ensuring that there is appropriate local service provision which complements higher order services in central Birmingham around 1 mile to the south east.

Aston/Newton/Lozells (Policy GA3)

“The Area Action Plan for Aston, Newtown and Lozells forms part of the Birmingham Development Plan and was subject to an Examination in Public (EIP) and adopted by the City Council in July 2012. It provides a clear vision and strategy for the regeneration and development of the area and sets out a comprehensive and co-ordinated approach to shaping employment, housing, retail, and transport infrastructure.

The AAP covers a large area north of the City Centre and includes the neighbourhoods of Aston, Nechells, Perry Barr, Witton, Lozells and Newtown. The area is home to a broad mix of land uses, a range of distinctive local centres and vibrant communities which make up this diverse and dynamic place. It has excellent transport connections with good access to public transport and motorway networks. The major arterial routes of the A38 (Aston Expressway), the A34 Birchfield Road and A5127 Lichfield Road run north-south, and the A4540 Ring Road and A4040 Outer Circle run east-west through the area. It is also served by the Birmingham Walsall Railway line with stations at Perry Barr, Witton and Aston.”

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable	Uncertain whether this can be implemented.	?



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	resources.		
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in the area and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to service provision and sources of employment	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0

SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	++
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	++
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to provide walking and cycling access to services and jobs	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Limited access to open space but opportunities to provide walking and cycling access to services	0
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Sites should offer opportunities for affordable housing provision.	++



Overall commentary on character and sustainability performance

This area is the subject of an Area Action Plan which sets out in detail proposals for its regeneration and sustainable development. The AAP has been subject to sustainability appraisal, and the principles and scale of proposed regeneration considered. Key issues highlighted in the sustainability appraisal related to: related to green infrastructure and open space, the historic environment, the quality of the built environment, provision of new services and amenities and climate change mitigation and adaptation (including the effects of flooding). Attention to these issues, through regeneration and development proposals, will ensure best use is made of the opportunities to increase the housing stock in a fashion which realises the opportunities of this inherently sustainable location.

Bordesley Park (Policy GA7)

“The Bordesley Park area incorporates the residential and industrial areas to the east of the City Centre. An Area Action Plan (AAP) is being produced to regenerate the area delivering growth within a high quality urban environment. This will have the effect of transforming a part of Birmingham which is currently difficult to access and is lacking in investment, despite its close proximity to the City Centre. The area is bounded by Alum Rock Road Local Centre to the North and the Small Heath Highway to the South.

Opportunities to improve existing housing and create new housing will be promoted across the area. In particular there is the opportunity for a new residential neighbourhood in the Cherrywood Road area.”

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in the area and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to service provision and sources of employment	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	++
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	++
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to provide walking and cycling access to services and jobs	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Limited access to open space but opportunities to provide walking and cycling access to services	0
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type,	Sites should offer opportunities for affordable housing provision.	++



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	tenure and affordability to meet local needs.		

Overall commentary on character and sustainability performance

This area is the subject of an Area Action Plan which sets out in detail proposals for its regeneration and sustainable development. The AAP has been subject to sustainability appraisal, and the principles and scale of proposed regeneration considered. Key issues highlighted in the sustainability appraisal related to: related to green infrastructure and open space, the historic environment, the quality of the built environment, provision of new services and amenities and climate change mitigation and adaptation (including the effects of flooding). Attention to these issues, through regeneration and development proposals, will ensure best use is made of the opportunities to increase the housing stock in a fashion which realises the opportunities of this inherently sustainable location.

Eastern Triangle (Policy GA8)

“The Cole Valley comprises one the city’s most important environmental corridors, weaving through long established residential and commercial areas. These areas have been an historic focus for development and regeneration, and a number of housing areas have benefitted from redevelopment and significant new investment including Bucklands End and Shard End. The area continues to provide the opportunity for housing and economic growth and a number of projects have been identified that will deliver positive change. These include: Stechford - an established mixed residential, commercial and local centre with opportunities for a number of sites to be brought forward for housing development.

The Meadway - a physically poor local centre with opportunities for redevelopment to provide an improved centre, new housing and a reconfigured and enhanced area of open space.

Shard End/former Yardley Sewage Works - an area of recent change, but with ongoing potential for new housing including at the site of the former Yardley Sewage Works where a wide new housing offer could be delivered along with environmental and other community benefits.”

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in the area and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to service provision and sources of employment	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	++
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	++
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to provide walking and cycling access to services and jobs	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Limited access to open space but opportunities to provide walking and cycling access to services	0
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Sites should offer opportunities for affordable housing provision.	++

Overall commentary on character and sustainability performance

The promotion of development in this area, particularly housing-led, offers significant opportunities to help a range of sustainability objectives for the locality and the City as a whole. The diversity and complexity of the problems associated with the area, which is part of the ring of relatively highly deprived communities which encircle the City Centre, means that the direction of new investment can only be the start of wider, long-term programme of addressing these. The sustainability impacts of these investments will require close monitoring.

Selly Oak and South Edgbaston (Policy GA9)

“Selly Oak and South Edgbaston is a strategically important location on the A38 corridor, in the South-West of the city. The area includes Queen Elizabeth Hospital and University of Birmingham, Selly Oak District Centre and adjoining residential areas. There is around 35ha of vacant land/buildings available for development including the former Birmingham Battery site, other sites in Selly Oak District Centre and the former Selly Oak hospital to deliver the growth and regeneration aspirations. In addition there is potential for significant investment in the existing hospital and university campuses. The area is expected to make a significant contribution to the city’s needs for new employment providing around 3,000 new jobs in the high technology sector with further significant job creation in the office, education retail and healthcare sectors. Opportunities for residential development in the area will provide over 700 new dwellings.”

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development will require additional resource use, but there are opportunities to procure these from sustainable sources.	0

SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Potential opportunities to introduce/enhance management initiatives to offset increases in activity.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Intention is to recycle brownfield sites.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Opportunities to set high standards in building design.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities to employ renewable energy technologies e.g. district heating, but extent is unclear.	+
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Opportunities to set high standards in building design.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Proximity of the area to the City Centre and existing public transport infrastructure with opportunities to make best use of this.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proposals offer opportunities for greater self-containment, but potential for greater in-commuting associated with commercial and industrial investment.	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Probably net neutral effect, but uncertainties over the balance between increased activity and increased emissions.	0?
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed that adaptation measures will be incorporated into new development as appropriate.	+
4. HISTORIC ENVIRONMENT, LANDSCAPE,	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	New development assumed to be sensitive to existing context, but potential for erosion of character.	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
BIODIVERSITY AND GEODIVERSITY	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Development unlikely to compromise natural landscape and offers opportunities to contribute to its extent and quality in this locality.	++
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Development unlikely to compromise biodiversity and offers opportunities to contribute to its extent and quality in this locality.	+
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Additional development and increased activity could contribute to air pollution through increased traffic levels, for example.	-?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No likely impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No likely impacts	0
	18. Noise: Minimise noise pollution levels.	Additional development and increased activity could generate additional noise pollution.	-?
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Significant opportunities for new and existing residents to take advantage of employment opportunities associated with growth proposals.	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Significant opportunities for new and existing residents to take advantage of training opportunities associated with growth proposals.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Assumed that good design will ensure a good fit between any proposed development and the receiving environment.	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Opportunities to development business – community links.	++
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	Opportunities to create community cohesion e.g. neighbourhood fora.	++

SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Opportunities to provide improve service provision.	++
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Opportunities to address deprivation through housing and employment development.	++
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Health should be improved through enhancement of quality of life, although could be offset through increases in traffic volumes.	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Opportunities for creation of greater community cohesion.	+
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Increased activity should make best use of existing facilities, although capacity of these could be put under pressure.	+
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Opportunities to provide for a range housing types.	++

Overall commentary on character and sustainability performance

This is a highly sustainable location which is well linked to the City Centre and surrounding areas and which offers opportunities for a variety of development opportunities to contribute to sustainable development across a range of indicators, notably investment in current strengths (education, research, health) and the creation of employment, with wider benefits for the City. This is a relatively affluent area which is a key economic driver for the City and City-region, and maintains a clear identity as a residential area. The proposals offer the potential to support and enhance these qualities. Consequently, there a range of positive relationships with sustainability objectives, although various uncertainties exist in respect of the delivery of the growth on issues such as CO2 emissions and air quality associated with traffic growth.

Longbridge (Policy GA10)

“Longbridge has excellent transport connections with good access to motorway network – and close to junctions with the M5 and M42. The A38 a major arterial route crosses the area. It is also served by the Cross City Rail line and Longbridge station immediately adjoins the site. The

Longbridge AAP provides a 15-20 year framework for the comprehensive regeneration and development of the area. It sets out proposals for an exemplar sustainable employment led mixed use development. It will deliver 10,000 jobs and a minimum of 1,450 new homes, a Regional Investment Site (RIS), a new local centre, new education facilities, retailing, leisure, community and recreation uses all underpinned by quality public transport facilities and highway infrastructure and other community infrastructure.”

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in the area and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to service provision and sources of employment	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	++
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	++
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to provide walking and cycling access to services and jobs	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Limited access to open space but opportunities to provide walking and cycling access to services	0
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Sites should offer opportunities for affordable housing provision.	++

Overall commentary on character and sustainability performance

This area is the subject of an Area Action Plan which sets out in detail proposals for its regeneration and sustainable development. The AAP has been subject to sustainability appraisal, and the principles and scale of proposed regeneration considered. Key issues highlighted in the sustainability appraisal related to: related to green infrastructure and open space, the historic environment, the quality of the built environment, provision of new services and amenities and climate change mitigation and adaptation (including the effects of flooding). Attention to these issues, through regeneration and development proposals, will ensure best use is made of the opportunities to increase the housing stock in a fashion which realises the opportunities of this inherently sustainable location.



Analysis of Sites Outside the Growth Areas

Type of Development	Under Construction	Significant Sites (>1ha)	Uncommitted	Small Sites (<1ha)	Total
		Sites with planning permission/previously allocated			
Housing (dwellings)	2,567	3,230	3,197	3,957	12,951

Source: Birmingham City Council

Grouping of SA Objectives by Theme

SA THEME	SA OBJECTIVES
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.
	3. Renewable Energy: Encourage development of alternative and renewable resources.
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.
	6. Reduce the need to travel: Ensure development reduces the need to travel.
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.



SA THEME	SA OBJECTIVES
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.
	16. Water Quality: Minimise water pollution levels and create good quality water.
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.
	18. Noise: Minimise noise pollution levels.
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.



SA THEME	SA OBJECTIVES
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.

Scoring of Sustainability Performance

++	Major Positive Impact	+	Positive Impact	0	Neutral Impact	-	Negative Impact	--	Major Negative Impact	#	No Relationship	?	Uncertain Relationship
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Site Details

North West Birmingham

SHLAA Ref.	Address	Size (Ha)	Capacity (dwellings)
N26	Royal Works	1.31	68
N163	Off Kingstanding Rd	1.11	56
N165	54 College Road	0.95	47
N188	Adj. 57 George St	1.37	50
N519	Booth Street/Holyhead Road	0.23	52
N522	Bill House Soho	1.20	100
N561	Aldridge Rd	2.79	112



East Birmingham

SHLAA Ref.	Address	Size (Ha)	Capacity (dwellings)
E49	Montgomery St / South Rd	1.55	60
E52	South of Weston Lane	2.40	90
E71	Summer Rd / Fox Hollies Rd	1.39	56
E76	Tysley La / Warwick Rd	1.29	42
E83	Rear of 635-773 Warwick Rd	1.83	60
E89	Off Roma Rd	1.85	74
E120	Coventry Road / Wagon La	0.89	49
E175	Adj. canal at Woodcock La North	1.03	40
E185	Cincinatti Building, Hansons Bridge Rd	8.69	430
E190	395 George Rd	1.96	78
E207	Rear of 110-116 Summer Road	0.57	40
E483	Denso, Shaftmoor La	3.54	124
E488	Tipperary Close/Chipperfield Road	0.81	50
E489	Chipperfield Road	0.86	50
E495	Montgomery St / South Rd	4.65	240
E592	International school, Sheldon Hall Ave	1.22	48
E593	Former D&A site, Coventry Rd	1.26	50
E513	Cooks Lane	0.86	36
E594	Hallmoor School, Hallmoor Rd	1.19	48
E596	Eaton Electricals, Reddings La	2.80	100

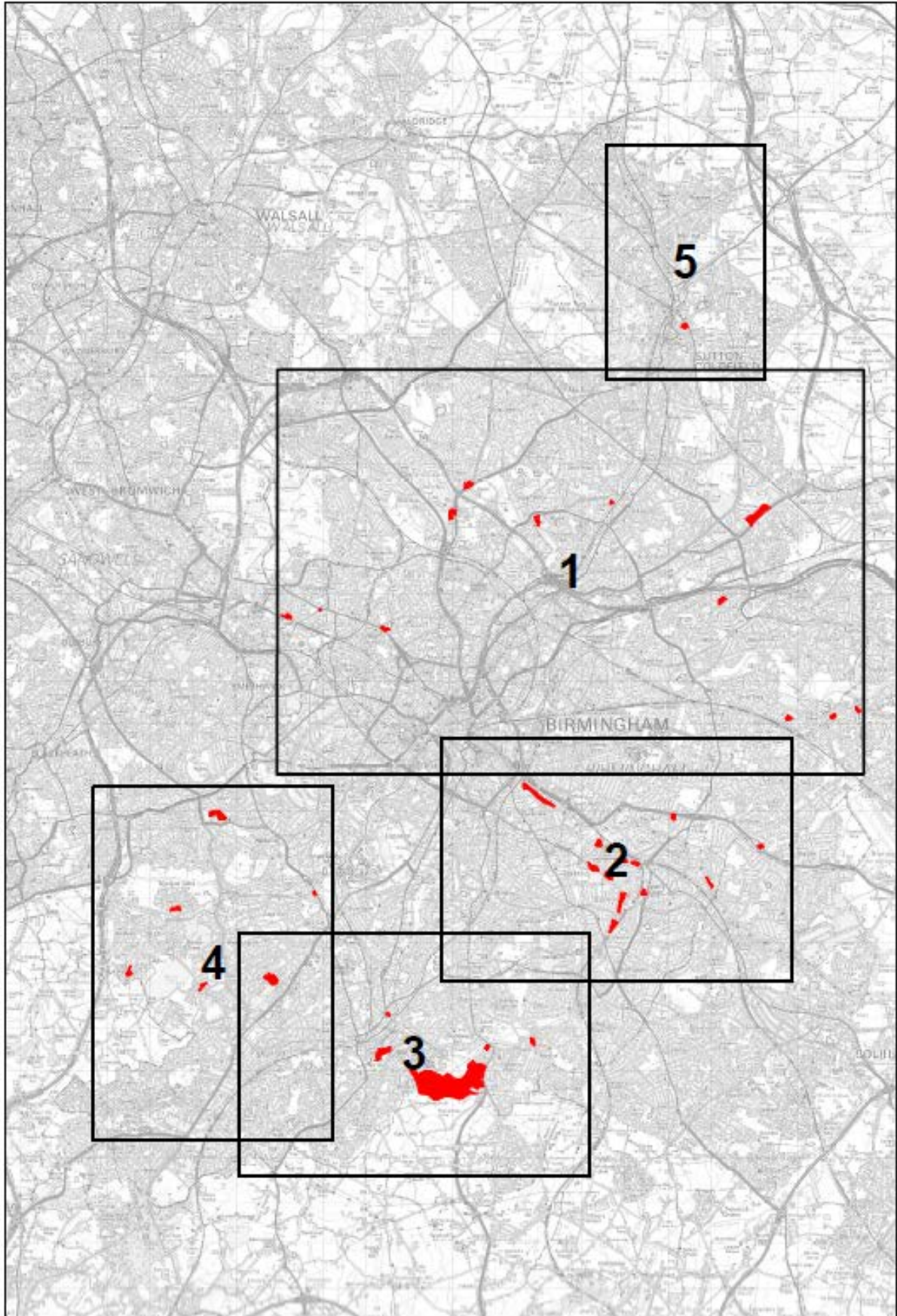
South Birmingham

SHLAA Ref.	Address	Size (Ha)	Capacity (dwellings)
S33	Wychbury Allotments	1.55	50



S93	Yardley Wood Rd	1.29	64
S117	Stevens Ave / Simcox Gardens	1.89	75
S128	Druids Heath	84.41	250
S160	Rear of 15-87 Cateswell Rd	2.50	82
S304	245 Harbourne Lane	0.50	40
S540	Lakeside Centre, Lifford Lane	4.80	50
S541	Martineau Centre	4.57	121
S542	Millpool Marina	0.88	40
S344	1650 Pershore Road	0.51	45
S587	Manor House Northfield	5.23	130
S592	Bangham Pit Rd	1.02	30
























Site Location Maps



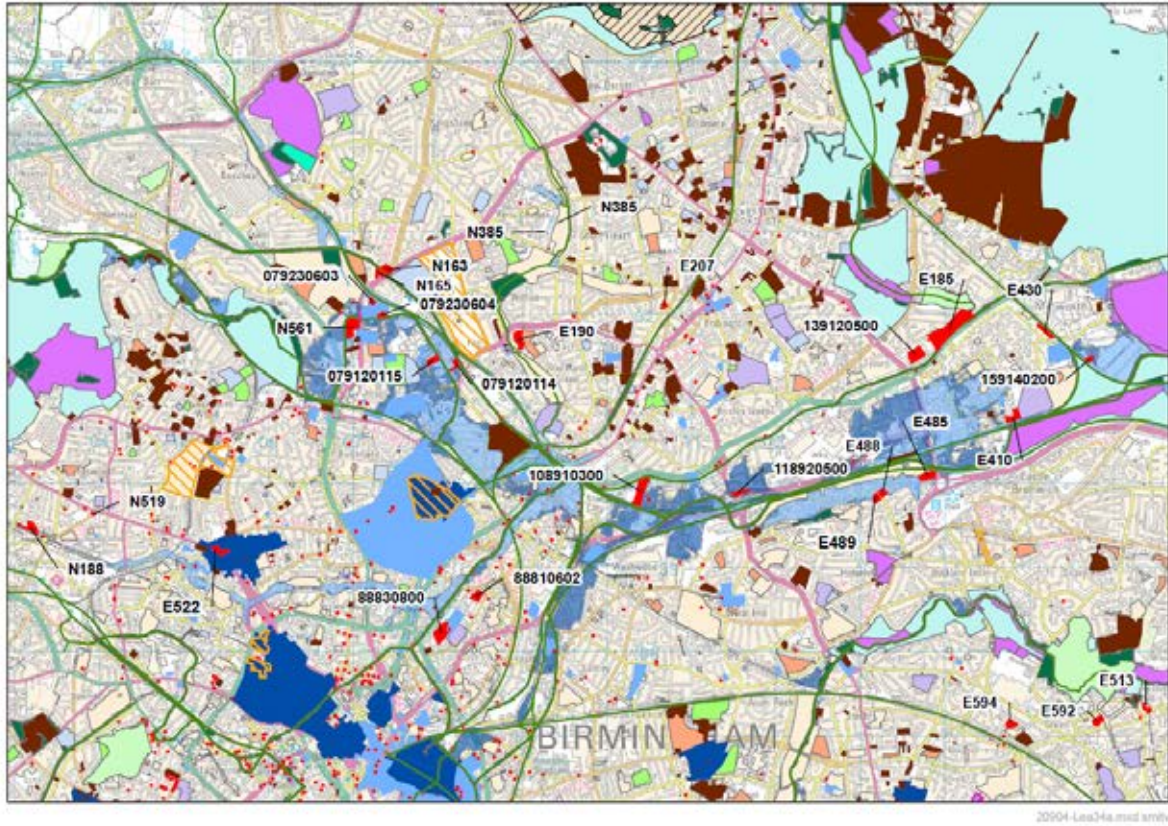
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Sites and Environmental Constraints – Maps 1 - 5

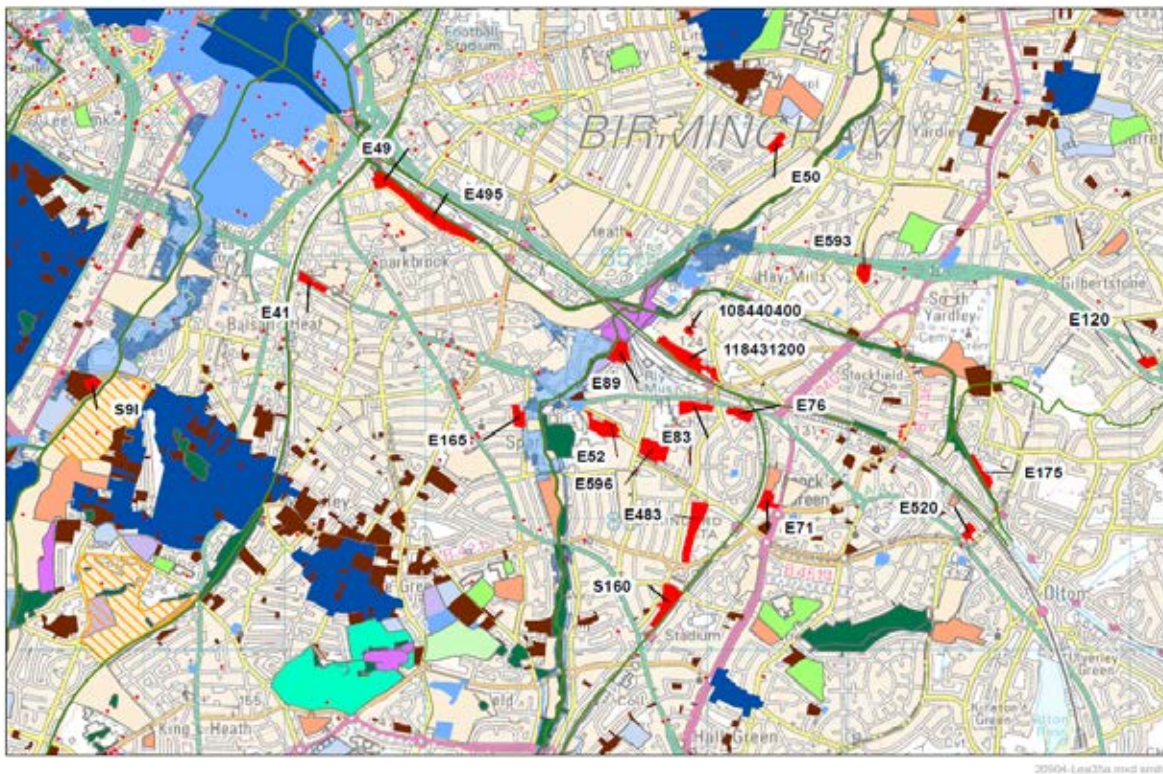
KEY

	Wildlife Corridors
	Local Nature Reserve
	National Nature Reserve
	Sites of Importance for Nature Conservation
	Sites of Local Importance for Nature Conservation
	Sites of Special Scientific Interest
	Tree Preservation Order
	Greenbelt
	Scheduled Ancient Monument
	Historic Parks and Garden
	Conservation Areas
	Locally_Listed_Buildings_region_Centroids
	Sites and Monument Record_point
	Sites and Monument Record_region
	Allotments
	Educational Playing Field
	Golf Courses
	Private Playing Field
	Public Open Space
	Public Playing Field
	Statutory Common Land
	Flood Zone 2
	Flood Zone 3

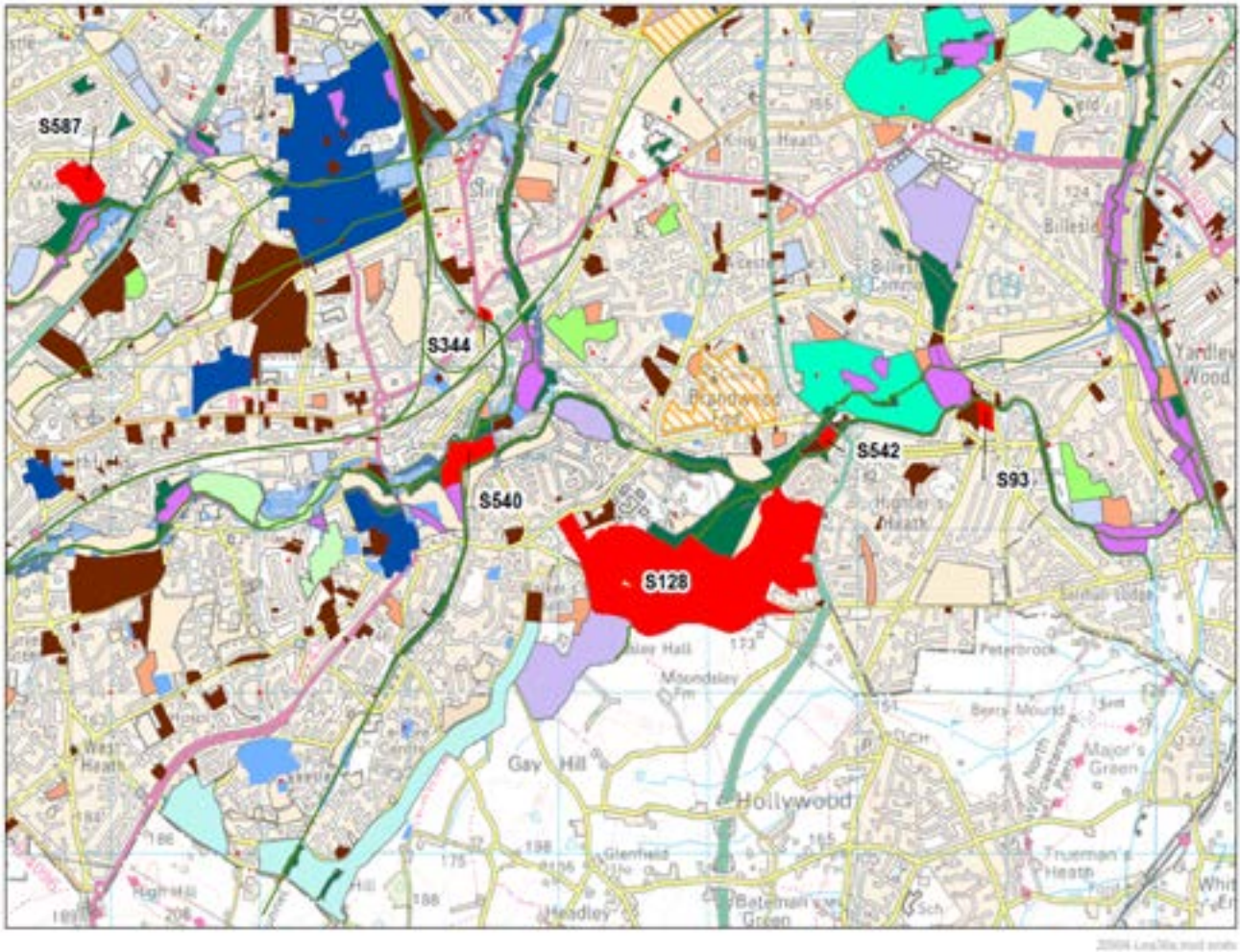
SITE LOCATIONS MAP 1



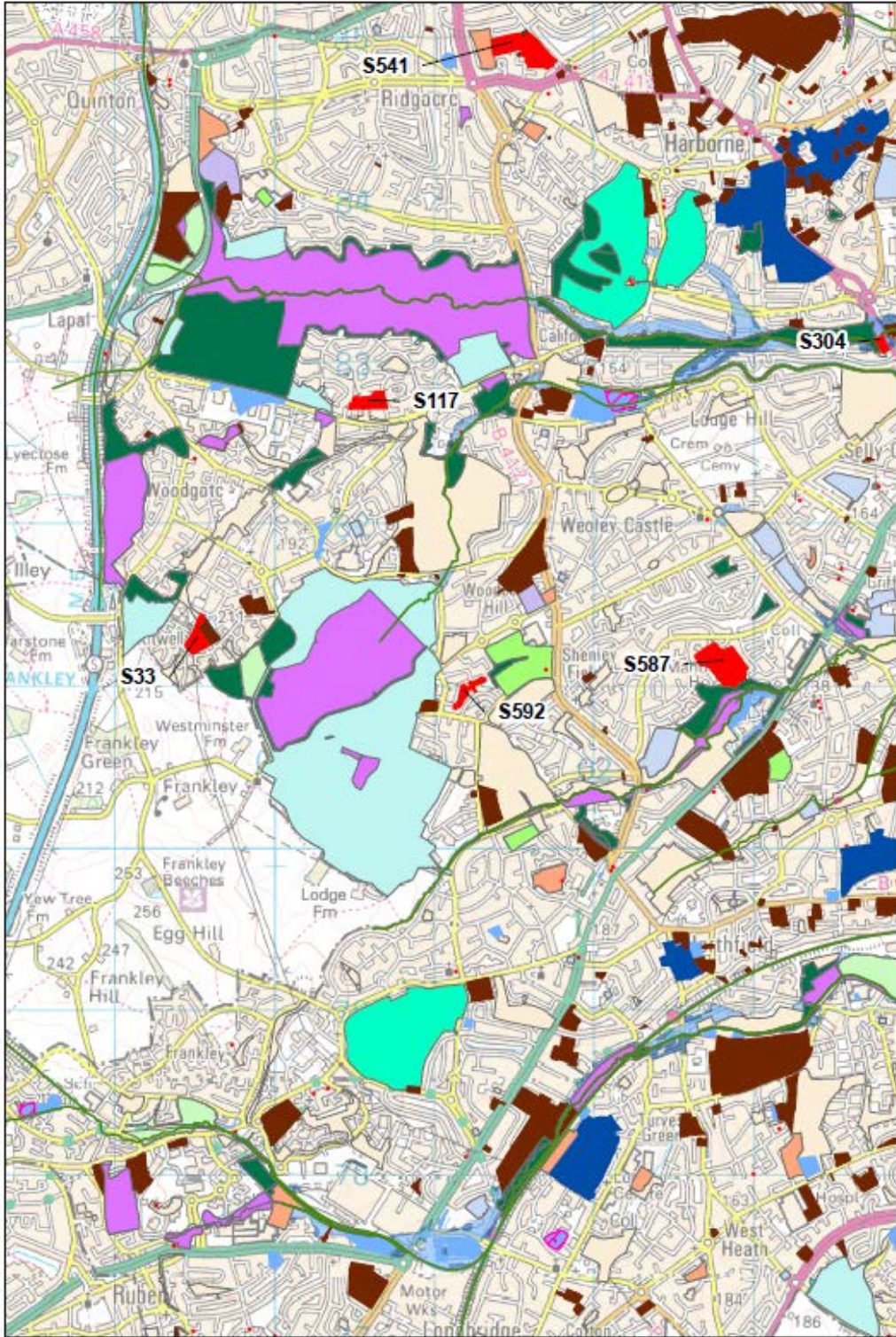
SITE LOCATIONS MAP 2



SITE LOCATIONS MAP 3

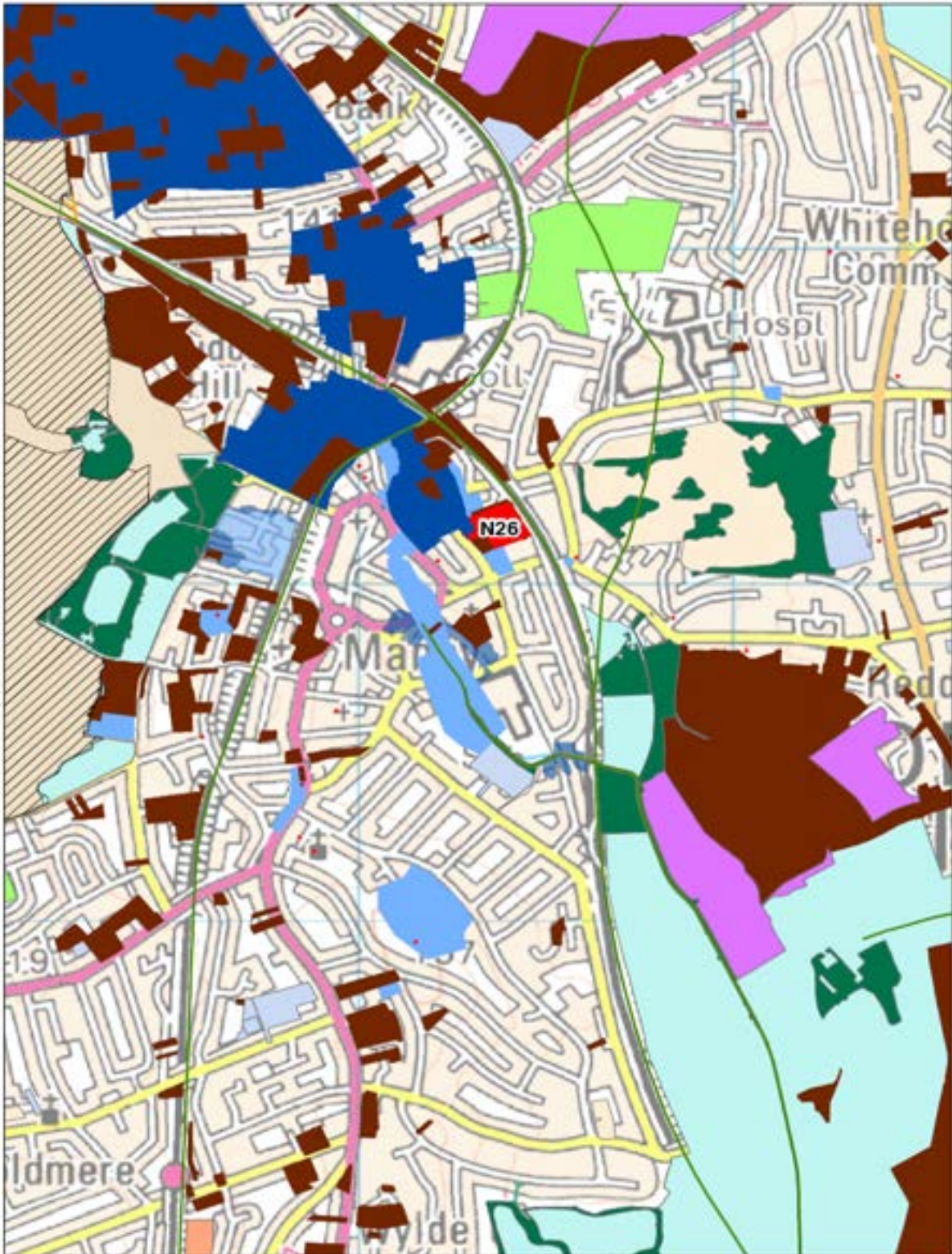


SITE LOCATIONS MAP 4

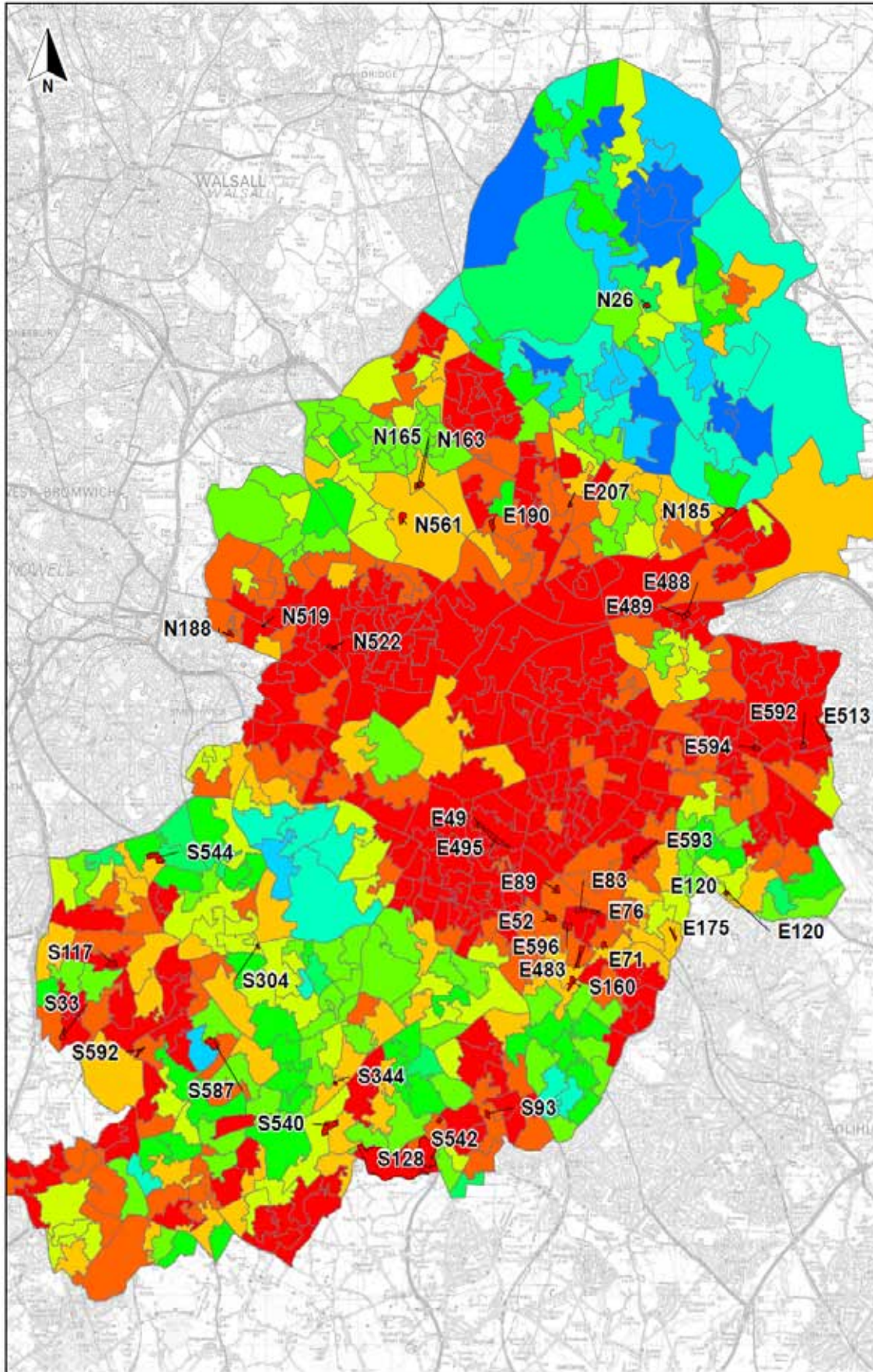


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SITE LOCATIONS MAP 5

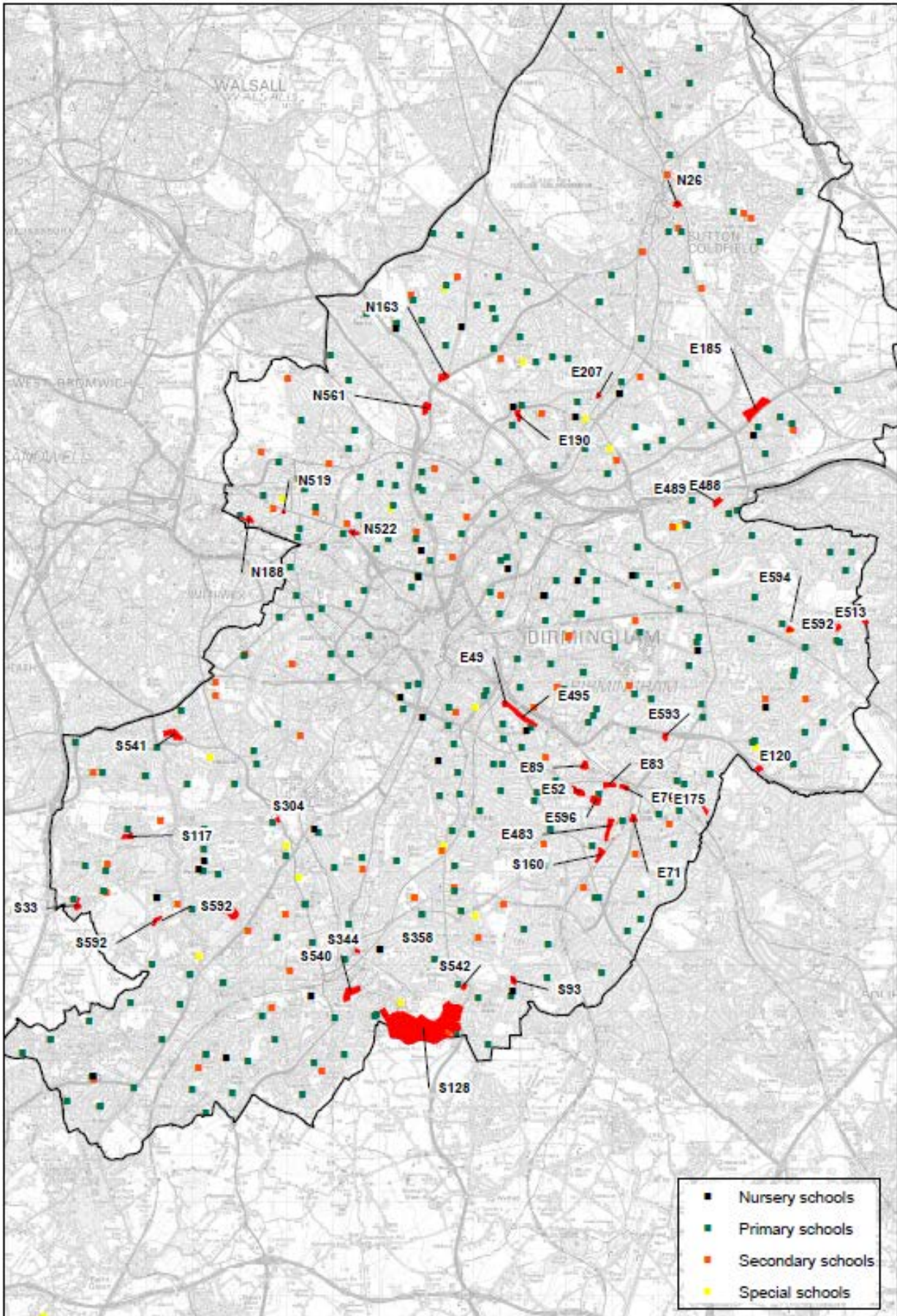


SITES AND IMD



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SITES AND SCHOOLS



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**Site-by-Site Analysis****EAST****Site: Dolland & Aitchison, Coventry Road, Yardley (E593), 1.26ha, 50 dwellings**

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but former employment site – demolition and remediation required.	0?
2. CO₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Cincinatti Building, Hansons Bridge Road (E185, Map 1), 8.69ha, 430 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a Local Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Montgomery Street (E495 & E49, Map 2), 1.55ha and 4.65ha, 60 and 240 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Current industrial use – surveys required.	+?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Land currently in industrial use, so re-location required. Site in an area of relatively high deprivation.	-?
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The sites have reasonable sustainability performance with no significant adverse effects identified, although there are uncertainties in respect of potential job loss and site remediation.



Site: Bus Depot, Summer Road/Fox Hollies Road (E71, Map 2), 1.4ha, 56 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Currently in use – surveys required.	+
2. CO₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Land currently in industrial use, so re-location required. Site in an area of relatively high deprivation.	-?
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District and Local Shopping Centres in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no significant adverse effects identified. Loss of jobs in an area of relatively high deprivation could be an issue.



Site: Tyseley Lane/Warwick Road, Acocks Green (E76, Map 2), 1.3ha, 42 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Rear of 635-773 Warwick Road, Acocks Green (E83, Map 2), 1.8ha, 60 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Land off Roma Road, South Yardley (E89, Map 2), 1.85ha, 74 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Adjacent to wildlife corridor, but no predicted effects.	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a Local Shopping Centres in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: 365 George Road (E190, Map 1), 2ha, 78 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Adjacent to allotments.	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a Local Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Coventry Road/Wagon Lane (E120, Map 1), 0.89ha, 49 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship identified	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Adjacent to wildlife corridor, but no effects predicted.	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	There are schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no significant adverse effects identified.



Site: Rear of 110-116 Summer Road (E207, Map 1), 0.57ha, 40 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship identified	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no significant adverse effects identified.



Site: Tipperary Close /Chipperfield Road (E488, Map 1), 0.81ha, 50 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	Partly in Flood Risk Zone 3a	-
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Adjacent to wildlife corridor, but no effects predicted.	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no significant adverse effects identified.



Site: Chipperfield Road (E489, Map 1), 0.86ha, 50 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	Partly in Flood Risk Zone 3a	-
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Adjacent to wildlife corridor, but no effects predicted.	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no significant adverse effects identified.



Site: Cooks Lane (E513, Map 1), 0.86ha, 36 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship identified	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no significant adverse effects identified.



Site: South of Weston Lane (E52, Map 2), 2.40ha, 90 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but former employment site – demolition and remediation required.	0?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Adj. canal at Woodcock Lane North (E175, Map 2), 1.03ha, 40 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but former employment site – demolition and remediation required.	0?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Denso, Shaftmoor Lane (E483, Map 2), 3.54ha, 124 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but former employment site – demolition and remediation required.	0?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: International School, Sheldon Hall Avenue (E592, Map 1), 1.22ha, 48 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land.	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Hallmoor School, Hallmoor Road (E594, Map 1), 1.19ha, 48 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land.	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Eaton Electricals, Reddings Lane (E596, Map 2), 2.80ha, 100 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but former employment site – demolition and remediation required.	0?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



SOUTH

Site: Druids Lane, Druids Heath (S128, Map 3) 84.4ha, 250 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land.	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools in the vicinity. District and Local Shopping Centres are some distance from the estate, however. Renewal of brownfield land will help to promote sense of place.	+
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.

Site: Land to the rear of 15-87 Cateswell Road, Hall Green (S160, Map 2) 2.5ha, 82 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but demolition required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a Local Shopping Centres in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Wychbury Road Allotments, Bartley Green (S33, Map 4) 1.55ha, 50 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land, but open space	+?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Loss of open space?	-?
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Loss of open space. The site is an area of relatively high deprivation with schools in the vicinity, although some distance from Local and District Shopping Centres.	0
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has mixed sustainability performance, with loss of open space being the most significant issue to be addressed, notwithstanding the allotment use which has ceased.



Site: Lakeside Centre, Lifford Lane (S540, Map 3) 4.8ha, 50 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but demolition required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Currently limited public transport	-
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	Potential flood risk issues	-
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Potential biodiversity issues	-
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and Local Shopping Centres in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has mixed sustainability performance with a number of potentially adverse impacts which require further investigation/mitigation – public transport accessibility flood risk and biodiversity as well as uncertainty over site remediation.



Site: Bus Depot, Yardley Wood Road (S93, Map 3) 1.3ha, 64 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but demolition/surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a Local Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Stevens Avenue, rear of 2-58 Simcox Gardens (S117, Map 4) 1.89ha, 75 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools in the vicinity, although some distance from local shopping facilities. . Renewal of brownfield land will help to promote sense of place.	+
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: 245 Harborne Lane (S304, Map 4) 0.5ha, 40 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Schools and shops in the vicinity. Renewal of brownfield land will help to promote sense of place.	+
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: 1650 Pershore Road (S344, Map 4) 0.51ha, 45 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Schools and shops in the vicinity. Renewal of brownfield land will help to promote sense of place	+
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: MillPool Hill Marina (S542, Map 4) 0.88ha, 40 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools in the vicinity. Renewal of brownfield land will help to promote sense of place.	+
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Martineau Centre (S541, Map 4), 4.57ha, 121 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site has ready access to s with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Manor House Northfield (S587, Map 4), 5.23ha, 130 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Re-use previously developed site.	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site has schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Bangham Pit Road (S592, Map 4), 1.02ha, 30 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	The site is an area of relatively high deprivation with schools and a District Shopping Centre in the vicinity. Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.

NORTH WEST

Site: Royal Works, Sutton Coldfield (N26, Map 5) 1.3ha, 66 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land, but remediation required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing	#
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place. Schools and a District Shopping Centre are in the vicinity.	++
8. HOUSING (SA OBJECTIVE 27)	Housing	++

Overall Assessment:

The site has good sustainability performance (notwithstanding the need for remediation) with no adverse effects identified.



Site: Land adjacent to 57 George Street, Handsworth (N188, Map 1) 1.37ha, 50 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land, but remediation required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing	#
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place. Schools and a District Shopping Centre are in the vicinity.	++
8. HOUSING (SA OBJECTIVE 27)	Housing	++

Overall Assessment:

The site has good sustainability performance (notwithstanding the need for remediation) with no adverse effects identified.



Site: Aldridge Road (N561, Map 1) 2.8ha, 112 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place. The site is in the broad vicinity of schools and a District Shopping Centre.	+
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Site off Kingstanding Road (N163, Map 1) 1.1ha, 56 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys/remediation required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	SLINC to the south (Tame Valley Canal)	0?
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place. Schools are in the vicinity although shopping facilities are not.	+
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, although there are uncertainties over remediation and effect on adjacent SLINC, the latter to be addressed through masterplanning.



Site: Booth Street/Holyhead Road (N519, Map 1) 0.2ha, 52 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but remediation required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Housing site	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place. Schools and a District Shopping Centre are in the vicinity.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Bill House, Soho Hill (N522) 1.2ha, 100 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land, surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Conservation Area	0?
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for mixed use.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place. Schools and a District Shopping Centre are in the vicinity.	++
8. HOUSING (SA OBJECTIVE 27)	Mixed use	+

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: 54 College Road (N165, Map 1) 0.95ha, 47 dwellings

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land, surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Conservation Area	0?
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for mixed use.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place. Schools and a District Shopping Centre are in the vicinity.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the City's housing stock	++

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Sites for Gypsies, Travellers and Travelling Showpeople

Land at Hubert Street/Aston Brook Street East

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land (previously housing)	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	The site has good access to the road network (adjacent to A5127 Aston Road)	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	No effects identified	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Redevelopment of brownfield land. Schools and a District Shopping Centre are in the vicinity.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the needs of gypsies, travellers and travelling showpeople.	++

Overall Assessment:

The site could provide 4 pitches and is in City Council ownership. The site adjoins an existing site and these could be used together. The site is available now. No adverse sustainability effects have been identified.

**Land at Rupert Street/Proctor Street**

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land (previously housing)	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	The site has good access to the road network (in proximity to Nechells Parkway)	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	No effects identified	0
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Redevelopment of brownfield land. Schools and a District Shopping Centre are in the vicinity.	++
8. HOUSING (SA OBJECTIVE 27)	Addition to the needs of gypsies, travellers and travelling showpeople.	++

Overall Assessment:

This site can provide around 10-15 pitches. It is in City Council ownership and is surplus to requirements. The site is currently used as a temporary car park, but is available now. The site has good access.

Alternative Sites Considered for Gypsies, Travellers and Travelling Showpeople

The process of considering alternative sites was in two stages: an initial call for sites which produced a very limited response with no sites being considered reasonable. Second a search of City Council-owned sites, 34 of which were discounted because their size with a further 18 rejected for a wide variety of reasons including access considerations, public open space and proximity to the Airport. A short list of 9 sites were considered further, with 7 of these dismissed for a variety of reasons including: proximity to a motorway, open space and allocation of the site for other uses. The two sites proposed for allocation are those considered to be realistic and suitable.



Appendix D Appraisal of proposed employment and retail sites

Employment Sites

Core Employment Areas (Policy TP18)

- Prologis Park, Minworth (33ha)
- The Hub, Witton (29ha)
- Washwood Heath (former Alstom/LDV) (55ha)
- Signal Point, Tyseley (8ha)
- Peddimore (71ha) (Policy GA6)

City Centre Enterprise Zone (26 sites in 7 clusters) (Policy GA1)

Regional Investment Sites (Policy TP17)

- The Longbridge RIS (25ha) will be developed in line with the detailed guidance contained within the Longbridge Area Action Plan, adopted in June 2009.
- The Aston RIS (20ha) will be developed in line with the principles established in the Aston, Newtown, Lozells Area Action Plan, adopted in July 2012.

Employment Sites outside of the Growth Areas (over 1 hectare) (see Maps in Appendix C)

North West Birmingham

Site Ref	Site name	Size (Ha)	Use
079230603, 079230604	Tameside Park, Aldridge Road	1.1	employment
079120114, 079120115	Holford Park, Tameside Drive and Holford Way	2.2	employment
088810602	Land adjacent to Aston Goods station, Rupert St	1.5	employment
N596	Tuckers (75-177 Walsall Road)	4.7	Opportunity site possible employment
079240500	Former P&O Container Depot, College Road	8.3	employment
088830800	Windsor Street Gas Works	3.0	employment



East Birmingham

Site Ref	Site name	Size (Ha)	Use
N/A	Former JCC Site Haden Way	4.7	bulky retail consent although scheme to be revised
118440400	Tyseley Wharf	5.26	employment
118431200	Hay Hall Road Yards	3.94	employment
108440400	Former Atlas Works, Redfern Road	2.1	employment
EG9	Former Bus Garage, Crossfield Road	1.3	employment
N/A	Former Waverley School, Hobmoor Road	3.6	education/ community
1108920500	Site Corner of Bromford Road and Fort Parkway	1.0	employment
108910300	Gravelly Industrial Park	3.5	employment
139120500	Erdington Industrial Park	2.8	employment
108420700	Webster and Horsfall, The Fordrough	4.1	employment
N/A	Ashold Farm Road	4.4	employment
139131201	Opus Aspect, Chester Road	1.8	employment
148720111	Yardley Brook Industrial Estate, Leaford Brook	2.6	employment

South Birmingham

Site Ref	Site name	Size (Ha)	Use
S9J	Arvin Mertior, Stirchley	2.1	employment
007710302	Great Park, Hollymoor Point	1.75	employment
998240113	Remainder Plot K, Woodgate Business Park	0.4ha	employment
S9K	Ardath Road	4.3	opportunity site, could accommodate a mix of uses
S9L	Edgbaston Mill Final Phase	0.9	hotel and leisure complex

Retail Areas

- City Centre, Sutton Coldfield, Selly Oak, Perry Barr and Meadway
- Erdington, Mere Green, Northfield district centres



Prologis Park, Minworth

A 33ha site situated to the south of the A38 and approximately 1 mile west of the M6 Toll/M42 junction.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	No relationship identified	#
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	No relationship identified	#
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Use of brownfield land.	++
2. CO ₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Addressed through development standards.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunity to address this issue.	+?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Addressed through development standards.	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Opportunities to enhance these modes.	+?
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Uncertainty over source of employees, with potential to increase long-distance commuting by car.	?
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Traffic generation hence CO2 emissions.	-
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Climate changes risks addressed through development process.	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No relationship identified	#
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural	No relationship identified	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
AND GEODIVERSITY	landscape.		
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Opportunity to enhance environmental quality.	+
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Traffic generation and hence increase in air pollution.	-
	16. Water Quality: Minimise water pollution levels and create good quality water.	No relationship identified	#
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No relationship identified	#
	18. Noise: Minimise noise pollution levels.	Traffic generation and hence increase in noise levels.	-
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Contribution to strengthening Birmingham's employment base.	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Opportunities to provide training opportunities to adjacent deprived areas.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	No relationship identified	#
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	No relationship identified	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	No relationship identified	#
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	No relationship identified	#

Overall commentary on character and sustainability performance of site(s)

Extension of this existing industrial area offers the opportunity to reinforce the qualities of this location for employment which is accessible to the strategic highway network and sources of labour in adjacent residential areas to the west, many of which are deprived. There are uncertainties over traffic impacts (hence pollution and climate change) and the provision of sustainable transport links to and from the site, but these depend upon the precise nature of development proposals, in particular the mix of uses and employment numbers. There could be opportunities for environmental enhancement.

The Hub, Witton

A 29ha brownfield site within a well-established industrial area located between Junctions 6 and 7 of the M6.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	No relationship identified	#
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	No relationship identified	#
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Use of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Addressed through development standards.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunity to address this issue.	+?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Addressed through development standards.	+



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Opportunities to enhance these modes.	+
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Uncertainty over source of employees, with potential to increase long-distance commuting by car.	?
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Traffic generation hence CO2 emissions.	-
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Climate changes risks addressed through development process.	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No relationship identified	#
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No relationship identified	#
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Opportunity to enhance environmental quality.	+
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Traffic generation and hence increase in air pollution.	-
	16. Water Quality: Minimise water pollution levels and create good quality water.	No relationship identified	#
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No relationship identified	#
	18. Noise: Minimise noise pollution levels.	Traffic generation and hence increase in noise levels.	-
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Contribution to strengthening Birmingham's employment base.	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Opportunities to provide training opportunities to adjacent deprived areas.	+
7. COMMUNITIES, HEALTHY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space,	No relationship identified	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
LIFESTYLES AND EQUALITY	encourage biodiversity, and promote local distinctiveness and sense of place.		
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	No relationship identified	#
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	No relationship identified	#
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	No relationship identified	#

Overall commentary on character and sustainability performance of site(s)

Redevelopment of part of this existing industrial area offers the opportunity to reinforce the qualities of this location for employment which is accessible to the strategic highway network and sources of labour in adjacent residential areas, many of which are deprived. There are uncertainties over traffic impacts (hence pollution and climate change) and the provision of sustainable transport links to and from the site, but these depend upon the precise nature of development proposals, in particular the mix of uses and employment numbers. There could be opportunities for environmental enhancement.



Washwood Heath

A 55ha brownfield site within a well-established industrial area located one mile east of the Gravelly Hill Interchange.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	No relationship identified	#
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	No relationship identified	#
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Use of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Addressed through development standards.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunity to address this issue.	+?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Addressed through development standards.	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Opportunities to enhance these modes.	+?
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Uncertainty over source of employees, with potential to increase long-distance commuting by car.	?
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Traffic generation hence CO ₂ emissions.	-
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Climate changes risks addressed through development process.	+
4. HISTORIC ENVIRONMENT, LANDSCAPE,	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No relationship identified	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
BIODIVERSITY AND GEODIVERSITY	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No relationship identified	#
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Opportunity to enhance environmental quality.	++
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Traffic generation and hence increase in air pollution.	-
	16. Water Quality: Minimise water pollution levels and create good quality water.	No relationship identified	#
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No relationship identified	#
	18. Noise: Minimise noise pollution levels.	Traffic generation and hence increase in noise levels.	-
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Contribution to strengthening Birmingham's employment base.	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Opportunities to provide training opportunities to adjacent deprived areas.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	No relationship identified	#
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	No relationship identified	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	No relationship identified	#
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	No relationship identified	#

Overall commentary on character and sustainability performance of site(s)

This site has been reserved for a depot associated with HS2. Redevelopment of part of this existing industrial area offers the opportunity to reinforce the qualities of this location for employment which is accessible to the strategic highway network and sources of labour in adjacent residential areas, many of which are deprived. There are uncertainties over traffic impacts (hence pollution and climate change) and the provision of sustainable transport links to and from the site, but these depend upon the precise nature of development proposals, in particular the mix of uses and employment numbers. There could be opportunities for environmental enhancement.

Signal Point, Tyseley

A 8ha brownfield site within a well-established industrial area located 4 miles to the south east of the City Centre in proximity to three radial routes connecting to the M42.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	No relationship identified	#
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	No relationship identified	#
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Use of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Addressed through development standards.	++
	3. Renewable Energy: Encourage development of alternative and renewable	Opportunity to address this issue.	+?

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	resources.		
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Addressed through development standards.	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Opportunities to enhance these modes.	+?
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Uncertainty over source of employees, with potential to increase long-distance commuting by car.	?
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Traffic generation hence CO2 emissions.	-
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Climate changes risks addressed through development process.	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No relationship identified	#
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No relationship identified	#
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Opportunity to enhance environmental quality.	+?
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Traffic generation and hence increase in air pollution.	-
	16. Water Quality: Minimise water pollution levels and create good quality water.	No relationship identified	#
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No relationship identified	#
	18. Noise: Minimise noise pollution levels.	Traffic generation and hence increase in noise levels.	-
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Contribution to strengthening Birmingham's employment base.	++

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Opportunities to provide training opportunities to adjacent deprived areas.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	No relationship identified	#
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Opportunities to provide employment opportunities to adjacent deprived areas.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	No relationship identified	#
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	No relationship identified	#
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	No relationship identified	#

Overall commentary on character and sustainability performance of site(s)

Redevelopment of part of this existing industrial area offers the opportunity to reinforce the qualities of this location for employment which is accessible to the strategic highway network and sources of labour in adjacent residential areas, many of which are deprived. There are uncertainties over traffic impacts (hence pollution and climate change) and the provision of sustainable transport links to and from the site, but these depend upon the precise nature of development proposals, in particular the mix of uses and employment numbers. There could be opportunities for environmental enhancement.



Peddimore, East of the Sutton Coldfield Bypass, Walmley (Policy GA6)

Area D: a site to the east of the A38 at Walmley

Option: Area C a site to the west of the A38 at Walmley

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT	
			AREA D	AREA C
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	0	0
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management.	+	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-	-
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a site of this size.	+	+
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Poor access to rail stations (Sutton 5km), but good access to the strategic road network (A38) which could encourage car travel.	0	0
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Area C is closer to existing residential areas and hence sources of employees.	0	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to relative distance from services and employment.	0	0

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT	
			AREA D	AREA C
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Limited historic assets generally, although presence of one large SAM on Area D.	0	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Both areas are a mixture of low to medium visual sensitivity with opportunities for mitigation.	+	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Both areas are of low-moderate ecological value.	0	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport, although opportunities for walking and cycling links to Sutton. Possible impacts on existing residential areas (Area C).	0	-?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely (Area D). Possible impacts on existing residential areas (Area C).	0	-?
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development.	++	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development.	+	+
7. COMMUNITIES, HEALTHY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote	Opportunities to develop high quality, landscaped commercial area.	+	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT	
			AREA D	AREA C
LIFESTYLES AND EQUALITY	local distinctiveness and sense of place.			
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Opportunities for business-led community involvement.	+	+
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No direct relationship.	#	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Poor access to services, Walmley local centre 2.3km and Sutton town centre 4.5km (Area D); Area C in relatively close proximity to service provision.	0	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Employment opportunities in a range of business uses.	+	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	No direct relationship.	#	#
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No direct relationship.	#	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	No direct relationship.	#	#
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	No direct relationship.	#	#

Overall commentary on character and sustainability performance of the site(s)

The sites have a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of employment provision, green infrastructure and renewable energy, particularly for a site of this size. Negative impacts are associated with the loss of greenfield land and impacts on CO2 emissions due to increased vehicle travel (for employees and businesses). Overall, Area D is the more sustainable of the two options having greater accessibility to the motorway network, marginally less landscape and biodiversity impacts, and there being potential impacts on areas adjacent to Area C associated with noise and air quality arising from employment uses.

City Centre Enterprise Zone

Promoted as part of the Big City Plan and the strategy of the Greater Birmingham and Solihull LEP, the City Centre EZ comprises a network of 26 sites covering 68ha in seven clusters which have been identified as offering significant growth opportunities. There are a range of financial incentives and streamlined planning arrangements.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	+
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Significant opportunities to implement renewable e.g. district heating	++
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Additional development will help to support and extend sustainable travel options throughout the City Centre.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to services and jobs reduces travel.	++
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Proximity to services and jobs reduces travel, although intensification of development could increase the heat island effect.	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Focusing housing development on the City Centre quarters will assist their regeneration, although intensification of development could compromise the historic character of some areas.	+
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Limited or no impact given the urbanised character of the City Centre.	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Limited or no impact given the urbanised character of the City Centre.	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Further intensification of development could increase air pollution.	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	Further intensification of development could add to the pollution load.	?
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	Limited or no impact given the urbanised character of the City Centre.	?
	18. Noise: Minimise noise pollution levels.	Further intensification of development could increase noise pollution.	?
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Promotion of employment-related development is likely to have significant positive effects on the City, sub-regional and regional economy.	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Opportunities to develop learning and skills provision.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a distinctive urban character through the Quarters approach, although potential dangers of over-intensification.	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Scale of existing and potential development should promote access to a range of accessible services and employment opportunities.	++
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Scale of existing and potential development should promote access to a range of accessible services and employment opportunities.	++
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to promote walking and cycling throughout the City Centre.	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Opportunities to promote participation in cultural and sporting activities.	+
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Significant opportunities to provide a range of housing types to meet identified needs and demands as part of mixed use development.	++

Overall commentary on character and sustainability performance of site(s)

The economy of Birmingham City Centre is critical to the City, sub-region and region. Initiatives to boost investment and hence job growth are likely to have significant multiplier effects and hence deliver a more successful and economically sustainable City. The intensification of development across the City Centre is likely to lead to a range of positive effects, principally associated with increasing opportunities for access to a range of housing, service and employment provision, whilst helping regeneration efforts. Nevertheless, the likely effects are complex and potential impacts on biodiversity, cultural heritage, employment land provision and climate change will have to be carefully managed.

Longbridge RIS

A 25ha site, part of comprehensive area regeneration of the former Longbridge works, brought forward under the Longbridge AAP.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in the area and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to service provision and sources of employment	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#



SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	++
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	N/A – no relationship	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	N/A – no relationship	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to provide walking and cycling access to services and jobs	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Limited access to open space but opportunities to provide walking and cycling access to services	0
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Sites should offer opportunities for affordable housing provision.	#

Overall commentary on character and sustainability performance of site(s)

This area is the subject of an Area Action Plan which sets out in detail proposals for its regeneration and sustainable development. The RIS is an important component of the strategy of providing high quality employment land which contributes to area and City performance in attracting inward investment and job creation.

Aston RIS

A 20ha site, part of comprehensive area regeneration, brought forward under the Aston, Newton, Lozells AAP

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers significant opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Redevelopment of brownfield land.	++
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in the area and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Proximity to service provision and sources of employment	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	++

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	N/A – no relationship	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	N/A – no relationship	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to provide walking and cycling access to services and jobs	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Limited access to open space but opportunities to provide walking and cycling access to services	0
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Sites should offer opportunities for affordable housing provision.	#

Overall commentary on character and sustainability performance of site(s)

This area is the subject of an Area Action Plan which sets out in detail proposals for its regeneration and sustainable development. The RIS is an important component of the strategy of providing high quality employment land which contributes to area and City performance in attracting inward investment and job creation.

Employment Sites Outside of the Growth Areas (over 1 hectare)

EAST

Site: Former JCC Site, Haden Way (NOT MAPPED) 4.7ha, retail

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land will help to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Retail	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Hay Hall Road Yards (118431200, Map 2), 3.94ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Tyseley Wharf (108440400, Map 2) 5.26ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Yardley Brook Industrial Estate, Leaford Road, (148720111) 2.6ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Adjacent to SINC	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Former Atlas Works, Redfern Road (108440400, Map 2) 2.1ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Opus Aspect, Chester Road, (139131201) 1.8ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Opportunity to enhance environmental quality	+
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Former Bus Garage, Crossfield Road, Shard End (NOT MAPPED) 1.3ha employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Former Waverley School, Hobmoor Road (NOT MAPPED) 3.6ha, education/community

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Majority of sites playing fields	0
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Education/community use in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Opportunities for community use	++
8. HOUSING (SA OBJECTIVE 27)	Education/community use	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Corner of Bromford Road and Fort Parkway (118920500, Map 1) 1ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	Flood Risk Zone 2	-?
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from the site's location in a flood risk zone which would need to be addressed through masterplanning.



Site: Gravelly Industrial Park (108910300, Map 1) 3.5ha employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	Flood Risk Zone 2?	-?
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from the site's location in a flood risk zone which would need to be addressed through masterplanning.



Site: Erdington Industrial Park (139120500, Map 1) 2.8ha employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Webster and Horsfall, The Fordrough (108420700) 4.1ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Opportunity to enhance environmental quality	+
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Ashold Farm Road, (NOT MAPPED) 4.4ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



SOUTH

Site: Arvin Meritor site, Stirchley (S9j, Map 3) 2.1ha, employment-led, mixed use

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land, but surveys required.	++?
2. CO₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.



Site: Great Park, Hollymoor Point (07710302, Map 4) 1.75ha employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Remainder Plot K, Woodgate Business Park, Kettleswood Drive (998240113. Map 4) 0.4ha employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Ardath Road, Kings Norton (S9k, Map 3) 4.3ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land, but significant remediation required as former landfill site.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance (notwithstanding the need for significant remediation) with no adverse effects identified.



Site: Edgbaston Mill (S9I, Map 2) 0.9ha hotel and leisure

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



NORTH WEST

Site: Tameside Park, Aldridge Road (07923603, Map 1) 1.1ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Holford Park, Tameside Drive and Holford Way (079120114, Map 1) 2.2ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	Flood Zones 2 and 3	-?
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Adjacent to wildlife corridor.	0?
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no significant adverse effects identified. However, the site lies within flood risk zones and is adjacent to a wildlife corridor, issues which will need to be addressed as part of masterplanning.



Site: Windsor Street Gas Works (088830800, Map 1) 3ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Land adjacent to Aston Goods Station, Rupert Street (088810602, Map 1) 1.5ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	No effects identified	0
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Tuckers, 75-177 Walsall Road, Perry Barr (N596, NOT MAPPED) 4.7ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land	++
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No effects identified	0
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	SLINC/Wildlife Corridor to east	0?
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Redevelopment for employment	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified.



Site: Former P&O Container Depot, College Road, (079240500) 8.3ha, employment

SA THEME	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE (SA OBJECTIVES 1, 7 & 8)	Use of brownfield land but surveys required.	++?
2. CO ₂ EMISSIONS (SA OBJECTIVES 2, 3, 4, 5, 6 & 9)	Location offers opportunities for use of public transport.	++
3. CLIMATE CHANGE ADAPTATION (SA OBJECTIVE 10)	No relationship at this scale	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY (SA OBJECTIVES 12, 13 & 14)	Opportunity to enhance environmental quality	+
5. POLLUTION (SA OBJECTIVES 15, 16, 17 & 18)	No effects identified	0
6. ECONOMIC GROWTH (SA OBJECTIVES 20 & 21)	Job provision in an area of relatively high deprivation.	++
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY (SA OBJECTIVES 11, 19, 22, 23, 24, 25, 26 & 28)	Renewal of brownfield land which helps to promote sense of place.	++
8. HOUSING (SA OBJECTIVE 27)	Employment	#

Overall Assessment:

The site has good sustainability performance with no adverse effects identified, apart from potential uncertainty over the nature and extent of site remediation which might be required.

Retail Areas

- City Centre, Sutton Coldfield, Selly Oak, Perry Barr and Meadway
- Erdington, Mere Green, Northfield district centres

City Centre (Policy GA1), Sutton Coldfield (Policy GA4), Selly Oak (Policy GA9), Perry Barr (Policy GA3) and Meadway (Policy GA8)

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Uncertain at this stage.	?
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in Sutton Coldfield and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Concentration of service provision offers efficiencies, but could reinforce patterns of exclusion	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels and congestion	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	Opportunities to use retail centres to engender stronger community identity through a focus of cultural activity.	++
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop walking and cycling access to retail centres	++
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Opportunities to use retail centres to engender stronger community identity through a focus of cultural activity.	++
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Some areas could offer opportunities for mixed use and particularly affordable housing provision.	+

Overall commentary on character and sustainability performance of site(s)

Strengthening the role of existing centres represents a sustainable approach to development, making use of existing services and employment opportunities. Whilst potential issues concerning over-intensification will need to be recognised, the principle of using existing centres to accommodate additional development where possible means that a wide range of sustainability objectives can be realised. This does not, however, detract from the challenge of maintaining the vitality of higher order retail centres, including the City Centre, which have been under pressure in the recession and face the need to restructure to reflect changing retail habits.

Erdington, Mere Green, Northfield district centres (Policy TP5)

SA THEME	SA OBJECTIVES	COMMENTARY	SIGINIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New build offers opportunities for implementing high standards of design and construction.	++
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Scale of development will contribute to opportunities for recycling in the wider community.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Uncertain at this stage.	?
2. CO₂ EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	New build offers significant opportunities for implementing high standards of design and construction.	++
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Uncertain whether this can be implemented.	?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	New build offers significant opportunities for implementing high standards of design and construction.	++
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Sites likely to be located in proximity to transport infrastructure in Sutton Coldfield and access to Birmingham for higher order services.	++
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Concentration of service provision offers efficiencies, but could reinforce patterns of exclusion	+
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Opportunities to promote greater self-containment of the wider community through jobs and services	+
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Assumed to be part of good design	#
4. HISTORIC ENVIRONMENT, LANDSCAPE,	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	No evidence of likely positive/adverse impacts	0

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
BIODIVERSITY AND GEODIVERSITY	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	No evidence of likely positive/adverse impacts	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	No evidence of likely positive/adverse impacts	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Possible increases in traffic levels and congestion	?
	16. Water Quality: Minimise water pollution levels and create good quality water.	No evidence of likely adverse impacts	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No evidence of likely adverse impacts	0
	18. Noise: Minimise noise pollution levels.	No evidence of likely adverse impacts	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Increase in the local workforce could help to strengthen economic development	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Increase in the local workforce could help to strengthen economic development	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunity to secure regeneration and enhance sense of place	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	No relationship identified	#
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	Opportunities to use retail centres to engender stronger community identity through a focus of cultural activity.	++
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Part of an existing built-up area	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Part of an existing built-up area	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop walking and cycling access to retail centres	++

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Assumed to be part of good design	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Opportunities to use retail centres to engender stronger community identity through a focus of cultural activity.	++
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Some areas could offer opportunities for mixed use and particularly affordable housing provision.	+

Overall commentary on character and sustainability performance of site(s)

Strengthening the role of existing centres represents a sustainable approach to development, making use of existing services and employment opportunities. Whilst potential issues concerning over-intensification will need to be recognised, the principle of using existing centres to accommodate additional development where possible means that a wide range of sustainability objectives can be realised. This does not, however, detract from the challenge of maintaining the vitality of district centres which have been under pressure in the recession and face the need to restructure to reflect changing retail habits.



Appendix E

Environmental and Socio-Economic Baseline

The baseline information identifies current environmental and socio-economic issues and problems in the plan area which should be addressed in BDP provides a basis for predicting and monitoring the effects of implementing the BDP. 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 Table E1.

Table E1 Key SEA Topics Covered by Baseline

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 BDP) can be identified and its subsequent success or otherwise be monitored.

Evidence to support the issues has been identified from the most recent Birmingham Annual Monitoring Report⁶⁷, and the websites/reports of a number of organisations, such as the Birmingham City Council, Birmingham Strategic Partnership, Environment Agency, Natural England, Audit Commission, and Department of Health.

There is a wealth of information available on sustainability issues for Birmingham and the purpose of this report is not to duplicate it unnecessarily, but to ensure that sufficient information exists to inform the appraisal of the policies and to identify key information that may be considered appropriate. It should also identify gaps where they may exist.

⁶⁷ Birmingham City Council (2014) **Birmingham Local Development Framework: Annual Monitoring Report 2013**

Key Sustainability Issues and Baseline Data

The following sections set out a summary of the baseline environmental, social and economic conditions in Birmingham. The SEA Directive also requires that the evolution of the baseline conditions of the plan area (that would take place without the plan or programme) are identified. This is useful in informing assessments of significance, particularly with regard to the effect that conditions may already be improving or worsening and the rate of such change. Where information on these trends is available it has been included in the following sections. 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.

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 Study⁶⁸, 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/day⁶⁹. This was lower than the national average in 2007/08 of 14 litres/head/day (Audit Commission⁷⁰).

The current Water Resources Plan⁷¹, prepared by Severn Trent Water for the Birmingham Water Resource Zone includes the development of four significant new water resources. These developments mean that the growth identified in the Water Resources Plan can be accommodated without the zone going into deficit. This zone requires new water resource developments to keep the zone in surplus. Without the necessary

⁶⁸ Communities and Local Government (2007) Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005: Construction, Demolition and Excavation Waste

⁶⁹ <http://www.defra.gov.uk/sustainable/government/progress/regional/summaries/16.htm>

⁷⁰ <http://www.defra.gov.uk/sustainable/government/progress/national/16.htm>

⁷¹ Severn Trent Water (2013) Water Resources Management Plan



resource development the zone will go into a significant deficit by 2030. New additional water management measures or water resources will be needed to ensure water is available to meet the needs of new housing.

Sustainable Design, Construction and Maintenance

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

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

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

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.⁷²

The Climate Change Strategic Framework⁷³ identifies that 46% of Birmingham's CO₂ emissions come from industry, 33% from domestic energy and 21% from road transport. The Framework outlines that Birmingham has limited scope for large-scale renewable energy projects; however energy users can support developments elsewhere through their purchasing decisions. Furthermore it is acknowledged in the Annual Monitoring Report¹ that the City Council currently does not monitor the provision of new renewable energy capacity although consideration is being given by the Council to ways of monitoring additional renewable energy capacity installed through new development.

Photovoltaic panels are currently fitted to some buildings as part of the 'Birmingham Energy Savers Scheme', the scheme producing some 468 installations.

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

⁷² Birmingham City Council website 'Renewable Energy'

⁷³ Birmingham City Council (2009) Cutting CO₂ for a Smarter Birmingham Strategic Framework



recycled with the remaining material used within the construction industry. This is substantially short of the target for renewable energy to account for 15% of energy produced by 2020 in the Climate Change Strategy and Action Plan Consultation 2007. The City has a number of operational 'Combined Heat and Power' (CHP) facilities, such as Birmingham Children's Hospital and Aston University which are part of an award winning CHP scheme, which are able to generate and supply heat and electricity for local consumption. The connection of Birmingham Children's Hospital to the CHP scheme has allowed for the supply of heat to Lancaster Circus. Developers have also shown an interest in bring forward Anaerobic Digestion (AD) energy generating schemes. As set out in the AMR 2013, the Council will work positively with developers to realise the opportunities that AD hold and emphasise the potential of AD technology for use within Birmingham City Centre as it is a technology seen by the Government as a sustainable and viable waste management solution which utilises waste as a valuable resource.

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

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

Sustainable Transport

Rail and Metro

Birmingham New Street Station is a major rail interchange offering direct services to cities across England, Wales and Scotland. There is also a network of suburban and freight rail services and one light rail line. The Sustainable Community Strategy identifies the major improvements planned for New Street Station and further extensions of the Metro. There are plans to extend the Metro from Snow Hill to Five Ways through

the City Centre. Furthermore the Strategy indicates that plans have been announced to extend Birmingham International Airport's runway.

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

Road

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

Congestion is a significant issue and demand exceeds available capacity at certain times and in some locations, both on road and rail. Congestion has indirect and cumulative effects on the economy, on people's health and well being and on air quality. Congestion can make deliveries less reliable and deter investment. Congestion also affects the wider transport of goods and services via the M5 and M6 and whilst the opening of the M6 Toll has provided an alternative for some trips, there are still significant peak hour demands that require management.

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

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

Bus and Coach

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

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

Travel Behaviour

Birmingham has a relatively high percentage of households without a car – 35.8% compared to the English average of 25.6%⁷⁴. However, despite this fact, just over half of people who both live and work in the City use their car to get to work, only a fifth use the bus, and a tenth walk or work from home¹⁸. In contrast, over three quarters of people commuting into the city use a car, about a tenth use the train, and a further tenth travel by bus. Table E2 shows statistics for people travelling to work in Birmingham.

Table E2 Means of Travel to Work in Birmingham, 2001 (Census 2001)

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

Source: ONS 2001 Census

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

In 2006/7 some 62.7% of bus users in the West Midlands metropolitan areas were satisfied with services which already exceeds the target of 60% by 2009/10 (West Midlands Local Transport Plan Delivery Report 2006-2008). Bus punctuality⁷⁵ in 2006/7 was about 65%, marginally below the target. Performance has tended to vary from year to year and from corridor to corridor (West Midland Local Transport Plan Delivery report 2006-2008). The Transportation and Street Services Overview and Scrutiny Committee set a target of 83% by 2010/11.

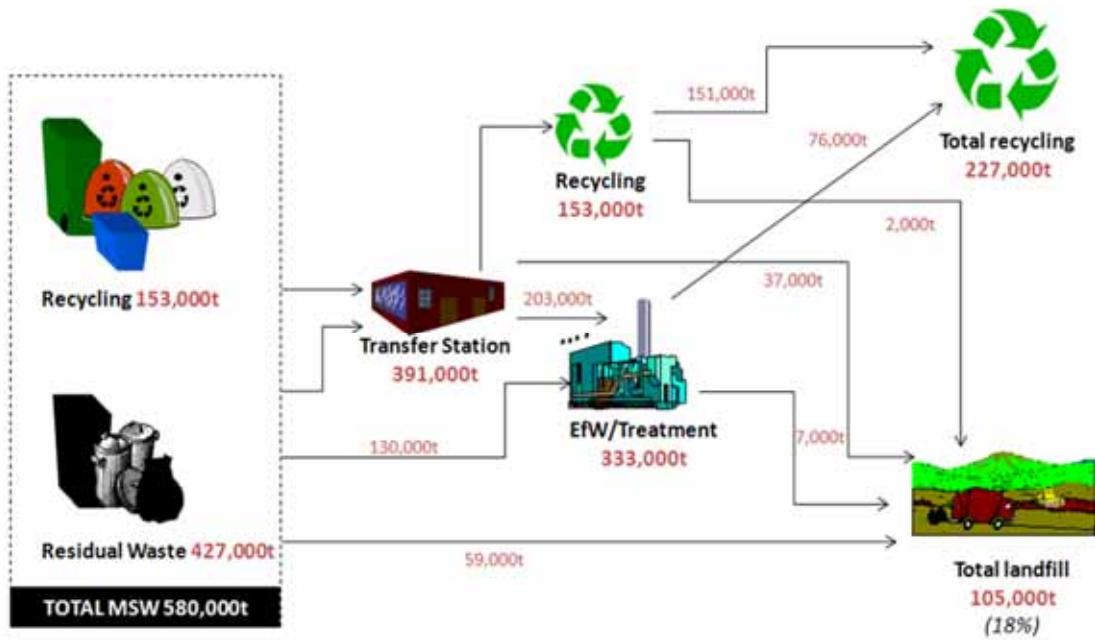
Waste Management

In 2012/13 there was 488,867 tonnes of municipal waste collected of which 70.48% was used to recover heat and power from the Tyseley EfW facility. Municipal waste is a significant part of the waste stream, but only represents a small proportion of the total amount of waste produced in Birmingham (Figure E1).

⁷⁴ Birmingham City Council (2014) Annual Monitoring Report 2013

⁷⁵ Birmingham City Council (2007) Building Bus Use: A Report from Overview & Scrutiny

Figure E1 Destination of Birmingham’s Waste Stream



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 E3).

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)⁷⁶. 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.

⁷⁶ Birmingham City Council (2006) Municipal Waste Management Strategy 2006-2026

Table E3 Municipal Waste Arising in Birmingham and Management 2002 - 2013

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

Source: BCC AMR 2013

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, 2009).

There are a number of sites which could be subject to land contamination within Birmingham. This includes a total of 67 former known landfill sites that have been identified in the City since the 1960s although risk and remediation schemes have already been carried out on many of these sites. The majority of identified landfill sites are situated next to housing and some are located on Birmingham's major aquifer. Public open space within the city, except for the 85ha that former landfills, this land is not likely to be affected by contamination⁷⁷.

⁷⁷ Birmingham City Council (2008) Contaminated Land Inspection Strategy for Birmingham Second Edition

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

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

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

Influence of the BDP on Material Assets

The BDP 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.

Climatic Factors

Climate Change

UK Climate Change Projections (UKCP09)⁷⁸ suggest that mean summer temperatures could rise by 2.6°C, summer rainfall could decrease by 17% and winter rainfall could increase by 13% in the West Midlands by the 2050s. These are the central estimates for a medium emissions scenario. By the 2050s central England could have irrigation needs similar to those currently seen in central and southern Europe. Mean monthly river flows could decrease by 50% to 80%. However, by the 2080s, the latest UK climate projections (UKCP09) are that there could be around three times as many days in winter with heavy rainfall (defined as more than 25mm in a day). It is plausible that the amount of rain in extreme storms (with a 1 in 5 annual chance, or rarer) could increase locally by 40%⁷⁹. 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 Assessment⁸⁰ the following key impacts associated with climate change are likely:

⁷⁸ UKCP09 <http://ukclimateprojections.defra.gov.uk/content/view/515/499/>

⁷⁹ Birmingham City Council (2011) Preliminary Flood Risk Assessment

⁸⁰ http://www.sustainabilitywestmidlands.org.uk/media/resources/adaptation_sub-committee_report.pdf

- 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 900MI/day on average is projected to turn into a water supply deficit of around 1,250MI/day by the 2020s and 5,500MI/day by the 2050s, with large regional variations;
- Potential health risks related to hotter summer conditions, but potential benefits from milder winters;
- There are projected to be between 580 to 5,900 additional premature deaths per year by the 2050s in hotter summer conditions. Conversely, between 3,900 and 24,000 premature deaths are projected to be avoided per year with milder winters by the 2050s;
- Sensitive ecosystems that have already been degraded by human activity may be placed under increasing pressure due to climate change. The main direct impacts relate to changes in the timing of life-cycle events, shifts in species distributions and ranges, and potential changes in hydrological conditions. While some species would benefit from these changes, many more would suffer; and
- Some climate changes projected for the UK provide opportunities to improve sustainable food and forestry production. Some agri-businesses may be able to increase yields of certain types of crops and introduce new crops in some parts of the country, as long as pests and diseases are effectively controlled and sustainable supplies of water are available.

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

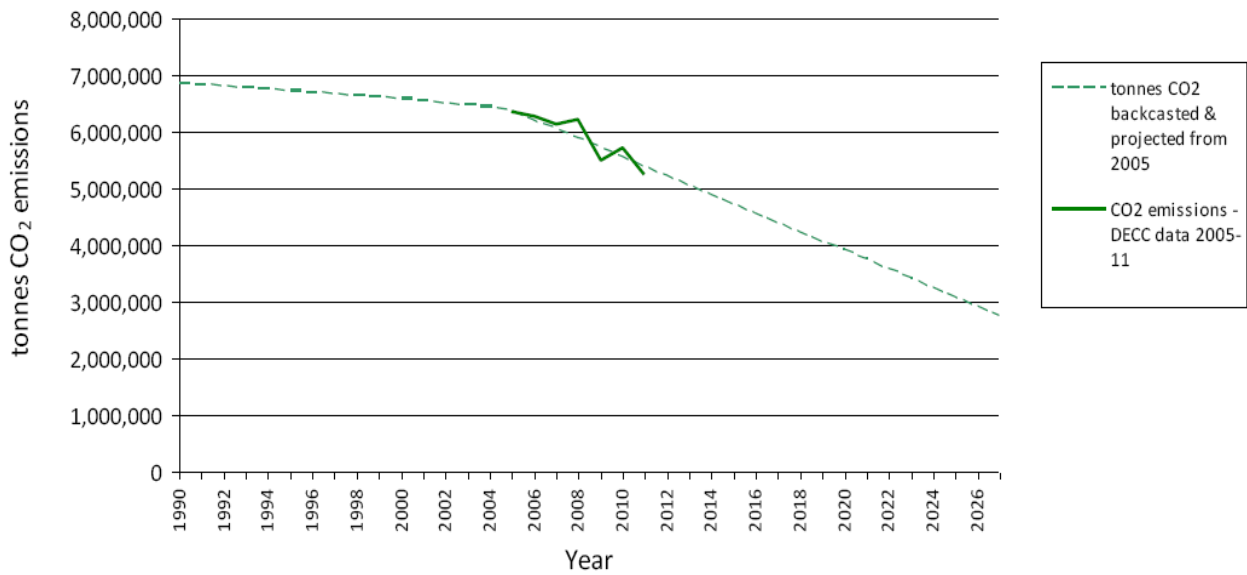
Birmingham imports in the region of 22,800GWhr of energy per year costing the city's population and businesses over £1.5bn, with costs predicted to rise along with fuel prices over the coming years⁸¹. The Climate Change Strategic Framework⁸² identifies that 46% of Birmingham's CO₂ emissions come from industry, 33% from domestic energy and 21% from road transport. Between 2005 and 2011, there was a 12.5% decrease in per capita carbon emissions (Figure E2). 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 D2 where a halving of emissions over the next ten years is anticipated.⁸³

⁸¹ Birmingham City Council website 'Renewable Energy'

⁸² Birmingham City Council (2009) Cutting CO₂ for a Smarter Birmingham Strategic Framework

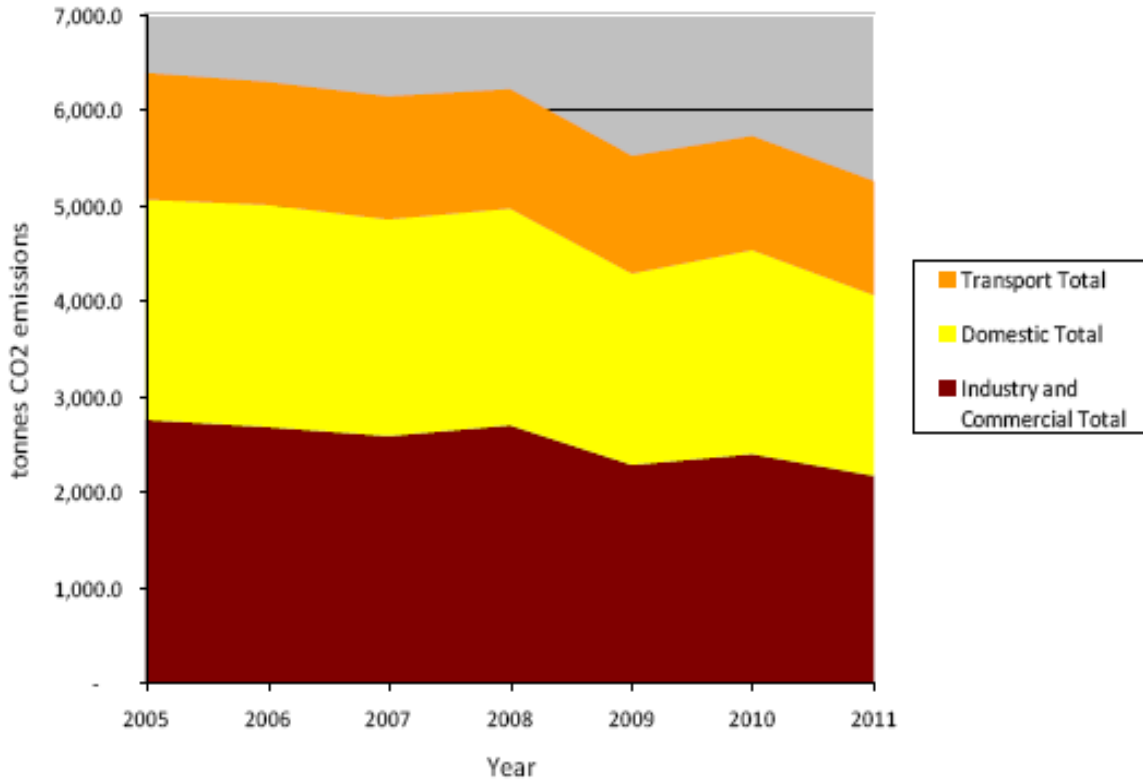
⁸³ Birmingham's Green Commission (September 2013) Report on Birmingham's Carbon Emissions Progress <http://greencity.birmingham.gov.uk/wp-content/uploads/2013/11/Birmingham-CO2-Emissions-Progress-September-2013.pdf>

Figure E2 CO2 Emissions Progress and Required Reduction Path



In terms of sectoral emissions (Figure E3), the clearest contributions to overall reductions are associated with the industrial and domestic sectors, with transport proving to be more stubborn.

Figure E3 Birmingham’s CO2 Emissions by Sector 2005- 2011



Birmingham’s CO2 Framework suggests that the City has limited scope for large-scale renewable energy projects; however energy users can support developments elsewhere through their purchasing decisions. The largest renewable energy scheme currently operating in Birmingham is probably the Tyseley Energy from

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

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

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

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

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

Managing Climate Change

Many of Birmingham's rivers and streams are susceptible to flooding (whether due to climate change or otherwise) and Birmingham City Council is required to consult the Environment Agency on all planning applications within the floodplain zones defined by the Agency. During 2011/12 Birmingham City Council received 17 responses on full planning applications from the Environment Agency. Only two of these applications were approved with an outstanding Environment Agency objection, and in these cases it was felt that the Agency's concerns could be adequately addressed through conditions.

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

Flooding

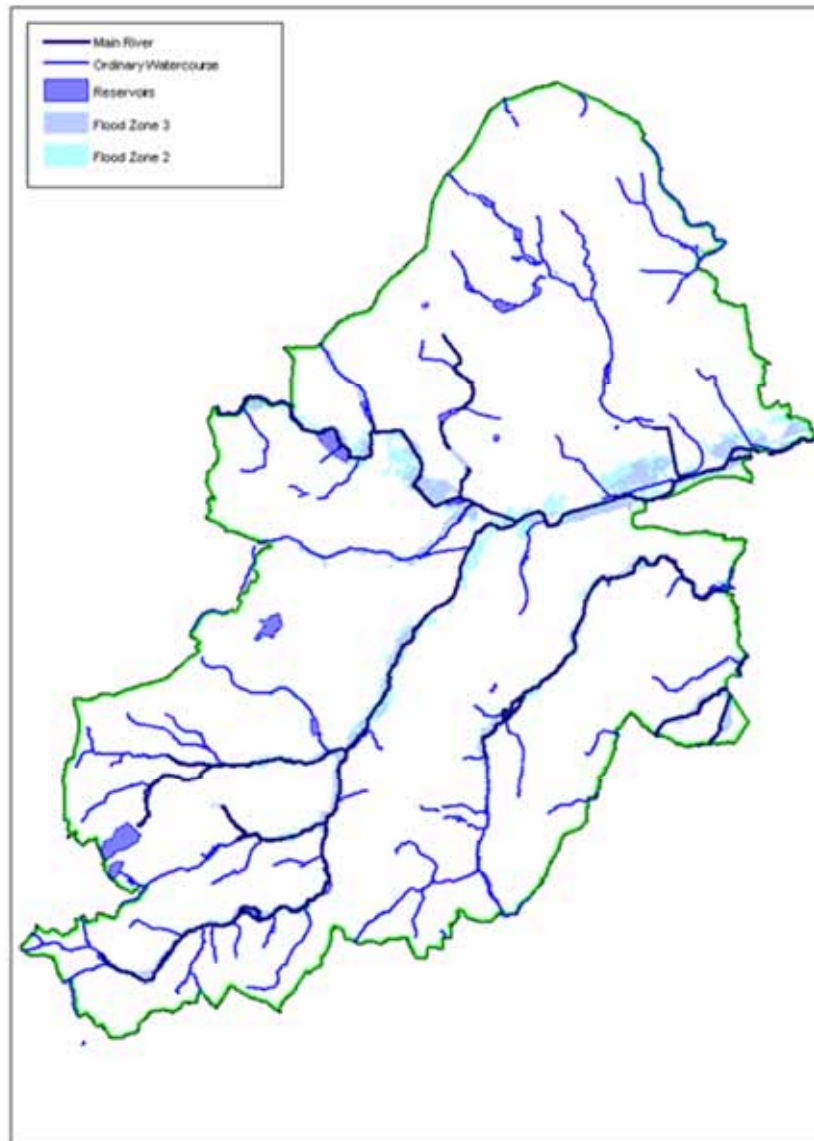
Flood Risk

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

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

Fluvial Flood Risk

Fluvial flooding occurs when water draining from the surrounding land exceeds the capacity of a watercourse. The Environment Agency produced Flood Zones show the areas potentially at risk of flooding from rivers, ignoring the presence of defences. Figure E4 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 E4 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:

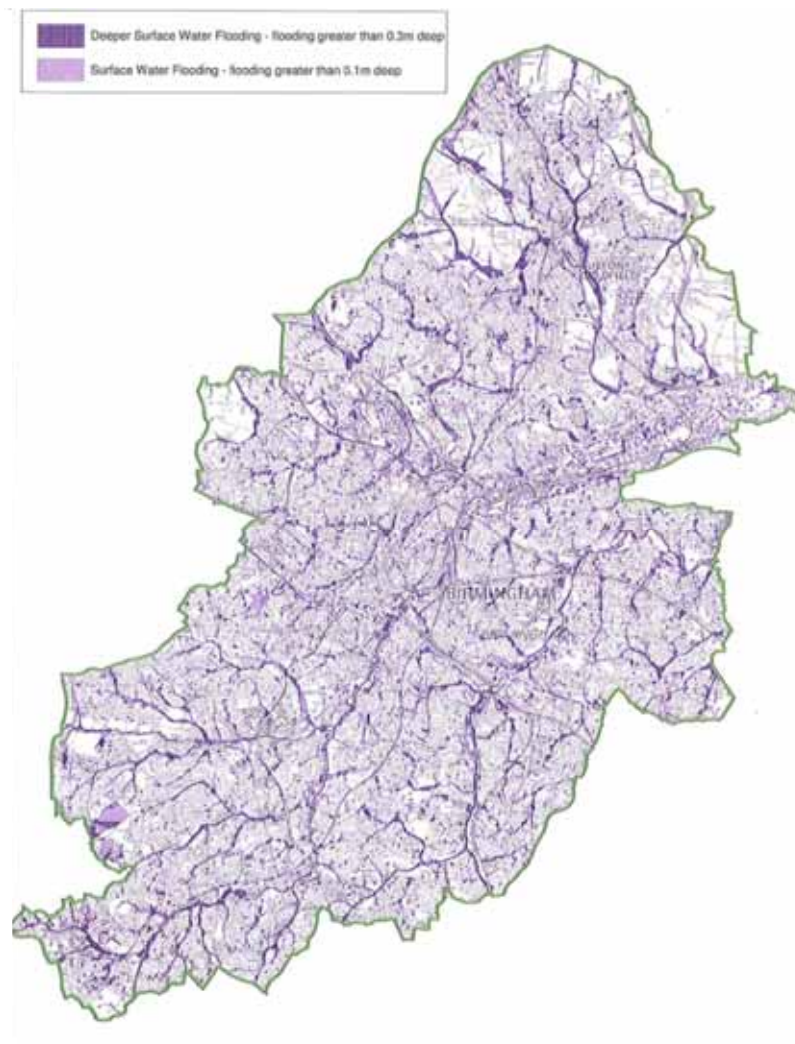
- Pluvial flooding - flooding as a result of high intensity rainfall when water is ponding or flowing over the ground surface (surface run-off) before it enters the underground drainage network or watercourse, or cannot enter it because the network is full to capacity;
- Sewer flooding⁸⁴ - flooding which 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;

⁸⁴ Consideration of sewer flooding in 'dry weather' resulting from blockage, collapse, or pumping station mechanical failure is excluded from SWMPs as this is for the sole concern of the sewerage undertaker

- Flooding from small open-channel and culverted urban watercourses⁸⁵ which receive most of their flow from inside the urban area; and
- Overland flows from the urban/rural fringe entering the built-up area, including overland flows from groundwater springs.

Birmingham City Council is currently developing a Surface Water Management Plan. The SWMP process is a framework through which key local partners with responsibility for surface water and drainage in their area work together to understand the causes and effects of surface water flooding and agree the most cost effective way of managing surface water flood risk for the long term. The process of working together as a partnership is designed to encourage the development of innovative solutions and practices. The purpose is to make sustainable urban surface water management decisions that are evidence based, risk based, future proofed and inclusive of stakeholder views and preferences. Figure E5 illustrates the areas susceptible to surface water flooding across the City.

Figure E5 Areas Susceptible to Surface Water Flooding



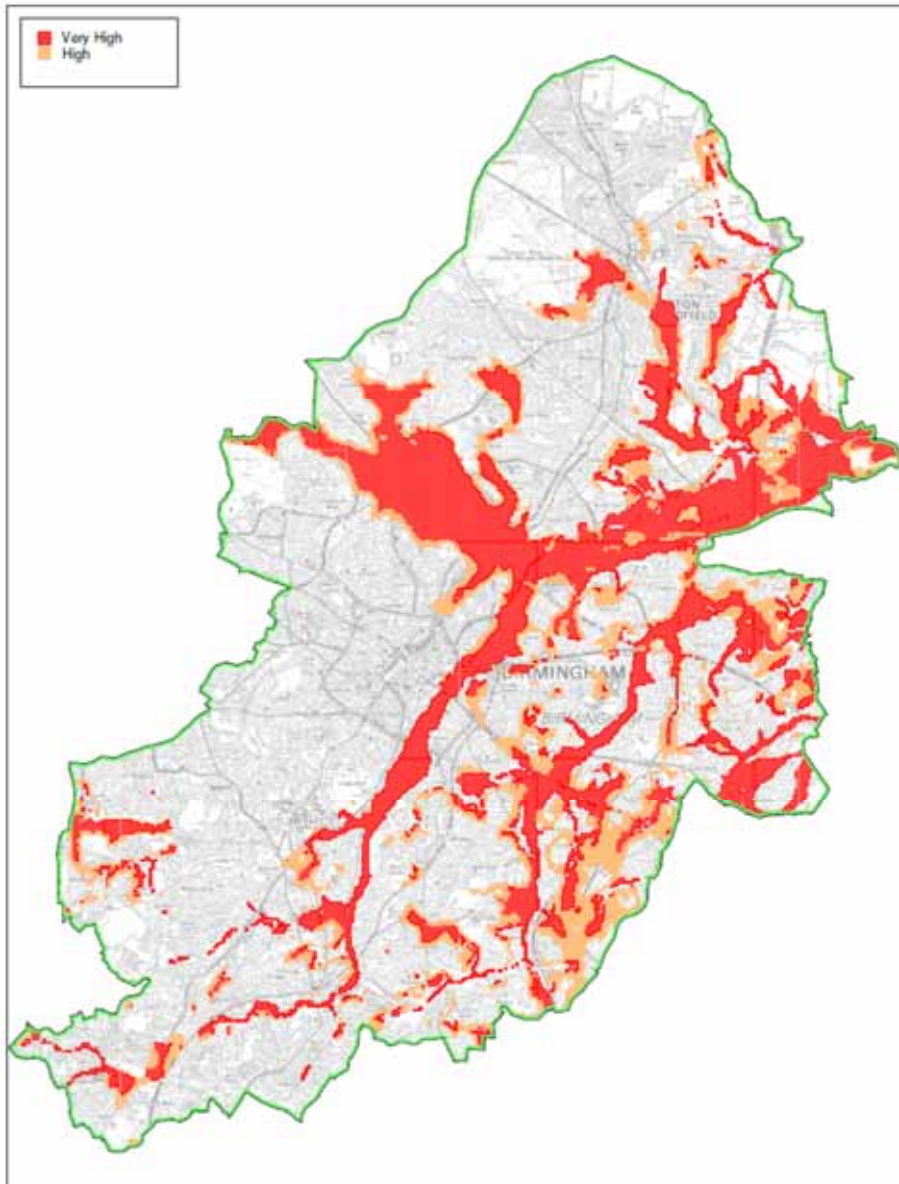
Source: Birmingham City Council (May 2011) Preliminary Flood Risk Assessment

⁸⁵ Interactions with larger rivers and tidal waters can be an important mechanisms controlling surface water flooding

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 E6.

Figure E6 Areas Susceptible to Groundwater Flooding



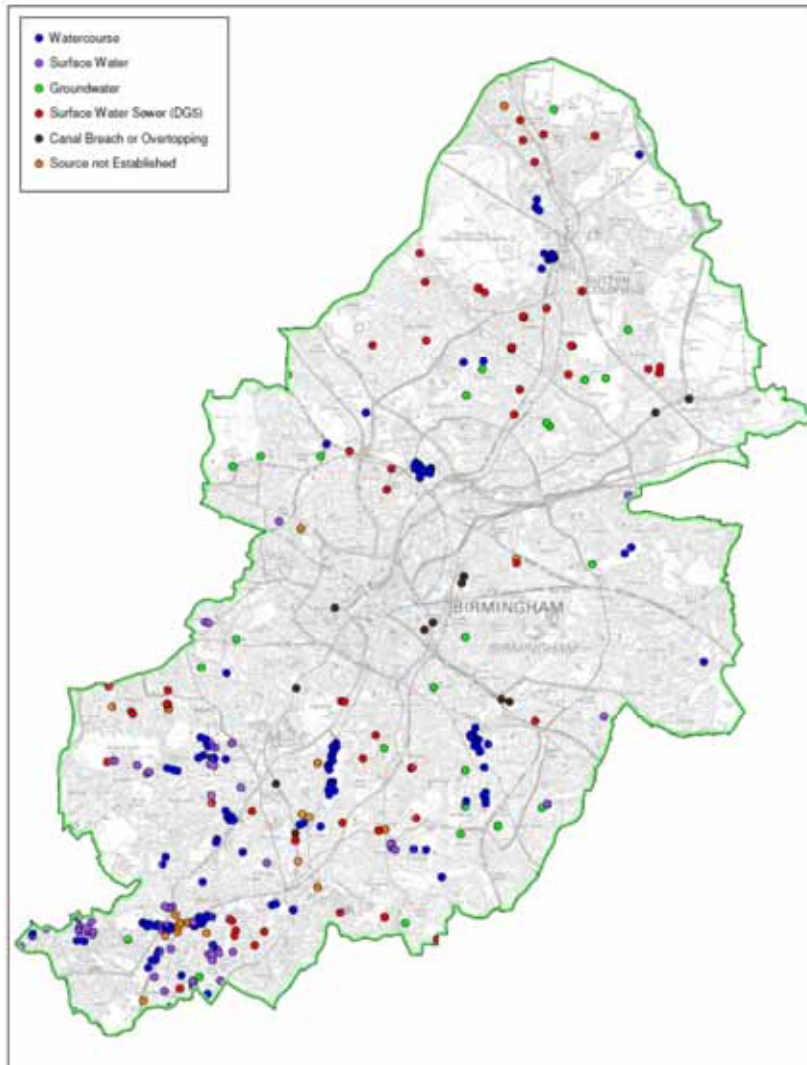
Source: Birmingham City Council (May 2011) Preliminary Flood Risk Assessment

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 E7.

Figure E7 Historic Flood Locations across Birmingham by Flooding Source



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

Influence of the BDP on Managing Climate Change

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

Biodiversity and Geodiversity

The City has a number of areas that are protected for their nature conservation value. The City’s nature conservation sites include two Sites of Special Scientific Interest (SSSIs): Sutton Park and Edgbaston Pool. Sutton Park is also designated as a National Nature Reserve (NNR). There are 10 Local Nature Reserves (LNRs), over 50 Sites of Importance for Nature Conservation (SINCs) and 58 Sites of Local Importance for Nature Conservation (SLINCs) covering various ancient woodlands, grasslands, lakes, streams, and other important wildlife habitats or examples of natural landscape. Within the City Centre there are a number of sites of local importance for nature conservation (SLINCs), essentially the canal network and the River Rea. These areas, as well as the linear corridors along main rail and Metro lines, are key wildlife corridors. Table E4 shows the total area covered by different types of nature conservation sites, Figure E8 maps these assets.

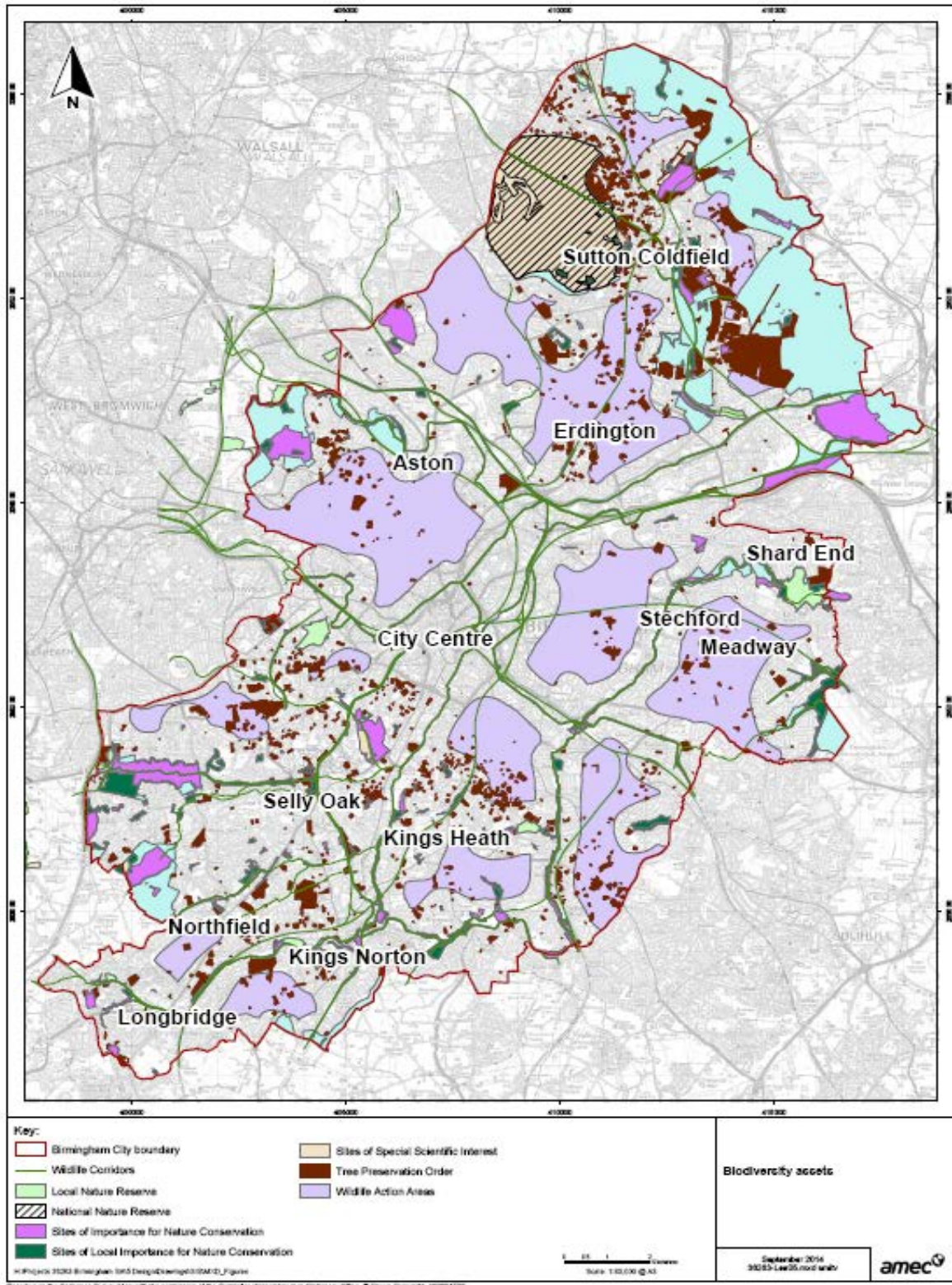
Table E4 Birmingham’s Designated Nature Conservation Sites

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

Source: Birmingham City Council, AMR (2013)

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

Figure E8 Birmingham's Biodiversity Assets



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

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

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

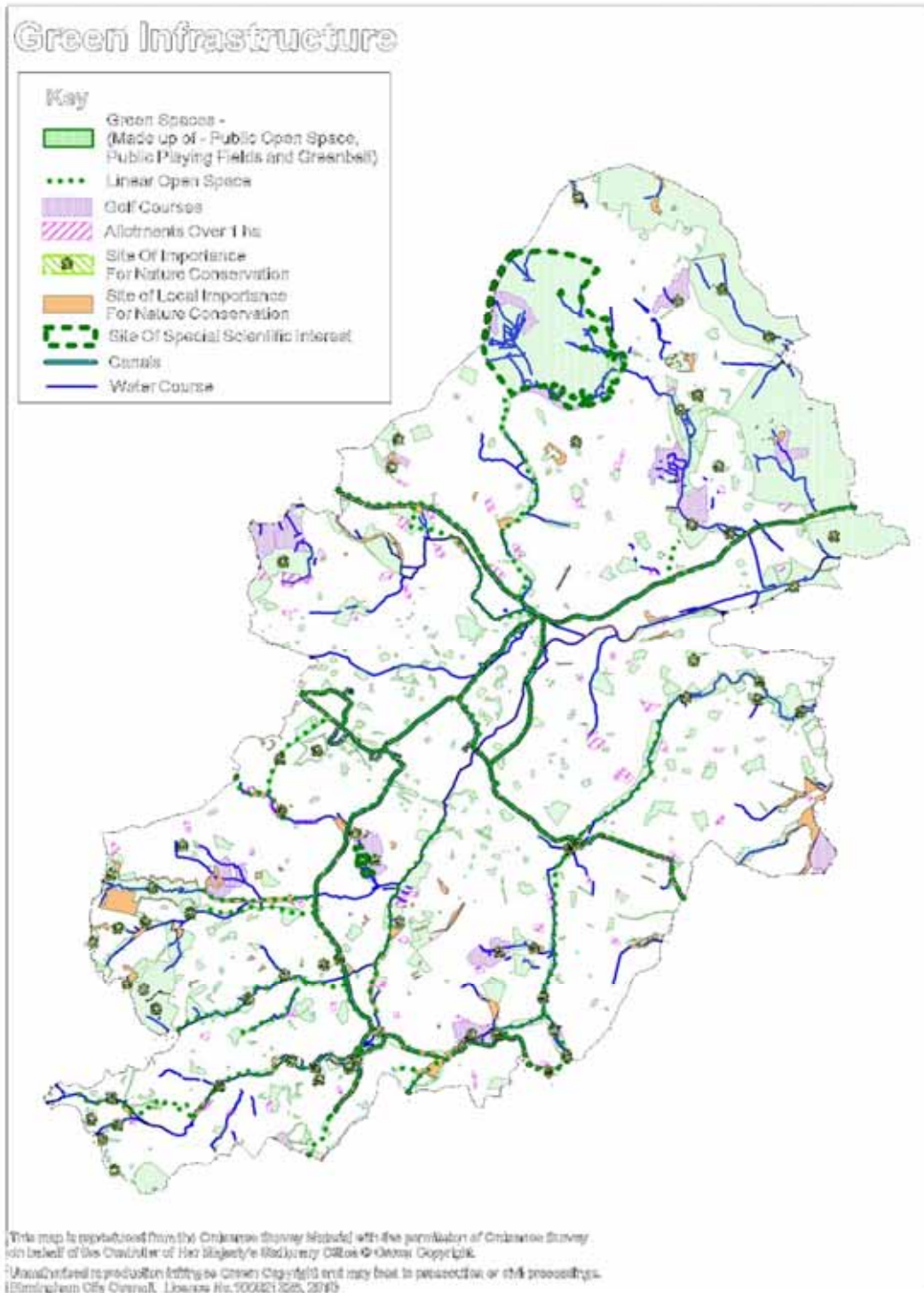
Green Infrastructure (GI) refers to the living network of green spaces, water and other environmental features in both urban and rural areas. It is often used in an urban context to cover benefits provided by trees, parks, gardens, road verges, allotments, cemeteries, woodlands, rivers and wetlands⁸⁶. GI can provide a number of benefits including:

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

Figure E9 illustrates the City's GI network.

⁸⁶ Defra (2011) The Natural Choice: securing the value of nature.

Figure E9 Birmingham's Green Infrastructure Network



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

Birmingham is characterised by a large number of well-established parks, many of which were created in the 19th century. The City's greenspace is supplemented by a large linear open space network, which is based primarily on the Rivers Cole and Rea and the City's extensive canal network. The extent of green spaces (excluding areas designated for nature conservation) is shown in Table E5.

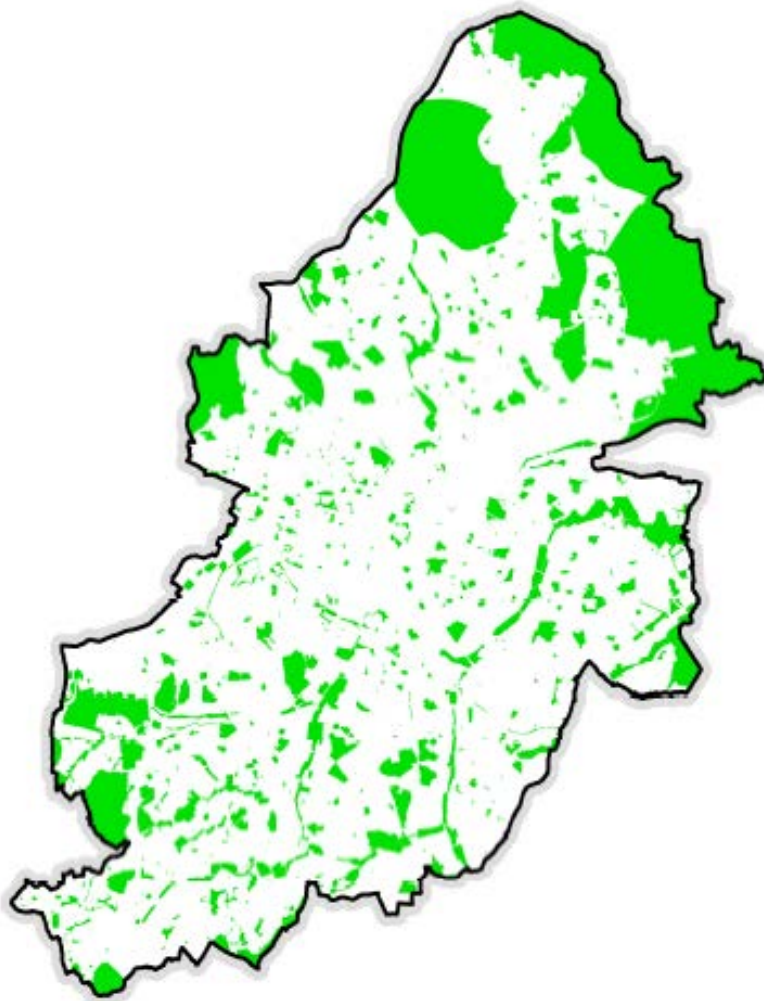
Table E5 Green Spaces in Birmingham

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

Source: Birmingham City Council, AMR 2013

Birmingham's green spaces are mapped in Figure E10.

Figure E10 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 area⁸⁷. 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 years⁸⁸.

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 BDP on Biodiversity and Geodiversity

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

⁸⁷ http://www.naturalengland.org.uk/ourwork/conservation/geodiversity/englands/counties/area_ID38.aspx

⁸⁸ http://www.naturalengland.org.uk/ourwork/conservation/geodiversity/englands/counties/area_ID38.aspx

Population and Human Health

Housing

The City covers an area of 26,779ha (267.8km²), of which 15,200ha is residential. According to the Housing Development Plan⁸⁹ Birmingham's residents live in 406,000-410,000 households. The City has about 414,000 self-contained properties. In April 2006, there were about 68,000 Council and an estimated 40,000 registered social landlord social rented homes. Since 2001, the City's population has grown after experiencing declines between 1991 and 2001 due to net out-migration. The gains reflect a shift in the overall balance of migration from negative to positive, coupled with greater natural increases. The main reason for this has been the high levels of international immigration in recent years. These statistics have implications for housing provision. Table E6 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 E6 Change in Households in Birmingham, the West Midlands Region and England, 2001 and 2011

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

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

The average household size in Birmingham is greater than the national average and is greatest in the West Midlands Region according to the 2011 Census with an average household size of 2.6 people. Birmingham has relatively high proportions of households containing one person or with five or more people. Average household size reduced from 2.54 in the period 1991 to 2001, largely as a result of growing numbers of one-person households. However, for the period of 2011 to 2011 the average household size (persons) has increased to 2.56⁹⁰. The City has a relatively low proportion of detached housing, and higher proportions of terraced housing and flats.

According to the 2011 Census, Birmingham was the most densely populated local authority within the West Midlands region with 4,000 people per square kilometre. This is an increase on the 2011 population density of 3,677 people per square kilometre which equates to an increase of 0.9%. The average housing density has decreased from over 74 dwellings in 2009/10 to just over 59 dwellings per hectare. This could be attributed

⁸⁹ Source:

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

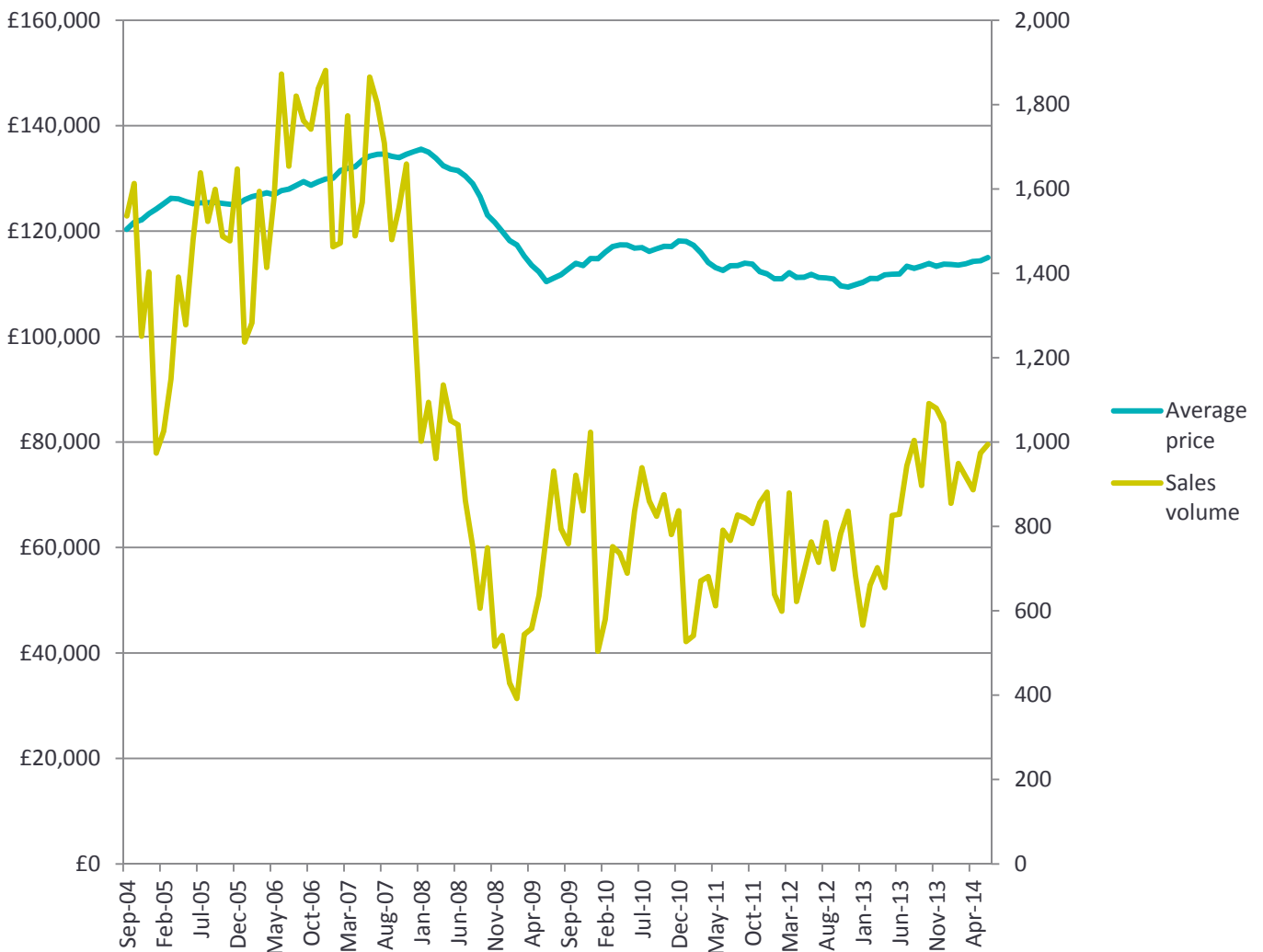
⁹⁰ Office for National Statistics 2011 Census: Population and household estimates for England and Wales – supplementary figures part 2

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. Latest figures from the Land Registry website (June 2014) indicate that the average house price in Birmingham is £114,989. Figure E11 indicates that house prices in Birmingham peaked in January 2008 and sharply declined through to 2010, and now have stabilised. Clearly however, sales volumes have declined by over 50% since October 2004. This suggests that the affordability of housing for poorer families and first-time buyers has declined due to other national economic conditions.

Figure E11 Average House Prices and Sales Volumes in Birmingham 2004-2014⁹¹



⁹¹ Land Registry (2014) <http://www.landregistry.gov.uk/public/house-prices-and-sales/search-the-index>

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

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

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

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 E7 shows the number of economically active people within Birmingham, and Table E8 shows the number of employed residents in Birmingham by Gender and Ethnic Group.

Table E7 Economically Active Residents (2012)⁹²

	Birmingham (numbers)	Birmingham (%)	West Midlands (%)	Great Britain (%)
All People				
Economically active	449,500	65.7	74.3	76.6
In employment	390,200	57.0	67.6	70.3
Employees	337,900	49.4	58.6	60.3
Self employed	48,400	7.0	8.5	9.5
Males				
Economically active	255,100	75.6	81.1	82.8
In employment	220,500	65.2	73.0	75.5

⁹² <http://www.nomisweb.co.uk/reports/lmp/la/2038431965/report.aspx#tabempunemp>

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

Table E8 Employed Residents in Birmingham by Gender and Ethnic Group⁹³

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

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

Some 34.3% of Birmingham's population is economically inactive (neither working nor seeking work). This is 10.9 points higher than the national rate. The female rate of 43.8% is 19.4 points higher than the male rate. The West Midlands has one of the highest economic inactivity rates in England. Birmingham in particular has a high unemployment rate and low employment rate. Table E9 summarises the total number of economic inactivity for those aged between 16-64 in Birmingham. This shows that the highest proportion of the economic inactivity are students at 34.9% which is 9.8% higher than the national average of 25.1%. The non-white economic inactivity rate is 42%, significantly higher than the white rate of 24%. Both rates are above the England averages of 32% and 20% respectively.

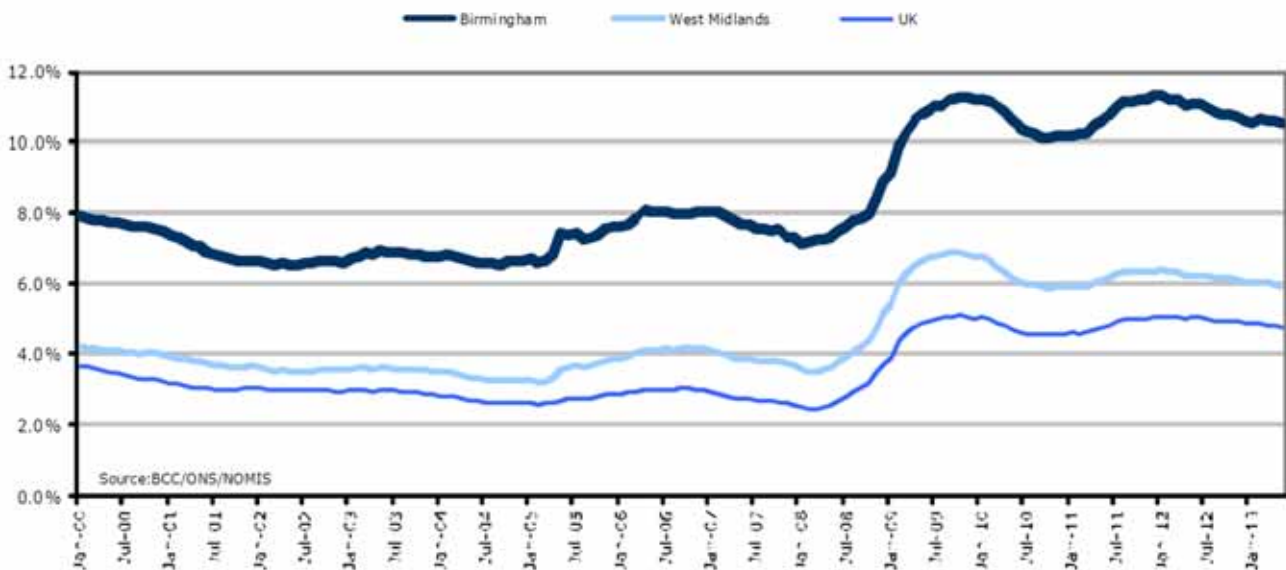
⁹³ ONS

Table E9 Economic Inactivity in Birmingham (ONS LFS/APS)

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

Birmingham has seen persistently higher levels of worklessness over the past decade, compared to the West Midlands and the UK, as can be seen from Figure E12.

Figure E12 Economically Active Unemployment Rates 2000-2013⁹⁴



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

⁹⁴ <http://www.birmingham.gov.uk/birmingham-economy>

measures that are to be implemented to drive economic growth designed to exploit the area's economic assets and address its challenges⁹⁵. The first phase of the City Deal is to focus on the delivery of a range of economic benefits for the Greater Birmingham and Solihull area. These include:

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

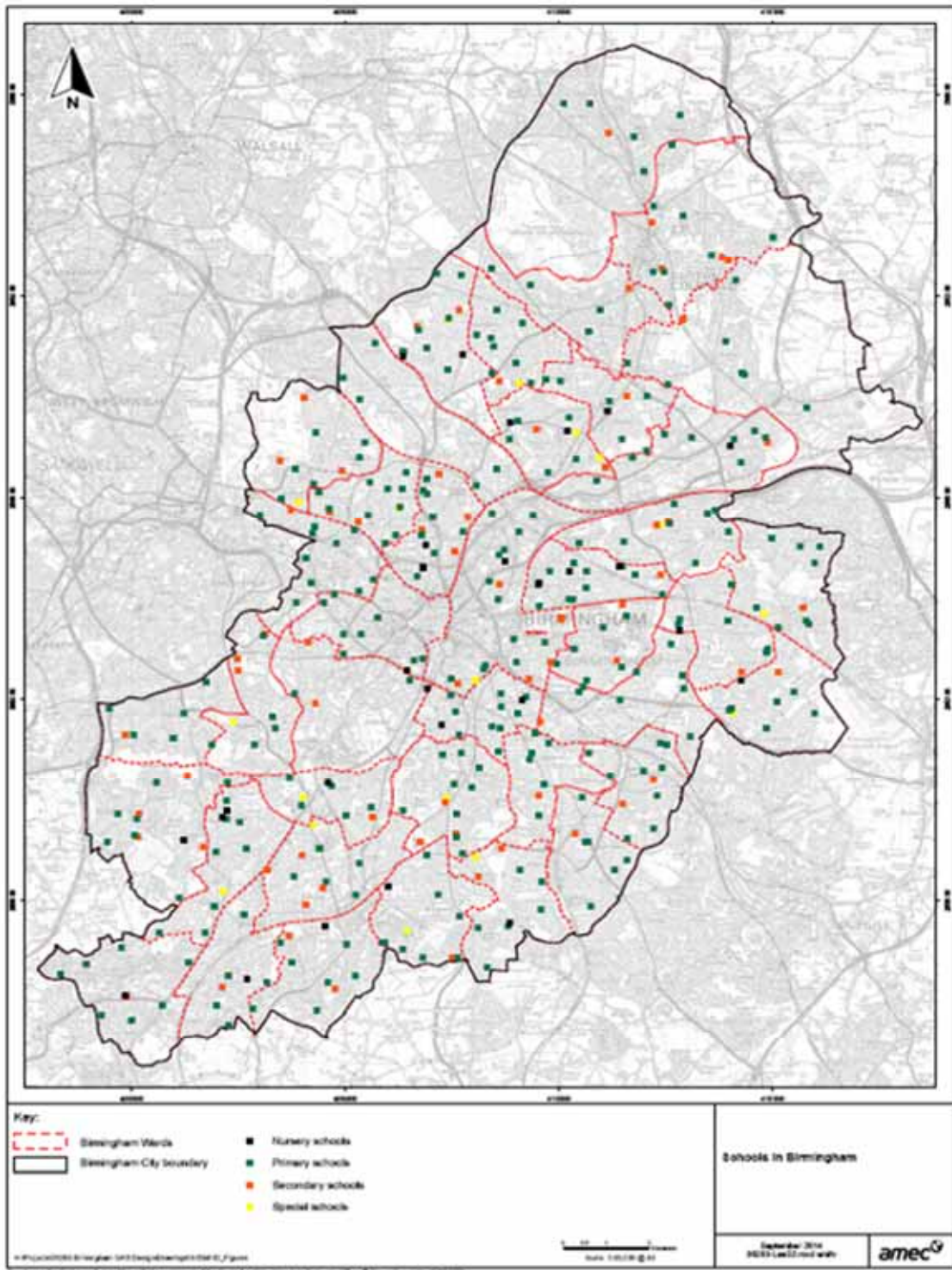
The City Deal comprises five elements: GBS Finance; Skills; Public Assets; Life Sciences and Green Deal, each of which includes specific commitments from the LEP and Government. Progress against these will be monitored to ensure they are delivered.

Learning and Skills

According to the Community Strategy, the City has a substantial education sector (Figure E13). Over the past ten years, the pupils and students of the City's schools and colleges have made major improvement in educational achievement, closing the gap on national averages. The percentage of Birmingham's population achieving NVQ level 3 or above (in 2011) was 43.5%, however this remains below the Region and National average, as is the proportion of the population educated to degree level. As a result, nearly half the high-skilled jobs in Birmingham are currently taken by people who live outside of the City.

⁹⁵ <http://centreforenterprise.com/about-the-lep/key-projects-and-issue/>

Figure E13 Nursery, Primary and Secondary Education Resources across Birmingham



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

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

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

There are numerous programmes on-going to improve further education in Birmingham. These are mainly programmes run by the Learning and Skills Councils such as Train to Gain, Skills Pledge and learning grants. Moreover, the city strategic partnership is to develop a comprehensive approach to training, skills and economic development, and to set up targets for 2012 with a focus on priority wards. Worklessness and long term unemployment is a key issue for Birmingham's residents and can lead to poor economic performance. Table E10 shows the total number of residents currently claiming Job Seekers Allowance (JSA). JSA is payable to people who are available for, and actively seeking work.

Table E10 Total JSA Claimants 2007 - 2013⁹⁶

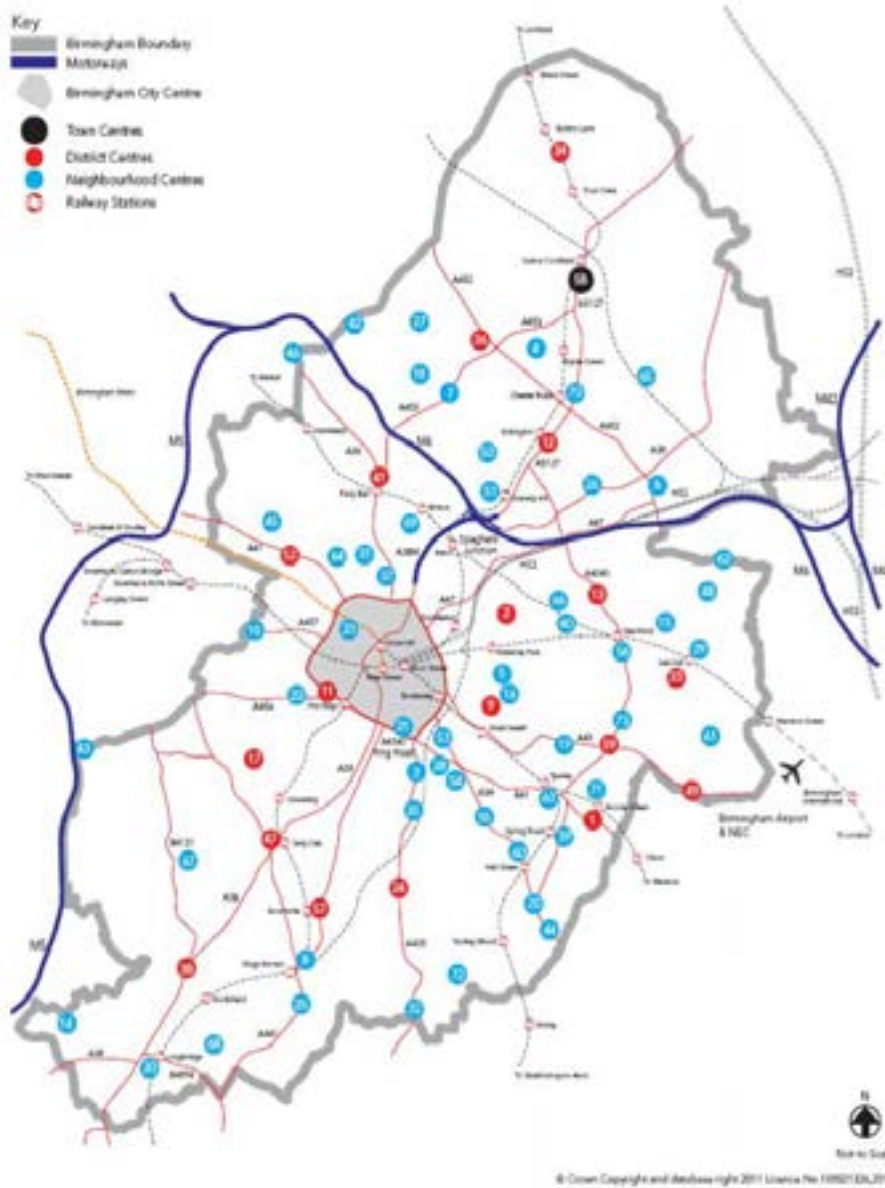
	Birmingham (number)	Birmingham (%)	West Midlands (%)	UK
2007	35,058	7.7	3.9	2.7
2008	35,154	7.7	4.0	2.9
2009	49,011	10.7	6.6	4.8
2010	48,074	10.5	6.2	4.7
2011	49,319	10.8	6.2	4.8
2012	50,123	11.0	6.2	5.0
2013	47,278	10.4	5.8	4.6

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 E14 maps the local centres across the City.

⁹⁶ ONS claimant count with rates and proportions

Figure E14 Birmingham's Local Centres



Source: BCC (2012) Shopping and Local Centres SPD

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

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. There has also been a significant amount of leisure development based around existing sports facilities in out-of-centre locations. During 2010/11 88% was built out-of-centre including an indoor sports arena at the Tenby building, Great King Street (Aston). Also out-of-centre, but under construction included the erection of a 5,000 seat stand at the Alexander Stadium in Perry Barr.

Investment in new hotels continues e.g. the Radisson and Etap. Other recent leisure developments in the City Centre include Millennium Point and the Five Ways Leisure complex. A significant amount of leisure development that has taken place in Birmingham since 1991 has been tourism related, for example, the National Sea Life Centre and Millennium Point. The number of overseas residents to the City has increased from 520,000 in 2000, to 700,000 in 2011, which has remained constant since 2007⁹⁷. Birmingham is now the fourth most popular destination in the UK among overseas residents after London, Edinburgh and Manchester.

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

Community Involvement

Community involvement can be measured by a number of indicators, including election turnout. Table E11 shows the election turnout in Birmingham for the 2010 general election by constituency. It can be seen that the turnout varies dramatically between some of the different constituencies.

⁹⁷ Source: http://www.ons.gov.uk/ons/dcp29904_274310.pdf

Table E11 General Election Turnout in Birmingham for the 2010 General Election

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

Source: UK Political Information Website 2012

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

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

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

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 E12 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 E12 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%⁹⁸.

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

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

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

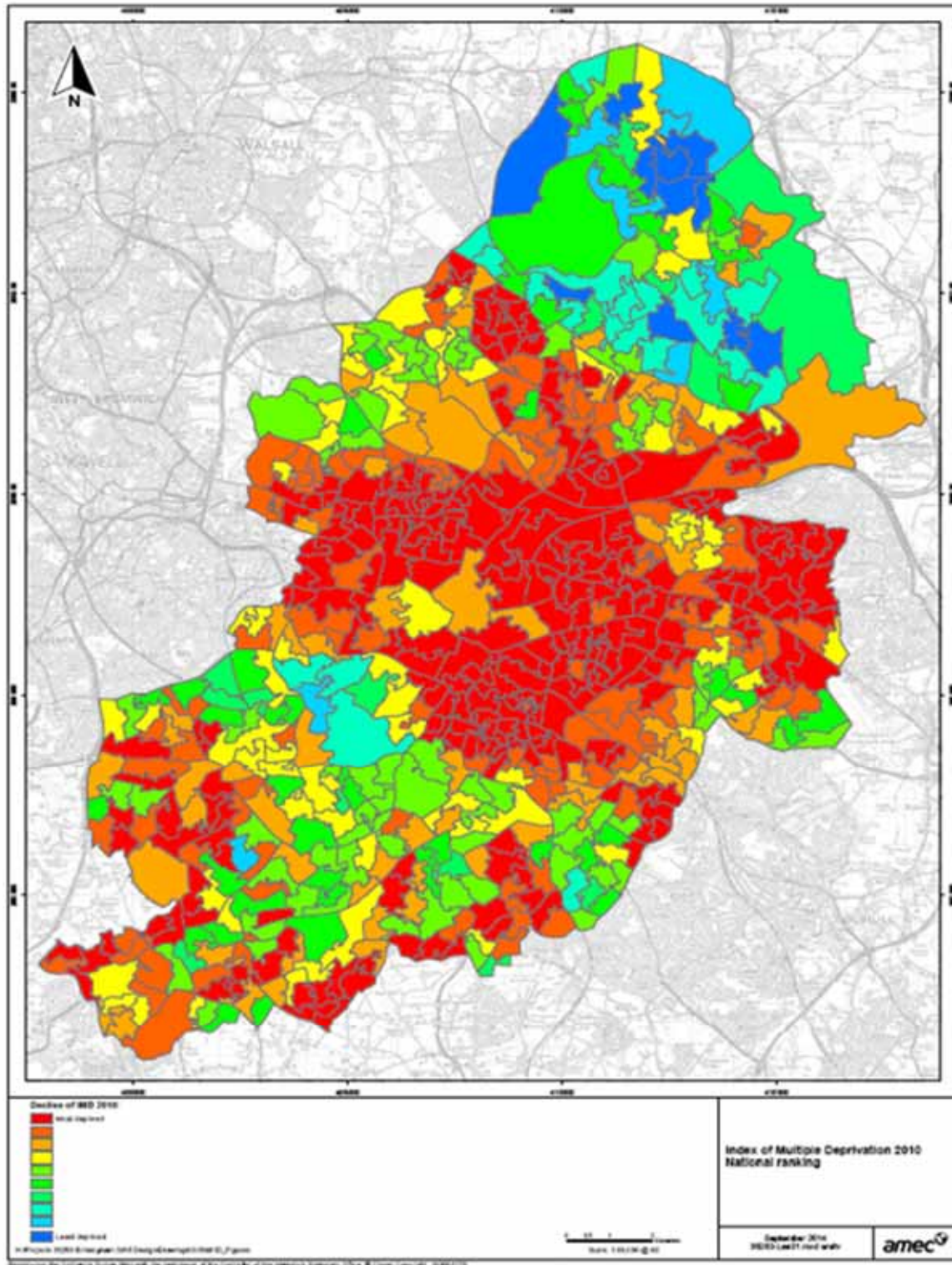
Poverty

According to the Index of Deprivation, in 2010 about 40% of Birmingham's residents lived in areas that were in the most deprived 10% in England. Concentrations are very high in wards to the east, north and west of the City Centre and also in the Tyburn and Kingstanding Wards to the north of the M6 motorway (Figure E16). In 2012 the proportion of child living in poor households in Birmingham was 29.4%, compared to 18.6% for England and 18.7% for the UK.⁹⁹

⁹⁸ Source: Mid Year Population Estimates, ONS

⁹⁹ <https://www.gov.uk/government/statistics/personal-tax-credits-children-in-low-income-families-local-measure-2012-snapshot-as-at-31-august-2012>

Figure E16 Index of Multiple Deprivation 2010



Health

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

Adults in Birmingham are less likely than average to follow healthy eating guidelines, but the proportion of obese adults is not vastly different to the England average. A survey undertaken by Sport England¹⁰⁰ reveals that there is a low rate of participation in sport and other physical activity in Birmingham compared with other local authorities within the West Midlands.

Teenage pregnancy rates are 'significantly worse' for Birmingham (47.4 per 1,000) than the England average (38.1 per 1,000). Binge drinking is lower than the England average; however hospital stays for alcohol-related harm were 'significantly worse' in Birmingham for 2010/11 with 2,235 per 100,000 rate of admission episodes for alcohol attributable conditions compared to the national average of 1,895¹⁰¹. Rates of sexually transmitted infections are better than the England average. The incidence of malignant melanoma is lower than average (2012). Estimated levels of adult 'healthy eating' and obesity are worse than the England average.

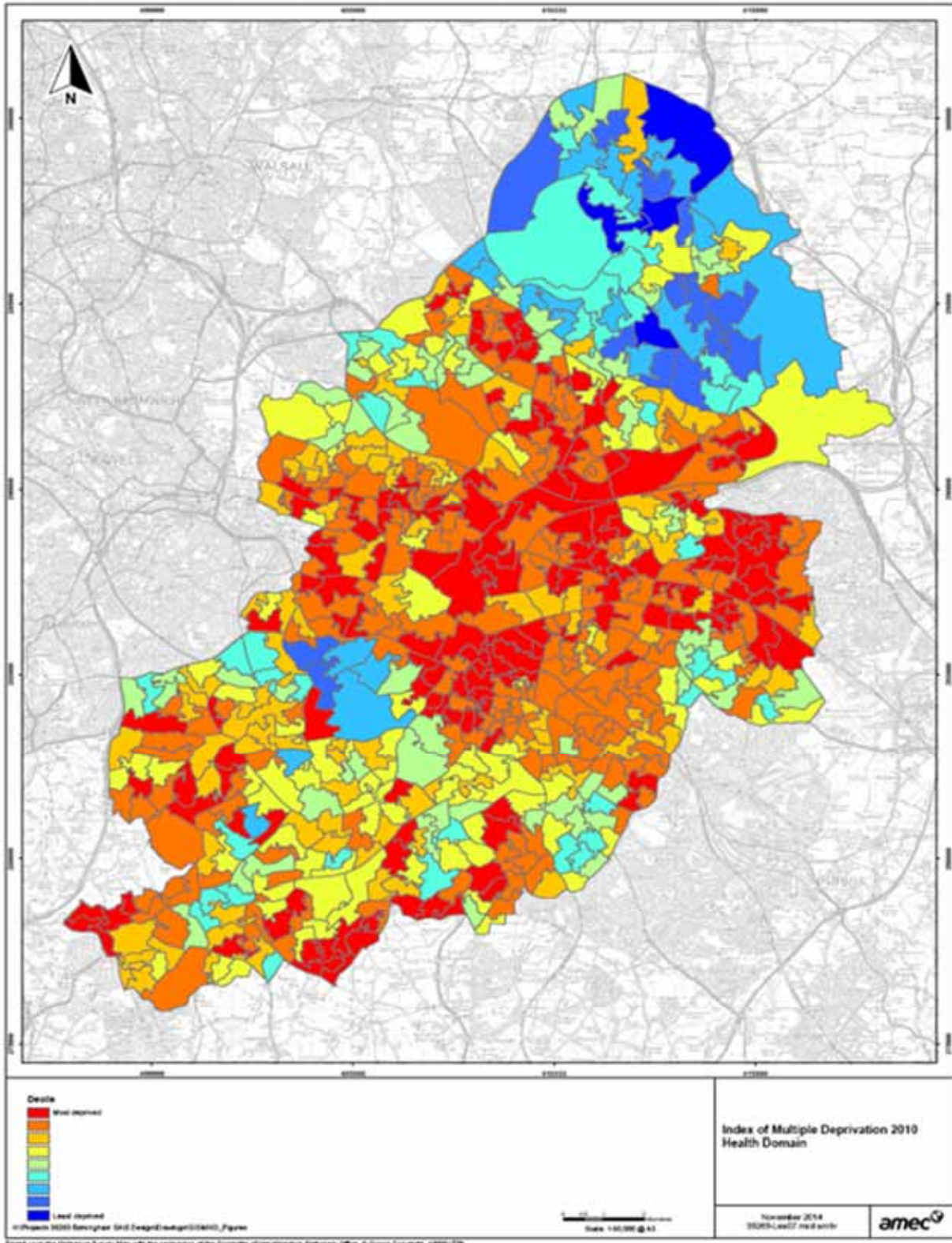
People in routine and manual occupations have poorer health than those in more highly-skilled jobs, and these people are also more likely to smoke. The infant death rate is greater than the England average in this group. Birmingham has a higher than average number of people working in lower grade jobs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

Figure E17 illustrates the health domain of the Index of Multiple Deprivation 2010 and broadly reflects the IMD as a whole, albeit with severe concentration of deprivation in the central parts of the City.

¹⁰⁰ http://www.sportengland.org/research/active_people_survey/active_people_survey_2/regional_results.aspx

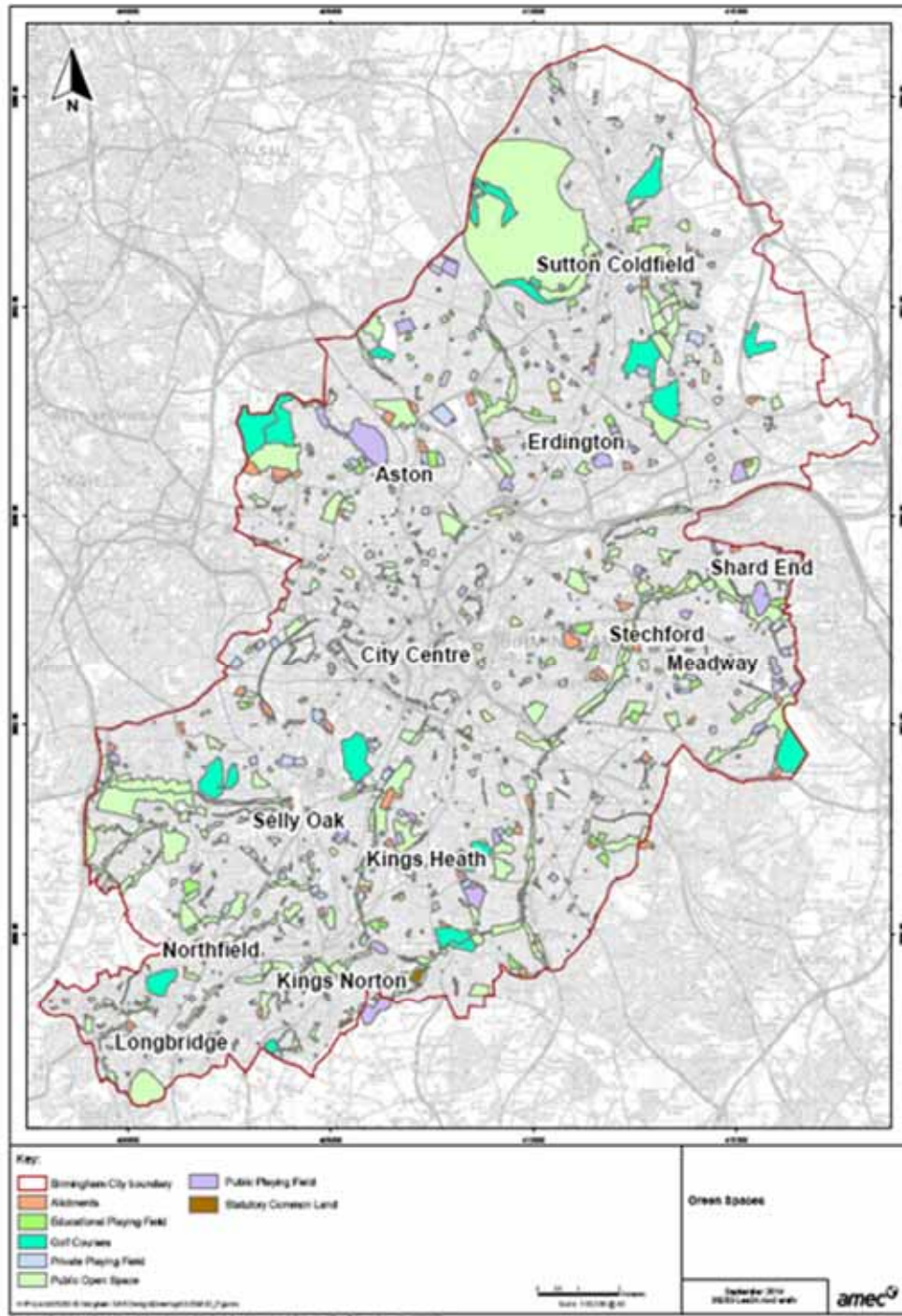
¹⁰¹ Public Health Organisations (2011) Hospital stays for alcohol related harm

Figure E17 Index of Multiple Deprivation 2010 – Health Domain



As mentioned above, well planned GI can give access to high quality green spaces that will provide opportunities for better health and well-being. Figure E18 illustrates the distribution of green spaces across the City. Further information on health in Birmingham can be found in the Department of Health Birmingham Health Profile 2012¹⁰².

Figure E18 Green Spaces Across Birmingham



¹⁰²Department of Health Birmingham Health Profile <http://www.apho.org.uk/resource/item.aspx?RID=117129>

Crime

Burglary crime in Birmingham is going down and new figures suggest that crime is lower than it has been for the last three years. There have been over 5,300 less victims of crime based on figures for April to June 2012, compared to the same period in 2009. Recorded crime has been reducing in four policing areas across the city and, when compared to 2009 burglary has been reduced by 17% meaning 276 less burglaries, robbery has reduced by 18% meaning 171 less robberies, and vehicle crime has reduced by almost 17% meaning 453 less vehicles stolen or broken into.¹⁰³ However, the rate of violent crime in Birmingham is above the national average, with over 18,000 reported incidents in 2010/11 (Public Health Observatories, 2012). Crime and safety remain a concern of local people, however Birmingham City Council's Performance Plan¹⁰⁴ feedback indicates that 95% of Birmingham residents surveyed say they feel safe during the day.

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

Noise

Levels of noise pollution are problems in certain parts of the city according to the Sustainable Community Strategy¹⁰⁵. Recent surveys have shown that one in eight residents are concerned about noise, and the Council receives over 3000 complaints about noise a year. Traffic is one of the principal sources of this noise. Birmingham has pioneered 'noise mapping' to help manage the problem.

Influence of the BDP on Population and Human Health

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

Water & Air Quality

The State of Birmingham's Rivers

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

- Parts of the river system are in a poor ecological state;

¹⁰³ <http://www.saferbirmingham.org.uk/>

¹⁰⁴ Source: <http://www.birmingham.gov.uk/cs/Satellite?c=Page&childpagename=Policy-and-Delivery%2FPageLayout&cid=1223092613434&pagename=BCC%2FCommon%2FWrapper%2FWrapper>

¹⁰⁵ Birmingham Strategic Partnership and Birmingham City Council (2008) Birmingham 2026: Our vision for the future: Sustainable Community Strategy.

- 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 Basin¹⁰⁶ as a whole, despite recent progress, a range of challenges still remain, which will need to be addressed to secure the predicted outcomes. They include:

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

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

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;
- Birmingham Canal Old Main Line;
- Grand Union Canal;
- Tame Valley Canal;
- Worcester and Birmingham Canal; and

¹⁰⁶ Environment Agency (2009) Humber River Basin Management Plan



- 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 E19 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 E20).

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

Figure E19 Birmingham's Transportation Network

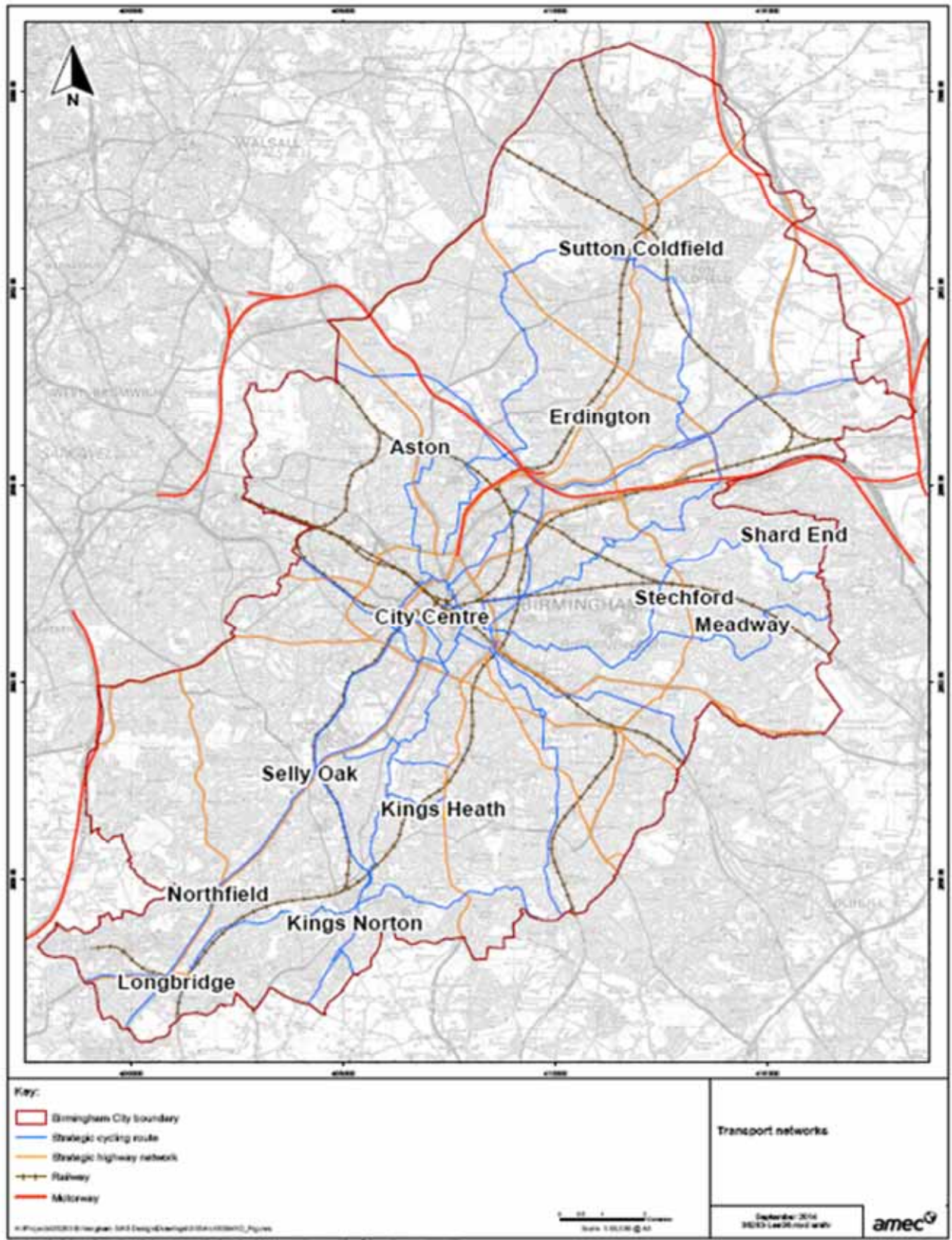
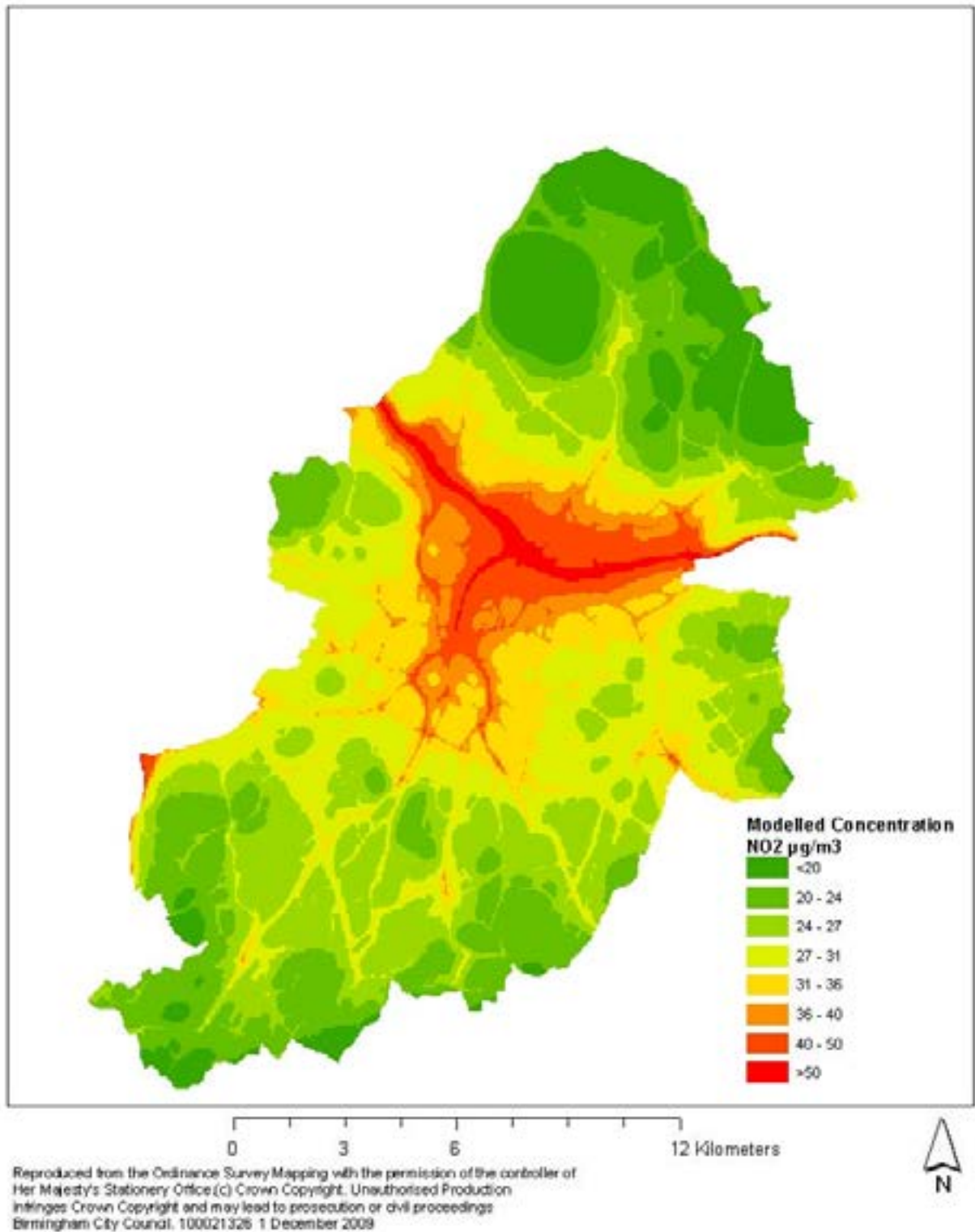


Figure E20 Modelled NO2 Concentrations across Birmingham 2008



The City has 47 significant industrial installations from an air pollution perspective, of which 16 are regulated by the Environment Agency under Integrated Pollution Prevention and Control (IPPC)¹⁰⁷.

Influence of the BDP on Water and Air Quality

The influence of the BDP on water and air quality is likely to be both direct and indirect, short and longer term, and potentially cumulative reflecting the impact of multiple developments over a long timescale.

Through the application of the supporting criteria to the policies and appropriate conditions, negative effects should be avoided and where appropriate mitigated. However, monitoring of developments will be required to determine net effects.

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 E13 and mapped in Figure E21.

Table E13 Birmingham’s Historic Built Environment

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

Source: Birmingham City Council, AMR (2013)

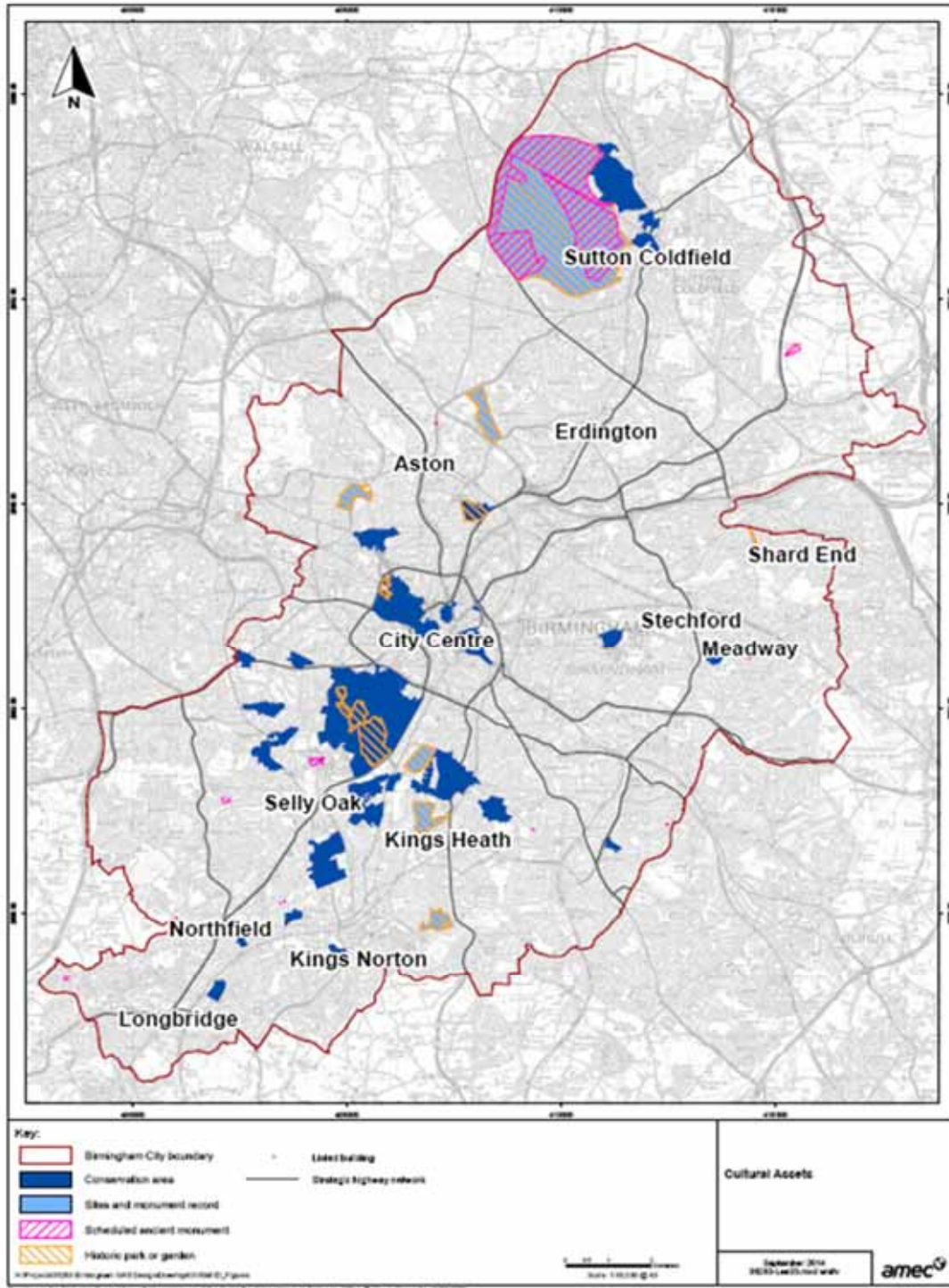
There are currently 30 Conservation Areas in Birmingham, which account for 4% of the land area of the City including five within the City Centre. Some Conservation Areas, such as the Jewellery Quarter and Bourneville, are unique and are nationally recognised. Birmingham also has nearly 1,500 statutorily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

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.

¹⁰⁷ Birmingham City Council (2011) Air Quality Action Plan

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 E21 Birmingham's Historic Assets



Natural Landscape

Although much of Birmingham is built up, there is a significant amount of open land within the City. Landscape character is a key contributor to regional and local identity, influencing sense of place, shaping the settings of people's lives and providing a critical stimulus to their engagement with the natural environment. The National Character Areas (NCAs) provide a description of landscape character across England¹⁰⁸. These are used by Natural England to provide a context for monitoring landscape change through the Countryside Quality Counts (CQC) project¹⁰⁹. Birmingham falls within two NCAs, Arden to the south and Cannock Chase and Cank Wood to the north. The part of the City which lies within Arden is almost entirely urbanised. The wider landscape to the south is characterised by a farmed woodland landscape of rolling landform with narrow meandering river valleys.

The National Character Area description relevant to Birmingham states:

“Birmingham has a clearly-defined concentric pattern of development. Much of the landscape is dominated by 19th and 20th century housing, the former in characteristic red brick. Canals, parks, golf courses and the river corridor form the main open spaces, with a substantial parkland area around the University at Edgbaston and some low-density garden suburbs like Bournville. Enclosed within the urban area are fragments of older landscapes like Castle Bromwich Park¹¹⁰.”

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

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

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

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

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

There are medium-sized fields, generally with good quality hedgerows, patches of ancient enclosure fields and areas of semi-natural vegetation including acid grassland, pools, fens and fragments of ancient woodland. Narrow, hedged lanes are often present and there is a real feeling of countryside despite the nearness of the built-up area¹¹¹.”

¹⁰⁸ <http://publications.naturalengland.org.uk/category/587130>

¹⁰⁹ <http://www.countryside.gov.uk/LAR/Landscape/CC/cqc.asp>

¹¹⁰ Source: http://www.naturalengland.org.uk/Images/jca097-arden_tcm2-21191_tcm6-5424.pdf

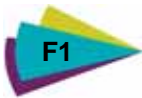
¹¹¹ Source: <http://www.farmsteadstoolkit.co.uk/downloads/jca/JCA%2067.pdf>



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

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

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



Appendix F

Review of Plans, Policies and Programmes

Plan, Programme or Strategy	Objectives and Targets identified in the Document
International	
EU (1992) Conservation of Natural Habitats and Wild Fauna and Flora (92/43/EEC, Habitats Directive).	The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance. In applying these measures Member States are required to take account of economic, social and cultural requirements, as well as regional and local characteristics.
EU (1996) Ambient Air Quality Assessment and Management (96/62/EC, Air Quality Framework Directive).	<p>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.</p> <p>Objectives:</p> <ul style="list-style-type: none"> • obtain adequate information on ambient air quality; and • maintain ambient air quality where it is good, and improve air quality where it is bad.
EU (2000) Directive on Establishing a Framework for Community Action in the Field of Water Policy (2000/60/EC, The Water Framework Directive).	<p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • environmental and economic assessment ('Characterisation') of river basin districts including identification of pressures and impacts; • environmental monitoring based on river basin district characterisation; • setting of environmental objectives; and • designing and carrying out a programme of measures to achieve these environmental objectives. <p>Targets:</p> <p>All water bodies in all Member States are to reach 'Good Ecological Status' by 2015. However, exactly what constitutes 'Good Ecological Status' has not yet been defined.</p>
EU (2001) Directive on Electricity Production from Renewable Energy Sources (2001/77/EC).	<p>The Directive obligates member states to establish a programme to increase the gross consumption of renewable energy based electricity by 2010. Member states are also required to produce a programme for increasing future consumption of renewable energy based electricity.</p> <p>The UK target is for renewables to account for 10% of UK consumption by 2010.</p>
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.
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.
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.

Plan, Programme or Strategy	Objectives and Targets identified in the Document
<p>UNFCCC (2009) Copenhagen Accord (Climate Change).</p>	<p>The Copenhagen Accord is a treaty that is to take over from the Kyoto Protocol's targets, as of when it expires in 2012, for curbing the growth in greenhouse gas emissions sufficiently to avoid climate change impacts projected by the IPCC. The Copenhagen Accord commits Countries to legally binding targets including:</p> <ul style="list-style-type: none"> • to reduce global emissions so as to hold the increase in global temperature below 2C; • 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 2C needs to be strengthened to 1.5C.
<p>Council of Europe (2006) European Landscape Convention</p>	<p>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.</p>
<p>Council of Europe (1985) Convention on the Protection of the Architectural Heritage of Europe</p>	<p>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.</p>
<p>EU (1991) Urban Waste Water Treatment Directive.</p>	<p>The Directive aims to protect the environment from the adverse effects of urban waste water discharges and discharges from certain industrial sectors and concerns the collection, treatment and discharge of:</p> <ul style="list-style-type: none"> • Domestic Waste Water; • Mixture of Waste Water; and • Waste Water from Certain Industrial Sectors. <p>There are four main principles: planning, regulation, monitoring, and information and reporting.</p>
<p>European Commission (1999) The Landfill Directive.</p>	<p>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.</p>
<p>EC (2007) Together for Health: A Strategic Approach for the EU 2008- 2013</p>	<p>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.</p>
<p>The Pan-European Biological and Landscape Diversity Strategy (1995)</p>	<p>The strategy aims to address degradation of biological and landscape diversity across Europe reinstating these assets where possible.</p>
National	
<p>CLG (2005) Planning Policy Statement 10: Planning for Sustainable Waste Management.</p>	<p>The overall objective of the policy is to provide sustainable development by protecting the environment and human health by producing less waste and by using it as a resource wherever possible.</p>
<p>CLG (2010) Five-year housing land supply coverage in England</p>	<p>Summarising Local Planning Authorities' reported assessment of the '5 year land supply' for housing. The statistics include:</p> <ul style="list-style-type: none"> • the number of and proportion of authorities which reported having identified at least a sufficient supply of sites for the housing requirements for 5 years from April 2009; and • each local planning authority's reported proportion of the '5 year housing requirements' that can be accommodated on available, suitable and achievable sites.

Plan, Programme or Strategy	Objectives and Targets identified in the Document
<p>CLG (2012) National Planning Policy Framework (NPPF)</p>	<p>The general thrust of the NPPF is aimed at contributing towards sustainable development through the planning system. There is a presumption in favour of sustainable development “<i>which should be seen as a golden thread running through both plan-making and decision-taking.</i>” There are three dimensions as to how the government aims to achieve sustainable development which gives rise to the need for the planning system to perform in a number of roles. These roles are based around economic, environmental and social roles.</p>
<p>NPPF – Biodiversity, Geodiversity & Soil</p>	<p>The NPPF sets out 12 core planning principles for plan and decision making, including: ‘Conserving and enhancing the natural environment’. The planning system should contribute and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> • protecting and enhancing valued landscapes, geological conservation interests and soils; • recognising the wider benefits of ecosystem services; • minimising impacts on biodiversity and providing net gains in biodiversity where possible, including by establishing coherent ecological networks that are more resilient to current and future pressures; • preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and • remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. <p>Plans and decisions should encourage effective use of brownfield sites and take into account the economic benefits of agricultural land when assessing development, seeking to utilise areas of poorer quality land.</p> <p>Local planning authorities should plan positively for creation, protection, enhancement and management of networks of biodiversity and green infrastructure. Planning and decision making should occur at a landscape scale across local authority boundaries and assess noise, air and light pollution, considering cumulative impacts. Local planning authorities should protect and enhance biodiversity specifically regarding priority species/habitats, protected sites and potential/proposed/possible protected sites.</p>
<p>NPPF – Landscape</p>	<p>The NPPF sets out 12 core planning principles for plan and decision making, including: ‘Conserving and enhancing the natural environment’. The planning system should contribute and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> • protecting and enhancing valued landscapes, geological conservation interests and soils; • recognising the wider benefits of ecosystem services; • minimising impacts on biodiversity and providing net gains in biodiversity where possible, including by establishing coherent ecological networks that are more resilient to current and future pressures; • preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and • remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. <p>Plans and decisions should encourage effective use of brownfield sites and take into account the economic benefits of agricultural land when assessing development, seeking to utilise areas of poorer quality land.</p> <p>Local planning authorities should plan positively for creation, protection, enhancement and management of networks of biodiversity and green infrastructure. Planning and decision making should occur at a landscape scale across local authority boundaries and assess noise, air and light pollution, considering cumulative impacts. Local planning authorities should protect and enhance biodiversity specifically regarding priority species/habitats, protected sites and potential/proposed/possible protected sites.</p>
<p>NPPF – Cultural Environment</p>	<p>One of the NPPF’s 12 core planning principles for plan and decision making is the conservation and enhancement of the historic environment. Local planning authorities are required to set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be</p>

Plan, Programme or Strategy	Objectives and Targets identified in the Document
	<p>considered subject to the policies for designated heritage assets. Proposals that preserve the setting, reveal the significance of the asset or make a positive contribution should be treated favourably.</p>
<p>NPPF – Water</p>	<p>Among the NPPF's core principles are 'conserving and enhancing the natural environment' and 'meeting the challenge of climate change, flooding and coastal change'; In fulfilling these objectives, the planning system should contribute to and enhance the natural and local environment by: preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.</p> <p>In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment.</p> <p>Local planning authorities should adopt proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations.</p> <p>Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. Local Plans should be supported by Strategic Flood Risk Assessment and develop policies to manage flood risk from all sources, taking account of advice from the Environment Agency and other relevant flood risk management bodies, such as lead local flood authorities and internal drainage boards. Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change, by:</p> <ul style="list-style-type: none"> • applying the Sequential Test; • if necessary, applying the Exception Test; • safeguarding land from development that is required for current and future flood management; • using opportunities offered by new development to reduce the causes and impacts of flooding; and • where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to facilitate the relocation of development, including housing, to more sustainable locations.
<p>NPPF – Climate Change</p>	<p>One of the core principles of the NPPF is meeting the challenge of climate change, flooding and coastal change and encourages the adoption of proactive strategies to mitigate and adapt to climate change in line with the objectives and provisions of the Climate Change Act 2008, taking full consideration of flood risk, coastal change and water supply and demand. The NPPF also supports low carbon future by helping to increase the use of renewable and low carbon sources in line with the National Policy Statement for Renewable Energy Infrastructure. It seeks to ensure that all types of flood risk is taken into account over the long term at the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk.</p>
<p>NPPF – Air Quality</p>	<p>This Directive aims to improve air quality throughout Europe by controlling the level of certain pollutants and monitoring their concentrations. In particular the Directive aims to establish levels for different air pollutants; draw up common methods for assessing air quality; methods to improve air quality; and make sure that information on air quality is easily accessible to Member States and the public.</p>
<p>NPPF – Minerals and Waste</p>	<p>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.</p>
<p>NPPF – Economy</p>	<p>One of the NPPF's core planning principles for plan and decision making is building a strong competitive economy. The NPPF highlights the Government's commitment to securing economic growth to create jobs and prosperity, ensuring the planning system does everything it can to support sustainable economic growth. Local planning authorities are required to proactively meet development needs recognising potential barriers to invest (including infrastructure, housing and services) and regularly review land allocations. Economic growth in rural areas should be supported to create jobs and sustainable new developments, including expansion of all types of businesses, diversification of agriculture, supporting tourism and retention of local services.</p> <p>In drawing up local plans, local authorities should:</p> <ul style="list-style-type: none"> • Set out a clear economic vision and strategy for their area which positively and proactively encourages sustainable economic growth.

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

Plan, Programme or Strategy	Objectives and Targets identified in the Document
<p>NPPF – Quality of Life</p>	<ul style="list-style-type: none"> • 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. <p>Local and neighbourhood plans should identify community green spaces of particular importance (including recreational and tranquillity) to them, ensuring any development of these areas is ruled out in a majority of circumstances.</p> <p>The framework sets out open space, sport and recreation considerations for neighbourhood planning bodies. These include an assessment of needs and opportunities; setting local standards; maintaining an adequate supply of open space and sports and recreational facilities; planning for new open space and sports and recreational facilities; and planning obligations.</p>
<p>CLG (2011) The Localism Act</p>	<p>The Localism Act includes five key measures that underpin the Government's approach to decentralisation:</p> <ul style="list-style-type: none"> • community rights; • neighbourhood planning; • housing; • general power of competence; and • empowering cities and other local areas.
<p>CLG (2011) The Community Infrastructure Levy Regulations</p>	<p>The Community Infrastructure Levy is a new levy that local authorities in England and Wales can choose to charge on new developments in their area. The money can be used to support development by funding infrastructure that the council, local community and neighbourhoods want - for example new or safer road schemes, park improvements or a new health centre. The system applies to most new buildings and charges are based on the size and type of the new development.</p>
<p>DECC (2008) UK Climate Change Act 2008.</p>	<p>The 2008 Climate Change Act seeks to manage and respond to climate change in the UK, by:</p> <ul style="list-style-type: none"> • setting ambitious, legally binding targets; • taking powers to help meet those targets; • strengthening the institutional framework; • 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.
<p>DECC (2009) UK Renewable Energy Strategy 2009.</p>	<p>The UK has committed to sourcing 15% of its energy from renewable sources by 2020 – an increase in the share of renewables from about 2.25% in 2008. The Renewable Energy Strategy sets out how the Government will achieve this target through utilising a variety of mechanisms to encourage Renewable Energy provision in the UK. This includes through streamlining the planning system, increasing investment in technologies and improving funding for advice and awareness raising.</p>
<p>DCMS (2007) Heritage Protection for the 21st Century.</p>	<p>This White Paper responds to the public call for change, and to this changing policy context. It sets out a vision for a new heritage protection system. The proposals in the White Paper reflect the importance of the heritage protection system in preserving heritage for people to enjoy now and in the future. They are based around three core principles:</p> <ul style="list-style-type: none"> • developing a unified approach to the historic environment; • maximising opportunities for inclusion and involvement; and • supporting sustainable communities by putting the historic environment at the heart of an effective planning system.
<p>Defra (2002) Working with the Grain of Nature: A</p>	<p>Sets out the basis for biodiversity enhancement across the country.</p>



Plan, Programme or Strategy	Objectives and Targets identified in the Document
Biodiversity Strategy for England.	
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.
Defra (2007) Guidance for Local Authorities on Implementing Biodiversity Duty	The Duty is set out in Section 40 of the Natural Environment and Rural Communities Act (NERC) 2006, and states that: <i>"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity"</i> . Particular areas of focus include: Policy, Strategy and Procurement; Management of Public Land and Buildings; Planning, Infrastructure and Development; and Education, Advice and Awareness.
Defra (2007) Conserving Biodiversity: The UK Approach (The UK Biodiversity Action Plan)	The UK Biodiversity Action Plan (UK BAP) is the UK Government's response to the Convention on Biological Diversity (1992). The CBD called for the development and enforcement of national strategies and associated action plans to identify, conserve and protect existing biological diversity, and to enhance it wherever possible. Priority species and habitats are those that have been identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP).
Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 2).	The Strategy sets out standards and objectives for the eight 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.
Defra (2007) Waste Strategy for England 2007.	<p>The Waste Strategy aims to increase diversion of waste from landfill, and to reduce the production of waste by making products with fewer natural resources.</p> <p>Targets:</p> <ul style="list-style-type: none"> • reduce amount of household waste not re-used, recycled or composted from over 22.2 million tonnes in 2000 by 29% to 15.8 million tonnes in 2010, with an aspiration to reduce to 12.2 million tonnes in 2020; • recycling and composting 40% of household waste by 2010, 45% by 2015 and 50% by 2020; and • recover 53% of municipal waste by 2010, 67% by 2015 and 75% by 2020.
Defra (2008) Future Water, the Government's Water Strategy for England (Feb 08).	<p>Objectives - by 2030 at the latest, we have:</p> <ul style="list-style-type: none"> • improved the quality of our water environment and the ecology which it supports, and continued to provide high levels of drinking water quality from our taps; • sustainably managed risks from flooding and coastal erosion, with greater understanding and more effective management of surface water; • ensured a sustainable use of water resources, and implemented fair, affordable and cost reflective water charges; • cut greenhouse gas emissions; and • embedded continuous adaptation to climate change and other pressures across the water industry and water users. <p>Targets: Key targets are within the objectives above & further a number of sub-targets are included within the document.</p>
Defra (2009) Safeguarding our Soils: A Strategy for England	<p>The Soil Strategy for England provides a vision to guide future policy development across a range of areas and sets out the practical steps that are needed to take to prevent further degradation of our soils, enhance, restore and ensure their resilience, and improve understanding of the threats to soil and best practice in responding to them. Key objectives of the strategy include:</p> <ul style="list-style-type: none"> • better protection for agricultural soils; • protecting and enhancing stores of soil carbon; • building the resilience of soils to a changing climate; • preventing soil pollution;

Plan, Programme or Strategy	Objectives and Targets identified in the Document
	<ul style="list-style-type: none"> • effective soil protection during construction and development; and • dealing with the legacy of contaminated land.
<p>Defra (2011) Natural Environment White Paper; The natural choice: securing the value of nature</p>	<p>The Natural Environment White paper sets out the Government's plans to ensure the natural environment is protected and fully integrated into society and economic growth. The White Paper sets out four key aims:</p> <ul style="list-style-type: none"> (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.
<p>Defra (2011) Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services</p>	<p>The Strategy is designed to help to deliver the Natural Environment White Paper and include the following priorities:</p> <ul style="list-style-type: none"> • creating 200,000 hectares of new wildlife habitats by 2020; • securing 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition; • encouraging more people to get involved in conservation by supporting wildlife gardening and outdoor learning programmes; and • introducing a new designation for local green spaces to enable communities to protect places that are important to them.
<p>Defra & HM Government (2011) Water White Paper; Water for Life</p>	<p>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.</p>
<p>DTI Micro Generation Strategy (2006)</p>	<p>Acknowledges that local authorities can be pro-active in promoting small-scale, local renewable energy generation schemes through "sensible use of planning policies".</p>
<p>HM Government (2010) The Air Quality Standards 2010</p>	<p>The Regulations largely implement Directive 2008/50/EC on ambient air quality and cleaner air for Europe.</p>
<p>HM Government (2012) Draft Water Bill</p>	<p>The provisions in the Bill will 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 Bill 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.</p>
<p>DfT (2008) Delivering a Sustainable Transport System (DaSTS).</p>	<p>Objectives:</p> <ul style="list-style-type: none"> • to support national economic competitiveness and growth, by delivering reliable and efficient transport networks; • to reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change; • to contribute to better safety and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health; • to promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society; and • to improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.
<p>English Heritage (2008) Conservation Principles, Policies and Guidance</p>	<p>A framework for the sustainable management of the historic environment based on the following principles:</p> <ul style="list-style-type: none"> • the historic environment is a shared resource; • everyone should be able to participate in sustaining the historic environment;

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	<ul style="list-style-type: none"> • 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: Climate Change Space for Nature (2006)	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.
Environment Agency (2009) Water for people and the environment - Water resources strategy for England and Wales.	<p>Objectives:</p> <ul style="list-style-type: none"> • enable habitats and species to adapt better to climate change; • allow the way we protect the water environment to adjust flexibly to a changing climate; • reduce pressure on the environment caused by water taken for human use; • encourage options resilient to climate change to be chosen in the face of uncertainty; • better protect vital water supply infrastructure; • reduce greenhouse gas emissions from people using water, considering the whole life-cycle of use; and • improve understanding of the risks and uncertainties of climate change. <p>Target: In England, the average amount of water used per person in the home is reduced to 130 litres each day by 2030.</p>
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.
HM Government (2006) Climate Change The UK Programme	<p>The Climate Change Programme aims to tackle climate change by setting out policies and priorities for action in the UK and internationally.</p> <p>Aims and Objectives:</p> <ul style="list-style-type: none"> • to reduce carbon dioxide emissions by 20% below 1990 levels by 2010 (more than is required by the Kyoto Agreement); • make agreements with other countries as to how they will tackle climate change together; • report annually to Parliament on UK emissions, future plans and progress on domestic climate change; and • set out the adaptation plan for the UK, informed by additional research on the impacts of climate change.
HM Government (2009) Low Carbon Transition Plan: National Strategy for Climate and Energy.	<p>The UK Low Carbon Transition Plan sets out how the UK will meet the Climate Change Act's legally binding target of 34 percent cut in emissions on 1990 levels by 2020. It also seeks to deliver emissions cuts of 18% on 2008 levels. The main aims of the Transition Plan include the following:</p> <ul style="list-style-type: none"> • producing 30% of energy from renewables by 2020; • improving the energy efficiency of existing housing; • increasing the number of people in 'green jobs'; and • supporting the use and development of clean technologies.
HM Government (2010) The Conservation of Habitats and Species Regulations 2010	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.
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 in part by reducing leakage and managing the demand for water, and partly by developing new resources. The Strategy identifies that: <i>"Our best estimates of future supply/demand pressures show that we will need additional water resources and treatment capacity in the longer term. The schemes</i>

Plan, Programme or Strategy	Objectives and Targets identified in the Document
	<p><i>being delivered through our wider supply resilience investment strategy will provide a deployable output benefit and these form a key part of our longer term supply / demand plans. However, we have identified the likely need for further leakage reductions and water resource schemes during in the 2025-2035 period. Our analysis shows that the most significant risk to our long term supply/demand balance is the impact of climate change."</i></p>
<p>Sustainability West Midlands (2011) Local Authority Low Carbon Economy Programme</p>	<p>The West Midlands Local Authority Low Carbon Economy Programme has aimed to help West Midlands authorities use the low carbon agenda to achieve cost reduction and private and third sector low carbon job creation.</p>
<p>The Greater Birmingham and Solihull Local Enterprise Partnership (2010)</p>	<p>The Greater Birmingham & Solihull LEP is a partnership of businesses, local authorities and universities which supports private sector growth and job creation. Set up to strengthen local economies, encourage economic development and enterprise, and improve skills across the region. The LEP has set out plans to:</p> <ul style="list-style-type: none"> • increase economic output (GVA) in the area by £8.25 billion by 2020; • create 100,000 private sector jobs by 2020; • stimulate growth in the business stock and business profitability; • boost indigenous and inward investment; • become global leaders in key sectors, including: automotive assembly, low carbon R&D, business and professional services, clinical trials, creative and digital sectors; and • increase the proportion of adults with appropriate qualifications to meet employment needs.
Local	
<p>Birmingham City Council (2012) Aston, Newtown and Lozells Area Action Plan</p>	<p>To provide a clear vision and strategy for regeneration and development in the Aston, Newtown and Lozells area over the period 2012-2026. The AAP sets out a comprehensive and co-ordinated approach to shaping housing, employment, local centres, community facilities, infrastructure, transport and the environment.</p>
<p>Birmingham City Council & Bromsgrove District Council(2009) Longbridge Area Action Plan</p>	<p>Longbridge will undergo major transformational change redeveloping the former car plant and surrounding area into an exemplar sustainable, employment led mixed use development for the benefit of the local community, Birmingham, Bromsgrove, the region and beyond. It will deliver new jobs, houses, community, leisure and educational facilities as well as providing an identifiable and accessible new heart for the area. All development will embody the principles of sustainability, sustainable communities and inclusiveness. At the heart of the vision is a commitment to high quality design that can create a real sense of place with a strong identity and distinctive character. All of this will make it a place where people will want to live, work, visit and invest and which provides a secure and positive future for local people.</p>
<p>Birmingham City Council (1997) Nature Conservation Strategy for Birmingham</p>	<p>SPG promoting the conservation and enhancement of nature conservation across the City.</p>
<p>Birmingham City Council (1999) Regeneration Through Conservation: Birmingham Conservation Strategy.</p>	<p>A strategy for the protection and enhancement of Birmingham's cultural heritage.</p>
<p>Birmingham City Council (2001) Affordable Housing SPD</p>	<p>The Affordable Housing SPG was prepared to help encourage different types of housing on new housing developments in the city, to suit all needs. This document provides both detailed affordable housing policies and practical information to help developers when preparing planning applications for such schemes.</p>
<p>Birmingham City Council (2004) Archaeology Strategy.</p>	<p>The Strategy explains the process when proposed new development is likely to affect archaeological remains. It stresses the importance of early consultation about the archaeological implications of a proposed development and the process of assessment and evaluation to inform decision, making on requirements for preservation or recording of archaeological remains.</p>
<p>Birmingham City Council (2005) Developing Birmingham: An Economic Strategy for the City 2005-2015.</p>	<p>The vision of the Economic Strategy is: "To build on Birmingham's renaissance and secure a strong and sustainable economy for our people."</p> <p>The strategy identifies four key areas to focus on:</p> <ol style="list-style-type: none"> 1) development and Investment; 2) creating a skilled workforce; 3) fostering business development and diversification; and

Plan, Programme or Strategy	Objectives and Targets identified in the Document
	4) creating sustainable communities and vibrant urban villages.
Birmingham City Council (2006) Access for People with Disabilities SPD	The Access for People with Disabilities document provides guidance about how to make new developments accessible to all. Specific groups of people may find it particularly helpful to have more accessible public buildings, such as the elderly, those with children and buggies, and people with learning or language difficulties, as well as those with sensory or mobility impairments
Birmingham City Council (2006) Air Quality Action Plan.	<p>The Action Plan sets out 41 actions which follow the objectives below:</p> <ul style="list-style-type: none"> • reducing vehicle emissions; • improving public transport to reduce traffic volumes; • improving the road network to reduce congestion; • using area planning measures to reduce traffic volumes; • reducing air pollution from industry, commerce and residential areas; and • changing levels of travel demand/promotion of alternative modes of transport.
Birmingham City Council (2006) Municipal Waste Management Strategy.	<p>The Strategy sets out the following vision for delivering its municipal waste management services:</p> <p><i>“To run a city that produces the minimum amount of waste that is practicable, and where the remainder is re-used, recycled or recovered to generate energy. The material recovered through composting, recycling, re-use and from the energy recovery process will replace the need for extraction of virgin materials.</i></p> <p><i>The waste management strategy will be sensitive to local needs and will provide a service to help Birmingham become as clean and green a city as it can be. Birmingham City Council and the Constituency partners will provide a service that citizens are pleased to support, and where there is malpractice or deliberate misuse of the service, that this is dealt with efficiently to maintain a clean, safe and healthy environment.”</i></p> <p>The Strategy has the following objectives:</p> <ul style="list-style-type: none"> • the Council will explore ways of reducing the amount of waste sent to landfill to an absolute minimum, recovering value from waste wherever economically and environmentally practicable through energy recovery and measures to increase re-use, recycling and composting; • the City Council and its partners will raise awareness among the wider community to view waste as a resource and will deliver communications activities and work with relevant stakeholders (such as community groups and schools) to promote the cultural change needed to significantly increase recycling and re-use and reduce the overall quantity of waste requiring treatment or disposal; • the City Council will develop recycling and composting system that meet the targets set out in this strategy through methods that are acceptable and accessible to the residents of Birmingham; • the City Council will explore ways of working with other local authorities and will expand its partnership activities with the private voluntary sectors to assist in delivery of this strategy; and • the City Council will work with its partners and other agencies to provide efficient and effective enforcement of its services to contribute to a clean, green, safe and healthy environment.
Birmingham City Council (2010) The Birmingham Area Investment Prospectus.	The purpose of the Area Investment Prospectus (AIP) is to capture the key strategic development and investment opportunities around the city as well as outline Birmingham’s plans to improve the economic environment and infrastructure required to support the growth generated by these opportunities. The AIP brings together the visions of public and private partners into one overall framework, designed to continue the transformation of Birmingham, and enhance its place as a leading world city and a dynamic regional capital.
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).
Birmingham City Council (2008) Contaminated Land Inspection Strategy for Birmingham Second Edition	<ul style="list-style-type: none"> • 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.

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	<ul style="list-style-type: none"> To liaise with the Environment Agency regarding sites that may be polluting controlled waters or other special sites.
Birmingham City Council (2008) Statement of Community Involvement	The Statement of Community Involvement (SCI) sets out how we will encourage more people to get involved in the planning decision-making process in Birmingham.
Birmingham City Council (2009) Sutton Coldfield Town Centre Regeneration Framework	<ul style="list-style-type: none"> establish the Town Centre as a destination and location to visit for a range of activities, not just shopping recapture the grandeur of the 'Royal Town' enhance the retail area and provide a mix of uses to help encourage investment in the town highlight and promote Sutton Park improve pedestrian and cycle routes to reduce the dominance of motor vehicles consider the historic nature of the 'Old Town' and its future commercial role
Birmingham City Council (2010) Birmingham Climate change action plan 2010+	<ul style="list-style-type: none"> Birmingham becoming a Low Carbon Transition city Improving the energy efficiency of the city's Homes and Building Reducing the city's reliance on unsustainable energy through Low Carbon Energy Generation Reducing the city's impact on the non-renewable resources through Resource Management Reducing the environmental impact of the city's mobility needs through Low Carbon Transport Making sure the city is prepared for climate change through Climate Change Adaptation Making sure that this action plan Engages with Birmingham Citizens and Businesses
Birmingham City Council (2011) Birmingham Big City Plan City Centre Masterplan	<p>Six broad objectives will guide the transformation of the city centre.</p> <ul style="list-style-type: none"> Liveable city - provides a high quality of living, creating places for people that offer a diverse mix of activities and spaces within an accessible, safe, resilient and attractive environment. Connected city - is safe and convenient for pedestrians and cyclists to move around and has an effective and attractive public transport system with an efficient highway network. Authentic city - offers a unique and diverse experience through its architecture, its streets and spaces, its arts and culture, its businesses and its neighbourhoods. Knowledge city - utilises and supports its universities, colleges, businesses and people to create a strong and sustainable economy. Creative city - values and supports creativity and industry in all its forms. Smart city - responds to the challenge of climate change through sustainable growth, pioneering the low carbon future.
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.
Birmingham City Council (2012) Places for the Future SPD	<p>Sets out how the planning process will ensure sustainable development and what is required of developers throughout the planning process, including the submission of Sustainability Statements, Design and Access Statements and Carbon Budget Statements, and offers guidance for developers on how to plan and deliver sustainable developments to comply with the Council's policies and standards on sustainability. The SPD's objectives are to:</p> <ul style="list-style-type: none"> set out how national and strategic policy will be interpreted in detail in Birmingham's Development; identify the elements of sustainable development which all future developments must consider; provide detailed guidance on these elements; ensure the City meets its agreed carbon reduction targets; ensure that the City adapts to future climate change; and

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	<ul style="list-style-type: none"> ensure that the City's overall natural environment, biodiversity, ecology and historical heritage are nurtured and maintained.
<p>Birmingham City Council (2012) Shopping and Local Centres SPD</p>	<ul style="list-style-type: none"> Defines the boundaries of each local centre in Birmingham's hierarchy of shopping centres Defines the primary shopping area, where the main retail uses are concentrated Sets out policies to maintain the primary retail function of the centres
<p>Birmingham City Council (2013) Birmingham's Green Living Spaces Plan</p>	<p>Establishes a framework for action City-wide through the integration of seven principles:</p> <ul style="list-style-type: none"> climate change adaptation; watercourse management; health improvement; tree and woodland management greenway definition and enhancement; eco-system management; and Green Living Spaces creation.
<p>Birmingham City Council (2013) Birmingham Health and Well-being Strategy</p>	<p>Identifies priorities and delivery mechanisms for addressing acute and chronic health and well-being issues across the City, some elements of which are closely related to spatial planning. These include aspirations to:</p> <ul style="list-style-type: none"> create fair employment and good work for all; ensure Healthy Standard of living for all; and create and develop healthy sustainable homes and communities.
<p>Birmingham City Council (2014) Preferred Option Bordesley Park AAP</p>	<ul style="list-style-type: none"> A focus for growth including a wide range of employment opportunities for local people. Attractive and thriving local centres. High quality housing suitable for the needs of existing and new communities. Infrastructure that meets the current and future needs of business and residents. A connected place including enhanced public transport and a high quality pedestrian environment. A clean, safe, attractive and sustainable environment in which to live and work.
<p>Birmingham City Council (2014) Draft Greater Icknield Masterplan</p>	<ul style="list-style-type: none"> detailed guidance for the area building upon the proposed strategic housing allocation within the emerging Birmingham Development Plan. ensuring that Greater Icknield becomes known as an exemplar sustainable neighbourhood providing the conditions for sustainable growth, where new communities are integrated with existing, ensuring high quality open spaces and public realm, and improving connectivity. Its proposals complement those of the Big City Plan. Over 60 hectares of new development opportunities with the potential to provide approximately 3000 new homes and 1000 new jobs

