Birmingham City Council

Sustainability Appraisal of the Birmingham Plan

Interim SA of the Core Strategy Preferred **Options**

November 2010







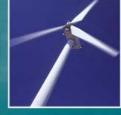




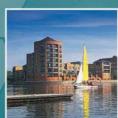






















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Birmingham City Council

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Interim SA of the Core Strategy Preferred Options

November 2010

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Non-Technical Summary

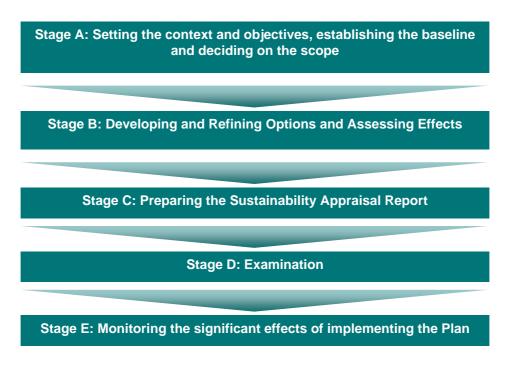
Introduction

This is the Non-Technical Summary of the Sustainability Appraisal (SA) of the Birmingham Plan - Emerging Core Strategy ('The Birmingham Plan'). It documents an assessment of the environmental, social and economic performance of the Birmingham Plan against sustainability objectives. The approach employed in this SA fulfils the requirements for SA and Strategic Environmental Assessment and also considers equalities issues through an Equalities Impact Assessment (EqIA).

What is Sustainability Appraisal?

Sustainability Appraisal is a process that identifies and reports on the likely significant effects of a Plan's objectives, policies and proposals. It appraises the extent to which implementing the Plan will achieve the social, environmental and economic objectives of sustainable development. The Government's strategy for delivering sustainable development (Securing the Future) identifies a number of guiding principles. These will help meet the goal of enabling people to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations: Living within environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly.

Government guidance (ODPM, 2005) on undertaking SA advocates a five-stage approach which is illustrated below.







The assessment of the draft replacement plan been undertaken using an objectives-led approach. The SA objectives (set out below) 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 Birmingham Plan by covering key environmental, social and economic issues.

SA Objectives

- 1. Resource Use: Use natural resources such as water and minerals efficiently.
- 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.
- 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.
- **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.
- **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.
- 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.
- 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.
- 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.
- 19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.
- 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.
- 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.





SA Objectives

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

What are the key sustainability issues in Birmingham?

The following sustainability issues of relevance to Birmingham have been identified:

SA Theme	Key Issues
SA Theme 1: Natural resources and waste	The key impacts here concern the relationships between the level of growth proposed in the Core Strategy and the significant demand for natural resources (minerals, water and land) and the production of waste.
SA Theme 2: CO ₂ emissions	BCC is committed to securing reductions in CO_2 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 Core Strategy can influence.
SA Theme 3: Climate change adaptation	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).
SA Theme 4: Historic environment, landscape, biodiversity and geodiversity	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.
	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 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 (although further analysis of landscape capacity and sensitivity is required).
	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)
SA Theme 5: Pollution	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 (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



SA Theme	Key Issues
	is significantly below national and regional averages.
	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.
	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.
SA Theme 6: Economic growth	The main impact that the Core Strategy 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.
SA Theme 7: Communities, healthy lifestyles and equality	The Core Strategy 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.
SA Theme 8: Housing	The key impacts relate to whether or not the Core Strategy 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 or, as a worst case, the decline of the City's economy.

Alternative growth options considered

In developing the overall strategic approach in the Birmingham Plan, three options for the scale of growth in the City were considered:

- 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)); and
- **Option 3**: baseline +30% (up to 65,000 (3,250 dpa)).

The Interim SA Report (February 2009) appraised these against the SA Objectives and recommended that no one option performed better than the others, although on balance, Option 2b probably had the edge. The proposed scale of growth in the Birmingham Plan at 57,500, with no Green Belt release, closely reflects Option 2b. The main sustainability issue associated with Option 2b, however, is that it proposes the greatest levels of development for the existing urban area, which could place pressures on features within the natural and historic environment and make it harder to incorporate strategic-scale measures for climate change adaptation.



Appraisal of Birmingham Plan policies

An appraisal of the policies in the Birmingham Plan has been undertaken including alternative options. This has focused on appraising policy groups based broadly on the sections within the Birmingham Plan documents. The appraisal has focused mainly on the Strategic Policies of the plan. The Area Policies have not been appraised fully at this stage pending further discussions of options and additional background evidence being made available.

Likely significant effects of the Birmingham Plan

The SA provides a commentary on the sustainability performance of the Birmingham Plan and concludes that it is broadly positive in its effects when compared against SA Objectives. Some key strengths of the Plan include:

- The maintenance and protection of townscape and landscape quality by concentrating new development in those areas with suitable capacity.
- Protection and enhancement of natural, historic and cultural resources.
- Provision of housing which meets the needs of current residents as well as residents to be planned for as part of Birmingham's growth, particularly through the provision of a range of housing tailored to the needs of specific areas.
- The provision of economic opportunities to all citizens, particularly associated with the growth of the high-technology base, services and area-specific employment and training initiatives.
- Ensuring that all citizens are treated equally in terms of access to housing, jobs, services and a good quality environment.
- Securing significant reductions in the City's CO₂ emissions through a variety of measures including building design, emissions control, more efficient transport networks and reducing the need for people to travel for work or to access services. Close co-ordination with the City's Climate Change Action Plan 2010+ will be required to make the best of these opportunities.
- Securing an enhanced role for Birmingham as a global city using assets such as the City Centre to help achieve this, and developing infrastructure that will support this aspiration.
- Creating a network of Sustainable Urban Neighbourhoods which will act as models of resource-efficient living and inform practice across the City as the initiatives are expanded over time and space.
- The protection and enhancement of Birmingham's characteristic suburbs, particularly where there are pressures for development,

The overall performance of the City-wide policies is, in the main, positive. The principal areas which appear to require attention are the potential negative effects associated with the plans for the growth of the City. Whilst many of the impacts depend upon the precise scale and location of this development, the scale of the ambitions for change will inevitably produce environmental and perhaps social pressures. These centre on the challenge of





physically accommodating the proposed new housing (assuming that there is sufficient land available within the built-up area of the City) and the effects of greater resource use and a larger population, potentially contributing to greater congestion, for example. Appropriate control of the effects of the growth strategy should be feasible through the use of the various policies designed to accompany the policies designed to promote change.

Perhaps inevitably, and often associated with growth, there are likely to be a number of negative impacts, some of which will be cumulative in nature, these being the unintended consequences of a particular strategy approach. Issues that require monitoring and potential mitigation include:

- habitat fragmentation caused by growth pressures and inappropriate management of Green Infrastructure resources;
- climate change caused by greenhouse has emissions associated with the growth of housing, existing industry and traffic;
- elevated levels of unemployment and social exclusion resulting from economic imbalance between areas;
- homelessness and/or limited access to affordable housing resulting from a deficient housing stock;
- congestion caused by the continuation of current growth patterns unchecked by policy intervention;
- waste management problems resulting from the continuation of current patterns of disposal and management;
- decline in the quality of life across the City caused by the continuation of current growth patterns and associated issues such as congestion; and
- decline and imbalance in local service provision associated with the influence of current patterns of development.

The Plan contains policies which should be applied to mitigate these impacts, as they arise. To be used to best effect, these policies will have to be flexible in their implementation and periodic revision.

Key recommendations

The interim SA report makes a number of detailed recommendations relating to the policy groupings. For the most part these relate to the addition of supporting text to help justify policy positions and hence better demonstrate that they are likely to achieve sustainability benefits. The recommendations are set out in Table 1.



Table 1 Summary of SA recommendations

Topic/Policy	Recommendations
Options	Setting out the reasons for rejecting the other alternative options is a requirement of the SA and should be reported in the SA report. Our view is that where options have been considered further information needs to be provided by the City Council in order to explain why the preferred development strategy has been selected, in light of the other alternatives considered.
Strategic Policies	allematives considered.
Growth policies (SP1-SP4)	These policies could be strengthened by: reference in SP1 to quality of life issues as part of growth; cross-referencing to other policies in SP3 along with the re-ordering of the bullet points to reflect the structure of the document; and specification in SP4 of the relationships of the SUNs with the rest of the City.
Climate Change (SP5-SP10)	Whilst the suite of policies are in the main complementary to one another, they would benefit from more cross-referencing (particularly between SP7, 8 & 9), along with clarification in the supporting text of SP7 as to why this BREEAM target has been adopted. A justification should be provided in the supporting text to Policy SP8 for the thresholds set out in the policy in order to help demonstrate that the policy is deliverable.
	The supporting text to SP11 (Green Infrastructure) could be made stronger by setting out the benefits of GI in adapting to and mitigating against climate change together with other recreational and amenity benefits. Existing benefits listed could be related to climate change where appropriate. As the policy has wider sustainability benefits beyond climate change it would benefit from cross-referencing to other policies/ issues. This could include connectivity within the City, biodiversity, sport and recreation and city character.
	At present there is no information indicating how the GI network has been defined and ideally there should be reference to a proposals map, the evidence base and perhaps a City-wide network map. We note that a "Green Infrastructure evidence base for Birmingham" has been produced and there would be benefit in referring to this in the supporting text to provide further justification for the policy.
Employment (SP12-SP16)	Whilst the package of new employment land proposals and protection of key employment areas is likely to be beneficial overall, greater clarification is needed on how the benefits will be spread City-wide and complement other policy aspirations, an issue which could be related to the need for greater spatial definition of their extent and influence.
Centres (SP17-SP22)	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 Urban Neighbourhoods. Further supporting text regarding the justification for the hierarchy of centres would be beneficial. Will, for example, SUNs merit special treatment in respect of these policies such that Policy SP4 can be delivered? Should there be a stronger policy to encourage small independent retailers in deprived neighbourhoods and areas of BME concentration? Should there be a stronger set of criteria for limiting/allowing the permission of non-retail uses?
Housing Distribution (SP23 – SP29)	Reference to SUNs, perhaps in SP24, would be helpful in demonstrating an integrated approach to housing strategy across the City, anticipating future approaches to its spatial character. The justification for the approach to affordable housing in SP27 should be set out more clearly in the supporting text. There should be a more explicit statement on encouraging community facilities to be developed within new housing areas of a certain size. Consider setting a target for social-rented housing.
Housing Environment (SP30 – SP32)	The justification for the housing density targets set out in Policy SP31 should be explained in the supporting text. For Policy 32 further explanation should 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 (SP33-SP41)	Further consideration should be given to the relationship between Policy SP34 and SP17 and additional supporting text provide to show how these policies can be implemented effectively together. Further justification of the accessibility standards set out in SP36 should be provided in the supporting text including consideration as to whether they are appropriate across all parts of the City. SP41 could cover cycling as well as pedestrians also providing some links to Green Infrastructure.
Waste (SP42 –SP44)	Policy SP42 should be reworded to clarify the approach to the waste hierarchy in Birmingham. This includes adding reference to energy recovery as an alternative to landfill when re-use, recycling and composting is not possible. Further clarity as to what is meant by "disposal" capacity in this policy should be provided. 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.



Topic/Policy	Recommendations	
Cultural Facilities (SP45 – SP47, SP52)	Policy SP45 would benefit from further detail regarding the quality standards to be applied, the approach to open space in new developments where on-site provision is not feasible. The supporting text should provide greater justification for the policy thresholds and also outline the links to other relevant policies particularly green infrastructure. There could be more detail on the specification of accessibility standards for open space sufficient for all equality groups.	
Natural and Cultural Resources (SP48 – SP51, SP53, SP54)	Greater use of cross-referencing amongst policies would clarify how these policies are to be implemented together, particularly in helping to realise aspirations for Green Infrastructure (SP11), for example, SUNs (SP4) and the Citywide centres approach (SP17 & 18). The key principles for urban design should include more detailed points on accessibility for disabled people, and parents/carers, and also on community safety. Reference to Secure by Design and the appropriate guidelines on disability access would be useful. Cross-referencing to policies that encourage walking and cycling as a transport mode should be included in SP48 as this will help tackle obesity and encourage healthier lifestyles. A reference (either here or in SP52) on encouraging safe routes to school would be beneficial for school children.	
Area Policies	Further appraisal of the policies set out in Chapter 6 should be carried out taking account of the issues set out below.	
	Whilst sustainable development is aspired to City-wide, the practical expression of these in the area-specific policies is focused on the creation of Sustainable Urban Neighbourhoods. Their definition in principle supports the objectives set for sustainable development, but equally raises a number of points of clarification that would assist their definition and help to better explain how and why this policy initiative is an appropriate response. The following questions summarise these matters:	
	Why are not all SUNs centred on public transport corridors?	
	 What is the rationale behind the location of SUNs in the context of their area location? 	
	How have the boundaries for SUNs been drawn?	
	What distinguishes the SUN from its surrounding urban context?	
	 What are the key relationships between the SUNs and adjacent centres in terms of functional relationships e.g. retailing and travel to work? 	
	As agreed with Birmingham City Council this report does not specifically consider whether there are reasonable alternatives to the policies put forward in Chapter 6. This analysis would need to be undertaken before completing the SA process to ensure that other relevant options are appraised. Without this information it is not clear on what basis the preferred policy options have been selected.	
	It is therefore recommended that a more detailed appraisal of the policies, including any relevant options, will be undertaken during the next iteration of the Plan following public consultation.	

Implementation and monitoring

A suite of monitoring indicators, closely aligned with those to be used for monitoring the implementation of policies associated with the Birmingham Plan, will be devised as part of the part of the preparation of the Submission Plan. Particular attention might need to be paid to CO₂ emissions, the distribution and impacts of housing development, job creation (by area and type), accessibility to services, and measures of the character of the City such as townscape analysis.

Providing comments on the SA

This SA Report is issued for consultation alongside the Birmingham Plan. Consultation will last from mid December 2010 to mid March 2011. Details of how to respond are set out on Page 1.





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1. Introduction

Objectives and structure of the Report

This report sets out a Sustainability Appraisal (SA) of the Birmingham Plan which has reached the stage of production whereby policies have been developed which will guide the City's development over the next 15 years. The SA Report takes account of the aims and requirements of Sustainability Appraisal and the SEA Directive¹ and evaluates the performance of these policies against the SA Framework established in previous reports².

The purpose of the Sustainability Appraisal Report is to:

- identify environment, social and economic objectives contained in other plans and programmes that are relevant to the Birmingham Plan and the Sustainability Appraisal Framework;
- assess the broad environmental, social and economic characteristics that make Birmingham unique, and identify the potential impact of any change in these characteristics;
- predict and evaluate the likely significant effects of the spatial approach adopted by Birmingham Plan, and alternatives, including any cumulative effects; and
- document how Sustainability Appraisal has been used in developing the Birmingham Plan.

This Sustainability Appraisal Report is a consultation document for the statutory agencies with environmental responsibilities in England (Natural England, the Environment Agency and English Heritage), along with other relevant bodies with a sustainability remit or a local interest, and the general public.

Consultation and stakeholder engagement are fundamental to the SA process and reflects the principle that the development of plans is better where it is transparent, inclusive and uses information that has been subject to public scrutiny. The SA process aims to ensure that the key stakeholders, those parties who could be affected and the wider public have the opportunity to present their views on the findings of the assessment. This SA Report is being issued for consultation alongside the Birmingham Plan, and the consultation period will run from mid December 2010 to mid March 2011. Comments should be sent to:

² Entec (2006) **Birmingham Plan: Sustainability Scoping Report** and Entec (February 2009) **Interim SA of Core Strategy Issues & Options.**



¹ European Commission (2001) **The SEA Directive: European Directive 2001/42/EC.**



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1.2 The Birmingham Core Strategy: The Birmingham Plan

Work on the Birmingham Plan was initiated in 2007 with a consultation event 'Planning for the Future of Birmingham', and sets out the strategic framework for the City and detailed policies against which development proposals will be assessed for the 20 year period to 2027. The Birmingham Plan contains nine Strategic Objectives, 54 Strategic Policies and 53 Area Policies, and will be the reference point for various AAPs and SPDs produced to address area-specific and thematic issues. As noted above, the Birmingham Plan has been subject to initial Sustainability Appraisal, with both documents consulted upon together. The following tables list the Core Strategy Objectives and constituent policies, and SA Themes and Objectives against which they will be appraised.

Table 1.1 Birmingham Plan Objectives and Strategic Policies

Key Objectives

1. To promote Birmingham's national and international role, as a global city

- 2. To create a more sustainable city that minimises its carbon-footprint and waste while allowing the City to grow
- 3. To develop Birmingham as a City of vibrant urban villages, that is safe, diverse and inclusive with a locally distinctive character
- To secure a significant increase in the City's population, towards 1.1 million and meet regional targets for new housing
- 5. To create a prosperous, successful economy, with benefits felt by all
- 6. To provide high quality transportation links throughout the city and with other places and encourage the increased use of public transport
- 7. To make Birmingham a learning city with quality institutions
- 8. To encourage better health and well being through the provision of new and existing sports and leisure assets linked to good quality public open space throughout the City
- 9. To protect and enhance the city's heritage and historic environments and to conserve Birmingham's natural environments allowing biodiversity and wildlife to flourish

Strategic Policies

1. Growth

SP1 Birmingham as a Global City; SP2 Overall levels of Growth; SP3 Quality of life; SP4 Sustainable Urban Neighbourhoods

2. Climate Change

SP5 Reducing the City's carbon footprint; SP6 Adapting to climate change; SP7 Sustainable construction; SP8 Low carbon energy generation; SP9 A low carbon economy; SP10 Managing flood risk; SP11 Green Infrastructure network

3. Employment and Centres

SP12 Core employment areas; SP13 Regional Investment Sites (RIS); SP14 Central Technology Belt (CTB); SP15 Portfolio of employment land and premises; SP16 Protection of employment land; SP17 The network and hierarchy of centres; SP18 The growth, scale and function of centres; SP19 Convenience/retail provision; SP20 Small shops and independent retailing; SP21Non-retail uses in core shopping areas; SP22 Tourism and tourist facilities

4. Housing

SP23 The housing trajectory; SP24 The distribution of new housing provision; SP25 The location of new housing; SP26 The type and size of new housing; SP27 Affordable housing; SP28 Student accommodation; SP29 Provision for gypsies, travellers and travelling showpeople; SP30 The design and quality new housing and the residential environment; SP31 Housing density; SP32 The existing housing stock

5. Connectivity

SP33 The Strategic Transport Network; SP34 Transport Corridors; SP35 Sustainable Transport Systems; SP36 Accessibility Standards for New Development; SP37 Digital Connections; SP38 Car Parking; SP39 Traffic & Congestion Management; SP40 Freight; SP41 Pedestrians





Key Objectives	Strategic Policies
	6. Waste
	SP42 Sustainable Management of the City's Waste; SP43 New and Existing Waste Facilities; SP44 Location of Waste Management Facilities
	7. Quality of Life
	SP45 Open Space and Playing Fields; SP46 Sports Facilities; SP47 Recreational Uses Within the Green Belt; SP48 Urban Design; SP49 Biodiversity and Geology; SP50 Archaeology and the Historic Environment; SP51 Health; SP52 Education; SP53 Impact of New Development on Air Quality; SP54 Impact of New Development on Noise





2. Methodology

Overview of SA/SEA and key stages

SA is a process that identifies and reports on the likely significant effects of a Plan's objectives, policies and proposals. It appraises the extent to which implementation of the Plan will achieve the social, environmental and economic objectives of sustainable development. The Government's strategy for delivering sustainable development (Securing the Future) identifies a number of guiding principles which will help meet the goal of enabling people to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations:

- living within environmental limits;
- ensuring a strong, healthy and just society;
- achieving a sustainable economy;
- promoting good governance; and
- using sound science responsibly.

Government guidance on undertaking SA advocates a five-stage approach which is set out in Figure 2.1.

This Report relates to **Stages C** and **D** of the process. Appendix A gives more detail on the relationship between these tasks. Appendix B sets out how recommendations from the earlier Interim SA Report³ have been taken into account in the emerging Core Strategy

³ Entec (February 2009) **Interim SA of Core Strategy Issues & Options**





Figure 2.1 The SA Approach

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope

- A1: Identifying other relevant policies, plans and programmes, and sustainability objectives
- A2: Collecting baseline information
- A3: Identifying sustainability issues and problems.
- A4: Developing the SA framework.
- A5: Consulting on the scope of the SA.

Stage B: Developing and Refining Options and Assessing Effects

- B1: Testing the DPD objectives against the SA framework.
- B2: Developing the DPD options.
- B3: Predicting the effects the DPD.
- B4: Evaluating the effects of the DPD.
- B5: Considering ways of mitigating adverse effects and maximising beneficial effects.
- B6: Proposing measures to monitor the significant effects of implementing the DPDs.

Stage C: Preparing the Sustainability Appraisal Report

C1: Preparing the SA Report.

Stage D: Examination

- D1: Public participation on the preferred options of the DPD and the SA Report.
- D2(i): Appraising significant changes.
- D2(ii): Appraising significant changes resulting from representations.
- D3: Making decisions and providing information.

Stage E: Monitoring the significant effects of implementing the Plan

- E1: Finalising aims and methods for monitoring.
- E2: Responding to adverse effects.



Stages and tasks in SA/SEA

2.3 Consultation

Under the SEA Directive, there is a statutory duty to consult the three Consultation Bodies, as designated in each of the EU Member States:

"when deciding on the scope and level of detail of the information which must be included in the environmental report."

For England the consultation bodies are: Natural England (previously the Countryside Agency and English Nature), English Heritage and the Environment Agency.

The SEA Directive also requires that the Consultation Bodies and the public are given the opportunity to express their opinion on a draft Development Plan Document and accompanying SA Report before the Development Plan Document is adopted.

Table 2.1 summarises the consultation process undertaken. Early in the process, specific contact was made with the statutory agencies - Countryside Agency, English Nature, English Heritage and the Environment Agency - in order to identify how to deal with specific issues relevant to them early on in the process, such as the requirements associated with Appropriate Assessment (see section 2.4).

Table 2.1 Consultation undertaken as part of the Sustainability Appraisal process

Document	When	Who consulted	How
Scoping Report	September 2006	Countryside Agency; English Nature; English Heritage; Environment Agency	email
Interim Sustainability Appraisal of Birmingham Plan Issues and Options	February 2009	Countryside Agency; English Nature; English Heritage; Environment Agency; environmental and community groups; members; officers	Workshop exploring the implications of growth options for Birmingham
Interim SA of the emerging Birmingham Plan	Autumn/Winter 2010	Countryside Agency; English Nature; English Heritage; Environment Agency; environmental and community groups; members; officers; general public	A series of specific stakeholder meetings throughout the consultation period, some of these have taken place during the preparation of the plan. Letters and a summary of the plan will be posted out, the summary will also be included as a supplement in the Birmingham Post and the Evening Mail. Consultation events, through a mix of static indoor exhibitions and roadshow events with an exhibition bus covering every constituency. The plan and SA will be available on the website, which will be advertised on posters, in the supplement, use of social media e.g. facebook.



Habitat Regulations Assessment (HRA)

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 Screening⁴ to determine whether significant effects are likely on European designated sites.

2.5 Difficulties encountered

The main difficulties encountered were:

- Some gaps and areas to be strengthened in the baseline data, to help inform annual monitoring.
- The number of policies makes their individual evaluation against SA Objectives time-consuming and would arguably be of limited use. Appraisal of the policy area has therefore taken place with the component policies grouped together. Where there are likely to be particular inconsistencies between SA Objectives and individual policies these have been identified for further attention. The remainder of the relationships are assumed to be positive or neutral in character.

 $^{^4\,\}mathrm{UE}$ Associates (2010) HRA Screening of the Birmingham Plan.





3. Sustainability issues in Birmingham

3.1 A profile of Birmingham

The following profile is reproduced from the Core Strategy for the sake of consistency.

Birmingham Today - A Spatial Portrait of the City

Birmingham is the dynamic core of the Birmingham City-Region. With a population of just over 1 million and covering an area of 26,777 hectares, Birmingham is the UK's second largest city with an ever-increasing standing as a vibrant and diverse global city.

An Increasing Population

Birmingham's population drifted downwards during the second half of the twentieth century as a result of net out migration primarily to other parts of the West Midlands conurbation. However the population has grown since 2001 due to high levels of international immigration, higher birth rates and lower death rates. The most recent estimate from the Office of National Statistics is that in 2008 the city's population was 1.017,000

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.

A Diverse Social Character

Birmingham's residents are from a diverse range of national, ethnic and religious backgrounds. According to the 2001 Census, non-white groups form 29.6 % of the City's population, which is one of the largest proportions outside London. Just over 10 % are Pakistani with the next largest groups being Indian and Black Caribbean.

The black and minority ethnic communities are mainly concentrated in the inner parts of the city with the highest proportion found in the inner city wards of Lozells and East Handsworth, Sparkbrook and Aston. Birmingham's most deprived wards are also predominantly located in the inner areas. About 38% of Birmingham's residents live in areas that are in the most deprived 10% in England (Index of deprivation 2004). Birmingham recorded the lowest overall crime rate per 1,000 population in 2005/2006 amongst the major English cities, although fear of crime remains a concern for many local people.

A Variety of Open Space & Nature Conservation

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.

Birmingham contains a number of areas that are protected for their nature conservation value including 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 presently seven local nature reserves (LNRs) with those at Moseley Bog and Plantsbrook covering the largest areas.

Quality Urban Spaces

Birmingham has reinvented itself over the last 15 years to rival major global cities with many leisure attractions and quality urban spaces.

A distinctive network of attractive public squares runs across the City Centre with grand civic architecture found at Victoria Square. Centenary Square and Millennium Point create a modern public realm containing several attractions such as the REP Theatre and the Think Tank Museum. The new Library of Birmingham is now under construction on Centenary Square, next to the REP and is expected to be complete in 2013.

The City Centre takes advantage of its natural topography, with several landmark buildings situated at the peak of a valley ridge. The iconic silver disc Selfridges building against the Victorian gothic architecture of St Martins Church create a contrasting cityscape and dramatic views from the south of the City Centre.

The core of Birmingham is surrounded by many pleasant and desirable leafy suburbs such Edgbaston, Sutton Coldfield, Bournville, Moseley and Harborne, each with their own unique character and identity.

A Wealth of Historic & Archaeological Resources

Birmingham has 27 designated conservation areas, mainly located within attractive suburbs and within historic parts of the City Centre. These account for 4% of the land area of Birmingham including the Jewellery Quarter and Bournville conservation areas, which are nationally renowned. There are also many listed and locally listed buildings.

Birmingham hosts an extensive network of historic canals and canal side structures, which reflect the city's key role during the Industrial Revolution. Birmingham's canal network has been successfully restored at Brindley Place creating ambience as an attractive waterside feature alongside bars, cafes, restaurants and other attractions.

Birmingham has a surprising wealth of archaeological resources with 13 Scheduled Ancient Monuments of national importance. Sites range from pre-historic burnt mounds at Moseley Bog, Roman settlements in Kings Norton and the remains of a medieval fortified manor at Weoley Castle to the remains of medieval industries and examples of the city's more recent industrial heritage. Potentially many more sites are to be discovered.

A Changing Economy

Birmingham's economy experienced dramatic changes during and after recessions during the 1970s and early 1990s hit the manufacturing industry hard, leading to heavy decline in the traditional employment base. Economic conditions began to improve by the mid 1990s as the economic base diversified into the service sector, the expansion of which has become increasingly important to the city's revitalisation. This improvement continued until the onset of the most recent recession which has affected both the service and manufacturing sectors.





Birmingham today 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.

Birmingham's economy has continued to move away from traditional manufacturing towards high skilled office jobs including business and professional services and revitalised retail and an expanding creative industries' sector. As a designated Science City and a Digital City, Birmingham has attracted investment from new industries based on science and technology such as high technology manufacturing sectors, medical technologies, advanced materials and nanotechnology.

However, worklessness remains a significant issue. The employment rate at 61.5% in 2008 is noticeably below the national rate of 74.2%. The female rate (54.8%) is much lower than the male rate (67.9%) and the non-white employment rate in the city is 46%; 25 points lower than the white rate.

In the first quarter of 2009, 124,340 people were claiming out-of work benefits in the city - 19.7% of the working age population. This compares to 13.4% regionally, and 15.1% nationally. In some wards the rates are over 30%.

Worklessness rates were relatively constant, until a large increase in 2009 and is mainly concentrated in inner city wards such as Washwood Heath and Aston, which contain high proportions of ethnic minority populations.

The average household income for the city as a whole is currently around £30,564 per annum (CACI). However, there are significant differences between constituencies with Sutton Coldfield households enjoying the highest average income, 63% above Hodge Hill, the area with the lowest average.

New Residential Developments

Birmingham is predominantly built up in character with about 15,200 hectares in residential use.

In 2001 there were nearly 391,000 households in Birmingham according to the Census. The average household size was greater in Birmingham at 2.46 persons compared with the England average of 2.36. There is a growing number of one-person households but also a relatively high proportion of households containing five or more people.

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.

House prices in Birmingham increased by about 88% between 2001 and 2007, but have subsequently fallen back as a result of the credit crunch.

Improving the quality of the city's housing stock and of its residential neighbourhoods has long been a priority - with Castle Vale and Attwood Green being two recent successes. Current initiatives include:





- The 'Urban Living' Pathfinder initiative, which has partially developed into the Western Growth Corridor, is a government funded regeneration programme which aims to create affordable and quality housing and mixed communities in North West Birmingham's most deprived inner neighbourhoods such as Aston, Lozells and Newtown.
- The Ley Hill Estate which is the subject of a £45 million regeneration programme which will see over 440 new high quality homes for sale and for rent and 700 unsatisfactory homes demolished. In addition to new housing, the area will also see improved community facilities and a proposed new health centre situated around a new village green along with major improvements to Ley Hill Park.

An Extensive Transport Network

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.

Just over half of people who both live and work in the city use the car to get to work, about a fifth use the bus, a tenth walk and another tenth work at or from home.

Birmingham contains good links to the national motorway network and via the City Centre to Birmingham International Airport, which is set for significant expansion, initially to accommodate an extension to the main runway to enable direct long haul flights.

A network of strategic highways is focused on the City Centre, with express coach links to many parts of the country. There is an intensive pattern of local bus services as well as a regional rail network.

In the longer term there is the potential for a new high speed rail link between the City Centre and other major cities in the UK and Europe (High Speed 2).

Birmingham New Street Station is a major rail interchange offering direct services to cities across England, Wales and Scotland. The multi million Gateway project proposes to remodel New Street to accommodate increasing passenger numbers.

Centro have powers to build a two-mile extension route of the Midland Metro from Snow Hill to Five Ways running through the City Centre.

A Vibrant City Centre

Birmingham City Centre is a major business and tourist arena with several prestigious developments created in the past decade that have revived and have promoted Birmingham both locally and internationally. These include the International Convention Centre (ICC) and Symphony Hall, many international hotels, the National Indoor Arena (NIA) and the attractive mixed-use redevelopment of canal side Brindley Place, all located within a successful network of public squares, spaces and streets at the heart of the City

More recently the creation of the Bullring Shopping Centre and the luxury Mailbox development have provided high quality, major retail and leisure spaces which have continued to propel Birmingham's growth and transformation as a city of innovation.



A network of Urban Villages

A network of vibrant urban villages is evolving in Birmingham through the renaissance of local centres. Successful existing urban village schemes include the regeneration of the historic Jewellery Quarter and Bordesley urban village. The growth of key local centres such as Selly Oak will provide attractive, high quality residential and employment areas with a thriving mix of local amenities and sustainable uses.

Links with Adjoining Areas

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Birmingham lies at the heart of the West Midlands Region and there are therefore important links between Birmingham and adjoining areas. The following are particularly significant:

- 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.
- There are some important cross-boundary links between South West Birmingham and adjoining areas of Bromsgrove District. In particular the former Austin Rover car plant at Longbridge straddles the boundary and is the subject of an adopted Area Action Plan prepared jointly by Birmingham and Bromsgrove Councils. The Lickey Hills Country Park, owned by the City Council and an important outdoor recreational resource also lies partly in Birmingham and partly in Bromsgrove.
- The City Council supports the ongoing strategy for the regeneration of the Black Country which lies to the west of Birmingham as complementary to the City Council's growth strategy. At a more local level there are important links between the residential areas of North West Birmingham and adjoining areas of Sandwell, which are both within a Housing Pathfinder area. Another important recreational resource, The Sandwell Valley Country Park, extends from the Handsworth area of Birmingham through Sandwell and Walsall to link to open countryside in Southern Staffordshire.

3.2 Sustainability issues facing the City

3.2.1 SA Theme 1: Natural resources and waste

The key consideration here relates to demand for natural resources (minerals, water and land) and the production of waste.





Minerals

There will be a significant demand for minerals to derive building materials for the construction of the 50,600 homes 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:

- 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 (see SA Theme 2 for more detail). The transport of these materials may also have impacts locally associated with works traffic to and from sites (particularly on local air quality see SA Theme 8 for more detail).

Water

There will be a significant demand for water to supply homes, businesses and other users. Looking specifically at homes, for example, the 50,600 homes proposed in the Core Strategy could create an additional demand for water ranging from 17-21 Megalitres (Ml) per day based on current average consumption rates⁵. 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]⁶.

Land

In addition to the demand for natural resources such as minerals and water, there will also 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.

⁶ Para 19.3.4, Water Resources Management Plan 2009 (draft), Severn Trent, May 2008.



⁵ Taking the current average per capita consumption in Birmingham (137 litres per person per day [l/p/d]) and multiplying this by the estimated new population in the 50,000-65,000 homes (123,000-159,000 people, applying Birmingham's current household size of 2.46).



The Strategic Housing Land Availability Assessment and Employment Land Capacity Study⁷ is useful to understand the availability of land for new development and whether or not greenfield sites could be required. This study that there are sufficient sites within the existing urban area to deliver the preferred option of 50,600 dwellings 2006-2026 (with an identified supply of around 50,000⁸) but that greenfield sites may therefore be required to deliver growth beyond this. A study into housing provision in the West Midlands identified greenfield options on the edge of Birmingham which could deliver a further 20,000 homes⁹:

- 5,000 homes south of Birmingham (into neighbouring Bromsgrove);
- 5,000 homes east of Birmingham; and
- 10,000 homes south-east of Birmingham (into neighbouring Solihull).

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.

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).

Waste

The level of development proposed will also increase waste. There are two types of waste considered here:

- 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.

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

⁹ Nathaniel Lichfield and Partners, Development of Options for the West Midlands RSS in Response to the NHPAU Report, October 2008.



⁷ Entec UK Ltd, September 2007.

⁸ 17,000 dwellings through extant planning consents and a further 32,000 deemed potentially developable in the future.



waste to landfill by 2020 and at the local level BCC aims to reach a domestic recycling and composting rate of 34 per cent by 2011/12 and 40 per cent by 2026 (from the level of 17 per cent as at 2005/06). Consideration also needs to be given to the existing and planned capacity of waste disposal infrastructure to provide services to new development.

3.2.2 SA Theme 2: CO₂ emissions

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 Core Strategy can influence.

CO₂ emissions from the built environment

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 systems¹⁰, 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 at this stage that just one per cent of the energy currently consumed in Birmingham is from zero and low carbon sources (see section 3.2.4 of SA Scoping Report).

CO₂ emissions from transport and infrastructure

Birmingham-wide transport provision: highways and public transport

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 diesel¹¹) 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.

¹¹ Noting that diesel powered vehicles are typically more efficient and produce fewer CO₂ emissions than petrol.



¹⁰ 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.



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. BCC therefore outlines its support for the expansion of BIA in the Issues and Options Report and its growth is one of the common Themes to all of the options (section 3.2). A planning application for significant expansion of BIA was approved by Solihull Metropolitan Borough Council in 2009¹² This application is for an extended runway, new air traffic control tower and improvements to the airport's supporting infrastructure. It is understood that the new runway could be operational by 2014¹³. Essentially, the aim of these proposals is to provide BIA with the capacity to enable longhaul 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 CO_2 emissions and future climate change. It is therefore an important factor when considering sustainability impacts given the potential contribution of an expanded airport to CO_2 emissions and global climate change (as a result of more capacity and more flights). The Environmental Statement states that CO_2 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 Core Strategy to address however because:

- The airport is outside of Birmingham's authority boundary and within Solihull Metropolitan Borough limiting the scope for this Core Strategy to have a *direct* influence on expansion (unless the expansion was into Birmingham).
- Decisions on airport expansion are made at the level of national rather than local government, with the expansion of BIA supported by government in The Future of Air Transport White Paper¹⁴ therefore limiting the potential to influence decisions at a local level. This is supported by the conclusions of the Planning Inspector at the recent inquiry into the expansion of Stansted airport¹⁵.
- An expanded airport could have a range of benefits for Birmingham, particularly in economic terms, which would need to be weighed against environmental concerns.

¹⁵ The proposals were subject to strong local opposition (including the local planning authority - Uttlesford District Council), particularly on the grounds of climate change, however the Inspector concluded that: "...the principle of making full or best use of the existing runway at Stansted Airport is in accordance with Government aviation policy in the Future of Air Transport White Paper (ATWP). This takes account of climate change issues, but the appropriateness and effectiveness of Government policies and climate change and their compatibility are matters for debate elsewhere rather than through this appeal" (paragraph 14.331, Inspector's Report, Stansted G1 Inquiry: APP/C1570/A/06/2032278, emphasis added)



¹² http://www.solihull.gov.uk/planningservices/15089.htm

¹³ http://www.birminghamairport.co.uk/meta/news.aspx?year=2010&month=4

¹⁴ Department for Transport, December 2003.



3.2.3 SA Theme 3: Climate change adaptation

Current evidence, based on a review of the potential impacts of climate change at the regional level¹⁶ 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:

- An increase in annual temperature, with most of this accounted for with warmer summers (where average summer temperatures could increase by 3°C) and further exacerbated by the urban heat island effect. The potential for temperatures to exceed 40°C in the summer is also increasingly likely.
- 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.

Table 3.1 summarises these potential climate change impacts across a number of areas in more detail.

Table 3.1 Potential Impacts of Climate Change

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Торіс	Potential Impacts
Transport	 Increase in flooding on roads, rail and runways and potential for damage to foundations and landslips in railway cuttings and road embankments Melting and buckling of surfaces associated with hotter temperatures
Buildings	 Warmer drier summers increase building subsidence Greater demand for cooling of buildings and worker discomfort Milder winters increase damp/mould in houses encouraging respiratory illness
Planning and land use	 Increase in flooding makes land unusable or of limited use Increase in flooding in urban developments without adequate drainage Demand for more green and open spaces for outdoor activities
Energy use	 Reduce demand for heating in milder winters Energy infrastructure impacted by flooding Increased demand for cooling in the summer (air conditioning, refrigeration etc)

¹⁶ The Potential Impacts of Climate Change in the West Midlands, Entec UK Ltd for Sustainability West Midlands, January 2004





Topic	Potential Impacts
Waste	 Warmer climate increasing decomposition of waste, levels of waste treatment and landfill gas - odour generation and pests Flooding and storms impacting on waste facilities
Water	 Increase in flooding, flash flooding, drains overloaded, pollution of floodwater and water borne disease Decrease in availability of water in summer months linked to increase in demand due to higher temperatures - potential droughts

The Core Strategy will have a significant role to play on the extent to which Birmingham is able to adapt to climate change. The Core Strategy can direct development away from 'at risk' areas and ensure that specific adaptation measures are put in place, for example:

- Directing development away from areas at risk of flooding.
- Considering the location of key infrastructure and vulnerability to climate change (for example key transport routes and energy infrastructure).
- 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. Existing and new green spaces and green routes at a strategic city-wide scale will have benefits in terms of shading and would ideally link with measures for sustainable urban drainage (above), and give opportunities for recreation and enhancing biodiversity.
- Providing lower density developments which incorporate passive design techniques and include higher levels of green space, vegetation and shading. This could include directing development away from areas which are already high density to ensure that the urban heat island effect is not further exacerbated.

The points set out above are simply ideas on how the Core Strategy could ensure Birmingham's adaptation to climate change, but should also be read together with the measures proposed in the Climate Change Action Plan. In addition, it is suggested that there are two key pieces of evidence which should be used to help understand the potential impacts of climate change in preparing the Core Strategy:

- The Strategic Flood Risk Assessment (SFRA); and
- UK Climate Impacts Programme Scenarios 2009 (UKCIP09)¹⁷.



¹⁷ http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=163



3.2.4 SA Theme 4: Historic environment, landscape, biodiversity and geodiversity

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 (see section 3.2.13 of Scoping Report for a detailed breakdown of key features in more detail). Development could have both positive and negative impacts:

- Positive impacts could include enhancing the setting and appearance of features within the historic
 environment through sensitive and complementary design and layouts. The potential to bring historic
 buildings back into use or to regenerate sites or areas may also be possible as part of wider
 development proposals.
- Negative impacts could include outcomes to the detriment of the setting and appearance of features within the historic environment where proposals do not necessarily respect their local context. Given the levels of growth proposed there may also be impacts on archaeological resources and pressures to redevelop rather than regenerate/reuse historic buildings.

Landscape

New development will have an impact on the City's landscapes within the existing urban area (parks, gardens and other greenspace). Impacts could relate to development pressures on landscape features including parks, gardens and water courses. Outside the City, at higher levels of growth 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)¹⁸ so the impacts of greenfield development (if required) on the surrounding landscape would more likely be felt here (although further analysis of landscape capacity and sensitivity is required). Greenfield development outside the urban area is not proposed is not proposed through the Plan currently being appraised.

Biodiversity

The City accommodates a range of designated sites of nature conservation importance (see section 3.2.15 of Scoping Report) and will have other non-designated areas with 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.

¹⁸ Birmingham Plan Issues and Options Report 2008.





The Core Strategy could also enable positive impacts however, particularly through City-wide and local provision of new green infrastructure, green spaces and green routes, potentially linking with measures for climate change adaptation and flood attenuation suggested under SA Theme 3 (the provision of wetlands for example).

Geodiversity

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) but no other direct impacts are identified here.

SA Theme 5: Pollution 3.2.5

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 (see section 3.2.16 of Scoping Report). The key impacts on air quality relating to the Core Strategy are likely to relate to:

- Transport and infrastructure: the key impacts of the Core Strategy on air quality are therefore likely to relate to both an increase in traffic associated with growth in providing new housing and jobs (see SA Theme 2) both within Birmingham and across the rest of the region given the extent of Birmingham's travel to work area (north beyond Tamworth and south towards Redditch). Where transport infrastructure is insufficient to deal with increased levels of traffic, congestion could exacerbate air quality at a local level. Although outside of BCC's administrative boundary growth associated with an expanded BIA could also have an impact¹⁹.
- New B2 industry that creates emissions from its operation.

Water pollution

The proportion of Birmingham's waterways which are of a good biological or chemical quality is significantly below national and regional averages (see section 3.2.17 of Scoping Report). At this stage we do not identify any specific impacts between the Core Strategy and its impacts on water pollution. This is more likely to be an issue that will need to be addressed for specific development proposals.

¹⁹ The ES supporting the current planning application notes that the primary pollutants associated with the expansion proposals will be NO₂ and particulates (PM₁₀). It is concluded that there will be some local increases within the airport boundaries and near to very busy roads but not further afield and so is not seen as a major issue with no mitigation measures proposed. The ES sets out that occasional odour emissions are expected are expected and that BIA has committed to the preparation of an 'odour study' to see how these impacts can be addressed.





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. Looking at the wider quality of land, there is likely to be a legacy of contaminated land, particularly on previously developed sites within the main urban area. The remediation of these sites to bring them back into use to deliver the growth required could clearly have a positive impact here (however this contamination could also be a constraint, in viability terms, to particular sites or areas coming forward for development).

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.

3.2.6 SA Theme 6: Economic growth

The main impact that the Core Strategy 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. As demonstrated under SA Theme 1 there is potentially a shortfall in the supply of B1 and B8 employment land that will need to be addressed through the Core Strategy.

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 as far north as Tamworth and south towards Redditch²⁰, 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.

Consideration will need to be given to whether the 250 hectares of employment land identified in the Issues and Option Report will be sufficient, particularly in relation to higher levels of proposed growth.

The availability of transport links is also an important factor, increasingly determining the attractiveness of land for employment development.

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:

²⁰ Office for National Statistics, Travel to Work Areas, 2001.





- 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.

SA Theme 7: Communities, healthy lifestyles and equality

Communities

The Core Strategy 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.

Given the significant levels of development proposed it will be possible to seek financial contributions from developers to provide new facilities for the benefit of local communities. This could be through a traditional Section 106 agreement type approach, developer contributions supplementary planning document (SPD) or the establishment of a Community Infrastructure Levy (CIL).

In terms of involvement in the spatial planning process, the Core Strategy presents an opportunity for communities to be involved in decisions affecting the future of Birmingham over the next twenty years, taking forward the Core Strategy in line BCC's Statement of Community Involvement (SCI). This involvement could be invaluable to ensuring that the Core Strategy is responsive to the needs of local communities, for example access to affordable housing, jobs, healthcare and services for example.

Healthy Lifestyles

The Core Strategy can have a significant impact on the promotion of active and healthy lifestyles by:

- 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.
- Providing green infrastructure as a central element to the spatial strategy with provision of new green routes for walking and cycling, retaining existing playing fields, sports pitches, parks and gardens and leisure centres and providing new ones. The importance of this provision to promoting lifestyles, including mental health, was highlighted at the SA workshop. 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 (see SA Theme 3 climate change adaptation). New green infrastructure could also be funded in part from new development.





Equality

As a city with a high black and minority ethnic population (BME) particular consideration will need to be given to ensuring that the needs of all communities are taken into account in the decision-making process and in responding to their needs in providing for new development. This could include access to housing, jobs and cultural facilities which respond to expressed and latent needs.

3.2.8 SA Theme 8: Housing

The key impacts relate to whether or not the Core Strategy 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 or, as a worst case, the decline of the City's economy.

- Household projections suggest a need to plan for over 80,000 new homes 2006-2026²¹.
- Looking at housing needs, Birmingham's Strategic Housing Market Assessment notes the following:
 - 46 per cent of demand is for two bed properties, 24 per cent for four bed and 23 per cent for one bed;
 - market housing represents the biggest demand for two bed properties (33 per cent out of the 46 per cent in total);
 - 40 per cent of the *overall* housing requirement is for affordable housing (25 per cent intermediate housing and 15 per cent social rented); and
 - looking at affordable housing, there is a clear demand for houses of more than four bedrooms.
- 3,800 affordable dwellings per annum are required in the RSS for the Central HMA in which Birmingham lies. Past trends in completions 2001-2007 total 4,356, an average of 726dpa²².

3.3 Sustainability Appraisal Framework

Table 3.2 sets out the Sustainability Objectives and indicative guide questions developed as part of the assessment process which allow the performance and effects of the Birmingham Plan to be identified and described. The SA

²² Table 3.2d, Annual Monitoring Report 2007, Birmingham City Council, December 2007.



²¹ Department for Communities and Local Government (DCLG) **Revised projections of households for the English regions to 2026.**



Objectives are related to the SEA Directive Topics, ensuring that each topic area required by the SEA Regulations is covered. The objectives-led approach allows the appraisal to identify the extent to which each policy, or groups of policies, within the Birmingham Plan contribute to sustainable outcomes associated with the application of policy. The Sustainability Objectives were devised for the SA Scoping Report and subjected to public consultation. These present the preferred environmental, social and economic outcomes which typically involve minimizing detrimental effects and maximising positive effects.

The objectives have been formulated to allow for a comprehensive assessment of the principal effects of the Birmingham Plan, and for the purposes of this Report are organized by the SA themes identified above. The indicative guide questions have been formulated to provide more detailed guidance for assessors in appraising these likely effects; they are designed to be read as targets or aims by which an objective might be achieved, but to allow for a qualitative analysis of potential impacts.

Table 3.2 Framework of Sustainability Objectives and Appraisal Criteria

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Plan help to	Principal SEA Directive Topic
Natural resources and waste	Resource Use: Use natural resources such as water and minerals efficiently.	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.	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.	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.	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.	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?	Material assets
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Reduce energy consumption?	Material assets



SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Plan help to	Principal SEA Directive Topic
	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.	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.	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.	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.	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	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Protect and enhance features of built and historic environment and landscape?	Cultural heritage
geodiversity	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	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.	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.	Improve air quality? Reduce CO2 emissions?	Air
	16. Water Quality: Minimise water pollution levels and create good quality water.	Improve water quality?	Water
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	Maintain and enhance soil quality? Minimise the loss of soils to development?	Soil
	18. Noise: Minimise noise pollution levels.	Cause 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	Encourage and support a culture of enterprise and innovation, including social enterprise?	Population



SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Plan help to	Principal SEA Directive
			Topic
	Birmingham's inhabitants.	Improve business development and enhance competitiveness?	
		Promote growth in key sectors?	
		Reduce unemployment, especially amongst disadvantaged groups?	
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	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.	Improve the satisfaction of a diverse range people with the neighbourhoods where they live?	Population
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility,	Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods?	Population
	with local organisations and agencies leading by example.	Encourage good employee relations and management practices?	
		Encourage ethical trading?	
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of	Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods?	Population
	life.	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?	
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?	Population
		Ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location?	
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing	Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?	Population
	multiple disadvantage.	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.	Help 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.	Reduce crime? Reduce the fear of crime amongst all social and cultural	Population
		groups?	
	28. Culture/Sport/Recreation: Improve	Encourage participation in sport and cultural activities for all	Population



SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Plan help to	Principal SEA Directive Topic
	opportunities to participate in diverse cultural, sporting and recreational activities.	the diverse communities in Birmingham?	
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Reduce homelessness? Increase the range and affordability of housing for all social and cultural I groups? Reduce the number of unfit homes?	Material assets



4. Sustainability Appraisal of the Core Strategy

4.1 Testing the Core Strategy Objectives

The ODPM SA Guidance (2005) recommends that the compatibility of the Plan Objectives against the SA Objectives is assessed. This section provides an assessment of the Birmingham Plan objectives. The following set of strategic objectives has been identified to provide the framework for the policies within the Core Strategy.

Objective 1 - To promote Birmingham's national and international role, as a global city.

- Promote the world-class conference and exhibition facilities to ensure that Birmingham continues to increase its standing as global city, with a diverse regional centre offering a variety of cultural, retail and business opportunities for those who visit or live within the city.
- Improving accessibility will also be a key factor and enhancing the environmental quality of the city centre.

Objective 2 - To create a more sustainable city that minimises its carbon footprint and waste while allowing the city to grow.

- The aim will be to ensure that growth takes place in a sustainable way, which ensures that Birmingham is a city that meets the needs of the present without compromising our ability to meet future needs. Particular aims will be to minimise CO2 emissions, and to adapt to the expected effects of climate change.
- By reducing car dependency through improvements to the transport infrastructure and public transport services and increasing waste recycling and encourage the use of renewable energy.

Objective 3 - To develop Birmingham as a city of vibrant urban villages, that is safe, diverse and inclusive with a locally distinctive character.

- Deliver sustainable, inclusive and cohesive local communities through high quality urban design, creating clean and safe places, and environments where people want to live, work and visit.
- Promote community diversity and cohesion
- Preserve and enhance the character of Birmingham's mature suburbs, which provide an element of continuity and heritage between the city's rapid development from the 1900's to the present,

Objective 4 - To secure a significant increase in the city's population, towards 1.1 million and meet regional targets for new housing.

• The aim will be to accommodate as much as possible of Birmingham's projected housing growth within the built-up area of the city and to minimise net out-migration.





• This will require a good supply of sustainable, well-designed, affordable homes to suit a range of housing needs. Particular priorities in this respect will be meeting the needs of the city's growing elderly population, larger families, and the need to provide opportunities for 'executive-style' housing.

Objective 5 - To create a prosperous, successful economy, with benefits felt by all.

- Provide a sustainable, diverse and competitive employment base for continued long term economic
 growth, including the provision of opportunities for innovation and investment in research as well as
 employment potential for all.
- Ensuring that appropriate provision is available for new office and retail development to building on Birmingham's role as the major retail and commercial centre in the region. Within the retail sector it will be important to ensure that growth results in greater diversity, enabling niche and independent retailing to develop.

Objective 6 - To provide high quality transportation links throughout the city and with other places and encourage the increased use of public transport.

- Maintain and expand effective high quality transport links to the outside world and within the city.
- Manage the transport infrastructure in a sustainable way so public transport and non-car modes of transport to be promoted as an attractive and viable option, to reduce car dependency and congestion.
- Make the best use of digital technology to enable all communities to move about easily and safely using a variety of modern transport modes with good access to services.

Objective 7 - To make Birmingham a learning city with quality institutions.

- Raise the city's skill base and for the city's education institutions to support innovation and growth in the local economy.
- Supporting the expansion plans of the city's universities and facilitating the national Building Schools for the Future (BSF) programme to meet the demand of increasing pupil numbers and create new learning environments for pupils to realise and achieve their potential.

Objective 8 - To encourage better health and well being through the provision of new and existing sports and leisure assets linked to good quality public open space throughout the city.

- Provide people access to good quality health, leisure and sport facilities, open space and green environments, so that they are able to pursue a healthy lifestyle.
- Promote cultural facilities and leisure assets so that they are available to all residents and visitors.

Objective 9- To protect and enhance the city's heritage and historic environments and to conserve Birmingham's natural environments allowing biodiversity and wildlife to flourish.

• Protect and utilise its historic environment to create a sense of place and a locally distinctive character and support this by high quality design within new developments.





• Protect wildlife and biodiversity in designated areas and across Birmingham to conserve and enhance the city's natural resources.

Table 4.1 sets out a compatibility matrix of the Plan Objectives against the SA Objectives.



Table 4.1 Core Strategy Objectives vs Sustainability Objectives

Sustainability Theme		1. Natural resources and waste					2. CO ₂ emissions			3. Climate change		landscape, biodiversity and geodiversity	4. Historic			5. Pollution			6. Economic growth				equality	7. Communities, healthy lifestyles and				8. Housing
Sustainability Objectives Core Strategy Objectives	1. Resource Use	7. Waste Red'n and 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 Environment	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 Environmental	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
1. Global city	x	?	x	?	?	?	x	x	x	✓	✓	?	?	?	?	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Sustainable City	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	x
3. Built environment	✓	N	✓	✓	✓	✓	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	N	✓	N	✓	✓	✓	✓	✓	?	?
4. Provision of housing	?	✓	✓	?	?	?	✓	✓	✓	✓	✓	?	?	?	?	?	?	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓
5. Prosperous Economy	x	✓	x	✓	✓	✓	✓	✓	x	x	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Quality transport links	✓	✓	✓	✓	?	?	✓	✓	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



Sustainability Theme		1. Natural resources and waste					2. CO ₂ emissions			3. Climate change		landscape, biodiversity and geodiversity	4. Historic			5. Pollution			6. Economic growth				equality	7. Communities, healthy lifestyles and				8. Housing
Sustainability Objectives Core Strategy Objectives	1. Resource Use	7. Waste Red'n and 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 Environment	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 Environmental	22. Community Involvement	23. Equality	24. Poverty	25. Health	26. Crime	28. Culture/Sport/Recreation	27. Housing
7. Learning City	N	N	N	N	?	?	N	N	?	?	N	N	N	N	N	N	N	✓	✓	✓	✓	✓	1	✓	✓	✓	✓	✓
8. Health and Well being	N	✓	✓	✓	N	N	N	✓	N	✓	N	N	N	N	N	N	N	✓	✓	✓	N	✓	1	✓	✓	✓	✓	✓
9. Protection of natural and heritage assets	✓	?	?	✓	?	?	?	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	✓	✓	✓	✓	N	N	N	✓	N

Key: ✓ Compatible X Potentially Incompatible N Neutral relationship ? Uncertain relationship



4.2 Conflict Analysis

Table 4.2 highlights the potential incompatibilities identified in Table 4.1, with a commentary on the issue.

Table 4.2 Potentially Incompatible Objectives for Core Strategy Objectives vs Sustainability Appraisal Objectives

Birmingham's Core Strategy Objective	Sustainability Appraisal Objective	Comments
To promote Birmingham's national and international role, as a global city.	Resource use Sustainable Design, construction and Maintenance Reduce the need to travel Efficient use of land Reduce climate change Natural Landscape Biodiversity Waste reduction minimisation Climate Change Mitigation	There are potential conflicts between the high ambitions for economic growth detailed in both Core Strategy Objectives 1 & 5 and the environmental related objectives of the SA. In particular promoting Birmingham as a Global city could raise conflict with the sustainable transport objectives which seek to provide sustainable forms of travel and promote measures which reduce the need to travel. There is also some uncertainty as to how positive this objective will be in relation to environmental priorities. Potential conflict exists between the Plan objective to strengthen the local economy and reducing waste and CO ₂ emissions. Overemphasis on this objective has the potential to hinder economic development. The potential conflicts highlighted are not unexpected given that the Plan is seeking to promote both economic growth and social and environmental sustainability and the potential conflict can be reduced by appropriate mitigation through the the detailed policies of the Plan.
2 - To create a more sustainable city that minimises its carbon – footprint and waste while allowing the city to grow.	Resource use Sustainable Design, construction and Maintenance Efficient use of land	The Department of Communities and Local Government's (DCLG) final report on the 'Cost Analysis of the Code for Sustainable Homes' (July 2008) shows that the costs of achieving the higher code levels can vary quite substantially as a result of dwelling type, development type and site characteristics (e.g. ecological value and flood risk). Reducing the carbon footprint of development can similarly increase costs for businesses. Previously developed land may in some cases require remediation or have other landscape or biodiversity constraints which could add to the cost of development. Such increased costs could hinder economic growth and deter investment. There is the opportunity to minimise these potential conflicts by ensuring that the standards for sustainable design and construction are set at ambitious, but achievable, levels according to the local economic context. In addition, in some limited cases, modest release of greenfield land could be justified as part of a sequential approach to development which makes best use of the brownfield land resource first.
3 - To develop Birmingham as a city of vibrant urban villages, that is safe, diverse and inclusive with a locally distinctive character.		This objective scores highly across all SA Objectives as it seeks a broad approach. Keeping the balance to ensure that the economic, social or environmental objectives do not outweigh one or other will be key in order to achieve this.
4. To secure a significant increase in the city's population, towards 1.1 million and meet regional targets for new housing.	Waste reduction minimisation Climate Change Mitigation	Potential conflict and uncertainty exists between the Plan objective to ensure that housing is provided to meet the needs of the significant increase in residents while reducing waste and CO ₂ emissions. This objective does aim to ensure 'all new development meets high standards of sustainability and design' however new housing is likely to produce greater levels of waste and CO ₂ emissions. The Plan must therefore find a balance between providing the required number of homes for the population and not increasing the level of waste produced or CO ₂ emissions.



Birmingham's Core Strategy Objective	Sustainability Appraisal Objective	Comments
5. To create a prosperous, successful economy, with benefits felt by all.	Resource use Manage climate change Reduce climate change Efficient use of land	The conflicts highlight the need to ensure that a careful balance is struck between these objectives, recognising the importance of reducing waste and emissions whilst delivering economic growth. Given the need for economic growth on the Areas it is important that the Plan finds a balance between reducing waste and emissions and allowing businesses to remain competitive with firms throughout the rest of the UK.
6 - To provide high quality transportation links throughout the city and with other places and encourage the increased use of public transport.		This objective scored highly as 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. However how these links are constructed and in what form raises questions as to how sustainable the transport infrastructure will be and this needs to be carefully applied.
7 - To make Birmingham a learning city with quality institutions.	Natural landscape Biodiversity Air Quality	The objective to increase the opportunities for the local residents of Birmingham to learn and develop is likely to accord with a number of the objectives. However there are equally a number of uncertainties in relation to what impact this may have on
8 - To encourage better health and well being through the provision of new and existing sports and leisure assets linked to good quality public open space throughout the city.		The need to encourage better health is important and meets a number of the objectives seeking to improve the quality of people's lives. The effects of this objective are uncertain for example if left unchecked without controls on location and type of sports facilities for example can mean that the facility wastes resources and fails to reduce climate change.
9- To protect and enhance the city's heritage and historic environments and to conserve Birmingham's natural environments allowing biodiversity and wildlife to flourish.		The protection of the cities heritage is considered to accord with a number of the objectives. It is noted however that several objectives remain uncertain often to preserve a feature may restrict the development from being located in a more sustainable location for example.

The appraisal of alternative options for growth

In developing the overall strategic approach in the Birmingham Plan, three options for the scale of growth in the City were considered through the Issues and Options Report published in 2008. The Interim SA Report appraised these options against the SA Themes as set out in the following table.



Table 4.3 Summary of Options Appraisal

SA Theme	Rela		erform otions	ance	Comments
	1	2a	2b	3	
Natural resources and waste	Best ——			Worst	Option 1 could be considered the best option for reducing resource use and minimising waste since it proposes the lowest level of growth comparative to the other options; therefore the demand for natural resources and generation of waste will be lower. However, measures would need to be taken to ensure an efficient use of resources and to minimise waste whichever option is pursued.
2. Carbon dioxide emissions					Option 1 could have the least impact on CO_2 emissions compared with Options 2 and 3, however significant measures would need to be taken to mitigate CO_2 emissions whichever option is pursued.
3. Climate change adaptation					Greater consideration needs to the potential to deliver adaptation to climate change whichever option is pursued. It could be easier under Option 1, given that there will be more 'space' to accommodate mitigation measures, although a focus on the city centre could exacerbate the urban heat island effect and higher densities increase the risk of flooding. Option 2b could be the least favoured since it proposes the highest levels of growth within the main urban area.
4. Historic environment, landscape, biodiversity and geodiversity					Option 1 could be the most sustainable here because it proposes the lowest level of growth compared to Options 2 and 3 so the potential for impacts are comparatively lower. Option 2b could have the most impact on these features since it proposes the highest level of development within the main urban area and therefore pressures on the historic environment (i.e. mature suburbs), open space and biodiversity.
5. Pollution	—	—			Option 1 could be the best option to minimise pollution, since it proposes the lowest levels of growth and thus the potential for pollution (particularly air quality relating to transport) is likely to be lower relative to Options 2 and 3.
6. Economic growth					Option 3 is likely to be the best option to secure economic growth since it provides for a greater level of growth than Options 1 and 2 and therefore the ability for the City to grow, however the impact of the current recession on the deliverability of the higher growth option needs to be considered.
7. Communities, healthy lifestyles and equality					Option 3 could be the best option for local communities, given that the it could be possible to deliver more community benefits through developer contributions.
8. Housing					Option 3 could be the best option for providing new housing, although whichever option is pursued the key priority is ensuring that it is in the right locations and responds to local needs.

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

The key conclusions that can be drawn from the analysis in Table 4.3 are as follows:

• Option 1 can be considered the best performing in relation to the achievement of environmental objectives, providing that high environmental standards are set in the plan's core policies. When discussing the options with stakeholders at the SA workshop, this was, typically, the least favoured option, in that it was seen to represent a 'no-change' scenario, similar to current policy.





- Option 3 can be considered the best performing in relation to the achievement of social and economic objectives because it provides for higher levels of growth and thus the ability to respond to community needs and the region's economic growth. This view was generally supported by stakeholders at the SA workshop, although mitigation of negative impacts was a key priority and concerns were raised as to how deliverable higher growth options could be in light of the current recession. The release of Green Belt under Option 3 was not necessarily seen as a negative approach, as long as phasing policies are provided to deliver brownfield options first.
- Option 2, as the mid-point between options 1 and 3 is harder to appraise, although in line with the conclusions for Option 3, 2b may be more positive for responding to social and economic needs than Option 1 or 2a. At the SA workshop, stakeholders typically favoured 2b over 2a, simply because there was seen as more potential to respond to the challenges facing the city. The main issue with Option 2b however is that it proposes the greatest levels of development for the urban area, which could place pressures on features within the natural and historic environment and make it harder to incorporate strategic-scale measures for climate change adaptation.

The conclusion of the Interim SA of the Issues and Options was that it was not possible to conclude whether one option performed better over another in overall sustainability terms at that stage. There are components of each of the options that perform better in response to the specific environmental, social and economic challenges facing the City. This was reflected by the fact that there was no real consensus amongst stakeholders consulted as to what the preferred option is; it is more about how an option is taken forward as a detailed spatial strategy through strategic site allocations and detailed policies. The Interim SA report therefore advised that BCC should pick out the key strengths and weaknesses the three options that we have appraised (summarised in Table 4.3), considering the 16 recommendations set out that report (see Appendix B) in the further refinement of options and the development of policies for mitigation.

Reasons for choosing the Preferred Development Strategy

The preferred Development Strategy selected (as set out in Policy SP2 Overall Levels of Growth) is Option 1 based on 50,600 dwellings. This option performed best in the Issues and Options appraisal exercise against the environmental objectives but weaker in relation to economic and social objectives. However the appraisal exercise is comparative and Option 1 would still have a positive effect on economic and social conditions.

The Plan explains that the scale of growth proposed is in line with the aspirations of the Sustainable Community Strategy, (which foresees the need for over 50,000 new homes in the next 20 years) and the Birmingham Prospectus and also reflects the capacity identified in the Strategic Housing Land Availability Assessment (SHLAA).



Recommendation

Setting out the reasons for rejecting the other alternative options is a requirement of the SA and should be reported in the SA report. Our view is that further information needs to be provided by the City Council in order to explain why the preferred development strategy has been selected, in light of the other alternatives considered



4.4 Appraisal of the Strategic Approach (Chapter 4)

Table 4.4 sets out an appraisal of the performance of the strategic approach against the SA Objectives which, for this exercise, have been grouped by theme.

Table 4.4 Appraisal of Key Elements of the Strategic Approach

SA Theme	SA Objectives	Key Strategic Element(s)	Significant Positive Effects	Significant Negative Effects
1. Natural resources and waste	Resource Use: Use natural resources such as water and minerals efficiently. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	The Scale of Growth Climate Change Green Belt and Green Infrastructure	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.	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.
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. 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	The Scale of Growth Climate Change The City Centre Modernising Infrastructure Quality of Life	Whilst the intended level of growth is likely to increase overall CO ₂ emissions, there is the opportunity to pioneer the introduction of technologies which reduce emissions as part of new development.	Overall CO ₂ emissions could well increase, a situation that 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



SA Theme	SA Objectives	Key Strategic Element(s)	Significant Positive Effects	Significant Negative Effects
	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.			travel that this is likely to generate.
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 Change Green Belt and Green Infrastructure	There are significant opportunities for the Birmingham Plan to contribute climate change adaptation across the City through the siting of development and its design.	Care will have to taken to ensure that the capacity of the City to adapt to climate change impacts is not compromised by growth plans.
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.	The City Centre Mature Suburbs Quality of Life	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 maintenance of the Green Belt and Green Infrastructure should provide a sound basis for moving forward.	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.
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. 	The Scale of Growth Climate Change	City growth could present opportunities to improve the quality of these resources.	Development should not compromise the protection of resources.
6. Economic growth	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of	The Scale of Growth	Economic growth provides the opportunity to ensure that the City benefits in a wide	Careful attention will have to be paid to ensuring that all sectors of Birmingham's





SA Theme	SA Objectives	Key Strategic Element(s)	Significant Positive Effects	Significant Negative Effects
	Birmingham's inhabitants. 21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	The Network of Local Centres Corridors The High-Tech Belt and RIS Core Employment Areas Modernising Infrastructure Quality of Life	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 made of existing and potential assets. For example, monitoring of the effect of concentrating activity in corridors will be required.	population benefit from greater economic activity.
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. 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.	The Scale of Growth Green Belt and Green Infrastructure Sustainable Urban 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 Urban 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 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 Scale of Growth	The housing growth aspired to should create opportunities	The location and type of new housing will have monitored





SA Theme	SA Objectives	Key Strategic Element(s)	Significant Positive Effects	Significant Negative Effects
		City Centre Quality of Life	to provide for a greater choice of, and access to, housing across the City.	to ensure that the housing delivered meets needs and does not compromise other objectives such as the maintenance and improvement of quality of life.



4.5 Appraisal of City-Wide Policies and Proposals (Chapter 5)

This section sets out the appraisal of the City Wide Policies and Proposals in chapter 5. In order to make the SA process more efficient and manageable the policies have been grouped according to the key themes within the Emerging Plan. As set out in the proceeding sections the policy groupings broadly match the sections within the Plan although some sections have been further subdivided.

The SA process requires consideration of reasonable alternatives to the proposals/policies put forward in the Plan. The City Council have considered various options for the policy groupings and these have been subject to appraisal as set out in 4.5.1.

The second part of this section presents an appraisal, commentary and recommendations for the policy groupings with the Birmingham Plan.

4.5.1 Appraisal of the alternative policy options considered

A range of alternative policy options were considered in arriving at the preferred suite of policies. These are analysed in Table 4.5.



Key: ++ Major Positive Impact; + Positive Impact; O Neutral Impact; Negative Impact; Major Negative Impact; # No Relationship; Uncertain Relationship

Table 4.5 Evaluation of the alternative policy options presented

Policy	Background	Policy Options				SA T	heme				Commentary
Group			1. Natural resources and waste	2. CO ₂ emissions	3. Climate change adaptation	4. Historic environment	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing	
Level of Growth (SP1 – SP4)	RSS Phase 2 Revision proposed 50,600 net requirement for Birmingham. Panel report proposed 57,500. Latest ONS projections imply	Continuation of current policies – this would imply lower levels of new housing but similar levels of economic development. It would be broadly equivalent to Option 1 at the Issues and Options stage.	+	+	0	0	0	-	?	-	Whilst continuation of the current approach would be predictable, it would represent a significant missed opportunity to advance a range of interests which are required to place the City on a more sustainable footing.
	a Birmingham-generated requirement of about 90,000. SHLAA indicates capacity of 50 – 55,000 without urban extensions. Levels of economic development supported by employment land and retail studies.	Higher levels of housing growth (60-65,000 net) accompanied by somewhat higher levels of economic development. This would require urban extension(s) into the green belt. It would be broadly equivalent to Option 2 at the Issues and Options stage.	-	-	-	-	-	0	?	+	Higher growth than that proposed would arguably place significant strains on the capacity of the natural and built environment to the detriment of objectives such as promoting Birmingham as a global city.



Policy	Background	Policy Options				SA T	heme				Commentary
Group			1. Natural resources and waste	2. CO ₂ emissions	3. Climate change adaptation	4. Historic environment	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing	
Climate Change (SP5 – SP11)	The City Council has set itself a target of reducing CO ₂ emissions by 60% compared to 1990 levels by 2026. No realistic alternatives are considered to exist in relation to flood risk.	An investment-friendly approach with less ambitious targets for sustainable construction, renewable energy etc and less protection of green infrastructure.			-		-	+		?	Apart from economic growth (in the short term at least) a universally problematic approach which runs counter to the stated ambitions for the City to demonstrate the adoption of more sustainable principles and practices across its activities.
		More positive policies to increase green infrastructure. Application of even more ambitious targets for sustainable construction etc.	?	+	+	?	+	-	?	-	Potentially significant sustainability benefits in some respects but unknown and negative effects could outweigh these.
Employment (SP12 – SP16)	The RSS phase 2 revision contained employment land and office requirements. These are broadly supported by the Council's own Employment Land Study	More relaxed approach to protection of existing employment areas, but identification of new employment sites. This would imply the release of greenfield land for employment, and even more emphasis on promoting offices in centres, particularly the city centre. Would result in more brownfield land availability for housing.	-	-	?	-	-	0	?	+	This approach is likely to yield mixed effects, which on balance probably work against the sustainable use of the City's resources and creates undesirable and unpredictable effects over the long term.





Policy	Background	Policy Options				SA T	heme				Commentary
Group			1. Natural resources and waste	2. CO ₂ emissions	3. Climate change adaptation	4. Historic environment	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing	
		More restrictive approach to protection of existing employment areas for employment use. Would reduce brownfield land availability for housing.	-	+	?	+	?	+	?	-	There are likely to be mixed effects associated with this approach, perhaps unpredictable over the long term, and working against the pursuit of a balanced approach to employment and housing provision.
Centres (SP17 – SP22)	RSS Phase 2 revision included comparison floorspace requirements for city centre and Sutton Coldfield and limits for 'nonstrategic' centres. Council's Retail Assessment	A more dispersed pattern of growth, with higher levels of development in smaller centres and less in the city centre and Sutton Coldfield. This could also include an attempt to focus growth in the weaker centres.	-	-	-	?	-	0	,	-	Dispersed growth is likely to be less effective in net terms, although some area could benefit significantly through targeting.
	confirms the broad levels of development identified through the RSS and contains a number of scenarios for accommodating this.	Greater concentration in the city centre and Sutton Coldfield – no identification of suburban growth centres	+	0	+	-	-	+	?	?	Whilst possibly being more resource efficient, this is likely to be to the detriment to the performance of the City as a whole.
Housing Distribution (SP23 – SP29)	The SHLAA provides information on current housing land availability	Urban extensions (within Option 3 at the Issues and Options stage). This would allow higher levels of new housing provision, or alternatively lower densities/more brownfield employment land provision.		-	-	+	-	?	0	+	Whilst urban extensions can provide a sustainable approach in terms of offering opportunities for public transport solutions, for example, their net impact is probably negative and in Birmingham's case unhelpful in the delivering regeneration ambitions.





Policy	Background	Policy Options				SA T	heme				Commentary
Group			1. Natural resources and waste	2. CO ₂ emissions	3. Climate change adaptation	4. Historic environment	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing	
		Continuation of current approach. This would result in a higher proportion of housing being provided as apartments in the city centre. It would reduce the potential for larger dwellings to be provided.	?	?	?	?	?	?	0	-	The unknown effects associated with many SA themes make this an undesirable approach.
		Less development in the city centre. This could increase the proportion of larger dwellings – but would reduce overall capacity unless combined with release of greenfield land or more employment sites.	0	-	?	?	0	-	0	0	Uncertainty and neutral effects means that that a more positive, balanced approach would be appropriate.
Housing Environment (SP30 – SP32)	Alternative approaches here are variations on the proposed strategy rather than full alternatives	Lower densities. This would facilitate more family housing – but would reduce overall capacity and require more employment/greenfield land release to achieve the housing numbers.	-	-	-	?	-	?	?	?	The negative effects of lower densities combined with uncertainty over potential effects in other sustainability measures make this an unattractive option.
		Higher densities, including within mature suburbs. This would provide more capacity but would reduce choice in terms of size/type of new dwellings.	?	+	?	-	?	?	-	0	Higher density development yields mixed results in sustainability terms, with benefits associated with more efficient use of land etc, but unknown effects the economy and net pollution, for example.





Policy	Background	Policy Options				SA T	heme				Commentary
Group			1. Natural resources and waste	2. CO ₂ emissions	3. Climate change adaptation	4. Historic environment	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing	
		More emphasis on redevelopment. Assuming one for one replacement would not affect capacity – but would require a higher gross completion rate.	+	?	?	+	?	?	?	+	There is potentially a significant array of unknown effects associated with this policy approach, and there is doubt over whether it could be realised over the plan period.
Connectivity (SP33 –	Resource availability is a constraint.	Greater emphasis on increasing highway capacity.	-	-	?	-	-	+	-	?	A continuation of past policy approaches which would be of limited net benefit.
SP41)		Greater emphasis on encouraging non-car modes.	+	+	?	+	+	?	+	?	Positive across an array of sustainability measures, but with potentially significant unknown effects.
		Increased use of information and communication technologies (ICT) (e.g. telecommuting / teleshopping etc. and the use of Intelligent Transport Systems - ITS), as a means of reducing the need to travel.	+	+	#	#	+	?	+	-	Reducing the need, and indeed desire, to travel is a key aspiration of sustainable development, yielding benefits associated with reduced resource use and community development, for example. However, significant behavioural shifts are required, and the proposed policy SP37 Digital Connections presents a pragmatic approach.
Waste (SP42 – SP44)	Background data provided in Waste Study	The waste policies reflect national policy guidance. There is no realistic potential for a fundamentally different approach.	NA	NA	NA	NA	NA	NA	NA	NA	No alternative policy offered.





Policy	Background	Policy Options				SA T	heme				Commentary
Group			1. Natural resources and waste	2. CO ₂ emissions	3. Climate change adaptation	4. Historic environment	5. Pollution	6. Economic growth	7. Communities, healthy lifestyles and equality	8. Housing	
Quality of Life - Facilities (SP45 - SP47)		Continue current approach. This would involve placing the main emphasis on maintaining/improving the quantity of open space/recreational facilities rather than on improving access to quality facilities.	?	?	+	?	+	?	+	0	A limited approach which will be at the expense of aspirations for greater access, with targeted improvements in quantity and quality.
		Take a more flexible approach to the development of open space in return for qualitative improvements.	?	?	?	?	?	?	+	?	The keynote here is uncertainty in impact where some areas could benefit to the direct detriment of others.
Quality of Life - Resources (SP48 - SP54)	Issues and Options SA emphasised the need for policies to address the potential negative consequences of growth and increased activity	Reduce the scope of this group of policies (e.g. omit policies on noise/air quality as not 'strategic' and more appropriate in other LDDs). No other realistic alternatives considered to exist.	?	-	?	?	-	?	-	?	Fewer policies is likely to mean greater uncertainty in ensuring that performance across a range of SA objectives is improved.



4.5.2 Summary of options appraisal

The appraisal of alternative options in Table 4.7 reveals a mixed performance with, tellingly, a significant number of negative or unknown impacts. As the analysis notes, over the plan period this could have a significant effect on the ability of the Birmingham Plan to deliver its overall intended effects, as well as key aspirations such as the promotion of greater equality of opportunity for all communities. Whilst pushing for more radical sustainability measures such as greater emphasis on encouraging non-car modes of travel yields more positive scores, the down-side could be uncertainty of whether this is realistic in the plan period and that a more pragmatic approach is probably useful. There is a balance to be struck between aspiration and pragmatism, and in sustainability terms, this has probably been achieved in the choice of preferred policy options. However, the Plan needs to explicitly state the planning reasons for choosing the preferred options so that these can be matched to the sustainability arguments.

Recommendation

Setting out the reasons for rejecting the other alternative options is a requirement of the SA and should be reported in the SA report. Our view is that where options have been considered further information needs to be provided by the City Council in order to explain why the preferred development strategy has been selected, in light of the other alternatives considered.

4.5.3 Appraisal of policy groups within The Birmingham Plan

Table 4.6 presents a summary of the key sustainability effects associated with each grouping of policies which are proposed in the emerging Core Strategy. A combination of scoring and commentary is given, appraising at a high level the likely effect of each aspect of the City-wide policies and proposals. Section 4.5 provides a more detailed commentary regarding each of the policy groupings. This appraisal seeks to highlight the performance of groups of policies, concentrating on the negative scores and the uncertain relationships, and





where these could perhaps be improved or clarified through more detail in the supporting text (through reference to the evidence base, for example), specification of criteria within the policy to address SA issues and cross-referencing to other policies in the Plan to create a more robust response to the issue in hand.

Table 4.6 Summary of the interaction between SA Objectives and Chapters of the Birmingham Plan

Key: Hajor Positive Impact; Positive Impact; Negative Impact; Major Negative Impact; No Relationship; Uncertain Relationship

	Res	. Natur ources Waste	and		2.	CO₂ e	missio	ns		3. Climate change adaptation	en la	. Histo vironm ndsca odivers and odiver	nent, pe, sity		5. Po	llution		growth	6. Economic	7. C	Commu	inities,	health	ny lifes	tyles a	ınd equ	ality	8. Housing
	1. Resource Use	7. Waste Red'n & Minimisation	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
1. GROWTH	-	+	+	+	0	-	-	?	-	-	+	+	?	?	-	?	?	?	?	+	+	?	+	+	+	?	+	++

SP1 Birmingham as a Global City; SP2 Overall Levels of Growth; SP3 Quality of Life; SP4 Sustainable Urban Neighbourhoods

Overall effects on sustainability objectives: mixed, as the policy aspiration of growth inevitably brings benefits and disbenefits associated with increased levels of activity.

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

Geographical scale: Effects likely across the city and wider region including the Black Country With which there are close links. Potentially nationally also

Temporary or Permanent: Permanent, subject to effective implementation

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	Res	. Natur ources Waste	and		2.	CO₂ e	missio	ins		change adaptation	en la	History vironm andsca odiver and eodiver	nent, pe, sity		5. Po	llution		growth	6. Economic	7. C	Commu	ınities,	health	ny lifes	tyles a	ınd eqı	uality	8. Housing
	1. Resource Use	7. Waste Red'n & Minimisation	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
Timing: Medium to long term																										•		
2. CLIMATE CHANGE	+	+	+	#	++ ?	++ ?	+	++ ?	+ + ?	++?	0	?	?	+	?	0	0	#	#	#	0	+	#	#	+	#	+	+

SP5 Reducing the City's Carbon Footprint; SP6 Adapting to Climate Change; SP7 Sustainable Construction; SP8 Low Carbon Energy Generation; SP9 A Low Carbon Economy; SP10 Managing Flood Risk; SP11 Green Infrastructure Network

Overall effect on sustainability objectives: potentially positive, although there are a number of uncertainties and neutral effects.

Likelihood/Certainty: likely but some uncertainty regarding this due to limited reference to supporting evidence base.

Geographical scale: City-wide and beyond - Global

Temporary or Permanent: permanent **Timing:** short, medium and long term





	Res	. Natur ources Waste	and		2.	CO ₂ e	missio	ns		 Climate change adaptation 		. Histo vironm Indscal odivers and eodiver	ient, pe, sity		5. Po	llution		growth	6. Economic	7. C	ommu	nities,	health	y lifest	yles a	nd equ	ality	8. Housing
	1. Resource Use	7. Waste Red'n & Minimisation	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
3. EMPLOYMENT	#	+	+	+	0	0	0	0	+	+	?	?	?	?	?	?	?	++	++	?	?	#	++	++	#	#	#	#

SP12 Core Employment Areas; SP13 Regional Investment Sites; SP14 Central Technology Belt; SP15 Portfolio of Employment Land and Premises; SP16 Protection of Employment Land

Overall effect on sustainability objectives: positive, although there are a significant number of unknown effects, dependent on precisely how the policies are implemented.

Likelihood/Certainty: likely/uncertain

Geographical scale: neighbourhood, district, City-wide and sub-region

Temporary or Permanent: temporary, but trends established with longer term effects

Timing: short, medium and long term

4. CENTRES		#	+	+	+	+	+	+	+	+	+	+	#	#	#	?	#	#	+	?	++	#	#	+?	+?	#	#	#	#	1
------------	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	---	---	----	----	---	---	---	---	---

SP17 The Network and Hierarchy of Centres; SP18 The Growth, Scale and Function of Centres; SP19 Convenience Retail Provision; SP20 Small Shops and Independent Retailing; SP21 Non-Retail Uses in Core Shopping Areas; SP22 Tourism and Tourist Facilities

Overall effect on sustainability objectives: positive

Likelihood/Certainty: very likely

Geographical scale: neighbourhoods and districts





Reso	Natura ources Waste	and		2.	CO₂ e	missio	ns		3. Climate change adaptation	en la bi	. Histo vironm Indsca odiver and eodiver	nent, pe, sity		5. Pol	llution			6. Economic	7. C	ommu	inities,	health	ny lifes	tyles a	ınd equ	ıality	8. Housing
1. Resource Use	7. Waste Red'n & Minimisation	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

Temporary or Permanent: temporary but likely to become established

Timing: medium and longer term

5. HOUSING DISTRIBUTION	0	?	+	#	#	#	?	+	+	?	+	+?	+?	?	?	#	#	#	#	+	?	?	++	+?	?	?	+	++
-------------------------	---	---	---	---	---	---	---	---	---	---	---	----	----	---	---	---	---	---	---	---	---	---	----	----	---	---	---	----

SP23 The Housing Trajectory; SP24 The Distribution of New Housing; SP25 The Location of New Housing; SP26 The Type and Size of New Housing; SP27 Affordable Housing; SP28 Student Accommodation; SP29 Provision for Gypsies & Travellers

Overall effect on sustainability objectives: probably positive but with a significant number of unknown effects

Likelihood/Certainty: likely

Geographical scale: neighbourhoods, districts and City-wide

Temporary or Permanent: permanent **Timing:** short, medium and longer term





		. Natur ources Waste	and		2.	CO₂ e	missio	ins		 Climate change adaptation 	en la	. Histo vironm ndsca odiver and codiver	nent, pe, sity		5. Po	llution		growth	6. Economic	7. C	ommu	inities,	health	y lifes	tyles a	nd equ	ality	8. Housing
	1. Resource Use	7. Waste Red'n & Minimisation	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
6. HOUSING ENVIRONMENT	+	?	+	+	+	+	?	+	+	?	+	+	?	?	?	#	#	+	+	++	?	+	++	+	?	+	+	++

SP30 The Design & Quality of New Housing; SP31 Housing Density; SP32 The Existing Housing Stock

Overall effect on sustainability objectives: overall positive, with a number of unknown effects which will be dependent upon implementation

Likelihood/Certainty: likely to be realised

Geographical scale: neighbourhood, district and city-wide

Temporary or Permanent: permanent

Timing: short, medium and long term for design and density policies . Uncertain for SP32 as timing of redevelopments is not known.

SP33 The Strategic Transport Network; SP34 Transport Corridors; SP35 Sustainable Transport Systems; SP36 Accessibility Standards for New Development; SP37 Digital Connections; SP38 Car Parking; SP39 Traffic & Congestion Management; SP40 Freight; SP41 Pedestrians

Overall effect on sustainability objectives: probably positive, although dependent upon implementation

Likelihood/Certainty: probably likely





	Resc	Natur ources Waste	and		2.	CO₂ e	missio	ins		3. Climate change adaptation	en la	. Histo vironm Indsca odiver and eodiver	nent, pe, sity		5. Pol	llution		growth	6. Economic	7. C	ommu	nities,	health	ny lifes	tyles a	ınd equ	uality	8. Housing
Geographical scale: City-wide	1. Resource Use	7. Waste Red'n & Minimisation	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

Geographical scale: City-wide

Temporary or Permanent: permanent

Timing: potential to be short, medium and longer term as patterns become established

8. WASTE	+?	++	#	#	+?	#	#	#	+	#	#	#	#	+	+	+	#	+	+	#	#	#	#	#	+	#	#	#
									?																			

SP42 Sustainable Management of the City's Waste; SP43 New and Existing Waste Facilities; SP44 Location of Waste Management Facilities

Overall effect on sustainability objectives: positive

Likelihood/Certainty: very likely

Geographical scale: City-wide with specific neighbourhood effects

Temporary or Permanent: temporary and more permanent

Timing: short, medium and longer term





		. Natur ources Waste	and		2.	CO ₂ e	missio	ns		 Climate change adaptation 	en la	. Histo vironm ndsca odiver and eodiver	nent, pe, sity		5. Po	llution		growth	6. Economic	7. C	ommu	nities,	health	ny lifes	tyles a	nd equ	ıality	8. Housing
	1. Resource Use	7. Waste Red'n & Minimisation	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
9. QUALITY OF LIFE - FACILITIES	+	#	?	++	#	#	+	+	#	+	+ +	++	++	+	+	+	+	#	+	+	+	++	+	?	+	+	++	+

SP45 Open Space and Playing Fields; SP46 Sports Facilities; SP47 Recreational Uses Within the Green Belt

Overall effect on sustainability objectives: overall strongly positive

Likelihood/Certainty: very likely

Geographical scale: neighbourhood, district and City-wide

Temporary or Permanent: permanent
Timing: short, medium and longer term





	Res	. Natur cources Waste	and		2.	CO₂ e	missio	ns		 Climate change adaptation 	en la	. Histo vironm ndsca odiver and codiver	nent, pe, sity		5. Pol	llution		growth	6. Economic	7. C	ommu	inities,	health	ny lifes	tyles a	nd equ	ality	8. Housing
	1. Resource Use	7. Waste Red'n & Minimisation	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
10. QUALITY OF LIFE - RESOURCES	+	#	?	++	#	#	+	+	#	+	+ +	++	++	+	+	+	+	+	+	+	#	++	+	?	+	+	++	+

SP48 Urban Design; SP49 Biodiversity and Geology; SP50 Archaeology and the Historic Environment; SP51 Health; SP52 Education; SP53 Impact of New Development on Air Quality; SP54 Impact of New Development on Noise

Overall impact on sustainability objectives: overall strongly positive

Likelihood/Certainty: very likely **Geographical scale:** City-wide

Temporary or Permanent: permanent **Timing:** short, medium and longer term





4.6 **Commentary**

4.6.1 Chapter 5.1: Growth

Policies - SP1 Birmingham as a Global City; SP2 Overall Levels of Growth; SP3 Quality of Life; SP4 Sustainable Urban Neighbourhoods

Commentary

The overall effect of this policy area is mixed, 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 an attendant increase 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 CO₂ emissions due to increased development leading to higher energy consumption and travel, although within Policy SP3 there is a clear commitment to address this issue. Much will depend on implementation of the detailed policies in the Plan In addition, there are inevitably a number of areas of unknown effects, particularly on the natural environment of the levels of growth which are aspired to, with compromises between growth and environmental quality probably being required. The effects on communities, health and equality are potentially positive, however there is a degree of uncertainty in relation to how the policies could affect deprived areas as this will depend on how policies are implemented. In addition as set out in Appendix C certain equalities groups have historically been disadvantaged in respect of for example job opportunities. 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.

The housing levels put forward in the policy are equivalent to Option 1 as put forward in the Issues and Options Report 2008.

What are the likely secondary, cumulative and synergistic effects?

This set of policies could have a large number of interrelated effects, acting cumulatively e.g. overall improvements in quality of life through regeneration, however the exact nature of such effects is very difficult to predict given the broad coverage of policies set out here.



Recommendations

Notwithstanding the likely negative effects associated with some SA Objectives, overall this policy group is effective in communicating intentions and identifying appropriate mitigation, but could be strengthened by: reference in SP1 to quality of life issues as part of growth; cross-referencing to other policies in SP3 along with the re-ordering of the bullet points to reflect the structure of the document; and specification in SP4 of the relationships of the SUNs with the rest of the City.

4.6.2 Chapter 5.2: Climate change

Policies- SP5 Reducing the City's Carbon Footprint; SP6 Adapting to Climate Change; SP7 Sustainable Construction; SP8 Low Carbon Energy Generation; SP9 A Low Carbon Economy; SP10 Managing Flood Risk; SP11 Green Infrastructure Network

Commentary

The 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. Whist the creation of SUNs 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.

We note that there is limited reference to any supporting evidence base in relation to the Climate Change policies (e.g. basis for BREEAM standards in SP7, energy strategy and justification for thresholds in SP8 and GI evidence base for SP11). Without such information it is not clear whether and to what extent the sustainability benefits predicted might be delivered.





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 the suite of policies are in the main complementary to one another, they would benefit from more cross-referencing (particularly between SP7, 8 & 9), along with clarification in the supporting text of SP7 as to why this BREEAM target has been adopted. A justification should be provided in the supporting text to Policy SP8 for the thresholds set out in the policy in order to help demonstrate that the policy is deliverable.

Policy SP11 (GI Network) contributes positively to a number of objectives, however given that it is set within the Climate Change policy section within the Plan, it's role in delivering climate change benefits could be strengthened. Indeed, the supporting text only makes specific mention of climate change mitigation as the penultimate point in the list of GI benefits. The supporting text could be made stronger by setting out the benefits of GI in adapting to and mitigating against climate change together with other recreational and amenity benefits. Existing benefits listed could be related to climate change where appropriate. As the policy has wider sustainability benefits beyond climate change it would benefit from cross-referencing to other policies/ issues. This could include connectivity within the City, biodiversity, sport and recreation and city character.

At present there is no information indicating how the GI network has been defined and ideally there should be reference to a proposals map, the evidence base and perhaps a City-wide network map. We note that a "Green Infrastructure evidence base for Birmingham" has been produced and there would be benefit in referring to this in the supporting text to provide further justification for the policy.

4.6.3 Chapter 5.3: Employment and Centres

4.6.4 Employment

Policies - SP12 Core Employment Areas; SP13 Regional Investment Sites; SP14 Central Technology Belt; SP15 Portfolio of Employment Land and Premises; SP16 Protection of Employment Land.



Commentary

The keynote of the strategy for employment is a diversity of provision 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. Proposals to retain and protect core employment areas, to develop regional investment sites, and to maintain a portfolio of employment sites may be beneficial to unemployed people and equalities groups who experience high levels of unemployment. Indeed the Strategy recognises the need to create employment sites close to areas of deprivation and high unemployment e.g. East Aston. However, benefits will only be gained if pathways to employment opportunities offered on these sites are created to help unemployed people to gain job opportunities. 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. Much will depend on how these policies are implemented in practice.

It appears that there is a good evidence base for the employment policies drawn from earlier work on the Regional Spatial Strategy together with the Employment Land Capacity Study carried out for the City Council and further employment land review update in 2010. This should provide a greater level of certainty regarding the predicted social and economic effects of the policies subject to the comments above regarding the equity of those effects.

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. The implementation of the policies will have to 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 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 is needed on how the benefits will be spread City-wide and complement other policy aspirations, an issue which could be related to the need for greater spatial definition of their extent and influence.

4.6.5 Centres

SP17 The Network and Hierarchy of Centres; SP18 The Growth, Scale and Function of Centres; SP19 Convenience Retail Provision; SP20 Small Shops and Independent Retailing; SP21 Non-Retail Uses in Core Shopping Areas; SP22 Tourism and Tourist Facilities

Commentary

The centres 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 Plan refers to the Council's Local Centres Strategy and the Retail Needs Assessment, but it is not clear from the supporting text why the locations from the sub-regional and District Centres have been selected. There is no analysis of accessibility to these major centres from all parts of the City. Gap areas for convenience retail shopping have been identified, and some of these are in areas which serve a concentration of the BME population e.g. Handsworth. The supporting text acknowledges that the development of large supermarkets is not necessarily the best solution within these gap areas, and that proposals for addressing local needs will be paramount. However, the existing retail commitments in these gap areas are all for major supermarkets. 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. The Retail Needs Assessment has identified a deficiency of independent retailers in the City Centre but does not state whether this is true across the whole City.

There appears to be a good evidence base for the centre policies through the Retail Needs Assessment and Local Centres Strategy although as suggested above the link between the evidence base and the policies is not always clear. As a result there is some degree of uncertainty regarding the effects on the SA objectives, particularly in respect of equality and deprivation.





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 Urban Neighbourhoods. Further supporting text regarding the justification for the hierarchy of centres would be beneficial. Will, for example, SUNs merit special treatment in respect of these policies such that Policy SP4 can be delivered? Should there be a stronger policy to encourage small independent retailers in deprived neighbourhoods and areas of BME concentration? Should there be a stronger set of criteria for limiting/allowing the permission of non-retail uses?

4.7 Chapter 5.4: Housing

4.7.1 Housing Distribution

Policies - SP23 The Housing Trajectory; SP24 The Distribution of New Housing Provision; SP25 The Location of New Housing; SP26 The Type and Size of New Housing; SP27 Affordable Housing; SP28 Student Accommodation; SP29 Provision for Gypsies & Travellers.

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 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 Policy SP25 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 Strategy. 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.

Policy SP27 sets out the ratio of affordable housing on new residential developments dependent on land ownership and whether the development is within or outside the city centre. In addition the policy sets out the approach to be adopted to allow additional larger dwellings to be built and also an approach to off-site contributions in the city centre. Whilst the Policy is likely to have positive social effects the justification for the approach set out is not clear from the supporting text and therefore there is some uncertainty regarding the extent of the effects and whether they are likely to be successfully delivered. The 2008 SHMA estimates that just over 40% of the City's overall housing requirement is for affordable housing. The supporting text to SP27 also refers to the fact that there is scope to set separate targets for social-rented and intermediate housing, but does not actually do so in the Policy. Setting a social-rented target both across the City and within more local areas would help to meet the demand from those most vulnerable in society.

The evidence base for these policies comprises the Strategic Housing Land Availability Assessment (SHLAA) 2010, Strategic Housing Market Assessment (SHMA) and Gypsy and Traveller Accommodation Assessment (GTAA). The links between the evidence base and the policies are generally clear and this assists with predicting and evaluating the effects on the SA objectives. The one exception is Policy SP27 as described above where supporting justification for the policy is considered to be lacking.

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 SUNs, perhaps in SP24, would be helpful in demonstrating an integrated approach to housing strategy across the City, anticipating future approaches to its spatial character. The justification for the approach to affordable housing in SP27 should be set out more clearly in the supporting text. There should be a more explicit statement on encouraging community facilities to be developed within new housing areas of a certain size. Consider setting a target for social-rented housing.

4.7.2 Housing Environment

Policies - SP30 The Design & Quality of New Housing; SP31 Housing Density; SP32 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. Policy SP30 should be, by and large, beneficial to particular equalities groups. The design of new homes to Lifetime Homes criteria should be beneficial to disabled and older people. The achievement of Secure by Design accreditation should help those more likely to be victims of crime, including women, BME people, lesbians, gay men, bisexuals and transgender people, and disabled people.

SP31 Housing Density is likely to have a broadly positive effect on SA objectives however the rationale for the Housing Density targets is not clear from the supporting text and as a result there is some uncertainty regarding the likely effects.

Plans for the demolition, regeneration and refurbishment on municipal housing estates in Policy SP32 should impact positively on lower income households, many of whom will come from equalities groups, 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.

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

The justification for the housing density targets set out in Policy SP31 should be explained in the supporting text. For Policy 32 further explanation should 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.



4.8 Chapter 5.5: Connectivity

Policies - SP33 The Strategic Transport Network; SP34 Transport Corridors; SP35 Sustainable Transport Systems; SP36 Accessibility Standards for New Development; SP37 Digital Connections; SP38 Car Parking; SP39 Traffic & Congestion Management; SP40 Freight; SP41 Pedestrians.

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. The accessibility standards for new development are useful, and make reference to improved accessibility for those living in retirement dwellings. Given that the majority of older and disabled people do not live in retirement dwellings there might be a case for improving all these standards. The policy aimed at helping to make walking easier, safer and more pleasurable e.g. by reducing street clutter, improving footpaths and signage would be extremely beneficial to all, but would especially benefit people with mobility restrictions and partially sighted or blind people.

If the policies fail to have a significant effect, current problems associated with congestion, for example, are likely to intensify, along with the continued exclusion of particular groups from participating fully in the opportunities associated with digital connectivity.

The supporting text to these policies refers to a number of evidence base studies including regional/sub-regional multi-modal transport studies. The Policy Responsive and Integrated Strategic Model (PRISM) has been used to model development scenarios for the City Centre. A regional Transport Priorities Action Plan has also been produced. For some policies the evidence base is less clear. SP34 sets out transport Development Corridors and it is not clear from the supporting text how these have been defined and how the strategy for their development relates to other parts of the Plan, notably SP17 - Network and Hierarchy of Centres. Whilst there are a number of district and neighbourhood centres within the hierarchy some of these occur within transport corridors and some outside and therefore differing effects may occur with the implementation of SP34. The relationship between SP34 and SP17 warrants further consideration.

For Policy SP36 there is little justification in the supporting text and therefore some uncertainty as to whether will deliver the desired sustainability benefits for the city and whether they are appropriate across all parts of the city.

The policies deliver a balance of transport measures which should result in positive effects; however there is little reference to cycling with this section.



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.

Recommendations

Further consideration should be given to the relationship between Policy SP34 and SP17 and additional supporting text provide to show how these policies can be implemented effectively together. Further justification of the accessibility standards set out in SP36 should be provided in the supporting text including consideration as to whether they are appropriate across all parts of the City. - SP41 could cover cycling as well as pedestrians also providing some links to Green Infrastructure.

4.9 Chapter 5.6: Waste

Policies - SP42 Sustainable Management of the City's Waste; SP43 New and Existing Waste Facilities; SP44 Location of Waste Management Facilities.

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. Both Policy SP42 and the supporting text refer to a requirement to increase 'disposal' capacity but it is not clear what is meant here and what level of additional capacity is envisaged. There is no reference to energy recovery within Policy SP42 so this does not appear consistent with delivering the waste hierarchy. 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 increased traffic emissions however Policy SP44 provides a framework for controlling impacts. The creation of new 'urban quarries' which increase the recycling of construction and demolition waste, although ultimately aim to reduce landfill, may affect the more local populations. 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.





Although there is reference to the Birmingham Waste Capacity Study (BWCS) as an evidence base the link between this, the Municipal Waste Strategy and the policies is unclear. There is little reference in the policies to the capacity of new waste facilities which may be required and therefore the effects of the policies on key SA objectives is less certain.

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

Policy SP42 should be reworded to clarify the approach to the waste hierarchy in Birmingham. This includes adding reference to energy recovery as an alternative to landfill when re-use, recycling and composting is not possible. Further clarity as to what is meant by "disposal" capacity in this policy should be provided. 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.

4.9.1 Cultural Facilities

Policies - SP45 Open Space and Playing Fields; SP46 Sports Facilities; SP47 Recreational Uses Within the Green Belt SP52 Education.

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. This group of policies has a broadly positive effect on the SA objectives. 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 as set out in Policy SP45 is likely to lead to positive effects. However there is some uncertainty regarding the effects as quality standards are not clearly defined in the policy or supporting text. In addition there is limited information regarding the policy in





relation to open space in new residential development and how this might relate to smaller developments or those where it is not possible to deliver open space on site (e.g. higher density development). Setting out accessibility standards for open space needs to be complemented by more detailed attention to specific groups such as disabled users who may have additional requirements. For example, the 400m access to smaller open spaces should be accessible to wheelchair users as far as possible.

Policies SP46 and SP47 are supportive of sport/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.

SP45 has been based on an evidence base including an Household survey from 2004 and information contained in the Parks Strategy Supplementary Planning Document 2006. It is not always clear from the supporting how these documents have been used to justify the policy and confirmation as to whether they are still considered valid given changing circumstances.

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 SP11 on Green Infrastructure to deliver cumulative benefits.

Recommendations

Policy SP45 would benefit from further detail regarding the quality standards to be applied, the approach to open space in new developments where on-site provision is not feasible. The supporting text should provide greater justification for the policy thresholds and also outline the links to other relevant policies particularly green infrastructure. There could be more detail on the specification of accessibility standards for open space sufficient for all equality groups.

4.9.2 Natural and Cultural Resources

Policies - SP48 Urban Design; SP49 Biodiversity and Geology; SP50 Archaeology and the Historic Environment; SP51 Health; SP53 Impact of New Development on Air Quality; SP54 Impact of New Development on Noise.





Commentary

These policies are likely to be positive in their likely outcomes for sustainability. As with many other policies, whether they go far enough in terms of environmental protection, for example, will become apparent over the longer term. However, as a starting point they are reasonable, notwithstanding the need for more cross-referencing to ensure that they are presented as complementary, and in some cases essential adjuncts, to other policies.

What are the likely secondary, cumulative and synergistic effects?

This diverse bundle of policies is cumulatively important to the realisation of sustainable development across the City, often acting in concert with other policies to help correct any adverse effects. Cumulatively they should improve overall quality of life for residents as well as benefit the environment.

Recommendations

Greater use of cross-referencing amongst policies would clarify how these policies are to be implemented together, particularly in helping to realise aspirations for Green Infrastructure (SP11), for example, SUNs (SP4) and the City-wide centres approach (SP17 & 18). The key principles for urban design should include more detailed points on accessibility for disabled people, and parents/carers, and also on community safety. Reference to Secure by Design and the appropriate guidelines on disability access would be useful. Cross-referencing to policies that encourage walking and cycling as a transport mode should be included in SP48 as this will help tackle obesity and encourage healthier lifestyles. A reference (either here or in SP52) on encouraging safe routes to school would be beneficial for school children.

4.10 Overall commentary

The above analysis demonstrates that the overall performance of the City-wide policies is, in the main, positive. The principal areas which appear to require attention are the potential negative effects associated with the plans for the growth of the City. Whilst many of the effects depend upon the precise scale and location of this development, the scale of the ambitions for change will inevitably produce environmental and perhaps social pressures. These centre on the challenge of physically accommodating the proposed new housing (assuming that there is sufficient land available within the built-up area of the City) and the effects of greater resource use and a larger population, potentially contributing to greater congestion, for example. Appropriate control of the effects of the growth strategy should be feasible through the use of the various policies designed to accompany the policies designed to promote change. Appropriate monitoring to judge effects on localities and City-wide will be critical.





In addition there is some uncertainty regarding the effects of policies on the SA objectives. This is due to lack of detail in some areas in relation to policy justification. It is not always clear what evidence base exists for the policies and how this has been used to develop the policy and how this might result in sustainability benefits. Better links between the policies and their evidence base are likely to ensure that the effects on SA objectives can be predicted with greater certainty.

Analysis of the likely effects of the policies can also be undertaken from the point of view of grouping of SA Objectives by themes. This has the advantage of reviewing how policies are likely to operate in combination to address specific groups of sustainability issues as summarised by each SA Theme. This helps with understanding of the cumulative and synergistic effects of policies acting together. The performance of relevant policies by SA Theme and Objectives is set out in Table 4.7.



Table 4.7 Evaluation of Policies by SA Theme and SA Objectives

SA Theme	SA Objectives	Key Policies	Significant Positive Effects	Significant Negative Effects
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.	SP25 The Location of New Housing; SP31 Housing Density SP42 Sustainable Management of the City's Waste; SP43 New and Existing Waste Facilities; SP44 Location of Waste Management Facilities	By setting out clear controls on the types of development permitted, these policies will ensure the protection of natural resources such as greenfield land.	No significant negative effects have been identified.
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. 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.	SP5 Reducing the City's Carbon Footprint; SP7 Sustainable Construction; SP8 Low Carbon Energy Generation; SP9 A Low Carbon Economy; SP33 The Strategic Transport Network; SP34 Transport Corridors; SP35 Sustainable Transport Systems; SP36 Accessibility Standards for New Development; SP37 Digital Connections; SP38 Car Parking; SP39 Traffic & Congestion Management; SP40 Freight; SP41 Pedestrians	The policies seek to promote a systematic approach to reducing CO_2 emissions across the City, with complementary policies encouraging more sustainable patterns of development which in turn contribute to lower emissions. Reducing peoples' need and desire to travel is a particularly important contribution to emission reduction, and the policies seek to realise this ambition.	Whilst there are no predicted significant negative effects, the efficacy of the policies, applied either alone or together, can only be tested over time. There should be a measurable reduction in net CO ₂ emissions by the end of the Plan period.
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.	SP6 Adapting to Climate Change; SP7 Sustainable Construction; SP10 Managing Flood Risk; SP11 Green Infrastructure Network	The range of policies presented should, in combination, ensure that the City is prepared for the impacts of climate change.	None, but their effectiveness will be tested by the impacts of extreme events and may have to be adapted accordingly.



SA Theme	SA Objectives	Key Policies	Significant Positive Effects	Significant Negative Effects
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 recreate local biodiversity and geodiversity.	SP48 Urban Design; SP49 Biodiversity and Geology; SP50 Archaeology and the Historic Environment	Birmingham's significant stock of natural and cultural assets should be protected and enhanced through these policies. Proof of their effectiveness will need to be analysed through monitoring.	None.
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. 	SP53 Impact of New Development on Air Quality; SP54 Impact of New Development on Noise	These policies should help to ensure a better quality environment for Birmingham, particularly when used in combination with other policies aimed at environmental enhancement.	The absence of a specific policy on water quality could be seen as problematic, particularly given pollution issues associated with urban water run-off.
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.	SP1 Birmingham as a Global City; SP2 Overall Levels of Growth; SP3 Quality of Life; SP12 Core Employment Areas; SP13 Regional Investment Sites; SP14 Central Technology Belt; SP15 Portfolio of Employment Land and Premises; SP16 Protection of Employment Land; SP17 The Network and Hierarchy of Centres; SP18 The Growth, Scale and Function of Centres; SP19 Convenience Retail Provision; SP20 Small Shops and Independent Retailing; SP21 Non-Retail Uses in Core Shopping Areas; SP22 Tourism and Tourist Facilities; SP33 The Strategic Transport Network; SP34 Transport Corridors;	These polices will help to strengthen Birmingham's economic position, both in 'headline' aspirations for boosting Birmingham's profile, and in creating a more robust economic base that will benefit local communities.	None, but the monitoring of the implementation of policy will have to carefully scrutinise the outcomes and particularly whether the benefits associated with growth are genuinely cascading down to those most in need.
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	SP1 Birmingham as a Global City; SP2 Overall Levels of Growth; SP3 Quality of Life; SP4 Sustainable Urban Neighbourhoods; SP45 Open	The application of this broadly- based basket of policies should ensure that community interests are advanced across a range of	None, but close monitoring of policy effects will be required to properly judge their effectiveness.





SA Theme	SA Objectives	Key Policies	Significant Positive Effects	Significant Negative Effects
	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. 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.	Space and Playing Fields; SP46 Sports Facilities; SP47 Recreational Uses Within the Green Belt; SP48 Urban Design; SP49 Biodiversity and Geology; SP50 Archaeology and the Historic Environment; SP51 Health; SP52 Education; SP53 Impact of New Development on Air Quality; SP54 Impact of New Development on Noise	indicators, notably the creation of more distinctive places, underpinned by more meaningful local engagement and the promotion of social and environmental responsibility.	
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	SP2 Overall Levels of Growth; SP3 Quality of Life; SP4 Sustainable Urban Neighbourhoods; SP23 The Housing Trajectory; SP24 The Distribution of New Housing Provision; SP25 The Location of New Housing; SP26 The Type and Size of New Housing; SP27 Affordable Housing; SP28 Student Accommodation; SP29 Provision for Gypsies & Travellers; SP30 The Design & Quality of New Housing; SP31 Housing Density; SP32 The Existing Housing Stock	The range of policies proposed should help to ensure that housing issues are properly dealt with across the various housing markets in the City.	None, but close monitoring of policy effects will be required to properly judge their effectiveness, particularly in respect of very local housing markets which are not necessarily picked up by coarser statistics.





4.11 Area-focused policies

The Birmingham Plan sets out a suite of policies relating to specific areas of the City. These are:

- City Centre;
- North and West Birmingham;
- East Birmingham; and
- South Birmingham.

For each area there are detailed site specific allocations and development management policies. These policies are more detailed policies to deliver the overall strategic policies in chapter 5. As such there is generally a direct relationship between a strategic policy in chapter 5 and the specific area policies in chapter 6.

At this stage our comments are generally restricted to broad sustainability effects which may arise from these policies. The practicalities of realising sustainable development through focusing growth in Sustainable Urban Neighbourhoods such that the best used is made of land available for re-development, is a key factor. This regeneration-led approach centres on the protection and enhancement of a number of neighbourhoods throughout the City and seeks to raise the performance of areas which are currently struggling with a range of interrelated socio-economic problems.



Recommendations

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Further appraisal of the policies set out in Chapter 6 should be carried out taking account of the issues set out below.

Whilst sustainable development is aspired to City-wide, the practical expression of these in the areaspecific policies is focused on the creation of Sustainable Urban Neighbourhoods. Their definition in principle supports the objectives set for sustainable development, but equally raises a number of points of clarification that would assist their definition and help to better explain how and why this policy initiative is an appropriate response. The following questions summarise these matters:

- Why are not all SUNs centred on public transport corridors?
- What is the rationale behind the location of SUNs in the context of their area location?
- How have the boundaries for SUNs been drawn?
- What distinguishes the SUN from its surrounding urban context?
- What are the key relationships between the SUNs and adjacent centres in terms of functional relationships e.g. retailing and travel to work?

As agreed with Birmingham City Council this report does not specifically consider whether there are reasonable alternatives to the policies put forward in Chapter 6. This analysis would need to be undertaken before completing the SA process to ensure that other relevant options are appraised. Without this information it is not clear on what basis the preferred policy options have been selected.

It is therefore recommended that a more detailed appraisal of the policies, including any relevant options, will be undertaken during the next iteration of the Plan following public consultation.



A range of observations have been assembled in respect of equalities impacts. These are set out in Appendix D. The principal conclusions from this analysis are as set out in Table 4.8.

Table 4.8 Principal characteristics of equalities issues associated with area-based policies

Area	Key Features	Positive & Negative Impacts	Uncertainties
City Centre	In proportion to the existing population of around 30,000, the scale of residential development is large as the proposals are to develop 11,000 extra dwellings. This will be dominated by city-living apartments rather than affordable family dwellings, with developers providing affordable housing off-site.	The development of seven 'quarters' are intended to build on their existing characteristics and will benefit these residents by the creation of more liveable family neighbourhoods. Office and retail development will benefit the whole of the City and beyond rather than being focused on a particular community. The development of the High Speed Rail will enhance Birmingham's status as a Global City.	In order to assess the equalities impact it would be necessary to know where this affordable housing will be located and who it would benefit. It would benefit equalities groups and low income households if they could live closer to the heart of the city centre and benefit from sustainable and mixed use developments and services within walking and cycling distance.
North and West	North and West Birmingham will contribute 11,000 new homes, over half of which will be in the Greater Icknield Sustainable Urban Neighbourhood (SUN), and around 2000 in the Aston/Newtown/Lozells area. Aston will also contain a Regional Investment Site. Sutton Coldfield has been designated as a sub-regional centre, playing a leading role in Birmingham's growth.	Demolition and redevelopment of unpopular housing may have a negative impact on existing BME households and low income households if the opportunity is not available for them to be rehoused in affordable family dwellings. Tackling worklessness in the Aston/Newtown/Lozells area by linking local people to jobs and using S106 agreements to secure commitment to employment opportunities, such as local labour in construction projects, will have an obvious benefit to unemployed people in the area. Stimulating economic development through the development of the Aston Regeneration Site should provide local employment opportunities, particularly if S106 agreements require local job training.	
East	Four Sustainable Urban Neighbourhoods (SUNs) are planned at Bordesley Park, Stechford, Shard End and Meadway. The area is characterised by a high proportion of terraced housing, a high BME population and a relatively high proportion of households with dependent children and indeed a high proportion of young people in the area. Unemployment is higher than the other two areas.	The enhancement and improvement of the five Centres in East Birmingham should improve the retail offer, enhance the image of all five areas, and offer local employment. The promotion of business growth along the A38 (North) corridor could bring employment growth, along with training opportunities, which, if linked through targeted local training schemes, could provide employment and training opportunities to the residents of Castle Vale, a deprived area.	As with all the proposed SUNs it will be important to ensure that existing communities benefit from new development in terms of access to new housing, community facilities and jobs, and that they integrate with existing communities and do not become isolated enclaves.



Area	Key Features	Positive & Negative Impacts	Uncertainties
South	There are three SUNs planned at Longbridge, Kings Norton Three Estates and Druids Heath. This is a relatively affluent area but has significant pockets of deprivation, mainly within the outer council housing estates in Kings Norton and Druids Heath. In fact there is a significant proportion of council rented accommodation (20%). Unemployment is lower than in the other three areas, but this masks higher unemployment in the deprived areas.	The most significant employment area in South Birmingham is the redevelopment of the Longbridge Rover Plant site which will offer considerable employment opportunities in the technology industry as well as new residential development. In all likelihood many of the job opportunities will attract highly skilled people in research and development which is unlikely to benefit lower skilled people.	How far the existing community will benefit from the redevelopment should be ascertained as regeneration does not always 'trickle down' to existing poor communities, It is difficult to say with certainty whether new employment opportunities arising from further development within these corridors will benefit equalities groups and those with lower skill levels until the plans come to fruition, but in links between these groups should be made when planning recruitment and training.

4.12 Cumulative and synergistic effects

The SEA Directive requires that the assessment of effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary effects (SEA Directive Annex 1). Given the strategic character of the Birmingham Plan, it is difficult to be precise about when, where and in what form these effects might arise, and how one effect might relate to another. Nevertheless, the following broad conclusions can be drawn as to the likely effects associated with implementing the suite of Plan policies:

- the maintenance and protection of townscape and landscape quality;
- protection and enhancement of natural, historic and cultural resources;
- provision of housing which meets the needs of current residents as well as residents to be planned for as part of Birmingham's growth;
- the provision of economic opportunities to all citizens;

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- ensuring that all citizens are treated equally in terms of access to housing, jobs, services and a good quality environment;
- securing significant reductions in the City's CO₂ emissions through a variety of measures including building design, emissions control, more efficient transport networks and reducing the need for people to travel for work or to access services:
- securing an enhanced role for Birmingham as a global city using assets such as the City Centre to help achieve this;



- creating a network of sustainable urban neighbourhoods which will act as models of resource-efficient living and inform practice across the City; and
- the protection and enhancement of Birmingham's characteristic suburbs.

On the negative side, the following cumulative effects are considered to be counteracted by the application of the various clusters of policies (Table 4.9).



Table 4.9 Potentially negative cumulative effects and the response of Core Strategy Objectives and Policies

Cumulative Effect	Principal Receptors	Causes	Plan Objectives	Key Policy interventions	Anticipated Outcomes
Habitat fragmentation	Wildlife habitats within and adjacent to the City boundary	Growth pressures and inappropriate management of GI resources	Objective 9- To protect and enhance the city's heritage and historic environments and to conserve Birmingham's natural environments allowing biodiversity and wildlife to flourish. • Protect and utilise its historic environment to create a sense of place and a locally distinctive character and support this by high quality design within new developments. • Protect wildlife and biodiversity in designated areas and across Birmingham to conserve and enhance the city's natural resources.	SP3 Quality of Life; SP11 Green Infrastructure SP49 Biodiversity and Geology	Maintenance and enhancement of the integrity of Birmingham's habitat network, along with its key connections to surrounding areas. The net result should be a resource which is sufficiently robust to withstand pressures which dilute its character, whether these be pollutants, recreational use or development. With appropriate management, multifunctional use can be most beneficial to maintaining the quality of sensitive sites and networks.
Climate change	City, region, national and global	GHC emissions associated with existing industry growth and traffic	Objective 2 - To create a more sustainable city that minimises its carbon – footprint and waste while allowing the city to grow. • The aim will be to ensure that growth takes place in a sustainable way, which ensures that Birmingham is a city that meets the needs of the present without compromising our ability to meet future needs. Particular aims will be to minimise CO ₂ emissions, and to adapt to the expected effects of climate change. • By reducing car dependency through improvements to the transport infrastructure and public transport services and increasing waste recycling and encourage the use of renewable energy.	SP5 Reducing the City's Carbon Footprint; SP6 Adapting to Climate Change; SP7 Sustainable Construction; SP8 Low Carbon Energy Generation; SP9 A Low Carbon Economy; SP10 Managing Flood Risk; SP11 Green Infrastructure Network	The City's contribution to climate change through CO ₂ emissions is significant and commitments to reduce its reduction through various means should be achievable. Of equal concern is the City's ability to withstand the effects climate change as evidenced by heatwaves and other extreme events. Here, concerted action between policy areas will be required to create an urban environment which can respond to such change within the lifetime of the Plan and increasingly beyond.
Elevated	Selected areas	Economic imbalance	Objective 5 - To create a prosperous,	SP12 Core Employment	The Birmingham Plan is to a great



Cumulative Effect	Principal Receptors	Causes	Plan Objectives	Key Policy interventions	Anticipated Outcomes
unemployment	City-wide		 Provide a sustainable, diverse and competitive employment base for continued long - term economic growth, including the provision of opportunities for innovation and investment in research as well as employment potential for all. Ensuring that appropriate provision is available for new office and retail development to building on Birmingham's role as the major retail and commercial centre in the region. Within the retail sector it will be important to ensure that growth results in greater diversity, enabling niche and independent retailing to develop. 	Areas; SP13 Regional Investment Sites; SP14 Central Technology Belt; SP15 Portfolio of Employment Land and Premises; SP16 Protection of Employment Land	extent at the mercy of macro- economic forces and therefore effects may be uncertain over the short/medium and long term. It can help to create the conditions in which a diverse and robust economic can thrive. The proposed policies should assist this process, although careful monitoring of the spatial impacts of these policies will be required to ensure that their positive impacts are spread in the most efficient and effective fashion.
Social exclusion	Selected areas City-wide	Economic imbalances and lack of access to key services e.g. housing	Objective 3 - To develop Birmingham as a city of vibrant urban villages, that is safe, diverse and inclusive with a locally distinctive character. Deliver sustainable, inclusive and cohesive local communities through high quality urban design, creating clean and safe places, and environments where people want to live, work and visit. Promote community diversity and cohesion Preserve and enhance the character of Birmingham's mature suburbs, which provide an element of continuity and heritage between the city's rapid development from the 1900's to the present Objective 5 - To create a prosperous, successful economy, with benefits felt by	SP15 Portfolio of Employment Land and Premises; SP16 Protection of Employment Land SP23 The Housing Trajectory; SP24 The Distribution of New Housing Provision; SP25 The Location of New Housing; SP26 The Type and Size of New Housing; SP27 Affordable Housing	The ability of the Plan to tackle social exclusion directly is perhaps limited, but it can create the conditions for change. The close association with economic development and the spread of those benefits is significant. Close integration between the Plan and other initiatives and programmes across the City should mitigate against negative effects.



Cumulative Effect	Principal Receptors	Causes	Plan Objectives	Key Policy interventions	Anticipated Outcomes
			Provide a sustainable, diverse and competitive employment base for continued long - term economic growth, including the provision of opportunities for innovation and investment in research as well as employment potential for all. Objective 7 - To make Birmingham a learning city with quality institutions. Raise the city's skill base and for the city's education institutions to support innovation and growth in the local economy. Supporting the expansion plans of the city's universities and facilitating the national Building Schools for the Future (BSF) programme to meet the demand of increasing pupil numbers and create new learning environments for pupils to realise and achieve their potential.		
Homelessness/ limited access to affordable housing	Selected areas Ci7ty-wide	Lack of, and/or, imbalanced housing stock	Objective 4 - To secure a significant increase in the city's population, towards 1.1 million and meet regional targets for new housing. The aim will be to accommodate as much as possible of Birmingham's projected housing growth within the built-up area of the city and to minimise net out-migration. This will require a good supply of sustainable, well-designed, affordable homes to suit a range of housing needs. Particular priorities in this respect will be meeting the needs of the city's growing elderly population, larger families, and the need to provide opportunities for	SP23 The Housing Trajectory; SP24 The Distribution of New Housing Provision; SP25 The Location of New Housing; SP26 The Type and Size of New Housing; SP27 Affordable Housing; SP28 Student Accommodation; SP29 Provision for Gypsies & Travellers SP30 The Design & Quality of New Housing; SP31 Housing Density; SP32 The Existing Housing Stock	Whilst access to affordable housing is a national issue, the local expression of it in cities such as Birmingham can be associated with significant, sometimes hidden, pockets of deprivation. Close monitoring of the spatial expression of these policies will be required, particularly in respect of the effect of new development on the mix of the local housing stock.



Cumulative Effect	Principal Receptors	Causes	Plan Objectives	Key Policy interventions	Anticipated Outcomes
			'executive-style' housing.		
Congestion	City-wide and on key arterial routes	Continuation of current growth patterns unchecked by policy intervention	Objective 6 – To provide high quality transportation links throughout the city and with other places and encourage the increased use of public transport. • Maintain and expand effective high quality transport links to the outside world and within the city. • Manage the transport infrastructure in a sustainable way so public transport and non-car modes of transport to be promoted as an attractive and viable option, to reduce car dependency and congestion. • Make the best use of digital technology to enable all communities to move about easily and safely using a variety of modern transport modes with good access to services.	SP33 The Strategic Transport Network; SP34 Transport Corridors; SP35 Sustainable Transport Systems; SP36 Accessibility Standards for New Development; SP37 Digital Connections; SP38 Car Parking; SP39 Traffic & Congestion Management; SP40 Freight; SP41 Pedestrians	Congestion is a visible problem which has wider economic, environmental and quality of life consequences. The practical expression of effective policy in this area will be tangible changes in traffic density but also changes in the way in which roadspace is used and its impact on community identify. The Plan period may not be sufficient for some of the radical changes required to take effect.
Waste management problems	City-wide and sub-region	Continuation of current patterns of waste disposal and management		SP42 Sustainable Management of the City's Waste; SP43 New and Existing Waste Facilities; SP44 Location of Waste Management Facilities	Constraints on waste disposal capacity will contribute to forcing practical change guided by policy. By the end of the Plan period, there should be some obvious progress in this area.
Decline in quality of life	City-wide and selected centres	Continuation of current growth patterns unchecked by policy intervention	Objective 8 - To encourage better health and well being through the provision of new and existing sports and leisure assets linked to good quality public open space throughout the city. Provide people access to good quality health, leisure and sport facilities, open space and green environments, so that they are able to pursue a healthy lifestyle and	SP1 Birmingham as a Global City; SP2 Overall Levels of Growth; SP3 Quality of Life; SP4 Sustainable Urban Neighbourhoods SP48 Urban Design; SP49 Biodiversity and Geology; SP50 Archaeology and the Historic Environment; SP51 Health; SP52 Education;	Quality of life represents an accumulation of influences, and is often measured by a range of indicators. The end of the Plan period should yield perceptible change in measures such as the quality of the built environment, community cohesion, City connectivity and accessibility to essential services. Ongoing



Cumulative Effect	Principal Receptors	Causes	Plan Objectives	Key Policy interventions	Anticipated Outcomes
			 Promote cultural facilities and leisure assets so that they are available to all residents and visitors. Objective 9- To protect and enhance the city's heritage and historic environments and to conserve Birmingham's natural environments allowing biodiversity and wildlife to flourish. Protect and utilise its historic environment to create a sense of place and a locally distinctive character and support this by high quality design within new developments. Protect wildlife and biodiversity in designated areas and across Birmingham to conserve and enhance the city's natural resources. 	SP53 Impact of New Development on Air Quality; SP54 Impact of New Development on Noise; SP45 Open Space and Playing Fields; SP46 Sports Facilities; SP47 Recreational Uses Within the Green Belt	monitoring of changes in actual and perceived indicators of quality of life should be undertaken and would yield interesting, perhaps unexpected, results.
Decline in local service provision	Selected areas City-wide	Continuation of current development patterns unchecked by policy intervention	Objective 3 - To develop Birmingham as a city of vibrant urban villages, that is safe, diverse and inclusive with a locally distinctive character. • Deliver sustainable, inclusive and cohesive local communities through high quality urban design, creating clean and safe places, and environments where people want to live, work and visit. • Promote community diversity and cohesion. • Preserve and enhance the character of Birmingham's mature suburbs, which provide an element of continuity and heritage between the city's rapid development from the 1900's to the present.	SP17 The Network and Hierarchy of Centres; SP18 The Growth, Scale and Function of Centres; SP19 Convenience Retail Provision; SP20 Small Shops and Independent Retailing; SP21 Non-Retail Uses in Core Shopping Areas; SP22 Tourism and Tourist Facilities	Related to quality of life, service provision which meets expectations can be fragile. Whilst the promotion of appropriate patterns of provision can fall outside the outside the ambit of planning policy, subtle changes can be effected over the longer term through intervention to promote local character, for example, and hence the desirability of places.





Whilst negative impacts associated with growth were identified, these should be mitigated against over the long term through the diligent application of other policies in the Plan. However, the close monitoring of effects and appropriate adjustment of policy is imperative to gauge how this is playing out in practice. Particular attention might need to be paid to CO₂ emissions, the distribution and impacts of housing development, job creation (by area and type), accessibility to services, and measures of the character of the City such as townscape analysis.

4.13 Implementation and monitoring

This appraisal has identified many positive sustainability effects of the Birmingham Plan and which are likely to support improvements to quality of life in the City, for residents, workers and visitors. Whilst there are inevitably a range of potential cumulative and synergistic effects, both positive and negative, many unknown in character, on balance, the Birmingham Plan represents a robust and well-rounded planning policy framework which will form the reference point for a range of other City-wide strategies, plans and programmes.

The positive character of many of the proposed policies will assist in the implementation of the Plan and the minimisation of adverse effects. Many policies will be required to work in concert and be supported by a range of additional plans (such as SPDs) to effect change in specific areas or topics. The size of the City and scale of proposed development potentially presents a wide range of opportunities for the application of innovative means of securing more sustainable outcomes across a variety of indicators such as energy efficiency, sustainable transport and more contained neighbourhoods. Delivering effective mitigation of negative effects and enhancing positive effects will required concerted effort, in combination with other City-wide plans and programmes. An example is the action required to reduce CO₂ emissions which will required concerted action across a range of departments and programmes. The Interim SA identified the following requirements:

- Policies requiring new buildings to be built to more energy efficient standards of design with fewer
 related emissions, for example higher levels of the Code for Sustainable Homes for residential
 development (with Level 6 having zero net emissions for example). The importance of retro-fitting
 existing buildings with efficiency measures was also identified, although the Core Strategy's potential
 to facilitate this is limited.
- Enabling the city-wide development of renewable and low carbon energy infrastructure, including district heating.
- Providing mixed-use developments, co-locating homes and job, to reduce people's need to travel and emissions associated with private car use.
- Enhancing public transport infrastructure to offer more sustainable alternatives to the car.

The Sustainability Appraisal did not identify any significant negative effects associated with either the broad strategy or policy detail. Nevertheless, a number of caveats are raised, particularly in respect of the effects of the scale and rate of growth proposed for the City, and whether policies are sufficiently robust to ensure that detrimental effects are identified early on and mitigated. The latter point often relates to the level of justification provided for the policies in the Plan.





It is a requirement of the SEA Directive to establish how the significant effects of implementing the Birmingham Plan will be monitored. However, as ODPM Guidance⁹ (ODPM, 2005) notes:

"it is not necessary to monitor everything, or monitor an effect indefinitely. Instead, monitoring needs to be focused on significant sustainability effects."

Monitoring should therefore be focused upon significant effects that may give rise to irreversible damage, with a view to identifying trends before such damage is caused (or uncertain effects where monitoring would enable preventative or mitigation measures to be undertaken).

The principal means of monitoring for the Birmingham Plan will be the Annual Monitoring Report (AMR) which will track a variety of issues related to its implementation. SA indicators have been provisionally identified in Appendix A, however these will need to be developed to support the implementation of the Plan. Taking account of the advice contained in Appendix 10 of the SEA Directive guidance the SA report will suggest a suite of SA indicators and a framework for monitoring.

Quality Assurance

A quality assurance checklist has been prepared and is presented in Appendix E, highlighting compliance with the SEA Directive.

4.15 **Next Steps**

Doc Reg No. L20904/R019

This SA Report is issued for consultation alongside the Birmingham Plan: Emerging Core Strategy.

Consultation will last for 6 weeks from XXX to XXX. Following receipt of comments on these documents, a draft Submission version of the Birmingham Plan will be prepared which will in turned be appraised against the SA Framework.





Appendix A Sustainability Appraisal Framework









SA Objective	Appraisal Questions	Indicator	Target	Topic
Use natural resources such as water and minerals efficiently	Does it incorporate energy efficiency measures into new land use and developments, redevelopment and	Production of primary won aggregates (AMR)	No target identified	Resource Use
	refurbishment? Does it promote and support resource	Production of secondary/recycled aggregates (AMR)	No target identified	
	efficient technologies? Does it reward efficient resource use? -Will it reduce water consumption?	Water supply Domestic water consumption - litres/ head/ day	Enhance water supply by 5% over next 20 years (Water Resources for the Future)	
2. Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations	Does it help reduce dependence on fossil fuels? Will it increase the number of buildings which meet recognised standards for sustainability?	Number of buildings meeting Code for Sustainable homes/BREEAM Standards	None found	Sustainable design, construction and maintenance
3. Encourage development of alternative and renewable resources	Does it help reduce dependence on fossil fuels? Does it promote and support the	Renewable energy capacity installed by type (AMR)	No target identified	Renewable Energy





SA Objective	Appraisal Questions	Indicator	Target	Topic
	development of new high value and low impact technologies, especially resource efficient technologies and environmental technology initiatives? Does it increase the proportion of energy generated from renewable and low carbon sources, including micro generation, CHP, district heating and transportation?	Percentage of energy generated by renewable sources in Birmingham	Ensure 15% of energy use in Birmingham is from renewable sources by 2020. (Birmingham Climate Change Strategy and Action Plan Consultation) 5% of energy to be generated from renewable sources by 2010 and 10% by 2020 (Regional Energy Strategy) 10% of electricity to be supplied from renewables by 2010/11, with an aspiration to double this by 2020. (UK Sustainable Development Strategy)	
Reduce overall energy use through energy efficiency	Will It reduce energy consumption?			Energy Efficiency
5. Increase use of public transport, cycling and walking as a proportion of total traval and angure	Does it reduce road traffic congestion, pollution and accidents?	Net additional dwellings in the City Centre (AMR)	No target identified	Sustainable Transport
of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure	Will it encourage walking and cycling? Does it help to reduce travel by private car? Does it promote accessibility for disabled people?	Percentage of new residential development within 30 mins public transport time of a GP, hospital, primary and secondary school, employment and a major shopping centre (AMR)	By 2011, increase by 50% the total population within 30 minutes inter-peak travel time of a main NHS hospital by 'accessible' public transport compared to 2005 (West Midlands Local Transport Plan)	
		Percentage of trips by public transport into Birmingham City Centre (AMR)	No target identified	
		Percentage of completed retail, office and leisure development in town centres (AMR)	No target identified	





SA Objective	Appraisal Questions	Indicator	Target	Topic
		Number of people killed or seriously injured in road accidents in Birmingham Number of children killed or seriously injured in road accidents in Birmingham	Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40% and the number of children killed or seriously injured by 50% by 2010 compared with the average for 1994-98 (Transport White Paper, The Future of Transport)	
		Crime levels on public transport	Improve actual and perceived safety while travelling on public transport by 10% by 2010 (West Midlands Local Transport Plan)	
		Cycling index	Increase the cycling index by 1% by 2010 (West Midlands Local Transport Plan)	
		Car use in the city centre	By 2020, reduce car use in the city centre by 20% (compared with 2000 levels) (Local Transport Plan Visions)	
		Car use outside the inner ring road	By 2020, reduce car use outside the inner ring road by 14% (compared to 2000) levels (Local Transport Plan Visions)	
		Road traffic mileage	Limit the increase in road traffic mileage to no more than 7% between 2004 and 2010 (West Midlands Local Transport Plan)	
		Number of public transport vehicles accessible to disabled people	No target identified	
6. Ensure development reduces the need to travel	Will it reduce traffic volumes? Will it reduce average journey length?	Increase in road traffic	No more than a 7% increase in road traffic mileage between 2004 and 2010 (Local Transport Plan)	Reduce the need to travel
		Work Place Travel Plans	30% of all employees to work in organisations committed to work place travel plans by 2011	



Appendix A



SA Objective	Appraisal Questions	Indicator	Target	Topic
		Number of people working from home	No target identified	
7. Encourage and enable waste minimisation, reuse, recycling and recovery	Does it divert resources away from the waste stream, including the use of recycled materials where possible?	Capacity of new waste management facilities by type (AMR)	No target identified	Waste Reduction and Minimisation
		- Amount of municipal waste arising, and managed by management type, and percentage each management type represents of the waste managed (AMR)	Aim to be better than average, by reducing or exhibiting less growth in household waste relative to the average authority in England, year on year (Municipal Waste Management Strategy)	
			Aim to be consistently better than average, but reducing or exhibiting less growth in household waste relative to the average authority in England (Municipal Waste Management Strategy)	
		Percentage of household waste not re-used, recycled or composted	Reduce the amount of household waste not re-used, recycled or composted by 29% by 2010 (Waste Strategy 2007)	
		Percentage of household waste sent for recycling	24% of household waste to be recycled by 2008/0. 30% target by 2009/10 (LAA)	
		The percentage of people expressing satisfaction with household waste collection	56% of residents to be satisfied with recycling facilities by 2008/9	
		Percentage of residents satisfied with recycling facilities	Recycle and/or compost 40% of household waste by 2010, 45% by 2015 and 50% by 2020 (Waste Strategy 2007)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
		Amount of recycling infrastructure	To develop recycling infrastructure to secure sustainable markets for all collected recyclable materials for the duration of this strategy (to 2026) (Municipal Waste Management Strategy)	
8. Encourage land use and development that optimises the use of previously developed land	Will it encourage the efficient use of land and minimise the loss of greenfield land?	Percentage of employment land, by type which is on previously developed land (AMR)	No target identified	Efficient use of land
and buildings	Will it value and protect the biodiversity/geodiversity (of previously developed land and buildings)?	Percentage of new and converted dwellings on previously developed land (AMR)	No target identified	
		Percentage of new dwellings completed at:	No target identified	
		(i) less than 30 dwellings per hectare;		
		(ii) between 30 and 50 dwellings per hectare;		
		(iii) above 50 dwellings per hectare. (AMR)		
		BV106 New homes on previously developed land	No target identified	
		Ecological surveys/supporting information provided to support development on previously developed land and buildings	100% of planning applications consider biodiversity/geodiversity	
9. Minimise Birmingham's contribution to the causes of	Will it reduce emissions of greenhouse gases by reducing energy consumption?	Carbon dioxide emissions	Reduce carbon dioxide emissions by 60% by 2050 (Energy White Paper)	Reduce climate change
climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources	Consumption?		Reduce carbon dioxide emissions by 60% by 2050 with real progress by 2020 (UK Sustainable Development Strategy)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
			Reduce carbon dioxide emissions by 20% below 1990 levels by 2010 (UK Sustainable Development Strategy)	
		Greenhouse gas emissions	Reduce greenhouse gas emissions by 12.5% below base year levels over the period 2008-2012 (UK Sustainable Development Strategy)	
		Household carbon dioxide emissions	By 2011, reduce by 26% the total annual household carbon dioxide emissions for Birmingham (Community Strategy)	
10. 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	Will it minimise the risk of flooding from rivers and watercourses to people and property? Will it reduce the risk of damage to property from storm events? Will it protect, enhance and extend green infrastructure resources? Will it address climate change adaptation for biodiversity fragmentation?	Number of planning permissions granted contrary to the advice of the Environment Agency on either flood defence grounds or water quality	No target identified	Manage Climate Change
11. Encourage land use and development that creates and sustains well-designed, high quality	Will it improve the satisfaction of a diverse range people with the neighbourhoods where they live?	Percentage of eligible open spaces managed to "green flag award" standard	By 2009. double the number of Green Flag parks from 3 to 6 (Community Strategy)	Sense of Place
•		Provision of open space: (i) Net loss/gain in amount of public open space and public and private playing fields; (ii) Percentage of new dwelling completions within reasonable walking distance of public open space	No target identified	





SA Objective	Appraisal Questions	Indicator	Target	Topic
		The percentage of sites with unsatisfactory levels of (combined) litter and detritus	By 2008/9, only 12% of sites will be of an unsatisfactory level (LAA)	
		Neighbourhood element indicator for percentage of sites with unsatisfactory levels of (combined) litter and detritus	No target identified	
		'Closing the Gap' – The gap between the identified Districts (Sparkbrook, Hodge Hill and Perry Barr) and the City average for the percentage of sites with unsatisfactory levels of (combined) litter and detritus	Annual reduction of 5% (LAA)	
		Percentage of people who would like to remain living in their neighbourhood Gap between people from equalities groups and the average percentage of people who would like to remain living in their neighbourhood	By 2009, increase by 15% the percentage of people who would like to remain living in their neighbourhood (Community Strategy)	
		Provision of open space: no home should be more than 300m from accessible natural green space	100% of planning applications meeting ANGSt	
		Amount of GI created per ha of development	100% of development provides GI	
12. Value, protect, enhance and restore Birmingham's built and historic environment and landscape	Will it protect and enhance features of built and historic environment and landscape?	None found	No target identified	Built and Historic Environment





SA Objective	Appraisal Questions	Indicator	Target	Topic
13. Value, protect, enhance and restore Birmingham's natural landscape	Will it safeguard and enhance the character of the local landscape and local distinctiveness?	None found	None found	Natural Landscape
	Will it improve the landscape quality and character of the countryside?	Number of planning applications including a landscape appraisal	100% of planning applications with a landscape appraisal	
14. Value, protect, manage, restore and re-create local biodiversity and geodiversity	Does it use approaches that improve the resilience of natural systems such as linking fragmented habitats where possible? Will it conserve and enhance natural/semi-natural habitats and conserve and enhance species diversity? Will it lead to habitat creation delivering BAP priorities?	Change in areas and populations of biodiversity importance, including: (i) change in priority habitats and species (by type); and (ii) change in areas designated from their intrinsic environmental value including sites of international, national, regional or sub-regional significance (AMR)	No loss of SSSIs Maintain current extent of other Priority Habitats (RSS) Birmingham and Black Country Biodiversity Action Plan Targets (various)	Biodiversity
		Populations of Wild Birds (Working with the Grain of Nature)	No target identified	
		Condition of SSSIs (Working with the Grain of Nature)	95% the SSSI area in recovering or favourable condition (FC) by 2010 (Government's Public Service Agreement (PSA) target)	
		Biological quality of rivers (Working with the Grain of Nature)	Specific River Quality Objective Targets (Environment Agency)	
		Area of BAP habitats created	Number of BAP priorities created	
15. Minimise air pollution levels and create good quality air	Will it improve air quality? Will it reduce CO2 emissions?	Number of publicly available long stay parking spaces in the City Centre	Reduce the number of publicly available long stay parking spaces in the City Centre by 1.5% per year (Air Quality Action Plan)	Air Quality





SA Objective	Appraisal Questions	Indicator	Target	Topic
		Nitrogen dioxide levels	By 2011, reduce the average nitrogen dioxide level by 1% in areas where nitrogen dioxide exceeds the national objective compared to 2004/05 (West Midlands LTP)	
16. Minimise water pollution levels and create good quality water	Will it improve water quality?	Number of planning permissions granted contrary to the advice of the Environment Agency on either flood defence grounds or water quality (AMR)	No target identified	Water Quality
		Biological quality of rivers (Working with the Grain of Nature)	Specific River Quality Objective Targets (Environment <i>Agency</i>)	
		Percentage of water bodies classified as being of 'good ecological status'	All water bodies to reach 'Good Ecological Status' by 2015 (Water Framework Directive)	
17. Minimise soil pollution levels and create good quality soil	Will it maintain and enhance soil quality? Will it minimise the loss of soils to development?	Area of contaminated land		Soil Quality
18. Minimise noise pollution levels	Will it cause noise pollution? Are mitigation measures proposed to minimise noise pollution?	Road traffic surveys		Noise
Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example	Does it encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods?	Percentage of people who feel they can influence decisions affecting the local area	By 2009, increase by 63% the percentage of people who feel that they can influence decisions affecting the local area (Community Strategy)	Social and Environmental Responsibility
	Will it encourage good employee relations and management practices? Will it encourage ethical trading?	Geographic coverage of community neighbourhood forums	By 2009, increase by 15% (to 75%) the geographic coverage of community neighbourhood forums (Community Strategy)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
		Membership of community networks and associations	By 2009, increase by 50% (to 12,000) the membership of community networks and associations (Community Strategy)	
		Percentage of citizens who are active citizens or volunteers	By 2009, increase by 18-30% the percentage of citizens who are active citizens or volunteers (Community Strategy)	
		Percentage of companies with live Travel Plans that are actively managed	Increase in the percentage of companies that have Travel Plans	
20. Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of	Does it encourage and support a culture of enterprise and innovation, including social enterprise?	Amount of land developed for employment by type (AMR)	No target identified	Economy and Equality
Birmingham's inhabitants	Will it improve business development and enhance competitiveness? Will it promote growth in key sectors? Will it reduce unemployment, especially	Employment land supply by type (AMR)	No target identified	
		Loss of employment land to other uses (AMR)	No target identified	
amongst disadvantaged g	amongst disadvantaged groups?	Percentage of new businesses created and demonstrating growth after 12 months in the 11 priority wards	By 2009, increase by 75% the number of new businesses created and demonstrating growth after 12 months in the 11 priority (high deprivation and high BME) wards compared to 2005/06) (Community Strategy)	
		Percentage difference between the Job Seeker's Allowance unemployment rate in the 11 most deprived priority wards and the city average	By 2009, reduce by 19% the difference between the Job Seeker's Allowance, unemployment rate in the 11 most deprived priority wards and the city average (Community Strategy)	
		Percentage difference between the Job Seeker's Allowance unemployment rate in the 5 wards with the highest unemployment and the city average	By 2009, reduce by 12% the difference between the Job Seeker's Allowance unemployment rate in the 5 wards with the highest unemployment and the city average (Community Strategy)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
		Percentage of new businesses created and demonstrating growth after 12 months in the 11 priority wards	By 2009, increase by 75% the number of new businesses created and demonstrating growth after 12 months in the 11 priority wards compared the 2005/06 (Community Strategy)	
21. Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development	Does it 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?	Number of working age adults achieving basic skills qualification in the 11 priority wards	By 2009, increase by 250% (to 7,415) the number of working age adults achieving basic skills qualification in the 11 priority (high deprivation and high BME) wards compared to 2003/04 (Community Strategy)	Learning and Skills
	of unpaid work?	Number of working age adults achieving NVQ Level 2 qualification in the 11 priority wards	By 2009, increase by 28% (to 6,602) the number of working age adults achieving NVQ Level 2 qualification in the 11 priority wards compared to 2003/04 (Community Strategy)	
		Number of working age adults achieving NVQ Level 3 qualification in the 11 priority wards	By 2009, increase by 16% (to 4,077) the number of working age adults achieving NVQ Level 3 qualification in the 11 priority wards compared to 2003/04 (Community Strategy)	
		Percentage of 16 year olds achieving at least 5 A*-C GCSE or equivalent	By 2008/9, the percentage of 16 year olds achieving at least 5A*-C GCSE or equivalent will be 60% (LAA)	
		Percentage of 16 year olds achieving 5 or more GCSEs with grades A* - G or equivalent (including English, and Maths	By 2008/9, the percentage of 16 year olds achieving at leas 5A*-G or equivalent (including English and Maths) will be 91%(LAA)	
		Proportion of 19 year olds who achieve at least NVQ Level 2	By 2008/9,the percentage of 19 year olds who achieve at least NVQ Level 2 will be 69%(LAA)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
22. Enable communities to influence the decisions that affect their neighbourhoods and quality of life	Does it encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods?	Percentage of people who feel that they can influence decisions affecting the local area	By 2009, increase by 63% the percentage of people who feel that they can influence decisions affecting the local area (Community Strategy)	Community Involvement
	Will it encourage engagement in community activities for example through the establishment of social and cultural facilities that address the needs of equalities groups?	Percentage of geographic coverage of community neighbourhood forums	By 2009, increase by 15% (to 75%) the geographic coverage of community neighbourhood forums (Community Strategy)	
	Will it increase the ability of people to influence decisions?	Membership of community networks and associations	By 2009, increase by 50% (to 12,000) the membership of community networks and associations (Community Strategy)	
		Percentage of citizens who are active citizens or volunteers	By 2009, increase by 18-30% the percentage of citizens who are active citizens or volunteers (Community Strategy)	
23. Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning	Does it promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?	The difference between the JSA unemployment rate in the 5 wards with the highest unemployment and the city average	Target of 11% by 2008/9 (LAA)	Equality
	Does it ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location?	The average length of stay temporary accommodation (Gender Equality Scheme)	By 2008/9 the total will be 250 (36% reduction)	
		The number of hate crimes committed in Birmingham	A target of 1,630 is proposed for 2008/9 (5% reduction) (LAA)	
24. Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage	Does it promote environmental justice, recognising that deprived areas and disadvantaged communities are more	Children in poverty (Tackling Health Inequalities: A Programme for Action)	No target identified	Poverty
	likely to be affected by environmental damage and degradation? Does it reduce household poverty, especially the proportion of children living in poor households?	Homeless families living in temporary accommodation (Tackling Health Inequalities: A Programme for Action)	By 2009, reduce by 36% the number of people and families accepted as homeless (Community Strategy)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
25. Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health	Does it help provide equitable access to health services? Will it provide sufficient areas of accessible natural greenspace?	Consumption of fruit and vegetables (Tackling Health Inequalities: A Programme for Action)	No target identified	
		Proportion in non-decent housing (Tackling Health Inequalities: A Programme for Action)	No target identified	
		Percentage of 5-16 year olds undertaking moderate physical activity	By 2009, increase percentage of 5-16 year olds undertaking moderate physical activity by 26%	
		- Infant mortality - Life expectancy at birth	By 2010 reduce the inequalities in health outcomes by 10% as measured by infant mortality and life expectancy at birth (Tackling Health Inequalities: A Programme for Action)	
		Gap between the areas with the worst health and deprivation indicators and the population as a whole	By 2010 reduce by at least 10% the gap between the areas with the worst health and deprivation indicators and the population as a whole (Tackling Health Inequalities: A Programme for Action)	
		Gap in mortality between routine and manual groups and the population as a whole	Starting with children under one year, by 2010 reduce by at least 10% the gap in mortality between routine and manual groups and the population as a whole (Tackling Health Inequalities: A Programme for Action)	
		- Number of people killed or seriously injured in road accidents in Birmingham - Number of children killed or seriously injured in road accidents in Birmingham	Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40% and the number of children killed or seriously injured by 50% by 2010 compared with the average for 1994-98 (Transport White Paper, The Future of Transport)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
		Number of planning applications meeting ANGSt	100% of planning applications meeting ANGSt	Health
26. Reduce crime, fear of crime and antisocial behaviour	Will it reduce crime? Will it reduce the fear of crime amongst all social and cultural groups?	The number of personal robbery crimes committed in Birmingham	By 2008/9 reduce robbery of personal property to total of 5,065 per year (11% reduction) (LAA)	Crime
		The number of Burglary dwelling crimes committed in Birmingham	By 2008/9 reduce residential burglary to 9,493 incidents per year (22% reduction) (LAA)	
		Common assault rates	Reduce common assault by 20% (Community Safety Strategy)	
		Amount of theft from person	Reduce theft from person by 22% (Community Safety Strategy)	
		Amount of woundings (serious and other)	Reduce woundings (serious and other) by 18% (Community Safety Strategy)	
		Recorded crime rates	Reduce total recorded crime by 20% (Community Safety Strategy)	
		Number of children and young people under 18 who are victims of crime	By 2009, reduce by 2% the number of children and young people under the age of 18 who are victims of crime (Community Strategy)	
		Number of arson vehicle crimes	By 2009, reduce the number of arson vehicle fires by 33% (compared to 2003/04) (Community Strategy)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
27. Provide decent and affordable	Will it reduce homelessness?	Housing trajectory showing:	No target identified	Housing
housing for all, of the right quantity, type, tenure and affordability to meet local needs	affordability of housing for all social and cultural I groups?	(i) net additional dwellings over the previous five year period or since the start of the relevant development plan document		
	homes?	period, whichever is longer; (ii) net additional dwellings for the current year;		
		(iii) projected net additional dwellings up to the end of the relevant development plan document or over a ten year period from its adoption, whichever is the longer;		
		(iv) the annual net additional dwelling requirement; and		
		(v) annual average number of net additional dwellings needed to meet overall housing requirements, having regard to previous years' performances (AMR)		
		Affordable housing completions (AMR)	No target identified	
		Reduction in vacancies in the existing housing stock (AMR)	No target identified	
		Number (or proportion) of Lifetime Homes constructed	No target identified	
		Length of stay in temporary accommodation (hostel)	By 2008/9, the average stay in temporary accommodation will be 60 days (63% reduction on 04/05) (LAA)	





SA Objective	Appraisal Questions	Indicator	Target	Topic
28. Improve opportunities to participate in diverse cultural, sporting and recreational activities	Will it encourage participation in sport and cultural activities for all the diverse communities in Birmingham?	Percentage of residents satisfied with musems and galleries	By 2009, increase by 7% the percentage of residents satisfied with museums and galleries (Community Strategy)	Culture/Sport/Recreation
		Percentage of residents satisfied with library services	By 2008/9, 55% of residents will be satisfied with library services (LAA)	
		Percentage of residents satisfied with theatres and concert halls	By 2009, increase by 6% the percentage of residents satisfied with theatres and concert halls (Community Strategy)	
		Percentage of 5-16 year olds undertaking moderate physical activity	By 2009, increase the percentage of 5-16 year olds undertaking moderate physical activity by 26% (Community Strategy)	
		Percentage of children achieving Key Stage 2 standard for swimming by age 11	By 2009, double the percentage of children achieving Key Stage 2 standard for swimming (25m) by age 11 (Community Strategy)	
		Gap between 5-15 year olds from equalities groups undertaking moderate physical activity and the average	No target identified	





Key sustainability issues from the Interim Sustainability Appraisal of Issues and Options (based on SA themes)

Key Sustainability Issues	Key Recommendations	Comments
Spatial Vision and Objectives	Recommendation 1: Amend the spatial vision to more explicitly identify the need to deliver both adaptation to and mitigation of future climate change	In line with recommendation 1 the spatial vision now reflects the target for a 60% reduction in CO 2 emissions by 2026 and refers to the need to be resilient to climate change.
	Recommendation 2: Revise wording to spatial objective 2 to reflect climate change adaptation, mitigation and an efficient use of resources	Objective 2 has been revised not to recommended text but does encourage more sustainable growth with particular aims to minimise CO2 emissions.
Natural Resources and Waste	Recommendation 3- The Core Strategy will need to include policies which link with existing policy tools for delivering sustainable development, including the	In line with recommendation 3 Core policy SP7 specifically requires development to accord with the code for sustainable homes, with a minimum 3 star rating in relation to water and energy/ cO2 consumption. Similarly for commercial developments they need to meet BREEAM standards.
	Code for Sustainable Homes, and include requirements for an efficient use of resources (minerals, water and land), minimise waste and maximise recycling:	
	In addition, the provision of a phasing policy to ensure that the development of vacant/underused or derelict brownfield land has priority over the release of greenfield land is considered important.	
Carbon Dioxide emissions	Recommendation 4: Consider how CO2 emissions can be reduced by reducing the need to travel and achieving a modal shift.	Policy SP35 supports measures which seek to ensure that the most sustainable choices are also the most convenient in accordance with this recommendation.
	Recommendation 5: Make provision for zero and low carbon energy systems and infrastructure at a 'strategic' scale.	Policies SP5 on reducing the city's carbon footprint, SP9 on A low Carbon Economy and SP14 on Central Technology Belt seek to encourage the provision of zero and low carbon energy systems.
	Recommendation 6: Increase energy efficiency within the built environment and providing for on-site renewables Recommendation 7: Understand Birmingham's potential to deliver zero and low carbon energy infrastructure at the strategic level	Core policy SP7 specifically requires development to accord with the code for sustainable homes, with a minimum 3 star rating in relation to water and energy/ cO2 consumption. Similarly for commercial developments they need to meet BREEAM standards.
		Policy SP8 seeks to work with key partners to identify and support the delivery of low carbon energy generation.
		Policy SP3 Quality of life seeks to ensure amongst other things that growth takes place while taking account of the likely effects of climate change.





Key Sustainability Issues	Key Recommendations	Comments
Climate Change adaptation	Recommendation 8: Consider the impacts of climate change at a 'strategic' level to enable appropriate responses in Core Strategy Recommendation 9: Provide a core policy which ensures that new developments are resilient to climate change impacts	Policy SP6 sets out the overall approach to adapting to climate change. Other policies such as SP10 address flood risk informed by the SFRA.
Historic Environment, Landscape, Biodiversity and Geodiversity	Recommendation 10: Provide core policies for the protection and enhancement of the historic environment, landscape, biodiversity and geodiversity.	In response to recommendation 10 the Core Strategy has provided policies SP49 on Biodiversity and Geology and SOP 50 on Archaeology and historic environment which seek to protect these issues.
	Recommendation 11: Consider landscape capacity within and on the edge of the City to accommodate new development	Recommendation 11- It is not apparent from the emerging Core Strategy document that this topic has been addressed.
	Recommendation 12: Consider how biodiversity could be enhanced at a strategic level	Policy SP49 addresses biodiversity including the intention to prepare a biodiversity opportunities map. Policy SP11 sets out an approach to Green Infrastructure
Pollution	Recommendation 13: Provide a Core Strategy policy/policies requiring development proposals to demonstrate their impacts on air quality, noise, water quality and	Policy SP53-Air Quality, and SP54 Noise have been provided. It is not apparent from the emerging Core Strategy that these topics have been considered.
Economic Growth	Recommendation 14: Develop a Core Strategy policy which seeks to protect sufficient employment land to provide a diversity of supply in locations which meet the needs of local communities	Policy SP12 and Policy SP16 seek specifically to retain core employment areas to ensure there is enough land to meet the areas needs in accordance with these policies.
Communities Healthy Lifestyles and Equalities	Recommendation 15: Consider the capacity of existing services and facilities, the demand associated with new growth and the potential for a CIL type approach to securing funding for future improvements	Policy I1 sets out a mechanism securing infrastructure funding and a commitment to prepare an Infrastructure Delivery Plan
Housing	Recommendation 16: Within the allocation of housing, pay close attention to local needs, perhaps through area-specific policies which reflect the character of the locality which will be receiving housing growth.	Policies SP23 and SP24 disperse the housing across the area. SP25 and SP26 seek to carefully consider the location of the housing and that the housing meets the needs in terms of type and size.





Appendix B

Equalities Impacts: Strategic Policies









Introduction

This commentary on Birmingham's emerging Core Strategy sets out the potential impact of the Strategy on equalities groups. It also explores the impact on people living in deprived areas who may be disadvantaged. This is an initial commentary and is meant to guide further versions of the Strategy. It is not of itself an Equalities Impact Assessment as it has not included a period of consultation on this Strategy, although there have been previous consultations on the various options.

Equalities forms one of the 28 Sustainability Objectives used to appraise the Core Strategy, i.e.:

• Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.

There are two Guide Questions used to examine the policies in more detail:

- 1. Will the policies promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?
- 2. Will the policies ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location?

The following comments form an overview of potential equalities impacts and impact on people living in deprived neighbourhoods for the City-wide section of the Strategy. A number of discussion questions are contained at the end of each section to guide consultation. At this stage comments regarding impacts have not been verified by detailed analysis of relevant data. Footnotes are included where more data should be provided in order to support the assessment and this will be taken account of in finalising the Equalities Impact Assessment.

Growth

The Strategy's policies pertaining to growth are overarching ones that underpin more detailed policies in the Core Strategy. The promotion of Birmingham as a Global City has the potential to benefit all Birmingham residents, workers and visitors by encouraging investment in high quality manufacturing companies, supporting the development of major new tourist attractions, improving public transport, promoting the growth of further and higher education, and providing a high quality residential environment. The Core Strategy looks at the spatial implications of the plans for new growth, including additional dwellings, land for employment, retail and office development. Investment in high technology industries will require high level skills, attracting in-migration into the city, with a consequent demand for housing, services and better transport. Some equalities groups already living in Birmingham, such as Black and minority ethnic residents and disabled residents, are more likely to have a history of disadvantage and discrimination in the job market and may not attain these new jobs²³. Furthermore

²³ Statistics comparing employment rates and higher level qualifications by ethnicity.





some residents living in deprived areas may have lower educational attainment and a lower skill level²⁴ and will not compete well for the higher level jobs.

The Strategy seeks to ensure that there is an adequate amount of housing to meet demand from growth. But the overarching policies are not explicit on how existing poorer communities will benefit from new housing as this will depend on how housing allocation policy is implemented. Although it is recognised that Sustainable Urban Neighbourhoods (SUNs) will be located on brownfield sites in regeneration areas, it is uncertain how existing communities will benefit.

Discussion question:

• How can the Growth policies be more explicit on how existing poorer communities will benefit from the overall growth, and in particular, from the creation of SUNs?

Climate Change

The desire to reduce the City's carbon footprint demonstrates a commitment to tackle climate change. Planning policies that help residents reduce their personal carbon footprint may have a beneficial personal impact on their lives e.g. through lower energy costs and increased access to public transport. We recognise the creation of SUNs will contribute to this, but this may not impact on existing communities, including those living in deprived neighbourhoods. The use of CHP could save energy and benefit customers if the energy savings were passed on. However, the CHP policy seems to apply to new developments; it would seem that 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.

Jobs and investment in new technologies to reduce the use of fossil fuels and carbon dioxide emissions as well as new technologies for waste treatment could provide new job opportunities. In order to have a positive benefit for lower skilled and unemployed people, many of who come from equalities groups and/or deprived neighbourhoods, it will be important to provide a route to these job opportunities.

The promotion and enhancement of a network of green spaces and corridors has the potential to impact on people's health and wellbeing. This could have a beneficial impact on equalities groups if publicity targeted non-traditional users of such spaces by producing leaflets in different languages, encouraging City Council partners to promote these spaces to older people, disabled people and those living in deprived neighbourhoods by funding a programme of healthy walks.

Discussion questions:

• Is there potential to connect municipal housing estates to CHP and give consumers lower energy bills?

²⁴ Statistics comparing educational attainment by ethnicity; and attainment by wards.





• Although not spatial policies, how far can this Strategy mention implementation by partners such as Jobcentre Plus, the Local Enterprise Partnership (LEP) and health partners?

Employment

Proposals to retain and protect core employment areas, to develop regional investment sites, and to maintain a portfolio of employment sites may be beneficial to unemployed people and equalities groups who experience high levels of unemployment. Indeed the Strategy recognises the need to create employment sites close to areas of deprivation and high unemployment e.g. East Aston. However, benefits will only be gained if pathways to employment opportunities offered on these sites are created to help unemployed people to gain job opportunities. Sites for high technology development will create opportunities for diversifying the economy away from a traditional reliance on the motor manufacturing industry. However, these are likely to be highly skilled jobs which are unlikely to be available to existing lower skilled workers²⁵. The policy may not offer more employment opportunities to those already at a disadvantage in the labour market. This is rightly a matter for Jobcentre Plus and the emerging Local Enterprise Partnerships, and these bodies should be laying out skills plans to address how these new opportunities will benefit equalities groups and others who are disadvantaged in the labour market.

Discussion question:

• How can the employment policies demonstrate how they might benefit equalities groups and those with lower skill levels?

Centres

The policies relating to Centres propose the creation of a network and hierarchy of centres - from the City Centre of regional importance - to neighbourhood centres with local shops and smaller supermarkets. The network of Centres will be the preferred location for retail, office, entertainment and community facilities. The policies mainly focus on retail and office development, with policies on sport, leisure and community facilities coming later in the Strategy. The City Centre is clearly a regional centre, serving the City and beyond. The Strategy refers to the Council's Local Centres Strategy and the Retail Needs Assessment, but it is not clear from this Core Strategy why the locations from the sub-regional and District Centres have been selected, and there is no analysis of accessibility to these major centres from all parts of the City²⁶.

²⁶ Need an accessibility analysis – are there any areas where residents will have considerably further to travel by public transport (in time) to a district centre? Are any of these areas deprived areas and/or areas where BME population is concentrated? The EQIA of the Centres Strategy might give the answers to this.



²⁵ Skill levels in areas adjacent to designated employment areas and regional investment sites compared to overall skill levels in Birmingham.



Gap areas for convenience retail shopping have been identified, and some of these are in areas which serve a concentration of the BME population e.g. Handsworth. The Strategy acknowledges that the development of large supermarkets is not necessarily the best solution within these gap areas, and that proposals for addressing local needs will be paramount. However, the existing retail commitments in these gap areas are all for major supermarkets.

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 entirely on implementation. The Retail Needs Assessment has identified a deficiency of independent retailers in the City Centre but does not state whether this is true across the whole City. The pilot Retail Development Programme has supported independent retailers in the City by providing financial assistance, business support and advice, and this is proposed to be continued. A reference is made to meeting demand for small retail units in the niche shopping areas such as Alum Rock and the Soho Road, which both serve a niche Asian market. Independent retailers are more likely to understand local specialist demand e.g. those serving a niche market for particular BME groups. However, there does not seem to be a clear proposal for working to promote and support more independent retailers in these areas.

The Strategy proposes non-retail uses be permitted where the retail vitality of a centre is not undermined and mentions areas where additional non-retail users will be controlled. There are other issues to be considered in assessing permissions for non-retail uses, especially in relation to hot-food takeaways. These can encourage unhealthy eating, but on the other hand often provide local employment.

Discussion questions:

- Should there be more analysis of the accessibility to the larger centres focused on equality?
- Should there be a stronger policy to encourage small independent retailers in deprived neighbourhoods and areas of BME concentration?
- Should there be a stronger set of criteria for limiting/allowing the permission of non-retail uses?

Housing

The City's housing requirement is 50,600 additional dwellings over a twenty year period to 2026. The Strategy sets out how that will be delivered in spatial terms. It sets out the distribution of housing within four sub areas but in this part of the Strategy concentrates on housing supply. In this chapter there is no analysis of housing need in the four sub areas and therefore it is difficult to comment from a equalities point of view.

Plans for the demolition, regeneration and refurbishment on municipal housing estates should impact positively on lower income households, many of whom will come from equalities groups²⁷, if better housing is provided. This

²⁷ Statistics on percentages of those living on municipal housing estates by ethnicity, disability, lone parents – compared to rest of population.





policy needs to be made more explicit since a one to one replacement of social housing on these estates will perpetuate the tracts of social housing rather than creating a 'balanced' community with a mix of tenures. However, if a mix of tenures is provided, there could be a net loss of dwellings in social housing tenure.

It is noted that all new development will 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 Strategy. However, new housing developments 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.

The Strategy sets out the ratio of affordable housing on new residential developments with a higher ratio on land owned by the City Council's Housing and Constituencies Directorate, and a lower ratio on non-council owned land inside the city centre. The 2008 SHMA estimates that just over 40% of the City's overall housing requirement is for affordable housing. The Strategy also refers to the fact that there is scope to set separate targets for social-rented and intermediate housing, but does not actually do so here. Setting a social-rented target both across the City and within more local areas would help to meet the demand from those most vulnerable in society.

The Strategy also refers to the specialist need for sheltered accommodation, supported housing, student accommodation and provision for Gypsies, Travellers and Travelling Showpeople (GTTS). Our comments are:

It is not clear from the policy on specialist housing e.g. sheltered housing, supported housing whether all should be affordable or just a proportion in accordance with the general ratio of affordable housing. Age restricted housing such as private residential developments for the over 50s would not necessarily all need to be affordable, but a proportion would need to be.

The policy regarding sites for purpose built student accommodation should be beneficial to students and residents alike since it should be better maintained for the students, and take the pressure for further family type accommodation from being converted to bedsits or shared accommodation.

A criteria based policy for assessing sites for GGTS is laid out which looks at the needs of the communities. It also refers to 'no significant adverse impact on the amenity of nearby residents'. The housing/sites needs for GGTS has been set out in the GTAA, in conjunction with Coventry City Council and Solihull MBC. A need for 19 permanent pitches has been identified, 16 of which are required before 2012. The Strategy identifies that this could be met through the allocation of two sites, but does not say where (Birmingham, Coventry, Solihull?). The Strategy also refers to the need for transit pitches and has identified a suitable site which it intends to refurbish. There is a reference to a larger site potentially being needed for travelling showpeople which will be assessed according to the criteria based policy. Providing these needs are met, the policy could be beneficial to GGTS, but as set out in the Core Strategy, this is uncertain.

Discussion questions:

- Can balanced communities be encouraged when municipal housing estates are renewed without a loss of social housing?
- Should there be a more explicit statement on encouraging community facilities to be developed within new housing areas of a certain size?





- Should the Strategy set a target for social-rented housing and if so, how should this be applied?
- Should sheltered accommodation and supported housing all be affordable?
- Do GTTS themselves agree with the needs assessment? Where should the sites be?
- Does there need to be more guidance to development control officers/councillors on the meaning of 'no significant adverse impact on the amenity of nearby residents'.

Design and Quality of New Housing and Residential Environment

The design policies should be, by and large, beneficial to particular equalities groups. The design of new homes to Lifetime Homes criteria should be beneficial to disabled and older people. The achievement of Secure by Design accreditation should help those more likely to be victims of crime, including women, BME people, lesbians, gay men, bisexuals and transgender people, and disabled people.

The policy relating to densities is difficult to interpret since it applies an 'at least' criterion rather than a limit. This could mean densities could be higher than those set. High densities could limit the proportion of family dwellings, particularly in the inner city and could affect BME households who tend to have larger household sizes than the average.

Improving and maintaining the existing dwelling stock, especially municipal housing stock should have a beneficial impact on those living there.

Connectivity

The Strategic Transport Network policy is related to the Regional Transport Strategy. Although there is a reference to the DfT's goal of promoting greater equality of opportunity for all citizens, with a desired outcome of achieving a fairer society, there is nothing in the strategic policy on how this might be implemented. There is little mention of how to improve the bus network or frequency, except for a small reference to undertaking a Strategic Bus Network Review. Buses are more frequently used by women and BME people, who are also less likely to have a driving licence²⁸. Furthermore they are an essential means to connect residential neighbourhoods to employment opportunities and the City and District Centres.

The accessibility standards for new development are useful, and make reference to improved accessibility for those living in retirement dwellings. However, given that the majority of older and disabled people do not live in retirement dwellings there might be a case for improving all these standards. It would be useful to define shops that 'provide a range of items' in terms of the Centres strategy (does this mean District Centres?). Furthermore a half

²⁸ True nationally – are there any Birmingham-wide statistics on modes of transport used by equality groups compared to overall?





hour frequency of public transport to the City Centre and to these larger centres seems rather a long time to wait if one is disabled, older, or has a number of children.

The policy aimed at helping to make walking easier, safer and more pleasurable e.g. by reducing street clutter, improving footpaths and signage would be extremely beneficial to all, but would especially benefit people with mobility restrictions and partially sighted or blind people.

Discussion questions:

- How can the bus network be improved to better serve deprived neighbourhoods in terms of routes and frequency?
- Are the frequency standards for new development adequate for disabled and older people?

Waste

The chapter on Waste refers to the Municipal Waste Strategy and the emerging Birmingham Total Waste Strategy which provide details on how the management of the City's waste will move it up the waste hierarchy. These strategies will deal with waste prevention, re-use and recycling/composting which all have consumer change implications, and will have equalities implications e.g. promoting the reduce, reuse and recycle message to specific equalities communities, and providing more recycling facilities for social housing. However, the chapter concentrates on the expansion, development and location of waste facilities rather than behaviour change. Children and young people, and those with respiratory problems are more likely to be affected by worsening air quality. 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 which may include air quality and noise and traffic disturbance. Policy SP44 does however provide a framework for controlling impacts. The creation of new 'urban quarries' which increase the recycling of construction and demolition waste, although ultimately aim to reduce landfill, may affect the more local populations. A demographic analysis of that population should be analysed to see if there are concentrations of equalities groups (e.g. a substantial BME population) compared to the rest of Birmingham.

Discussion question:

• Should there be more reference to changing the behaviour of residents to waste creation and disposal by campaigns, and if so how might those campaigns be targeted at specific equalities groups?

²⁹ G. Tamburlini, O. S. von Ehrenstein and R. Bertollini. *Children's health and environment: a review of evidence* in Environmental issue report No 29 (WHO Regional Office for Europe and European Environment Agency, 2002); Environmental Audit Committee: Fifth Report on Air Quality (House of Commons, 2010); The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (DEFRA, 2007).





Quality of Life

This group of policies covers access to open space, sports and the countryside. Setting out accessibility standards for open space is good, but disabled users may have additional requirements. The 400m access to smaller open spaces should be accessible to wheelchair users as far as possible. Open space and parks should be accessible for wheelchair users. There could be more detail on the quality of open space for disabled users. For example, public open space of two hectares or more should be able to accommodate the needs of disabled people e.g. Braille notices, accessible toilets, ramps and scented gardens.

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. We would like to see more proposals on how this policy might be implemented, particularly in relation to encouraging different groups of people to participate e.g. lone parents, faith communities, disabled people.

The Green Belt can be a space for healthy sport and recreation, and some of it is accessible to areas of deprivation. With regard to the Green Belt, we would like to see reference to the fact that modernisation of essential sports and recreational facilities which improves access for disabled people should be approved.

Discussion questions:

- Are the accessibility standards for open space sufficient for all equality groups?
- Should there be more mention of meeting the needs of different equality groups within the policies on open space, sport and recreation?

Design, environment and community facilities

The key principles for urban design should include more detailed points on accessibility for disabled people, and parents/carers, and also on community safety. Reference to Secure by Design and the appropriate guidelines on disability access would be useful. Cross referencing to policies that encourage walking and cycling as a transport mode should be included in SP48 as this will help tackle obesity and lead generally to a healthier lifestyle. A reference (either here or in SP52) on encouraging safe routes to school would be beneficial for school children.

The Strategy contains policies designed to minimise adverse air quality and noise impacts from new developments. SP53 on air quality is especially important for children and young people and for those with respiratory problems. Sensitive uses needs to be defined - presumably this means residential use and community facilities.

Discussion questions:

- Should there be additional design standards that would be beneficial for particular equalities groups?
- Should there be a definition of air quality and noise sensitive uses?



Conclusion

It is not generally possible to assess each policy's impact since in most cases this is dependent on implementation. Further detail on how the policies will be implemented in spatial terms will be contained in the area-based policies, and these will be analysed accordingly. Throughout the appraisal we have made comments on how policies could be made more explicit on how they might impact on equalities groups and those living in deprived neighbourhoods. It would be useful to use the discussion questions for consultation.









Appendix C

Equalities Impacts: Area Strategies and Policies









Introduction

This commentary on Birmingham's four area based strategies contained within the emerging Core Strategy sets out their potential impact on equalities groups. It also explores the impact on people living in deprived areas who may be disadvantaged. This is an initial commentary and is meant to guide further versions of the Strategy. It is not of itself an Equalities Impact Assessment as it has not included a period of consultation on this Strategy, although there have been previous consultations on the various options.

Equalities forms one of the 28 Sustainability Objectives used to appraise the Core Strategy:

Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning

There are two Guide Questions used to examine the policies in more detail:

- Will the policies promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?
- Will the policies ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location?

The following comments form an overview of potential equalities impacts and impact on people living in deprived neighbourhoods for the four area-based strategies. Not every development is mentioned, but developments where there are impacts on equalities groups and lower income households are highlighted. As the plans are not worked out in detail in this Strategy it is difficult to say how the developments will actually impact on equalities groups and those living in deprived neighbourhoods. Most proposals look as though they will benefit all but often to benefit equalities groups and lower income households requires targeting through specific programmes.

THE CITY CENTRE

The City Centre is contained within the A4540 ring road and is small in scale compared to the other three areas which are the subject of this strategy, but the scale of development is large.

Residential developments

In proportion to the existing population of around 30,000, the scale of residential development is large as the proposals are to develop 11,000 extra dwellings. This will be dominated by city-living apartments rather than affordable family dwellings, with developers providing affordable housing off-site. In order to assess the equalities impact it would be necessary to know where this affordable housing will be located and who it would benefit. It would benefit equalities groups and low income households if they could live closer to the heart of the city centre and benefit from sustainable and mixed use developments and services within walking and cycling distance.





Quarters

The development of seven 'quarters' are intended to build on their existing characteristics. While these quarters are intended to benefit the whole of the City, the developments in Ladywood and Highgate, both comparatively deprived areas with a high Asian population, will benefit these residents by the creation of more liveable family neighbourhoods.

Locations for growth and strategic allocations

Office and retail development will benefit the whole of the City and beyond rather than being focused on a particular community. The development of the High Speed Rail will enhance Birmingham's status as a Global City. For the developments to have a beneficial impact on equalities groups and low income households, there should be mention of they might benefit from these new employment opportunities, such as targeted job training and recruitment programmes.

NORTH AND WEST BIRMINGHAM

This area borders the City Centre in the south, Sandwell in the west and Walsall, Lichfield and North Warwickshire to the north. It is an area of contrasts, from the poorer inner city communities of Aston/Newtown to the relatively affluent area of Sutton Coldfield. Apart from the small City Centre area, it is the most ethnically mixed of the four areas in the Strategy. Formerly there was a strong manufacturing based economy but this has been declining, affecting economic prosperity and leading to high rates of worklessness in some areas. New job opportunities would help to address social deprivation and this could be incorporated into the objectives for the development of this area. North and West Birmingham will contribute 11,000 new homes, over half of which will be in the Greater Icknield Sustainable Urban Neighbourhood (SUN), and around 2000 in the Aston/Newtown/Lozells area. Aston will also contain a Regional Investment Site. Sutton Coldfield has been designated as a sub-regional centre, playing a leading role in Birmingham's growth.

Residential developments

Aston/Newtown/Lozells will be regenerated through significant development which should have a beneficial effect on this area which has high levels of worklessness, crime and poor housing, all indicators of social deprivation. The Area Action Plan identifies the need for affordable modern properties suitable for larger households. A large proportion of the development of new housing is planned to be regenerated from existing poor housing i.e. demolition. However, the Strategy states that this offers the opportunity to develop at higher densities so it is not entirely clear that the need for family housing will be met. Demolition and redevelopment of unpopular housing may have a negative impact on existing BME households and low income households if the opportunity is not available for them to be rehoused in affordable family dwellings.

The **Greater Icknield SUN** will provide sustainable living for new residents and will include family housing as well as high density accommodation. The proportion of affordable housing will presumably be set at 35%, but it is





uncertain how much of this will be for social housing. The Severn Trent Waterworks will become a vibrant centre with a young people's activity centre. However, it is difficult to say with certainty how the large scale development in Greater Icknield will benefit equalities groups and low income households since we do not know who will move there.

Employment areas

Tackling worklessness in the **Aston/Newtown/Lozells** area by linking local people to jobs and using S106 agreements to secure commitment to employment opportunities, such as local labour in construction projects, will have an obvious benefit to unemployed people in the area. Targeted employment strategies would need to target segments of the population where worklessness is most persistent, such as lone parents and disabled people.

Stimulating economic development through the development of the **Aston Regeneration Site** should provide local employment opportunities, particularly if S106 agreements require local job training. In order to have maximum impact on equalities groups, the S106 agreements should be invested in an organisation which has a track record in gaining job outcomes for equalities groups in this area.

Centres

Proposals for the **Perry Bar/Birchfield Centre** are primarily for additional retail and office space. Improvements to the retail experience will benefit local people, especially those without access to a car, since the rail service to the City Centre is infrequent. Improvements to access to pedestrians should make shopping a better experience for those with mobility problems and those with buggies. We also note that there will be improvements to the leisure and educational facilities.

More detailed plans for making **Sutton Coldfield** a sub-regional Centre are contained within the SPD. Hopefully S106 agreements can be used to benefit the community e.g. provision of community facilities.

Corridor development

The **A34** and **A41** and the Aston Expressway corridor developments offer public transport improvements. The development along the **A41** corridor will hopefully benefit local people of whom a high proportion are from BME communities. Development along the **Soho Road** in particular will benefit shoppers from Asian communities and BME owned retailers. It will be important to consult with the BME communities on the redevelopment of the Mohammed Ali site and to explore the potential for a community facility to be developed again.





EAST BIRMINGHAM

The area extends from the edge of the city centre out to the boundary with Solihull MBC and northwards to the boundary of the Sutton Coldfield constituency. It is predominantly residential with some areas of traditional manufacturing areas. In comparison to the other two areas outside of the City Centre (North and West, and South). It is characterised by a high proportion of terraced housing and a higher proportion of housing with central heating. Almost one third of the population is of Asian origin, mainly living in the inner city part of the area. There is a relatively high proportion of households with dependent children and indeed a high proportion of young people in the area. Unemployment is higher than the other two areas.

Residential developments

Four Sustainable Urban Neighbourhoods (SUNs) are planned at Bordesley Park, Stechford, Shard End and Meadway. As with all the proposed SUNs it will be important to ensure that existing communities benefit from new development in terms of access to new housing, community facilities and jobs, and that they integrate with existing communities and do not become isolated enclaves. Particular comments on the SUNs are:

- We acknowledge that the Shard End SUN will incorporate existing housing as well as providing new
 dwellings and that this will provide an opportunity for existing residents to enjoy the new community
 facilities developed within the SUN.
- It will be beneficial for displaced communities from the social housing sector to have the opportunity to be relocated within SUNs e.g. those displaced from unpopular housing stock in the **Meadway** area.
- The **Bordesley Park SUN** will involve the development of the Wheels Park site. The intention is to support the future operation and development of the Wheels Trust, which has a significant equalities implication since it is used by young people and includes some projects targeting disaffected young people. It will be important to integrate the SUN development with the surrounding, mainly Asian, population, and this should have a beneficial impact on the existing population if employment opportunities are made available to local people. The expansion of Heartlands Hospital may provide additional employment opportunities, and could have a beneficial impact for local residents if some of the jobs were targeted for local people through an employment and training programme.

It is noted that the proposed new development at **Yardley Sewage Works** will seek to broaden the range of accommodation as well as enhancing the local centres. These improvements should benefit residents of the newly redeveloped area of social housing. The proposed redevelopment of the **Lyndhurst Estate** should revitalise this deprived area; in particular new play facilities and an improved youth centre will benefit children and young people.

Employment areas

The proposed Environmental Enterprise District at **Tyesley** could have a beneficial impact on the employment prospects of local people if the new industries offered local labour schemes. There may be opportunities for social





enterprises to set up in the environmental business and these might also offer training opportunities to local unemployed people - is there scope for ESF funding for example? Likewise the refurbishment and redevelopment of the **Heartlands Industrial area** has the potential to offer employment opportunities to the surrounding population, mainly Asian.

Centres

The enhancement and improvement of the five Centres in East Birmingham should improve the retail offer, enhance the image of all five areas, and offer local employment. The siting of community facilities appropriate to the needs of the population should be encouraged. In particular a multi agency approach should be taken when planning community facilities in all these Centres, as is mentioned in the **Meadway Centre** proposal. **Small Heath** and **Alum Rock** serve an Asian market and the opportunity to enhance the niche offer, and encourage independent retailers should be emphasised as this would benefit BME owned businesses. As is mentioned in the **Erdington Town Centre** proposal, all Centres should act as a link to the surrounding areas which will benefit relatively isolated deprived areas, such as the Lyndhurst Estate.

Corridor development

Some of the Corridor developments offer improved public transport links (A38, A45 Coventry Road) which will benefit local people; there is a high proportion of East Birmingham residents who do not own a car. The development of the Balti Triangle (near the **Stratford Road**) as a visitor attraction will help the BME restaurant owners and workers. The promotion of business growth along the A38 (North) corridor could bring employment growth, along with training opportunities, which, if linked through targeted local training schemes, could provide employment and training opportunities to the residents of Castle Vale, a deprived area.

SOUTH BIRMINGHAM

South Birmingham consists of Edgbaston, Northfield, Selly Oak and parts of Hall Green constituencies. It is a relatively affluent area but has significant pockets of deprivation, mainly within the outer council housing estates in Kings Norton and Druids Heath. In fact there is a significant proportion of council rented accommodation (20%). Unemployment is lower than in the other three areas, but this masks higher unemployment in the deprived areas. There is significant employment in the health and education sectors. It has a higher proportion of white people than in the other three areas

Residential developments

There are three SUNs planned at Longbridge, Kings Norton Three Estates and Druids Heath. The **Longbridge SUN** is part of the redevelopment of the Longbridge Rover site and will consist of an urban eco-centre with 1,450 new homes, a new local centre, educational and community facilities, and considerable employment opportunities. The proposal does not state the proportion of social housing to be designated or where the new residents are likely





to come from and therefore the equalities and social impact is uncertain (although there are recommendations on how to take equalities issues forward in the Equality Impact Needs Assessment Report of the Longbridge Area Action Plan). The **Kings Norton Three Estates SUN** will involve some demolition of existing housing of mixed tenure. The percentage of affordable housing in the SUN is 50% but there is no mention of what proportion will be for social housing. How far the existing community will benefit from the redevelopment should be ascertained as regeneration does not always 'trickle down' to existing poor communities, but we assume that the developers will be working closely with the Community Development Trust, and that the development will create a legacy for the New Deal for Communities programme. We note that the SUN will include a new youth facility which should benefit young people. We have similar points to raise about the **Druids Heath SUN** in terms of how far existing residents will benefit from affordable new housing development, although we recognise that the plan includes new and improved school, shopping and community facilities which should benefit the existing community.

Employment areas

The most significant employment area in South Birmingham is the redevelopment of the **Longbridge Rover Plant** site which will offer considerable employment opportunities in the technology industry as well as new residential development. In all likelihood many of the job opportunities will attract highly skilled people in research and development which is unlikely to benefit lower skilled people. There is nothing in the plan about employment and training schemes targeting lower skilled and unemployed people, or indeed non-traditional employees, and perhaps there is scope within S106 agreements to establish such schemes e.g. women into technology. The same goes for the proposed high technology uses around the Birmingham Battery site in Selly Oak/Edgbaston. Selly Oak will remain a focus for medical facilities centred on the Queen Elizabeth Hospital and enhanced facilities at the Birmingham University. Education and health services can be sources of employment for women and BME people, and such agencies often have targeted training and employment programmes targeting equalities groups.

Centres

The Strategy describes development in three Centres: Selly Oak, Northfield and Stirchley. An improved physical environment will have obvious benefits to these centres. Students may benefit from retail developments in **Selly Oak**. **Northfield** is already a significant district centre and proposed developments should further enhance the Centre. The Strategy mentions that S106/CIL will be used to deliver environmental and public realm improvements, but social benefits would arise if they could be used to provide community facilities. Improvements to retailing in **Stirchley**, including increasing the diversity of retail uses and decreasing the voids, could attract shoppers from a wider area, although there appear to be no significant equalities or social issues.

Corridor development

The redevelopment and improvement of transport corridors will provide the opportunity to improve public transport and access for pedestrians which will positively affect those who use public transport more, including BME residents, women and some disabled people. Encouraging cycling should include targeting those groups such as women and people from BME communities who are less likely to cycle. It is difficult to say with certainty





whether new employment opportunities arising from further development within these corridors will benefit equalities groups and those with lower skill levels until the plans come to fruition, but in links between these groups should be made when planning recruitment and training. For example, something worth investigating would be arts training programmes for young people or other equalities groups within the Moseley Road/Balsall Heath area.









Appendix D Quality Assurance checklist









The following table summarises the requirements of the SEA Directive and signposts the relevant sections of the Report that meet these requirements.

Summary of the requirements of the SEA Directive and where these are met in the SA 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.	Outline of plan and contents (Section 1) Context review (Sections 2.1 & 2.2)
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Profile of the City (Section 3.1) Sustainability issues facing the City (section 3.2) See also baseline data published in the Scoping Report
c) The environmental characteristics of areas likely to be significantly affected.	Profile of the City (Section 3.1) Sustainability issues facing the City (section 3.2)
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.	Profile of the City (Section 3.1) Sustainability issues facing the City (Section 3.2)
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)
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).	Sustainability issues facing the City (Section 3.2) Analysis of significant effects (Sections 4.4 & 4.5)
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.	Appraisal of significant effects (Section 4.4)
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 (Chapter 2) Appraisal of plan options (Section 4.6) Uncertainties and risks (Sections 2.5 & 4.8)
i) A description of measures envisaged concerning monitoring in accordance with Art. 10.	Monitoring (Section 4.8)
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



