

# **Land North East of Birmingham. Sustainability Appraisal**

February 2014

**Turley**

# Contents

---

Executive Summary	i
1. Introduction	1
2. Sustainability Appraisal of the Birmingham Development Plan	2
3. Independent Sustainability Appraisal of Areas A, B, C and D	14
Appendix 1: Interim Sustainability Appraisal of the Options Consultation Document	21
Appendix 2: Communication with Martin Eade. Birmingham City Council.	22
Appendix 3: Missing Sustainability Appraisal Tables	23
Appendix 4: Sustainability Appraisal Matrices of Sites B - C. Sustainability Appraisal of Proposed Site Allocations	24
Appendix 5: Turley Associates Summary Sustainability Matrices	25

---

## **Contact**

Colin Morrison

cmorrison@turleyassociates.co.uk

## **Client**

Richborough Estates/ The Gilmour Family/ Sutton Coldfield Charitable Trust/ Bishop Vesey's Grammar School

## **LPA reference**

28 February 2014

# Executive Summary

- 1.1 This report has been submitted on behalf of Richborough Estates, The Gilmour Family The Sutton Coldfield Charitable Trust (SCCT) and Bishop Vesey's Grammar School to the Birmingham Development Plan (BDP) 2031 Pre-Submission Consultation which runs from 6<sup>th</sup> January to noon on 3<sup>rd</sup> March 2014. It has been prepared to support representations to the BDP for removal of Area B (in conjunction with the proposed removal of Area C) from the Green Belt of Birmingham.
- 1.2 The evolution of the BDP, culminating in this pre-submission consultation, has considered the release of four sites from the Green Belt, A, B, C and D and concluded that only Area C represents the most sustainable option and location for release of land from the Green Belt to provide residential development to meet substantially higher housing numbers during the plan period.
- 1.3 In accordance with UK legislation and guidance, a Sustainability Appraisal (SA) incorporating the requirements of the Strategic Environmental Assessment Directive (SEA) has been prepared to ensure that the BDP promotes sustainable development.
- 1.4 An Interim SA published in October 2012 reviewed the four proposed Green Belt development options and concluded;

*In many respects there is relatively little difference between the environmental, economic and social effects associated with sub-options A, B, C and D. Much would depend on the opportunities for additional and complementary service provision and hence relative self-containment through a significant development of 5-10,000 units. In this regards, Options B and C probably present the greatest potential given their ready access to existing services in the vicinity of Sutton Coldfield. However, there is relatively little to choose, at this stage, between the merits of Options A, B and C. The relative remoteness of area D means that its sustainability qualities are relatively poor, compared to options A, B and C.*

- 1.5 The following iteration of the BDP and accompanying SA in September 2013 confirmed that only Area C (now referred to as Langley SUE) was being taken forward, despite a clear housing demand, therefore representing a substantial change from the earlier conclusions in the interim SA.
- 1.6 This report has reviewed the application of the SA/ SEA methodology and concluded that there are several deficiencies in this process resulting in the omission of Area A and B for release from the Green Belt which demonstrates that the SA is **unsound**. These deficiencies include;
  - i) Failure to consult on a correct and final interim SA which clearly presents and assesses the options for consideration.
  - ii) A decision by BCC to withhold key evidence from the consultation process for a number of reasons, all of which run contrary to the open and transparent nature of the SA/ SEA process and a legal requirement to demonstrate the consideration of alternatives.

- iii) A decision by BCC not to respond to specific questions with regards to the methodology and assumptions within the SA process.
  - iv) A failure to comply with the following paragraphs of the SEA guidance<sup>1</sup> -
    - (1) Stage B2 of the SEA Process – Developing Strategic Alternatives: Paragraphs 5.B.4, 5.B.6 and 5.B.8
    - (2) Appendix 6 – Developing and assessing alternatives.
  - v) A failure to comply with (*Annex I (h)*) of the SEA directive which requires that the environmental report outlines the reasons for selecting the alternatives dealt with.
- 1.7 An independent review using professional judgement and the latest evidence has identified that Area B was given incorrect negative scorings during the SA process. A review of these scorings has resulted in a substantial increase in the performance of Area B to the sustainability objectives of the BDP such that it now makes an equally positive contribution when compared to Area C.
- 1.8 This review supports some conclusions of the SA however in that Area C and Area D are also sustainable options for release from the Green Belt to meet housing and employment needs respectively.
- 1.9 The conclusions of this report fully support the wider representations and other technical studies which demonstrate that the release of Areas B and C from the Green Belt provide the most sustainable option to provide approximately 9,000-11,000 dwellings during the plan period in the form of a high quality, Sustainable Urban Extension that will create a lasting positive legacy for Birmingham.
- 1.10 Area A, whilst a less sustainable option for development than Area B and C, has been recommended for safeguarding for potential future development.
- 1.11 Richborough Estates, The Gilmour's and SCCT are committed to a design and construction ethos that will create a unique, low carbon development with a strong sense of place and will result in positive contributions to the City's strategic transport, green infrastructure and carbon emission reduction targets.

---

<sup>1</sup> ii) A Practical Guide to the Strategic Environmental Assessment (SEA) Directive. Office of the Deputy Prime Minister, 2005.

# 1. Introduction

- 1.12 This report and appended documents sets out representations on behalf of Richborough Estates, The Gilmour Family and Sutton Coldfield Charitable Trust (SCCT) to the Birmingham Development Plan (BDP) 2031 Pre-Submission Consultation which runs from 6<sup>th</sup> January to noon on 3<sup>rd</sup> March 2014.
- 1.13 Richborough Estates, The Gilmour Family and SCCT, have previously made representations to the BDP Options Consultation in respect of Area B1 and part of Area C. This was in response to the Council's invitation to consider Green Belt options for meeting the city's housing requirements with a suggested range of between 5-10,000 dwellings under consideration. To meet this housing need the BDP has considered the release of a number of sites from the Green Belt which are referred to as;
- a. Area A: Hill Wood, East of Watford Gap
  - b. Area B: West of the M6 Toll
  - c. Area C: West of the Sutton Coldfield Bypass, Walmley
  - d. Area D: East of the Sutton Coldfield Bypass, Walmley
- 1.14 The BDP Pre-Submission Consultation proposes to remove land from the Green Belt and allocate what was Area C, at Langley, as a Sustainable Urban Extension with Area D as a strategic employment location. Areas A and B have been excluded from the pre-submission consultation.
- 1.15 In accordance with UK legislation and guidance, all relevant plans and programmes must be subject to a Sustainability Appraisal (SA) that incorporates the requirements of the Strategic Environmental Assessment (SEA) directive. The BDP has been subject to such an assessment which has ultimately contributed to the identification of Area C and D as locations for sustainable development and the exclusion of Areas A and B.
- 1.16 This report therefore has two objectives;
- i) To review Birmingham City Councils Sustainability Appraisal (SA) process as undertaken in support of the BDP to determine why Areas A and B are not considered sustainable locations for development (Section 2).
  - ii) To undertake an independent Sustainability Appraisal on Area A, B, C and D using the latest evidence and professional judgement to demonstrate that Areas A and B positively promotes the sustainability objectives of the BDP and represents a sustainable location for residential development (Section 3).

## 2. Sustainability Appraisal of the Birmingham Development Plan

### Regulations and Guidance.

- 1.17 It is a requirement of European<sup>2</sup> and UK Legislation<sup>3</sup> that a Sustainability Appraisal (SA) is undertaken incorporating the requirements of the Environmental Assessment of the Plans and Programmes Regulations 2004 which was derived from the Strategic Environmental Assessment (SEA) Directive.
- 1.18 The purpose of the SA (incorporating the requirements of the SEA Directive) is to ensure that the plan or programme (in this instance the emerging Birmingham Development Plan –BDP) promotes the principles of sustainable development by assessing the potential environmental, social and economic impacts or benefits of the plan and incorporating suitable mitigation measures to decrease or increase these respectively.
- 1.19 Sustainability Appraisals should be carried out in accordance with the following guidance;
- i) Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents – Office of the Deputy Prime Minister, 2005.
  - ii) A Practical Guide to the Strategic Environmental Assessment (SEA) Directive. Office of the Deputy Prime Minister, 2005.
- 1.20 Relevant extracts from the ODPM guidance on sustainability appraisal states that;
- “...an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated” (Article 5.1). Information to be provided in the Environmental Report includes “an outline of the reasons for selecting the alternatives dealt with” (Annex I (h))*
- As each option is refined, a commentary on the key sustainability issues and problems arising must be prepared, with recommendations on how each of the options could be improved, e.g. through mitigation measures. It may be possible to drop some alternatives from further consideration, for example because of SA findings, to comply with national planning policy, or for operational reasons, and document the reasons for eliminating them. The SA Report will need to map the development of the options and the supporting policies by reference to their significant effects or their mitigation of any adverse effects.*
- 1.21 In 2009 The Planning Inspectorate published a guidance document ‘ Examining Development Plan Documents: Learning From Experience which states on page 10 and 11 that;

---

<sup>2</sup> Directive 2001/42/EC on the assessment of the effects on certain plans and programmes on the Environment.

<sup>3</sup> Section 19. Planning and Compulsory Purchase Act 2004

*The reasonable major alternatives should be dealt with in the Sustainability Appraisal (SA).*

*Sustainability Appraisal is where the consideration and assessment of the main alternatives should be found.*

*The SA is part of the evidence base and hence the basic principle is that the SA should inform the content of the plan. Thus the SA is where the consideration and assessment of the main alternatives should be found. Many authorities have submitted SAs containing a mass of material that does not obviously contribute to the content of the plan. Our impression is that often far more rigorous thought needs to be given at the outset to what sort of sustainability evidence is needed.*

- 1.22 Paragraph 165 of the National Planning Policy Framework (NPPF) states that *A sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects (of the plan) on the environment, economic and social factors.*

### **Allocation of Green Belt land for development**

- 1.23 A key part of the emerging BDB is the allocation of land of an appropriate scale, location and type to meet the necessary housing and economic requirements of Birmingham during the plan period.
- 1.24 The introduction of the NPPF and the requirement for local authorities to meet the '*objectively assessed need for housing*' combined with revised population and employment projections resulted in the need to consider the release of Green Belt land to meet a significantly greater housing need from a figure 50,600 dwellings during the plan period to 75,000 – 95,000 dwellings.
- 1.25 The Sustainability Appraisal process has assisted this process by testing various greenfield development options which are;
- a. Area A: Hill Wood, East of Watford Gap (two sub-options)
  - b. Area B: West of the M6 Toll (two sub-options)
  - c. Area C: West of the Sutton Coldfield Bypass, Walmley (two sub-options)
  - d. Area D: east of the Sutton Coldfield Bypass, Walmley
- 1.26 These options have been tested against a sustainability framework established during Stage A of the SA process to determine the relative strengths and weaknesses of each option against key national and local sustainability objectives along with recommendations on how any adverse effects could be mitigated.
- 1.27 Whilst the SA process does not make the final decision on which sites to allocate, it does provide powerful evidence to aide the decision making process as it is unlikely that '*unsustainable sites*' will be favoured in the preferred policy. Where sites are selected, the SA process must clearly demonstrate how the alternatives were selected and why sites were discarded.

- 1.28 The Interim SA as published in October 2012 reached the following conclusions regarding the four potential greenfield development options listed in paragraph 2.2;

*In many respects there is relatively little difference between the environmental, economic and social effects associated with sub-options A, B, C and D...In this regard Options B and C probably present the greatest potential given their ready access to existing services in the vicinity of Sutton Coldfield*

- 1.29 Paragraph 5.57 and 5.60 of The Pre-Submission BDP<sup>4</sup> states the following;

*Land to the west of the A38 at Langley represents the most sustainable option to accommodate additional housing growth and will have the least impact on the Green Belt.*

*Land west of the A38 is clearly the most sustainable and accessible of all the options considered due to its proximity to existing local facilities. It also has fewer highway constraints and will impact on fewer junctions.*

- 1.30 In the context of this report and representations to the Pre-submission plan, one of the key aims of this report is to review and understand the process by which the SA may have contributed to the retention of Areas A and B in the Green Belt and therefore the exclusion from potential residential development to meet the substantial housing need and the identification of Area C (Land to the west of the A38) as the most sustainable option for residential development.

- 1.31 To understand how the pre-submission BDP reaches the conclusion as stated in paragraphs 5.57 and 5.60 the methodology and documents from the relevant iterations of the Sustainability Appraisal of the BDB have been reviewed.

***The Sustainability Appraisal Process: The Birmingham Development Plan***

- 1.32 To date the Birmingham Development Plan has published the following Sustainability Appraisal reports since the introduction of the National Planning Policy Framework (NPPF), the revocation of the West Midlands Regional Spatial Strategy and the need to meet greater housing numbers during the plan period.

- i) Options Consultation – Sustainability Appraisal Scoping Report Autumn 2012 Update
- ii) Options Consultation – Interim Sustainability Appraisal of the Options Consultation Document. Draft Version 2012 (Superseded). AMEC, October 2012.
- iii) Options consultation – Proposed Site Allocations Sustainability Appraisal 2013. AMEC, October, 2013.
- iv) Sustainability Appraisal Report of the Pre-Submission BDP. AMEC, October 2013.

---

<sup>4</sup> Sustainability Appraisal of the Birmingham Development Plan. Sustainability Appraisal Report of the Pre-Submission BDP.



- 1.33 Documents ii-iv have been reviewed below to identify why Areas A and B have been retained within the Green Belt and Areas C and D have been identified as the most sustainable options in the pre-submission BDP for proposed future development.

### **Document Review**

#### ***Interim Sustainability Appraisal of the Options Consultation Document. October 2012***

- 1.34 This report was published in October 2012 (Appendix 1), in support of the Options Consultation document to demonstrate the sustainability impacts of options being presented by Birmingham City Council (BCC) for accommodating the revised, substantially higher housing numbers. The document appraises the following options;

1. Option 1: Do not accommodate additional projected growth
2. Option 2: Accommodate additional growth in existing urban area
3. Option 3: Strategic Green Belt Release (plus sub-options relating to individual sites):
  - a. Area A: Hill Wood, East of Watford Gap (two sub-options)
  - b. Area B: West of the M6 Toll (two sub-options)
  - c. Area C: West of the Sutton Coldfield Bypass, Walmley (two sub-options)
  - d. Area D: east of the Sutton Coldfield Bypass, Walmley

- 1.35 With regards to the policy options 1, 2 and 3 for addressing the future development needs of Birmingham, the SA concluded that;

*Under the duty to Co-operate, some of the additional growth demand can be accommodated by adjoining areas, notably the Black Country and Solihull, but the residual requirement (i.e. around 10,000 homes) demands significant further land take*

*...Notwithstanding issues associated with loss of greenfield land and effects on nature conservation and cultural heritage, a sustainable urban extension on land to the north-east of the City presents a relatively sustainable solution to accommodating the additional housing required.*

- 1.36 Although an interim report, the authors clearly present a conclusion, based on the evidence available, that the release of Green Belt land (whilst not without its constraints) is the most sustainable option to meet the additional housing requirement and that, at this stage of the appraisal process, Options B and C *probably present the greatest potential*.

- 1.37 Paragraph 2, page 20 states;

*In many respects there is relatively little difference between the environmental, economic and social effects associated with sub-options A, B, C and D. Much would depend on the opportunities for additional and complementary service provision and hence relative self-containment through a significant development of 5-10,000 units. In this regards, Options B and C probably present the greatest potential given their ready*

*access to existing services in the vicinity of Sutton Coldfield. However, there is relatively little to choose, at this stage, between the merits of Options A, B and C. The relative remoteness of area D means that its sustainability qualities are relatively poor, compared to options A, B and C. Whether a single site or multiple sites (either within Options or between them) represents the best planning solution is dependent on a range of factors, notably transport infrastructure and the capacity of existing services such as schools. More detailed transport and service capacity modelling would be required to appraise these impacts.*

- 1.38 The Interim SA report clearly reaches a conclusion on the sustainability performance of Land options A, B, C and D both within the text and accompanying summary tables<sup>5</sup>. In reaching this conclusion the document makes reference to a number of information sources used in the appraisal process which include an appraisal of the sustainability performance of individual Green Belt sub-options (Sites, A, B, C and D) as set out in Appendix B of the report. A thorough review of this document confirmed that this evidence was not attached to the report published for consultation in 2012.
- 1.39 A request was made to BCC for the Sustainability Appraisal tables as referenced as Appendix B in the interim SA.
- 1.40 Communication with Martin Eade (Birmingham City Council. Planning and Regeneration – Appendix 2) confirmed that the interim SA as published for consultation was the incorrect version and not the final report which has subsequently been made available on the BCC website in February, 2014. BCC also confirmed that the SA appraisal tables referenced in the consultation version were withheld from publication for the following reasons (see Appendix 2);
- i) It was based on very little evidence*
  - ii) Largely, because of this, it actually identified very little difference between the locations so it wasn't very helpful*
  - iii) As we were at a consultation stage we didn't want to appear to be leading the response in any particular direction.*
- 1.41 The council also confirmed that the tables analysing the performance of the four Green Belt development options referred to in the Interim SA was contained within the site allocations SA (published in September 2013) despite being referenced in the Interim SA.
- 1.42 Further communication with AMEC on this issue subsequently identified a paper copy of an earlier draft of the missing table which is included in Appendix 3. Whilst this is an earlier, unpublished draft, the appraisal identifies no difference in the scoring between sites B and C with D obtaining a slightly poorer performance.
- 1.43 We believe the reasons stated by BCC to not publish the SA assessment tables is **unsound** and contrary to the open and iterative nature of the SA process. The SA process is intended to ensure that conclusions are reached or supported via the plan development process and are not pre-determined by the exclusion of necessary evidence. BCC's decision to not publish evidence because it *identified very little*

---

<sup>5</sup> Sustainability Appraisal of the Birmingham Development Plan. October 2012. Pages vii-viii, Table 3.2

*difference between the (sites A, B, C and D) locations and therefore wasn't very helpful is unsound* given that this was the outcome of an independent assessment.

### **Birmingham City Council. Sustainability Appraisal of the Proposed Site Allocations. September 2013.**

- 1.44 This document appraises the sustainability performance of the proposed site allocations to accompany the draft Publication BDP. Its purpose is *to test the sustainability performance of the proposed site allocations (and options where these exist) which will contribute to delivering the growth and regeneration strategy of the BDP*. The report is recognised as Stage B of the SA/ SEA process.
- 1.45 The report confirms that the emerging BDP has identified several strategic housing allocations to contribute toward the revised higher housing numbers. The report introduces the Langley Sustainable Urban Extension as the proposed strategic allocation which was referred to in the interim SA and throughout this document as Area C. Area D is identified as a site for Strategic employment allocation and is referred to as Peddimore. The methodology (section 2) does not make reference to Areas A and B which were clearly identified in the interim SA as possible Green Belt development options.
- 1.46 Section 3 of the report summarises the results of the sustainability appraisal and lists the sites that have been subject to this appraisal which does include areas A and B although these have each now been split into two further sub-options as demonstrated below. Area C and D has been left intact for the purposes of the assessment;
- i) Area A1 – Hill Wood East of Watford Gap
  - ii) Area A2 – Hill Wood East of Watford Gap
  - iii) B1 – West of the M6 Toll
  - iv) B2 – West of the M6 Toll
  - v) C – West of the A38, Walmley
  - vi) D - Peddimore
- 1.47 There is no clear explanation in Section 2 (Methodology) or Section 3 (Appraisal Summary) as to why Areas A and B have been subdivided into separate areas for the purposes of the assessment whilst area C and D was left intact. Both sections do refer to the Green Belt Options Assessment<sup>6</sup> as a document informing the selection process however there is no clarity as to its conclusions. An independent review of the Green Belt Assessment by LDA Design has concluded that there are several flaws in this assessment and its decision to exclude Areas A and B from possible release from the Green Belt. This review was also unable to identify a reason for dividing Areas A and B into sub-options.
- 1.48 Clarification regarding the methodology has been sought from AMEC and Birmingham City Council however both parties have declined to respond to these questions (Appendix 2) which in itself is contrary to the transparent nature of the SA/ SEA process.

---

<sup>6</sup> Birmingham City Council (2013) Green Belt Options Assessment

- 1.49 Section 3 of the SA Proposed Site Allocations contains a summary of the sustainability appraisal of each of the development options listed in paragraph 2.30. It represents the first full, published sustainability assessment of areas A, B, C and D to accompany the revised BDP. The main conclusions of this appraisal are set out below with a particular focus on any negative scores applied to the assessment along with a summary of the reasons behind the negative scoring which has been taken from Appendix A of the SA report. For ease of reference, copies of these SA tables are included in Appendix 3 of this document.
- 1.50 Section 3 of this report presents an independent assessment of the sustainability performance of sites A, B, C and D.

***Area A1 – Land at Hill Wood***

- 1.51 The SA process identified that the site scored negatively with regards to the following sustainability objectives;
- i) Efficient Use of Land – Due to the Greenfield status of the site.
  - ii) Sustainable Transport – There is access to Butlers Lane and Four Oaks stations to the west. Strategic Road access is limited.
  - iii) Travel Reduction – opportunities for self-containment through mixed use but relative remoteness means travel for service provision.
  - iv) Reducing Climate Change – Emissions likely to rise due to relative remoteness of the location.
  - v) Natural Landscape – High visual sensitivity with limited opportunities for mitigation
  - vi) Biodiversity – The site is deemed to have moderate ecological value
  - vii) Air Quality – Air pollution likely to increase as a result of car based travel.
- 1.52 The review concluded that the principal constraints of A1 are associated with its relatively remote location, limited infrastructure and sensitive landscape and moderate biodiversity value which *would mean that development would not meet a range of sustainability objectives.*

***Area A2, Land bounded by Weeford Road/ Hillwood Road***

- 1.53 The review identified that the site scored negatively with regards to the following sustainability objectives;
- i) *Efficient Use of Land* – Due to the Greenfield status of the site.
  - ii) *Travel Reduction* – opportunities for self-containment through mixed use
  - iii) *Reducing Climate Change* – Emissions likely to rise due to relative remoteness of the location.

iv) *Natural Landscape* – High visual sensitivity with limited opportunities for mitigation

v) *Biodiversity* – The site is deemed to have moderate ecological value

1.54 The SA concluded that the principal constraints of A1 are associated with its relatively remote location, limited infrastructure and sensitive landscape and moderate biodiversity value which *would mean that development would not meet a range of sustainability objectives*.

***Area B1, Land West of M6 Toll, north of Tamworth Road***

1.55 The review identified that the site scored negatively with regards to;

i) *Efficient Use of Land* – Due to the Greenfield status of the site

ii) *Sustainable Transport* – Moderate access to Four Oaks and Sutton Coldfield stations to the west and south west, and good access to the strategic road network via Tamworth Road which could encourage car travel.

iii) *Travel Reduction* – opportunities for self-containment through mixed use

iv) *Reducing Climate Change* – development likely to cause a rise in greenhouse gas emissions

v) *Biodiversity* – The site is deemed to have moderate ecological value

vi) *Air Quality* – Air pollution likely to increase as a result of car based travel.

1.56 The SA concluded that B1 suffered from infrastructure, landscape and biodiversity constraints which would mean that *the development would not meet a range of sustainability objectives*.

1.57 Surprisingly, Area B1 was concluded to have landscape constraints despite receiving a positive score under the Natural Landscape theme. We suggest this is an error in reporting and has been rectified in Section 3 of this report.

***Area B2, Land West of M6 Toll, south of Tamworth Road***

1.58 The review identified that the site scored negatively in terms of the following sustainability objectives;

i) *Efficient use of Land* – Due to the greenfield status of the site

ii) *Reducing Climate Change* – Greenhouse gas emissions likely to rise due to relative distance from services and employment.

iii) *Biodiversity* – The site is deemed to have moderate-high ecological value.

1.59 The assessment concluded that B2 suffered from landscape and biodiversity constraints which would mean that *the development would not meet a range of sustainability objectives*.

***Area C – Land West of the A38, Walmley.***

1.60 The review identified that the site scored negatively in terms of the following sustainability objectives;

- i) *Efficient use of land* – Due to the greenfield status of the site
- ii) *Reduce Climate Change* - Greenhouse gas emissions likely to rise due to relative distance from services and employment.

1.61 The assessment concluded that the Area C suffered from negative impacts associated with loss of greenfield land and impacts from CO2 emissions due to increased car travel.

***Area D. Peddimore***

1.62 The review identified that the site scored negatively in terms of

- i) *Efficient use of land* – Due to the greenfield status of the site
- ii) *Reduce Climate Change* - Greenhouse gas emissions likely to rise due to relative distance from services and employment.

1.63 The assessment concluded that the Area C suffered from negative impacts associated with loss of greenfield land and impacts from CO2 emissions due to increased car travel.

***Summary Review of the Proposed Site Allocations SA.***

1.64 A review of the SA of the proposed site allocations has identified a number of irregularities that are not compliant with the SA/ SEA guidance and directive or based on incomplete evidence. These are set out below;

- i) The SA process is intended to be iterative with a clear description of the process and reasons for selecting the alternatives yet this version of the SA begins by confirming on page 11 that Area C (now referred to as Langley Sustainable Urban Extension) is the preferred strategic housing allocation with Area D (now referred to as Peddimore) is a preferred strategic employment allocation. Such a conclusion should be supported by clear evidence as to why these sites have been chosen over areas A and B proposed in the 2012 Options consultation.
- ii) The decision to sub-divide Areas A and B for the purposes of the assessment is not clear and does not facilitate a direct comparison between the development sites. AMEC and BCC have declined to answer any clarification questions on this issue.
- iii) The Interim SA of the Options Consultation Document (reviewed above) identified that Green Belt land would be needed to secure approximately 10,000 dwellings, however the site allocations SA has identified land to meet only half of this requirement with no supporting explanation.
- iv) The scoring of site A (consisting of A1 and A2) B, (consisting of B1 and B2) is contrary to the initial conclusions reached in the October 2012 interim SA. A

review of the scoring for each of these sites using available evidence has identified alternative scorings. These are presented in more detail in section 3.

- v) Section 3 of the SA report concludes with a summary of the outcomes which does not clearly present the sustainability performance of the different options A, B, C and D and how each option may support the sustainability objectives of the BDP. There are also no conclusions stating which of the potential Green Belt development options have been recommended or discarded for the purposes of the next iteration of the plan.

Paragraphs 1, 2 and 3 of page 53 do *appear* to suggest however that the Area C – Land West of the A38, Walmley (Langley SUE) is the preferred Green Belt development option with an allocation of 5,500 homes but again this is not clear to the reader.

- 1.65 The irregularities presented above results in a **fundamentally unsound** SA because it does not allow for a clear demonstration of how the SA process has resulted in the exclusion of Areas A and B from the next iteration of the SA.

#### **Birmingham City Council. Sustainability Appraisal Report of the Pre-Submission Birmingham Development Plan**

- 1.66 This document is the Sustainability Appraisal (SA) report prepared to accompany the pre-Submission version of the BDP. The purpose of the SA report is to promote sustainable development through the integration of sustainability considerations into the proposed BDP. This report represents Stage C of the SA/ SEA process and is a requirement of the SEA Directive and SA process. It is intended to clearly articulate to stakeholders the evolution of the BDP and its predicted sustainability effects following mitigation. As stated in Paragraph 2.4, a key requirement of Stage C (the Environmental Report) of the SEA directive is that

*“...an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated” (Article 5.1). Information to be provided in the Environmental Report includes “an outline of the reasons for selecting the alternatives dealt with” (Annex I (h))*

- 1.67 Regarding the Green Belt release, the SA report appraises the following strategic sites which are specific policy options within the pre-submission BDP;

- i) Policy GA5: Sustainable Urban Extension (formerly Area C)
- ii) Policy GA6: Strategic Employment Allocation (formerly Area D)

- 1.68 Page 53, Para 5.4.3 of the Pre-Submission SA does present some general justification for the selection of sites C (Policy GA5) and D (Policy GA6), referring to the Green Belt Options<sup>7</sup> appraisal which has *assisted the process of identifying where development is likely to result in least impact and yield greatest benefit*. An independent review of the

---

<sup>7</sup> Birmingham City Council (2013) Green Belt Options Assessment

Green Belt Assessment by LDA Design<sup>8</sup> however, has concluded that there are several flaws in this assessment and, whilst supporting the release of Areas C and D, the decision not to include B within the Green Belt release and safeguard Area A is flawed.

- 1.69 In addition, and as per the requirements of the SEA directive and SA guidance, each option should be appraised using the SA framework developed during Stage A which sets economic, environmental and social objectives. The SA process should not discard a previously selected option site on the basis of its impact on the Green Belt but should assess this impact in the context of wider sustainability impacts and benefits and then present a conclusion with regards to its exclusion or retention in the plan.
- 1.70 Elaborating on this point further, there is no specific mention within the SA report of sites A or B along with justification for why these sites have been excluded from the pre-submission BDP. Such an omission is a clear breach of (*Annex I (h)*) of the SEA directive.
- 1.71 In the case of *Heard v Broadland District Council, South Norfolk District Council, Norwich City Council* [2012] EWHC 344 (Admin), the SA/ SEA Joint Core Strategy was flawed because, although not an explicit legal requirement, alternatives should be appraised to the same level as the preferred option and the final SA report must outline the reasons why various alternatives previously considered are still not as good as the proposals now being put forward in the plan.

### Summary of Review

- 1.72 The purpose of the SEA/ SA process is to integrate sustainable development into the plan making process in a clear, transparent and auditable process.
- 1.73 The NPPF presents the Governments view of sustainable development within paragraphs 18 – 219 of the framework. The NPPF clearly identifies that sustainable development has three roles: economic, social and environmental with paragraph 8 stating that:

*...to achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system. The planning system should play an active role in guiding development to sustainable solutions*

- 1.74 The SA/ SEA process is intended to secure sustainable development at a strategic level by ensuring that plans and programmes respond positively to key local sustainability issues. The SA/ SEA process must clearly demonstrate conformity with the SEA Directive and SA guidance in order to ensure a more sustainable local plan and be found sound.
- 1.75 A review of the SA process and specifically the reports as listed in paragraph 2.16 has identified a number of deficiencies in the SA process which demonstrates that it is not legally compliant with the directive nor with guidance issued by government and is therefore **unsound**. These deficiencies are;
- i) Failure to consult on a correct and final interim SA which clearly presents and assesses the options for consideration
  - ii) A decision by BCC to withhold key evidence from the consultation process for a number of reasons, all of which run contrary to the open and transparent nature

---

<sup>8</sup> Review of Green Belt Assessment (February 2014), LDA Design.



of the SA/ SEA process and a legal requirement to demonstrate the consideration of alternatives.

- iii) A decision by BCC not to respond to any further questions with regards to the methodology and assumptions within the SA process.
- iv) A failure to comply with Stage B of the SEA Process as outlined in Paragraphs 5.B.4 and 5.B.6 of guidance<sup>9</sup> - Developing strategic alternatives. *Responsible Authorities must appraise the likely significant environmental effects of implementing the plan or programme and any reasonable alternatives. In the UK the term "options" is often used. Each alternative can be tested against the SEA objectives, with positive as well as negative effects being considered, and uncertainties about the nature and significance of effects noted. This will often be an iterative process, with the alternatives being revised as part of the SEA to enhance positive effects and reduce negative ones.*

*At this stage it may be possible to drop some alternatives from further consideration and document the reasons for eliminating them. Justifications for these choices will need to be robust, as they can affect decisions on major developments.*

- v) A failure to comply with (Annex I (h)) of the directive which requires that the Environmental Report outlines the reasons for selecting the alternatives dealt with.

1.76 In summary therefore, the SA process has failed to meet the requirements of the directive on a number of grounds, and particularly, for not clearly highlighting why options A and B were not taken forward for consideration into the pre-submission BDP.

---

<sup>9</sup> ii) A Practical Guide to the Strategic Environmental Assessment (SEA) Directive. Office of the Deputy Prime Minister, 2005.

### 3. Independent Sustainability Appraisal of Areas A, B, C and D

#### Introduction

- 3.1 A review of the published SEA/ SA reports has identified a number of fundamental flaws with how the SA/ SEA process has been applied to the emerging BDP which has contributed to the omission of sites A and B from release from the Green Belt. However, whilst we believe the SEA process is unsound in terms of its application of the SEA directive and SA guidance, we agree with one of the major outputs of the process, namely the selection of site C for residential development and Site D for a strategic employment allocation. We support the reviews findings that, based on demand, these represent a sustainable use of land.
- 3.2 Representations made by Richborough Estates, The Gilmours and SCCT (supported by a strong evidence base) demonstrate that the demand for housing far exceeds that allocated for in the plan and that additional Green Belt release is necessary to cater for a greater level of this demand within Birmingham's administrative boundary.
- 3.3 The SA scoring process summarised in paragraphs 2.35 – 2.47 present each site in terms of positive, neutral and negative contributions to the SA objectives developed during Stage A of the SEA process. We acknowledge that the SA scoring process is subjective, although a clear, documented appraisal using established data sources and evidence is intended to reduce this subjectivity. Indeed paragraph 5.B.8 of the Guide<sup>10</sup> states;
- Throughout this part of the assessment, it may be necessary to revisit earlier tasks such as the collection of baseline information, as new information and issues emerge.*
- 3.4 It is our opinion, based on an updated evidence base that site B has been allocated negative scores in certain areas which has contributed to a reduction in overall sustainability performance when compared against sites C and D. This is demonstrated during the SA process by a change in conclusions regarding these sites from the Interim SA (Appendix 1) to the site allocations SA.
- 3.5 To complete our review therefore, we review the sustainability performance of Areas A, B, C and D, concentrating on those areas where we disagree from a professional perspective and/ or where we believe there is strong evidence to support a change in scoring. A summary of our appraisal is contained in Appendix 5.
- 3.6 As stated above, there are some areas where we agree with the scoring as carried out and have therefore omitted this from our re-appraisal. An example would be the impact upon the sustainability objective regarding the efficient use of land from the use of Green Belt which will invariably receive a negative scoring. As stated clearly in the NPPF however, achieving sustainable development is only possible by balancing the

---

<sup>10</sup> A Practical Guide to the Strategic Environmental Assessment (SEA) Directive. Office of the Deputy Prime Minister, 2005.

social, environmental and economic benefits and impacts with conclusions reached on the total contribution to sustainable development.

- 3.7 For sites A and B we have concluded our findings in terms of the total areas and not the sub-divided areas, although have commented on specific sub-divided areas of scoring where we have the evidence to do so and where it contributes to a change in the total score of Area A or B.

**Area A (Consisting of A1 – Land at Hill Wood and A2 – Land Bounded by Weeford Road/ Hillwood Road)**

- 3.8 The SA concluded that the principal constraints of A1 and A2 are associated with its relatively remote location, limited infrastructure and sensitive landscape and biodiversity value which *would mean that development would not meet a range of sustainability objectives.*

- 3.9 Looking at each of these negative constraints in turn:

3.9.1 Infrastructure – At this stage we support the council’s view that Area A is likely to have less of a contribution to the sustainable transportation network than Area B and C.

3.9.2 Landscape – Area A1 and A2 scored negatively with regards to its impact on the natural landscape.

As demonstrated by Area B, good design and the extensive use of green infrastructure can mitigate these affects to a considerable extent.

3.9.3 Biodiversity – As demonstrated with Area B, good design and mitigation can reduce the impact upon biodiversity to a considerable extent.

- 3.10 A Green Belt Review conducted by LDA Design has concluded that Area A should be safeguarded for future Green Belt release and development.

- 3.11 Using our professional judgement and the findings of this review we support the councils view that Area A is ‘less sustainable’ that Areas C and D when compared against the sustainability objectives of the BDP.

**Area B (Consisting of B1, Land West of M6 Toll, north of Tamworth Road and B2 Land West of M6 Toll, south of Tamworth Road)**

- 3.12 The SA concluded that Area B scored negatively with regards to infrastructure, landscape and biodiversity constraints which would mean that *the development would not meet a range of sustainability objectives.*

- 3.13 Area B1 was also deemed to have a negative impact in terms of sustainable transportation with B2 having a neutral impact in terms of its contribution to this sustainability objective.

- 3.14 Addressing each of these negative impacts in turn;

- 3.14.1 Infrastructure (Sustainable Transportation) - Area B1 was deemed to have a negative impact in terms of sustainable transportation with B2 having a neutral impact in terms of its contribution to this sustainability objective.

A Transport assessment undertaken by Peter Brett Associates<sup>11</sup> to support these representations concluded that;

*Direct connections to Sutton Coldfield, Mere Green, Birmingham and Tamworth can be made by public transport from Site B1 using existing facilities and public transport services. Furthermore, the interchange at Sutton Coldfield rail station also provides direct access to Lichfield and the facilities available within the wider community. Therefore, this demonstrates the overall accessibility of the site to existing centres and key services and facilities.*

*that Site B1 is better connected and has greater capacity than other sites in most instances, and by most journey modes.*

*it is considered likely that a similar reassessment of Site B would show an improved accessibility scoring. This would demonstrate that Site B, as a whole, is well connected and can be integrated into the existing urban network. Therefore, it is considered that Site B is suitable for housing development*

An additional transportation assessment undertaken by WSP<sup>12</sup> also supports the conclusion reached by PBA in that incorrect conclusions regarding the current accessibility of Site B have been reached in the draft BDP and that;

*Undertaking a review and reconsideration, it is concluded that Site B should also be released from the Green Belt on the basis of Transport Capacity and Connectivity. It is considered that Site B is deliverable for the following reasons (page 5 – exec summary), many of which have not been sufficiently accounted for in the BDP.*

In summary this revised evidence demonstrates that Area B1 and B2 can make a positive contribution to the sustainable transportation objective which would ensure a **positive** contribution to this sustainability objective from site B as a whole.

- 3.14.2 Landscape – Area B1 was summarised as having a negative impact in terms of landscape despite scoring **positively** in the appraisal with *limited visual sensitivity*. Area B2 scored a neutral impact having medium visual sensitivity with opportunities for mitigation.

A Site Appraisal and Development Potential Study by LDA Design concludes that there are no landscape constraints associated with the development of B that cannot be mitigated through good design and integration of the existing landscape and urban features with the built environment that will help shape a unique sense of place.

---

<sup>11</sup> Foxhill, Sutton Coldfield. Representations in support of the Foxhill Site. Peter Brett Associates. February, 2014.

<sup>12</sup> Birmingham Development Plan. Transportation Technical Review. February, 2014. WSP

In summary there are no major landscape constraints associated with the development of site B which, when combined with good design would ensure a **positive** contribution to this sustainability objective.

- 3.14.3 Biodiversity – Area B1 and B2 were deemed to have moderate and moderate-high ecological value respectively.

An ecological appraisal conducted in 2013<sup>13</sup> on Area B1 confirms that there are several biodiversity features within the Area but concludes that there are no constraints that cannot be mitigated with the use of good urban design combined with retention and protection of key biodiversity habitats. These recommendations have been integrated into the development principles by LDA Design as part of their development framework which has resulted in the proposals for an extensive green infrastructure network.

In summary, whilst it is acknowledged that the development of Green Belt may have some ecological impact, revised evidence, supported by inclusion of biodiversity mitigation and enhancement measures within the development framework will ensure there are no major biodiversity constraints associated with the development of site B which would ensure a **neutral** contribution to this sustainability objective.

***Further sustainability improvements to Area B.***

- 3.15 The SA scoring matrices (Appendix 4) concluded that Area B would only make a positive contribution to the following sustainability objectives;
- 3.15.1 Sense of Place – Opportunities to create a new community on this scale
- 3.15.2 Social and Environmental Responsibility – Opportunities to create a new community at this scale
- 3.16 For comparative purposes Area C recorded a strong positive contribution to both of these objectives.
- 3.17 It is our firm opinion however, that the performance of a development toward both of these objectives is not necessarily a function of its size, but rather the commitment of the developer and design team to ensure these objectives are promoted within the design ethos and construction process. For comparative purposes with Area C, Area B as a whole is also of sufficient size to facilitate this objective.
- 3.18 The Site Appraisal and Development Document by LDA confirms that establishing a strong sense of place will be a key feature of development of Area B and C.
- 3.19 Richborough Estates, The Gilmours and SCCT are also committed to the development of a high quality development that strongly promotes Social and Environmental Responsibility.
- 3.20 As such it is appropriate therefore to increase the scoring of Area B1 and B2, and therefore Area B against these two objectives to allow a **strong positive** contribution to

---

<sup>13</sup> Ecological Assessment. Foxhill, Roughley, Sutton Coldfield. Just Ecology, 2013.

the sustainability objectives of; Sense of Place and Social and Environmental Responsibility.

- 3.21 The SA scoring matrix (Appendix 4) also concluded that Area B scored a positive (with uncertainties) on the contribution to the generation of renewable energy. Site B1 also scored a neutral impact with regards to Poverty.

3.21.1 Renewable Energy – Opportunities for innovation on a site of this size.

Should this site be allocated, then any development is likely to take place beyond the Governments timetable for implementation of the Zero Carbon Building Regulations which will require (assuming the definition is confirmed by the Government as currently outlined) renewable energy technology on every dwelling. Whilst not of sufficient scale to contribute to Birmingham's energy requirements, such a contribution from the development as a whole will justify a **positive** contribution to this sustainability objective from site B1, B2 and therefore site B as a whole.

3.21.2 Poverty – Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.

The SA scoring matrix (Appendix 4) clearly demonstrates another error in the reporting as it allocates Area B1 a **positive** score but was given a neutral score in the summary assessment. It is reasonable therefore to correct this error for Area B1 and therefore conclude that Area B1, B2 and therefore Area B as a whole will make a **positive** contribution to this sustainability objective.

***Summary of Sustainability Performance of Area B.***

- 3.22 Using a combination of our professional judgement, evidence available over the course of the previous 12 months and by correcting several reporting errors in the original SA, it has been concluded that Area B would now make a **positive** contribution to the sustainability objectives associated with landscape and sustainable transportation as opposed to the original negative scoring. These positive improvements have resulted in an increase in the performance associated with air quality and reducing the need to travel by private vehicle from a negative to **neutral**.

- 3.23 Additional improvements in sustainability performance can also be recorded against the following;

3.23.1 A **strong positive** contribution to the sustainability objectives associated with a sense of place and Social and Environmental Responsibility.

3.23.2 A **positive** contribution to the contribution to the generation of renewable energy

3.23.3 A **neutral** impact with regards to its contribution to the biodiversity sustainability objective.

- 3.24 These improvements to the performance of Area B, supported by evidence and correction of reporting errors, against the individual sustainability objectives ensure that Area B now performs strongly in terms of its contribution to the sustainability objectives

of the Birmingham Development Plan. For comparative purposes, Area B now makes an equally strong contribution with Area C (Appendix 5).

- 3.25 This process of revisiting the SEA utilising revised evidence is entirely consistent with Paragraph 5.B.8 of the SEA guidance which states;

*Throughout this part of the assessment, it may be necessary to revisit earlier tasks such as the collection of baseline information, as new information and issues emerge.*

#### **Area C – Land West of the A38, Walmley.**

- 3.26 The SA concluded that Area C suffered from negative impacts associated with loss of greenfield land and impacts from rising CO2 emissions.
- 3.27 We support these conclusions and the overall summary of Area C which is that it would represent a sustainable location for development of a strategic housing site although it is only able to meet approximately half of the 10,000 dwellings required in the Green Belt to meet the revised housing numbers.

#### **Area D. Peddimore**

- 3.28 The assessment concluded that the Area C suffered from negative impacts associated with loss of greenfield land and impacts from CO2 emissions.
- 3.29 We support these conclusions and the overall summary that Area D represents a sustainable location for development of a strategic employment site.

#### **Area B and C – Creating a Sustainable Urban Extension**

- 3.30 The review of the sustainability performance of Areas A, B, C and D has resulted in a substantial improvement in the contribution Area B can make to the sustainability objectives of the BDP and that it is now identical to Area C in terms of its strong contribution. Area B and C are now clearly jointly supportive in terms of the contribution they can make to the sustainability objectives of the BDP and therefore, both options now represent the most sustainable locations for Green Belt release and subsequent residential development given the considerable housing need.
- 3.31 Representations made by Richborough Estates, The Gilmour's and SCCT (supported by a robust evidence base) demonstrates that additional Green Belt release is necessary to provide further housing capacity during the plan period and that it is possible to accommodate a greater percentage of this demand within BCC's administrative boundary. Indeed from a sustainability perspective, it is preferable to locate as many people as close as possible to places of work as opposed to increased trip miles and carbon emissions from commuting into Birmingham from further afield.
- 3.32 A Site Appraisal and Development Potential Study by LDA Design confirms that the development of Area B and C in combination could result in the creation of up to 9,000-11,000 dwellings through the creation of a high quality, residential led, mixed use development that deploys a design and construction ethos facilitating the creation of a lasting positive legacy for the residents of Sutton Coldfield and the people of Birmingham.
- 3.33 A Transportation Assessment undertaken by Peter Brett Associates has concluded that;

*Furthermore, delivery of Site B with Site C, would facilitate strategic step changes in the infrastructure that can support these new homes. The transport improvements would enable more journeys to be made by sustainable modes of transport, benefitting existing residents as well as those who occupy the new homes*

- 3.34 The scale of this development would meet the aspirations of a Sustainable Urban Extension as set out in the Interim SA accompanying the options consultation in 2012 and would facilitate the creation of new strategic scale transport and green infrastructure that would make a positive contribution to the promotion of sustainable residential development within Birmingham.
- 3.35 Representations made by Richborough Estates, The Gilmours and SCCT demonstrate that there is a clear demand for this scale of development and that it is deliverable during the plan period.
- 3.36 Through a close working arrangement and the control of over 90% of the land within Area B with The Gilmour's controlling substantial land within Area C, Richborough Estates, The Gilmours and SCCT are committed to the creation of a high quality SUE with a number of sustainable design and construction principles. These are;
- 3.36.1 A low carbon development that (if implemented by the Government in 2016) would be constructed to the Zero Carbon Building Regulations thereby delivering substantial carbon reductions through energy efficiency, renewable energy and (if confirmed) allowable solutions projects.
- 3.36.2 A design ethos that creates a strong sense of place by retaining key landscape features.
- 3.36.3 An extensive green infrastructure network that protects key landscape and biodiversity features and has strong air quality and climate change adaptation benefits
- 3.36.4 A strong sense of Social and Environmental Responsibility.
- 3.36.5 A positive contribution to the strategic transportation and infrastructure network which could include;
- (a) SPRINT new rapid transport corridor
  - (b) re-opening the Sutton rail line
  - (c) extension of the Birmingham City Cycle Ambition Grant between Birmingham and Sutton
  - (d) Decking of Sutton Coldfield rail station car park.



# **Appendix 1: Interim Sustainability Appraisal of the Options Consultation Document**

## Birmingham City Council

# Sustainability Appraisal of the Birmingham Development Plan

Interim Sustainability Appraisal of the Options Consultation Document



---

## Copyright and Non-Disclosure Notice

The contents and layout of this report are subject to copyright owned by AMEC (©AMEC Environment & Infrastructure UK Limited 2012), save to the extent that copyright has been legally assigned by us to another party or is used by AMEC under licence. To the extent that we own the copyright in this report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in this report.

The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of AMEC. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to this report by any means will, in any event, be subject to the Third Party Disclaimer set out below.

---

## Third-Party Disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by AMEC at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. AMEC excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

---

## Document Revisions

No.	Details	Date
1	Draft	October 2012

---

**Report for**

Martin Eade  
Strategic Planning  
Birmingham City Council  
1 Lancaster Circus  
Queensway  
Birmingham  
B4 7DG

---

**Main Contributors**

Robert Deanwood

---

**Issued by**

.....  
Robert Deanwood

---

**Approved by**

.....  
Clive Harridge

---

**AMEC Environment & Infrastructure  
UK Limited**

Gables House, Kenilworth Road, Leamington Spa,  
Warwickshire CV32 6JX, United Kingdom  
Tel +44 (0) 1926 439 000  
Fax +44 (0) 1926 439 010

20904rr022

h:\projects\ea-210\#20000 projects\20904 birmingham sa\autumn 2012  
update\bcc sa of options consultation doc autumn 2012 rr022.doc

# Birmingham City Council

## Sustainability Appraisal of the Birmingham Development Plan

### Interim Sustainability Appraisal of the Options Consultation Document

AMEC Environment & Infrastructure  
UK Limited

October 2012

#### Draft Report Disclaimer

This report has been prepared in a working draft form and has not been finalised or formally reviewed. As such it should be taken as an indication only of the material and conclusions that will form the final report. Any calculations or findings presented here may be changed or altered and should not be taken to reflect AMEC's opinions or conclusions.



Certificate No. FS 13881



Certificate No. EMS 69090

In accordance with an environmentally responsible approach,  
this document is printed on recycled paper produced from 100%  
post-consumer waste, or on ECF (elemental chlorine free) paper



# Non-Technical Summary

## Purpose of this Report

This report has been produced for the purpose of evaluating the sustainability impacts of options being presented by Birmingham City Council for accommodating revised growth requirements through the Birmingham Development Plan. The Birmingham Development Plan has been subject to Sustainability Appraisal (SA) during its evolution and this Interim Report is the latest stage in that process. The Report accompanies the Options Consultation Document which is being consulted upon by Birmingham City Council, which has been produced in light of the re-estimation of the likely growth requirements for the City to 2031 following the analysis of revised population projections.

Thus far, it was calculated that the City's development needs could be accommodated within the existing built up area of the City. However, in light of population changes, the scale of the projected increase (from 50,600 to 75,000-95,000 dwellings to 2031) means that land must be sought elsewhere. This can be partially through co-operation with neighbouring authorities, but will also demand the use of land within Birmingham's boundaries for approximately 10,000 dwellings.

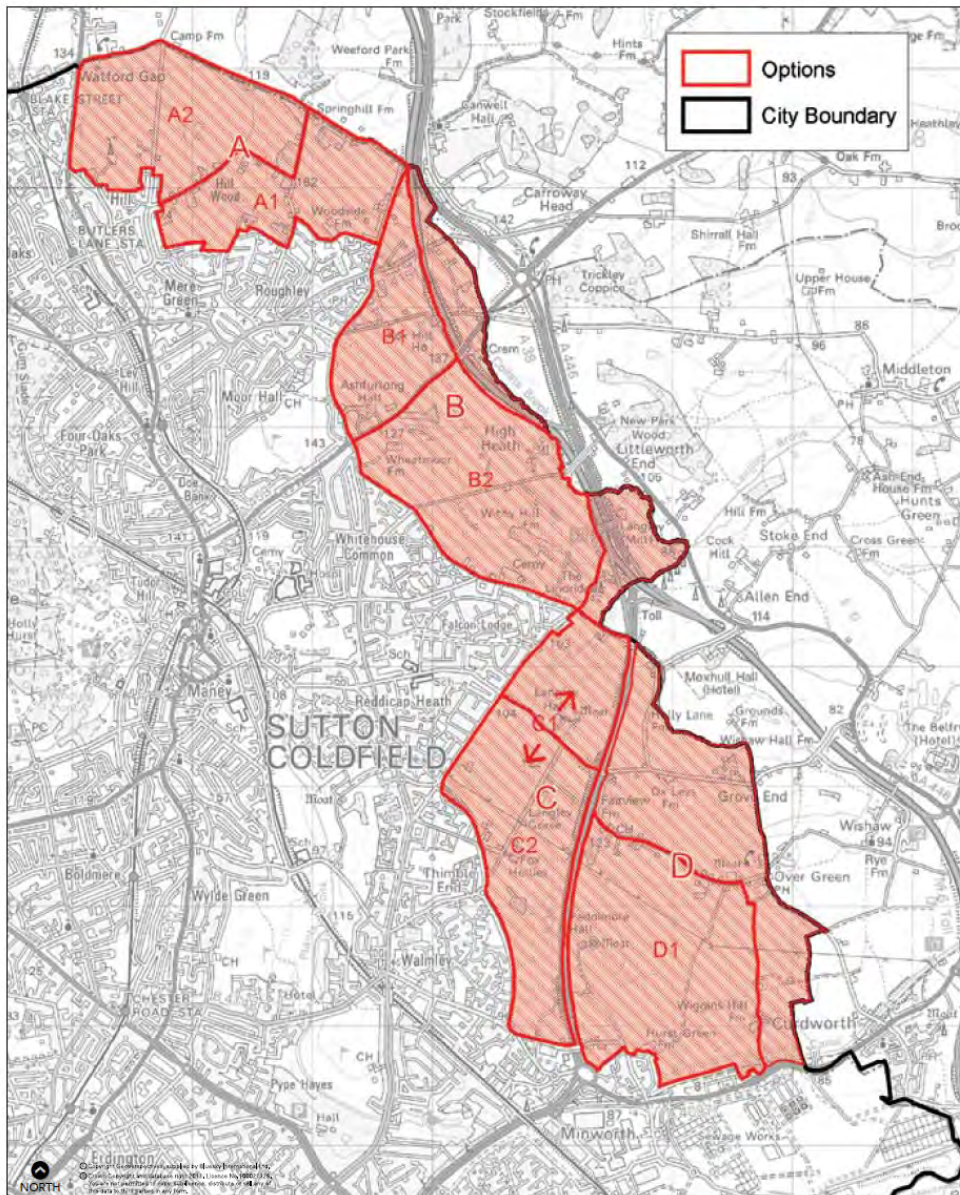
## The Options

The results of the Sustainability Appraisal complement those of the Green Belt Options analysis set out in a separate report<sup>1</sup> which uses a constraints-based approach to evaluating the suitability of four alternative sites (Figure NTS1): areas A, B, C and D.

---

<sup>1</sup> Birmingham City Council (October 2012) Birmingham's Green Belt Options

Figure NTS 1 Greenfield Development Options



Therefore, for the purposes of the Sustainability Appraisal, the options to be appraised are:

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

- Area B: West of the M6 Toll (two sub-options).
- Area C: West of the Sutton Coldfield Bypass, Walmley (two sub-options).
- Area D: East of the Sutton Coldfield Bypass, Walmley.

The appraisal combines both strategic and site-specific considerations using available data drawn from the updated Scoping Report which accompanies this document. Further scrutiny of the sustainability performance of the sites will be required as part of the selection of any preferred site, and the high level analysis is presented here to accompany the planning appraisal.

## Key Messages from the Appraisal

Option		Likely Cumulative Environmental Effects	Likely Cumulative Economic Effects	Likely Cumulative Social Effects
<b>1. Do not accommodate additional projected growth</b>		Efficient use of existing land resources, with opportunities to enhance existing urban environment associated with SUN approach.	Opportunities for growth could be missed through lack of additional employment land being allocated.	No provision for additional housing, leading to lack of housing opportunities and additional pressure on adjoining areas.
<b>2. Accommodate additional projected growth within the existing urban area</b>		As above, but loss/compromising of assets such as open space and cultural heritage resources.	Potential loss of employment land leading to reduced capacity to respond to future growth. Loss of economic opportunities to adjacent areas.	Potential over-burdening of services and transport network, although this would be location-specific. Decline in overall quality of life is likely.
<b>3. Allocate land for an urban extension</b>	Area A	Greenfield land-take, and potential increases in emissions associated with car-based travel, associated both with the development and from outside.  Sites of Local Interest for Nature Conservation and cultural heritage affected.	Additional employment land, either as part of a mixed use development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.	Service provision clustered at Mere Green (including health services, shops and schools) could provide the basis for complementary provision at this location. Butlers Lane railway station, for example, could provide a focus for sustainable travel to Sutton Coldfield, Birmingham and Lichfield. Supplementing the currently limited open space provision in the vicinity would demand particular attention as part of any development.
	Area B	Greenfield land-take, and potential increases in emissions associated with car-based travel, associated both with the development and from outside.  Flood risk associated with part of the site.  Sites of Importance for Nature Conservation and Sites of Local Interest for Nature Conservation and cultural heritage affected.	Additional employment land, either as part of a mixed use development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.	Service provision clustered at Mere Green, Sutton Coldfield and Reddicap Heath (including health services, shops and schools) could provide the basis for complementary provision at this location. Four Oaks and Sutton Coldfield railway stations lie approximately 2km to the west but could be focal points for sustainable travel. Open space provision in the vicinity is reasonable (Sutton Park for example) but would demand particular attention as part of any development.
	Area C	Greenfield land-take, and potential increases in	Additional employment land, either as part of a mixed use	Bounded by the existing urban edge and the A38, this area has access



Option		Likely Cumulative Environmental Effects	Likely Cumulative Economic Effects	Likely Cumulative Social Effects
		<p>emissions associated with car-based travel, associated both with the development and from outside.</p> <p>Flood risk associated with part of the site.</p> <p>Sites of Local Interest for Nature Conservation and cultural heritage affected.</p>	<p>development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.</p>	<p>to a range of services at Reddick Heath and Walmley which could provide the basis for complementary provision at this location. Rail access is via Sutton Coldfield station at around 2.5km. Open space provision in the vicinity is reasonable but would demand particular attention as part of any development.</p>
	Area D	<p>Greenfield land-take, and potential increases in emissions associated with car-based travel, associated both with the development and from outside.</p> <p>Sites of Local Interest for Nature Conservation and cultural heritage affected.</p>	<p>Additional employment land, either as part of a mixed use development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.</p>	<p>This area is relatively remote from service provision to the west (by distance and severance by the A38), although there is some provision (retail and schools) to the south at Minworth. Rail access is around 4km distant at Sutton Coldfield. Open space provision in the vicinity is limited and would demand particular attention as part of any development.</p>

## Conclusions

This SA has identified that the urban extension option could represent a reasonable compromise if of a sufficient scale and carefully integrated with the existing urban edge, both physically and in terms of service provision. The precise physical disposition of such development would need to be explored in greater detail (exploring the capacity of road systems and services, for example), but in principle, the objectives of sustainability are probably better achieved through a single development which provides a critical mass for the provision of services and green infrastructure, for example, which would promote a relatively high degree of self-containment. The approach is not without potential risks which would need to be mitigated, including anticipating issues regarding cross-commuting to and from employment areas, and the long-term integration of any extension into the existing urban fabric and adjoining rural area.

## Consultation

Consultation has been undertaken on the emerging Birmingham Development Plan and this Report is presented together with the Options Consultation Document. Questions regarding this Report should be addressed to:

Strategic Planning, Birmingham City Council, 1 Lancaster Circus, Queensway, Birmingham B4 7DG

Email: [planningstrategy@birmingham.gov.uk](mailto:planningstrategy@birmingham.gov.uk)

Tel: 0121 303 4041

# Contents

## Non-Technical Summary

Purpose of this Report	v
The Options	v
Key Messages from the Appraisal	vii
Conclusions	viii
Consultation	viii

<b>1. Introduction</b>	<b>1</b>
1.1 The Birmingham Development Plan	1
1.2 Purpose of this Report and Requirements for Sustainability Appraisal and Strategic Environmental Assessment	1
1.3 Structure of this Report	2
1.4 Difficulties Encountered and Information Gaps	2
1.5 Consultation	2
<b>2. Appraisal Methodology</b>	<b>2</b>
2.1 Appraisal of the Strategic Options and the Relationship with the Sustainability Appraisal of the Birmingham Development Plan	3
2.1.1 Sustainability Issues Affecting the City	3
2.1.2 The Sustainability Appraisal Framework	4
2.1.3 The Option Appraisal Framework	7
2.1.4 Option Selection	8
<b>3. Options Appraisal</b>	<b>11</b>
3.1 Introduction	11
3.1.1 Option 1: Do not accommodate projected additional growth	11
3.1.2 Option 2: Accommodate additional projected growth within the urban area	11
3.1.3 Option 3: Sustainable urban extension	12
3.2 Comparative Appraisal	12
3.3 Summary of Appraisal Findings	19
<b>4. Conclusions and Next Steps</b>	<b>21</b>
4.1 Quality Assurance Checklist	21

Table 2.1	The Sustainability Appraisal Framework	4
Table 2.2	Appraisal Template	7
Table 3.1	Comparative Appraisal of the Performance of the Options	13
Table 3.2	Cumulative Environmental, Economic and Social Effects by Option	19
Figure NTS 1	Greenfield Development Options	vi
Figure 2.1	Greenfield Development Options	8
Appendix A	Stages of the SA/SEA Process	
Appendix B	Facilities and Resources in the Vicinity of the Sub-options	

# 1. Introduction

## 1.1 The Birmingham Development Plan

Changes in national policy (principally publication of the National Planning Policy Framework [NPPF]) and the recalculation of likely housing demand in light of the latest population projections means that an adjustment to the approach accommodating this development is required. Thus far, it was calculated that the City's development needs could be accommodated within the existing built up area of the City. However, the scale of the projected increase (from 50,600 to 75,000-95,000 dwellings to 2031) means that land must be sought elsewhere. This can be partially through co-operation with neighbouring authorities, but will also demand the use of land within Birmingham's boundaries for approximately 10,000 dwellings. The Options Consultation Document on the Birmingham Development Plan sets Birmingham City Council's response to these needs, presenting a series of potential development options on Green Belt land to accommodate the development requirement.

## 1.2 Purpose of this Report and Requirements for Sustainability Appraisal and Strategic Environmental Assessment

This Report has been produced to accompany the Options Consultation Document and is the latest stage in the Sustainability Appraisal of the Birmingham Development Plan<sup>2</sup>. Its purpose is to use the Sustainability Framework developed in previous stages to test the strategic options presented against one another and against reasonable alternatives. The SEA Directive requires that the Environmental Report should consider 'reasonable alternatives taking into account the objectives and geographical scale of the plan or programme' and give 'an outline of the reasons for selecting the alternatives dealt with' (Article 5.1 and Annex I (h)). The Report is part of Stage B of the SA/SEA process (see **Appendix B**).

The results of the Sustainability Appraisal complement those of the Green Belt Options analysis set out in a separate report<sup>3</sup> which uses a constraints-based approach to evaluating the suitability of six alternative sites. Therefore, for the purposes of the Sustainability Appraisal, the options to be appraised are:

- Option 1: Do nothing i.e. not seeking to accommodate the additional projected growth (i.e. the level of growth proposed in the Preferred Option [2010]).
- Option 2: Accommodate additional projected growth within the existing urban area.
- Option 3: Strategic Green Belt Release (plus sub-options relating to individual sites).

---

<sup>2</sup> See Sustainability Appraisal Scoping Report (2007, rev.2010, rev.2012); Appraisal of Issues and Options (2008); Appraisal of Preferred Options (November 2010).

<sup>3</sup> Birmingham City Council (September 2012) Birmingham's Green Belt Options (Draft Version 30/08/12).

The Options Consultation Document discusses the issues associated with these alternatives, but it is the role of the Sustainability Appraisal to evaluate them against the proposed course of action i.e. releasing land on the periphery of the City.

### 1.3 Structure of this Report

This report sets out the findings of an Interim Sustainability Appraisal of the Options Consultation Document (October 2012) for the Birmingham Development Plan. The remainder of this Report is set out as follows:

- **chapter 2** sets out the SA Methodology employed in appraising the options associated with the current consultation.;
- **chapter 3** sets out the appraisal of the options for a strategic allocation of approximately 10,000 dwellings as well as alternatives identified in paragraph 1.2, comparing environmental, economic and social impacts;
- **chapter 4** sets out the prediction and evaluation of significant effects, including impacts on and from neighbouring authorities and cumulative impacts; and
- **chapter 5** sets out the overall conclusions of the study and the next steps.

### 1.4 Difficulties Encountered and Information Gaps

The SEA Directive requires the identification of any difficulties encountered or limitations associated with the preparation of the Report. In preparing this report the best data available at the time has been used, including an updated Scoping Report. However, there are information gaps, including:

- detailed traffic assessments to appraise the suitability of the road infrastructure in the vicinity of the options;
- detailed travel and accessibility assessments in the proximity of the option sites;
- capacity assessments of existing services; and
- detailed appraisals of the capacity of the sites within the urban area.

### 1.5 Consultation

Consultation has been undertaken on the emerging Birmingham Development Plan and this Report is presented together with the Options Consultation Document. Questions regarding this Report should be addressed to:

Strategic Planning, Birmingham City Council, 1 Lancaster Circus, Queensway, Birmingham B4 7DG

Email: [planningstrategy@birmingham.gov.uk](mailto:planningstrategy@birmingham.gov.uk)

Tel: 0121 303 4041

## 2. Appraisal Methodology

### 2.1 Appraisal of the Strategic Options and the Relationship with the Sustainability Appraisal of the Birmingham Development Plan

#### 2.1.1 Sustainability Issues Affecting the City

The following sustainability issues have been identified from the analysis in the Scoping Report.

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 Birmingham Development Plan and the significant demand for natural resources (minerals, water and land) and the production of waste.
SA Theme 2: CO <sub>2</sub> emissions	The City Council is committed to securing reductions in CO <sub>2</sub> emissions, with the Sustainable Community Strategy setting a target for a 60% reduction in emissions by 2026. The main source of emissions is likely to come from the built environment and transport, both of which are sources that the Birmingham Development Plan can influence through encouraging the greater co-ordination of where people live and work to reduce the need for commuting. Currently, for example, some 50% of those who live and work in Birmingham commute by car, and this rises to around 75% of those who live outside Birmingham but work in Birmingham.
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	<p>Historic environment: The key impacts here are likely to relate to the impacts of new development and infrastructure on Birmingham's historic environment, including scheduled ancient monuments, listed buildings, conservation areas, registered parks and gardens and canal network. There are over 2,500 entries on the Scheduled Monuments Record, 14 Registered Parks and Gardens and 25 Conservation Areas, all potentially vulnerable to the pressures of urban intensification.</p> <p>Landscape: New development is likely have an impact on the City's landscapes both within the existing urban area (parks, gardens and other greenspace) and outside of urban area where greenfield development is required. Within the main urban area the impacts could relate to development pressures on landscape features including parks, gardens and water courses. Outside the City, the major opportunities for greenfield development lie to the north/north east of the town (Sutton Coldfield) and to the south/south-west (beyond Longbridge) so the impacts of greenfield development (if required) on the surrounding landscape would more likely be felt here. Some 18% of the City's area is open space of varying kinds and urban intensification could have a significant impact on this through development and user pressures.</p> <p>Biodiversity: The City accommodates a range of designated sites of nature conservation importance and will have other non-designated areas which make an important contribution to biodiversity. This will include both previously developed land and buildings and greenfield sites. New development will have a detrimental impact on ecology and biodiversity where this involves the loss of habitats or leads to activities which will adversely impact on these features.</p> <p>Geodiversity: Concerns the variety of rocks, minerals and landforms and the processes which have informed these features over time. There could be impacts outside of the City in relation to the demand for minerals to build new homes, businesses and infrastructure (explored under SA Theme 1)</p>
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 <sub>2</sub> ), arising from both transport and industry.

SA Theme	Key Issues
	<p>Water pollution: The proportion of Birmingham's waterways which are of a good biological or chemical quality is significantly below national and regional averages.</p> <p>Soil pollution: Outside of the urban area to the north and north east of the city as well as to the south west are areas of Grade 3 (moderate to good quality) agricultural land which could clearly be impacted on where greenfield development is proposed.</p> <p>Noise pollution: The key impacts here are likely to relate to the specific of particular development proposals rather than direct impacts associated with the levels of growth proposed, notwithstanding that an expanded BIA could have a potential impact in terms of increased air traffic over the city.</p>
SA Theme 6: Economic growth	The main impact that the Birmingham Development Plan will have on economic growth relates to whether or not it provides a sufficient and flexible supply of employment land and premises, attractive to developers and investors wishing to expand or establish themselves in Birmingham.
SA Theme 7: Communities, healthy lifestyles and equality	The Birmingham Development Plan 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 Birmingham Development Plan will provide enough housing, in the right locations and of the right type. There will need to be a suitable supply of both market and affordable housing to meet the needs of existing and new residents. The availability of housing also has significant linkages with economic growth, in terms of providing local housing to house the labour force. A failure to provide sufficient housing within the City to support economic growth could lead to unsustainable travel patterns with high levels of 'in-commuting' and undermining self-containment or, as a worst case, the decline of the City's economy.

## 2.1.2 The Sustainability Appraisal Framework

The SA Scoping Report and subsequent interim appraisal reports have used the following framework to appraise plan options and policies (**Table 2.1**).

**Table 2.1 The Sustainability Appraisal Framework**

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to ...	Principal SEA Directive Topic
1. Natural resources and waste	<b>1. Resource Use:</b> Use natural resources such as water and minerals efficiently.	<p>Incorporate energy efficiency measures into new land use and developments, redevelopment and refurbishment?</p> <p>Promote and support resource efficient technologies?</p> <p>Reward efficient resource use?</p> <p>Reduce water consumption?</p>	Material assets
	<b>7. Waste Reduction and Minimisation:</b> 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
	<b>8. Efficient use of land:</b> Encourage land use and development that	Encourage the efficient use of land and minimise the loss of greenfield land?	Material assets

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to ...	Principal SEA Directive Topic
	optimises the use of previously developed land and buildings.	Value and protect the biodiversity/geodiversity (of previously developed land and buildings)?	
2. CO <sub>2</sub> emissions	<b>2. Sustainable design, construction and maintenance:</b> 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
	<b>3. Renewable Energy:</b> 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
	<b>4. Energy Efficiency:</b> Reduce overall energy use through energy efficiency.	Reduce energy consumption?	Material assets
	<b>5. Sustainable Transport:</b> 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
	<b>6. Reduce the need to travel:</b> Ensure development reduces the need to travel.	Reduce traffic volumes? Reduce average journey length?	Material assets
	<b>9. Reduce climate change:</b> 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	<b>10. Manage Climate Change:</b> 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 geodiversity	<b>12. Built and Historic Environment:</b> 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
	<b>13. Natural Landscape:</b> 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
	<b>14. Biodiversity:</b> 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	Biodiversity, flora and fauna



SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to ...	Principal SEA Directive Topic
		conserve and enhance species diversity? Lead to habitat creation delivering BAP priorities?	
5. Pollution	<b>15. Air Quality:</b> Minimise air pollution levels and create good quality air.	Improve air quality? Reduce CO2 emissions?	Air
	<b>16. Water Quality:</b> Minimise water pollution levels and create good quality water.	Improve water quality?	Water
	<b>17. Soil Quality:</b> Minimise soil pollution levels and create good quality soil.	Maintain and enhance soil quality? Minimise the loss of soils to development?	Soil
	<b>18. Noise:</b> Minimise noise pollution levels.	Cause noise pollution? Propose mitigation measures to minimise noise pollution?	Human health
6. Economic growth	<b>20. Economy and Equality:</b> Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Encourage and support a culture of enterprise and innovation, including social enterprise? Improve business development and enhance competitiveness? Promote growth in key sectors? Reduce unemployment, especially amongst disadvantaged groups?	Population
	<b>21. Learning and Skills:</b> 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	<b>11. Sense of Place:</b> 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
	<b>19. Social and Environmental Responsibility:</b> Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? Encourage good employee relations and management practices? Encourage ethical trading?	Population
	<b>22. Community Involvement:</b> Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods? Encourage engagement in community activities for example through the establishment of social and cultural facilities that address the needs of equalities groups? Increase the ability of people to influence decisions?	Population
	<b>23. Equality:</b> 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? Ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location?	Population
	<b>24. Poverty:</b> 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

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to ...	Principal SEA Directive Topic
	multiple disadvantage.	Reduce household poverty, especially the proportion of children living in poor households?	
	<b>25. Health:</b> 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
	<b>26. Crime:</b> Reduce crime, fear of crime and antisocial behaviour.	Reduce crime? Reduce the fear of crime amongst all social and cultural groups?	Population
	<b>28. Culture/Sport/Recreation:</b> Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Encourage participation in sport and cultural activities for all the diverse communities in Birmingham?	Population
8. Housing	<b>27. Housing:</b> 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

### 2.1.3 The Option Appraisal Framework

The framework used to undertake the appraisal is derived from previous appraisal exercises of the Birmingham Development Plan using the following template:

**Table 2.2 Appraisal Template**

SA Theme/ SA Objectives	Option X	Option Y	Option Z
XXXX	Score		
	Commentary		
	<b>Likelihood/Certainty:</b> <b>Geographical scale:</b> <b>Temporary or Permanent:</b> <b>Timing:</b>	<b>Likelihood/Certainty:</b> <b>Geographical scale:</b> <b>Temporary or Permanent:</b> <b>Timing:</b>	<b>Likelihood/Certainty:</b> <b>Geographical scale:</b> <b>Temporary or Permanent:</b> <b>Timing:</b>

**Key to score:**

<b>++</b>	Major Positive Impact	<b>+</b>	Positive Impact	<b>0</b>	Neutral Impact;	<b>-</b>	Negative Impact	<b>--</b>	Major Negative Impact	<b>#</b>	No Relationship	<b>?</b>	Uncertain Relationship
-----------	-----------------------	----------	-----------------	----------	-----------------	----------	-----------------	-----------	-----------------------	----------	-----------------	----------	------------------------

## 2.1.4 Option Selection

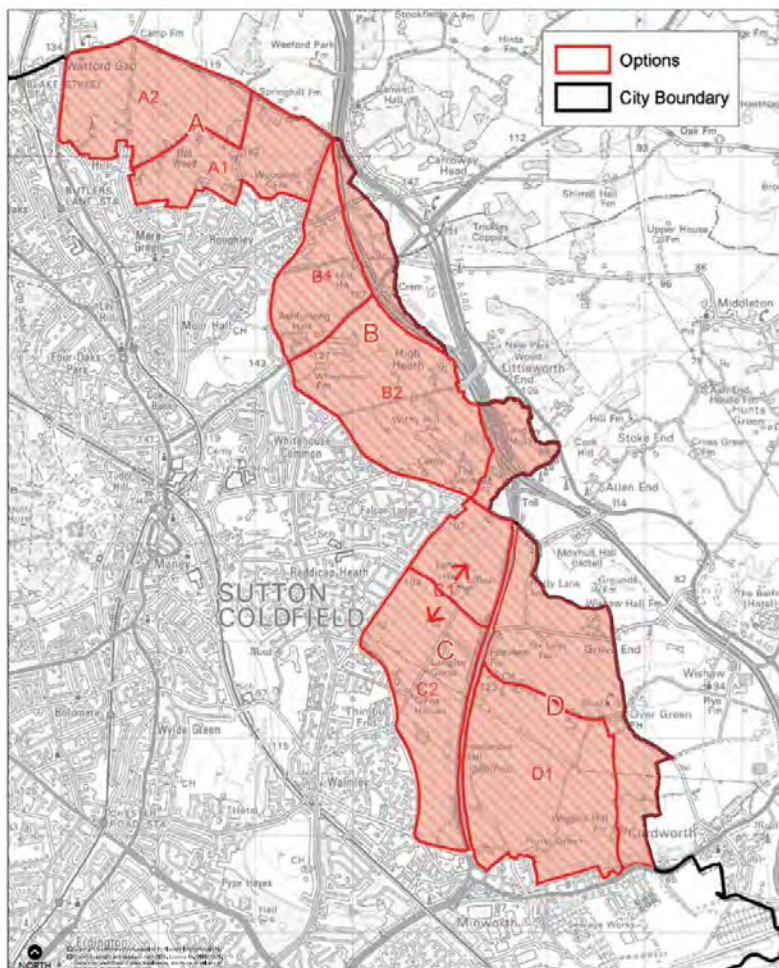
For the purposes of the Sustainability Appraisal, the options to be appraised are:

- Option 1: Do nothing i.e. not seeking to accommodate the additional projected growth.
- Option 2: Accommodate additional projected growth within the existing urban area through higher densities and/or use of green space and employment land.
- Option 3: Strategic Green Belt Release, plus sub-options relating to individual sites, which are:

Birmingham City Council's review of 'Green Belt Options' sets out an appraisal of four areas of possible development (**Figure 2.3**), with various sub-options.

- Area A: Hill Wood, East of Watford Gap (two sub-options).
- Area B: West of the M6 Toll (two sub-options).
- Area C: West of the Sutton Coldfield Bypass, Walmley (two sub-options).
- Area D: East of the Sutton Coldfield Bypass, Walmley.

**Figure 2.1 Greenfield Development Options**



The appraisal combines both strategic and site-specific considerations using available data drawn from the updated Scoping Report which accompanies this document. Further scrutiny of the sustainability performance of the sites will be required as part of the selection of any preferred site, and the high level analysis is presented here to accompany the planning appraisal.



## 3. Options Appraisal

### 3.1 Introduction

The following appraisal sets out the consideration of the relative performance of the options for dealing with the future development of Birmingham. As noted above, at this stage the analysis is relatively high level in character and intended to act as an additional source of information in the evaluation of the options to be considered as part of the preparing the Birmingham Development Plan. The Scoping Report is an important resource in the appraisal, as is a series of maps which identify community facilities and environmental resources in relation to the sites associated with Option 3. These are reproduced in **Appendix C**.

#### 3.1.1 Option 1: Do not accommodate projected additional growth

This option involves using land which has already been identified as holding potential for development through the SHLAA, ELR and other means, to the identified capacity of approximately 45,000 dwellings, with any additional growth provided by neighbouring authorities.

Whilst Option 1 is not considered to be a realistic option in the context of delivering the current Birmingham Development Plan, the Option was the strategy of the Preferred Option Document<sup>4</sup> and is used as a reference point for the consideration of alternatives which could meet the requirement to provide for the projected growth of the City's population. Key sustainability issues associated with this option centre on the failure to provide for objectively assessed housing and employment needs, which in the context of latest projections, can only be met through additional development to that originally proposed on brownfield land within the current urban area.

#### 3.1.2 Option 2: Accommodate additional projected growth within the urban area

This option entails seeking to accommodate any additional growth within the existing urban area through a combination of increasing urban densities, using open space and using employment land (both existing and potential). In principle, all additional development could be accommodated, but the Options Consultation Document identifies this as not being realistic for reasons of over-intensification, but in the options is a reasonable alternative which merits testing in sustainability terms. The potential sustainability impacts of this option centre on the effects of intensification on open space resources (both in terms of land-take and greater user pressure), use of employment land, and infill development principally in suburban areas. Consequently the effects on quality of life for existing and future residents need to be considered in respect of access to greenspace, pollution and overload of services. In addition, the capacity of the City to create employment through a choice of sites for prospective employers needs to be considered.

---

<sup>4</sup> Birmingham City Council (2010) **The Birmingham Plan: Emerging Core Strategy**.

### 3.1.3 Option 3: Sustainable urban extension

This is a new approach to accommodating additional growth in the City’s jurisdiction and follows the principle of Sustainable Urban Neighbourhoods which characterises the proposed approach to new development within the existing urban area. Any extension(s) will need to use greenfield land and push the urban edge further toward the City’s boundary to the east of Sutton Coldfield. As identified in section 2.1.4, there are a number sub-options associated with the application of this approach where alternative land parcels need to be tested for their planning and sustainability performance. Key sustainability issues centre on the scale of greenfield land-take, opportunities for the development of relatively self-contained communities which also have the potential for connections to existing communities (in terms of jobs, service provision and identity) and present opportunities to make a genuine contribution to sustainability measures such as improving green infrastructure, sustainable travel opportunities, renewable energy and waste management facilities. Equally, meeting the needs of existing residents for affordable homes and job opportunities needs to be part of the consideration of their function.

## 3.2 Comparative Appraisal

The scoring of the three options and associated commentary is presented in **Table 3.1**. This is based on professional judgement of the likely impacts of the option in relation to the groupings of the SA Objectives, as set out in **Table 2.1**.

This analysis draws on the previous appraisal findings, the updated SA Scoping Report, the Green Belt Options Paper<sup>5</sup> and mapping of service provision and environmental constraints in the vicinity of the greenfield development options (see **Appendix C**). An appraisal of the sustainability performance of individual greenfield sub-options (Sites A, B, C and D) is set out in **Appendix B**.

**Key to score:**

<b>++</b>	Major Positive Impact	<b>+</b>	Positive Impact	<b>0</b>	Neutral Impact;	<b>-</b>	Negative Impact	<b>--</b>	Major Negative Impact	<b>#</b>	No Relationship	<b>?</b>	Uncertain Relationship
-----------	-----------------------	----------	-----------------	----------	-----------------	----------	-----------------	-----------	-----------------------	----------	-----------------	----------	------------------------

<sup>5</sup> Birmingham City Council (2012) **Birmingham’s Green Belt Options**.

Table 3.1 Comparative Appraisal of the Performance of the Options

SA Theme/SA Objectives	Option 1: Do not accommodate additional projected growth	Option 2: Accommodate additional projected growth within the urban area	Option 3: Sustainable Urban Extension
<b>NATURAL RESOURCES AND WASTE</b>	<b>0</b>	<b>-</b>	<b>0</b>
<p><b>1. Resource Use:</b> Use natural resources such as water and minerals efficiently.</p> <p><b>7. Waste Reduction and Minimisation:</b> Encourage and enable waste minimisation, reuse, recycling and recovery.</p> <p><b>8. Efficient use of land:</b> Encourage land use and development that optimises the use of previously developed land and buildings.</p>	<p><b>Significant positive effects:</b> Opportunities to make efficient use of available land and through SUNs maximise sustainable waste management.</p> <p><b>Significant negative effects:</b> Pressure on the natural resources of adjacent authorities in accommodating deflected housing pressures.</p> <p><b>Overall:</b> There are likely to be beneficial effects associated with the efficient use of land (particularly previously developed land) and opportunities for recycling, although there are likely to be negative cross-boundary effects associated with adjacent authorities accommodating additional development.</p>	<p><b>Significant positive effects:</b> Opportunities to make efficient use of available land to maximise sustainable waste management.</p> <p><b>Significant negative effects:</b> Compromising of the integrity of natural resources across the City associated with open space.</p> <p><b>Overall:</b> There are likely to be beneficial effects associated with the efficient use of land (particularly previously developed land) although there is likely to be pressure to build on open space resources and employment land. Facility capacity could also be an issue, depending upon where development is able to be accommodated.</p>	<p><b>Significant positive effects:</b> There are opportunities associated with growth of this scale to make efficiencies in the use of land which balances housing and green infrastructure provision, for example.</p> <p><b>Significant negative effects:</b> This option uses tracts of greenfield land, which is part of the little remaining within Birmingham's jurisdiction.</p> <p><b>Overall:</b> Use of greenfield land, but opportunities for integrating development with the existing urban edge for large-scale recycling facilities, for example.</p>
	<p><b>Likelihood/Certainty:</b> highly likely to be realised, if the option is taken forward.</p> <p><b>Geographical scale:</b> effects likely across the City and across the wider sub-region.</p> <p><b>Temporary or Permanent:</b> permanent.</p> <p><b>Timing:</b> medium to long term</p>	<p><b>Likelihood/Certainty:</b> highly likely to be realised, if option is taken forward.</p> <p><b>Geographical scale:</b> effects likely across the City and adjacent areas.</p> <p><b>Temporary or Permanent:</b> permanent, subject to effective implementation</p> <p><b>Timing:</b> medium to long term</p>	<p><b>Likelihood/Certainty:</b> highly likely to be realised, both positively and negatively, if the option is taken forward.</p> <p><b>Geographical scale:</b> localised but enables City growth.</p> <p><b>Temporary or Permanent:</b> permanent, subject to effective implementation</p> <p><b>Timing:</b> medium to long term</p>
<b>CO2 EMISSIONS</b>	<b>+</b>	<b>+/?</b>	<b>+/?</b>
<p><b>2. Sustainable design, construction and maintenance:</b> Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.</p> <p><b>3. Renewable Energy:</b> Encourage development of alternative and</p>	<p><b>Significant positive effects:</b> Opportunities to maximise sustainable transport associated with SUNs and the development of a compact city.</p> <p><b>Significant negative effects:</b> Possible increase in overall CO2 emissions associated with intensification of built development and increasing in commuting</p>	<p><b>Significant positive effects:</b> Opportunities to maximise sustainable transport associated with the development of a compact city.</p> <p><b>Significant negative effects:</b> Possible increase in overall CO2 emissions associated with the intensification of built development.</p>	<p><b>Significant positive effects:</b> There is the opportunity, through good design, to significantly reduce CO2 emissions which would normally be associated with a development of this scale. Community-wide energy schemes and green travel plans could be considered, for example.</p> <p><b>Significant negative effects:</b> Overall CO<sub>2</sub></p>



SA Theme/SA Objectives	Option 1: Do not accommodate additional projected growth	Option 2: Accommodate additional projected growth within the urban area	Option 3: Sustainable Urban Extension
<p>renewable resources.</p> <p><b>4. Energy Efficiency:</b> Reduce overall energy use through energy efficiency.</p> <p><b>5. Sustainable Transport:</b> Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.</p> <p><b>6. Reduce the need to travel:</b> Ensure development reduces the need to travel.</p> <p><b>9. Reduce climate change:</b> Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.</p>	<p>as development is deflected to adjacent areas.</p> <p><b>Overall:</b> This option seeks to focus on the use of Sustainable Urban Neighbourhoods to promote compact urban form, reducing the need to travel and promoting innovation in the use of community-scale heating networks, for example. Reduction in CO2 emissions is an expected output from this approach to development.</p> <p><b>Likelihood/Certainty:</b> highly likely to be realised, if the option is taken forward.</p> <p><b>Geographical scale:</b> effects likely across the City.</p> <p><b>Temporary or Permanent:</b> permanent.</p> <p><b>Timing:</b> medium to long term</p>	<p><b>Overall:</b> This option could reduce the need to travel and promoting innovation in the use of community-scale heating networks, for example. Whilst a reduction in CO2 emissions is an expected output from this approach to development, over-concentration of development could lead to congestion and increased emissions.</p> <p><b>Likelihood/Certainty:</b> uncertainty whether over-intensification could produce unacceptable levels of pollution.</p> <p><b>Geographical scale:</b> effects likely across the City and adjacent areas.</p> <p><b>Temporary or Permanent:</b> permanent, subject to effective implementation</p> <p><b>Timing:</b> medium to long term</p>	<p>emissions will increase, associated with additional road traffic and energy use.</p> <p><b>Overall:</b> This option presents opportunities to develop energy efficiency measures at a community scale, but these could be undermined by car-based travel from the periphery. Much depends on the balance between self-containment of the new community and relationship with the existing urban edge.</p> <p><b>Likelihood/Certainty:</b> highly likely to be realised, both positively and negatively, if the option is taken forward.</p> <p><b>Geographical scale:</b> localised</p> <p><b>Temporary or Permanent:</b> permanent, subject to effective implementation</p> <p><b>Timing:</b> medium to long term</p>
<p><b>CLIMATE CHANGE ADAPTATION</b></p> <p><b>10. Manage Climate Change:</b> Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.</p>	<p style="text-align: center;"><b>+</b></p> <p><b>Significant positive effects:</b> Through SUNs, opportunities to anticipate climate change through city greening and building design, for example.</p> <p><b>Significant negative effects:</b> Possible compromising of the City's ability to adapt to the effects of climate change because of the intensification of development.</p> <p><b>Overall:</b> Opportunities to mitigate impacts through design</p> <p><b>Likelihood/Certainty:</b> likely to be realised</p> <p><b>Geographical scale:</b> Effects likely across the City</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>	<p style="text-align: center;"><b>+</b></p> <p><b>Significant positive effects:</b> Opportunities to anticipate climate change through city greening and building design, for example.</p> <p><b>Significant negative effects:</b> Possible compromising of the City's ability to adapt to the effects of climate change because of the intensification of development.</p> <p><b>Overall:</b> Opportunities to mitigate impacts through design</p> <p><b>Likelihood/Certainty:</b> likely to be realised</p> <p><b>Geographical scale:</b> Effects likely across the City</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>	<p style="text-align: center;"><b>+</b></p> <p><b>Significant positive effects:</b> Opportunities to design in climate change adaptation measures such as SUDS.</p> <p><b>Significant negative effects:</b> Limited contribution to managing Birmingham's adaptability to climate change as a whole.</p> <p><b>Overall:</b> Opportunities to mitigate impacts through design</p> <p><b>Likelihood/Certainty:</b> likely to be realised</p> <p><b>Geographical scale:</b> Localised</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>

SA Theme/SA Objectives	Option 1: Do not accommodate additional projected growth	Option 2: Accommodate additional projected growth within the urban area	Option 3: Sustainable Urban Extension
<p><b>HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY &amp; GEODIVERSITY</b></p> <p><b>12. Built and Historic Environment:</b> Value, protect, enhance and restore Birmingham's built and historic environment and landscape.</p> <p><b>13. Natural Landscape:</b> Value, protect, enhance and restore Birmingham's natural landscape.</p> <p><b>14. Biodiversity:</b> Value, protect, maintain, restore and re-create local biodiversity and geodiversity.</p>	<b>+</b>	<b>-/?</b>	<b>0</b>
	<p><b>Significant positive effects:</b> Opportunities to enhance existing natural and cultural assets through city greening and strengthening of local identity.</p> <p><b>Significant negative effects:</b> Pressure on the natural and cultural resources of adjacent authorities in accommodating deflected housing pressures.</p> <p><b>Overall:</b> Use of existing developed land will protect existing cultural resources and provide opportunities for their enhancement associated with neighbourhood development.</p>	<p><b>Significant positive effects:</b> Opportunities to enhance existing natural and cultural assets through city greening and strengthening of local identity.</p> <p><b>Significant negative effects:</b> Compromising of the integrity of natural and cultural resources across the City associated with the development of open space.</p> <p><b>Overall:</b> There is likely to be significant additional pressure on natural and cultural assets associated with seeking to accommodate additional development on areas such as open space. However, the extent of the impact would require additional as would opportunities for mitigation.</p>	<p><b>Significant positive effects:</b> Opportunity to systematically enhance some environmental resources through green infrastructure provision.</p> <p><b>Significant negative effects:</b> Permanent loss of some environmental and cultural resources.</p> <p><b>Overall:</b> Greenfield development is likely to lead to loss of habitat and landscape character, but there is the opportunity, through green infrastructure, to provide for biodiversity and landscape enhancement.</p>
<p><b>POLLUTION</b></p> <p><b>15. Air Quality:</b> Minimise air pollution levels and create good quality air.</p> <p><b>16. Water Quality:</b> Minimise water pollution levels and create good quality water.</p> <p><b>17. Soil Quality:</b> Minimise soil pollution levels and create good quality soil.</p> <p><b>18. Noise:</b> Minimise noise pollution levels.</p>	<b>+</b>	<b>-</b>	<b>0</b>
	<p><b>Significant positive effects:</b> More efficient use of resources through SUNs.</p> <p><b>Significant negative effects:</b> Pressure on adjacent authorities to provide housing puts pressure on their resources and could result in increased commuting.</p> <p><b>Overall:</b> This option seeks to focus on the use of Sustainable Urban Neighbourhoods to promote compact urban form, reducing the need to travel and improving air quality and noise emissions. Deflected</p>	<p><b>Significant positive effects:</b> More efficient use of resources through SUNs approach to urban development.</p> <p><b>Significant negative effects:</b> Greater pollution load associated with urban intensification.</p> <p><b>Overall:</b> This option seeks to focus on the use of Sustainable Urban Neighbourhoods to promote compact urban form, reducing the need to travel. However, over-concentration of development could lead to</p>	<p><b>Significant positive effects:</b> Opportunities to move towards greater sustainable transport provision, for example in cycle networks etc.</p> <p><b>Significant negative effects:</b> Additional burdens on air quality and noise associated with the significant level of new development.</p> <p><b>Overall:</b> Although car-based travel from this peripheral location is likely to exacerbate air and noise pollution much</p>

SA Theme/SA Objectives	Option 1: Do not accommodate additional projected growth	Option 2: Accommodate additional projected growth within the urban area	Option 3: Sustainable Urban Extension
	<p>development could compromise environmental quality of adjacent areas, however.</p> <p><b>Likelihood/Certainty:</b> highly likely to be realised, if the option is taken forward.</p> <p><b>Geographical scale:</b> effects likely across the City.</p> <p><b>Temporary or Permanent:</b> permanent.</p> <p><b>Timing:</b> medium to long term</p>	<p>congestion and increased emissions.</p> <p><b>Likelihood/Certainty:</b> uncertainty over whether and how intensification might lead to additional pollution.</p> <p><b>Geographical scale:</b> effects likely across the City and adjacent areas.</p> <p><b>Temporary or Permanent:</b> permanent, subject to effective implementation</p> <p><b>Timing:</b> medium to long term</p>	<p>depends on the balance between self-containment of the new community and relationship with the existing urban edge.</p> <p><b>Likelihood/Certainty:</b> uncertainty over the degree of self-containment realised by new development.</p> <p><b>Geographical scale:</b> localised</p> <p><b>Temporary or Permanent:</b> permanent, subject to effective implementation</p> <p><b>Timing:</b> medium to long term</p>
<p><b>ECONOMIC GROWTH</b></p> <p><b>20. Economy and Equality:</b> Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.</p> <p><b>21. Learning and Skills:</b> Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.</p>	<p style="text-align: center;"><b>0</b></p> <p><b>Significant positive effects:</b> Through SUNs, there are opportunities to focus on development of indigenous economic growth which benefits all sectors of the population.</p> <p><b>Significant negative effects:</b> Restricted opportunities for Birmingham's population to benefit from economic growth as development is deflected to other locations in the sub-region.</p> <p><b>Overall:</b> Development focused on Sustainable Urban Neighbourhoods should help to foster indigenous economic growth which matches skills to opportunities, but the opportunities to accommodate inward investment could be limited.</p> <p><b>Likelihood/Certainty:</b> highly likely to be realised</p> <p><b>Geographical scale:</b> Effects likely across the City and wider sub-region</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>	<p style="text-align: center;"><b>-</b></p> <p><b>Significant positive effects:</b> Opportunities to focus on development of indigenous economic growth which benefits all sectors of the population.</p> <p><b>Significant negative effects:</b> Use of employment land for housing, resulting in a loss of flexibility for future economic growth.</p> <p><b>Overall:</b> Whilst focusing development on the City could lead to greater indigenous economic activity, loss of employment land is likely, reducing the ability of the City to respond to economic opportunities.</p> <p><b>Likelihood/Certainty:</b> highly likely to be realised</p> <p><b>Geographical scale:</b> Effects likely across the City and wider sub- region</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>	<p style="text-align: center;"><b>+/?</b></p> <p><b>Significant positive effects:</b> Provision of significant employment land and hence job and training opportunities for existing and new residents.</p> <p><b>Significant negative effects:</b> Potential to attract re-locating businesses from Birmingham rather than from outside the City.</p> <p><b>Overall:</b> Whilst development could involve the provision of additional employment land, there is uncertainty of the extent to which jobs can be linked to the needs of new residents, or will generate increased commuting into this peripheral location.</p> <p><b>Likelihood/Certainty:</b> uncertainty over the balance of indigenous economic growth and re-locations from within and outside the City.</p> <p><b>Geographical scale:</b> Localised but of relevance to the wider City</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>

SA Theme/SA Objectives	Option 1: Do not accommodate additional projected growth	Option 2: Accommodate additional projected growth within the urban area	Option 3: Sustainable Urban Extension
<p><b>COMMUNITIES, HEALTHY LIFESTYLES, AND EQUALITY</b></p> <p><b>11. Sense of Place:</b> Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.</p> <p><b>19. Social and Environmental Responsibility:</b> Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.</p> <p><b>22. Community Involvement:</b> Enable communities to influence the decisions that affect their neighbourhoods and quality of life.</p> <p><b>23. Equality:</b> Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.</p> <p><b>24. Poverty:</b> Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.</p> <p><b>25. Health:</b> Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.</p> <p><b>26. Crime:</b> Reduce crime, fear of crime and antisocial behaviour.</p> <p><b>28. Culture/Sport/Recreation:</b> Improve opportunities to participate in diverse cultural, sporting and recreational activities.</p>	<p style="text-align: center;"><b>0/?</b></p> <p><b>Significant positive effects:</b> The creation of Sustainable Urban Neighbourhoods should make a significant contribution towards achieving aspirations for growth whilst not compromising the quality of what already exists.</p> <p><b>Significant negative effects:</b> The level of growth required cannot be provided for through using developed land within the existing built-up area meaning that the aspirations for equality of access to homes and jobs are unlikely to be achieved.</p> <p><b>Overall:</b> Through Sustainable Urban Neighbourhoods, there is the opportunity to enhance sense of place and access to key services.</p>	<p style="text-align: center;"><b>-</b></p> <p><b>Significant positive effects:</b> Additional service provision associated with higher population densities.</p> <p><b>Significant negative effects:</b> It is uncertain whether the range of community needs can be provided for on land which cannot be well-related to existing communities. There will be a compromising of quality of life through loss of greenspace and over-intensification of the urban area.</p> <p><b>Overall:</b> There is a danger of a loss of character and facilities such as open space associated with over-intensification of development across the City.</p>	<p style="text-align: center;"><b>+/?</b></p> <p><b>Significant positive effects:</b> Significant opportunities for the development of a relatively self-contained community which complements existing service provision in and around Sutton Coldfield.</p> <p><b>Significant negative effects:</b> Potential impacts on existing service provision, particularly open space. Access to rail and bus services is relatively poor. Challenges associated with creating a sense of place.</p> <p><b>Overall:</b> Whilst a sustainable urban extension would seek a reasonable degree of self-containment, there is uncertainty over how this might work in practice. Careful integration with existing communities would be required.</p>
	<p><b>Likelihood/Certainty:</b> highly likely to be realised</p> <p><b>Geographical scale:</b> Effects likely across the City</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>	<p><b>Likelihood/Certainty:</b> uncertainty associated with the precisely which communities could be affected and in what respects.</p> <p><b>Geographical scale:</b> Effects likely across the City</p> <p><b>Temporary or Permanent:</b> Permanent,</p> <p><b>Timing:</b> Medium to long term</p>	<p><b>Likelihood/Certainty:</b> uncertainty over how quality of life aspirations might be achieved.</p> <p><b>Geographical scale:</b> Localised</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>
<p><b>HOUSING</b></p> <p><b>27. Housing:</b> Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to</p>	<p style="text-align: center;"><b>-</b></p> <p><b>Significant positive effects:</b> The creation of Sustainable Urban Neighbourhoods should make a significant contribution</p>	<p style="text-align: center;"><b>0/?</b></p> <p><b>Significant positive effects:</b> The creation of Sustainable Urban Neighbourhoods should make a significant contribution</p>	<p style="text-align: center;"><b>+/?</b></p> <p><b>Significant positive effects:</b> Provision of a significant quantum of housing to meet growth needs, part of which will be</p>

SA Theme/SA Objectives	Option 1: Do not accommodate additional projected growth	Option 2: Accommodate additional projected growth within the urban area	Option 3: Sustainable Urban Extension
meet local needs.	<p>towards achieving aspirations for growth whilst not compromising the quality of what already exists.</p> <p><b>Significant negative effects:</b> The level of growth required cannot be provided for through using developed land within the existing built-up area meaning that the aspirations for equality of access to homes and jobs are unlikely to be achieved. There is also likely to be greater pressure on adjacent authorities to provide for Birmingham's housing needs.</p> <p><b>Overall:</b> This option could not provide for the demands associated with the City's housing needs. Increased pressure on adjacent areas to accommodate this need will result.</p>	<p>towards achieving aspirations for growth whilst not compromising the quality of what already exists.</p> <p><b>Significant negative effects:</b> It is uncertain whether the range of community needs can be provided for on land which cannot be well-related to existing communities.</p> <p><b>Overall:</b> Whilst providing additional housing, there could be uncertainties over whether specific demands can be met for a range of housing because of the constraints imposed by finding additional land.</p>	<p>affordable.</p> <p><b>Significant negative effects:</b> Uncertain benefits to local communities across the City in need of additional affordable provision.</p> <p><b>Overall:</b> Whilst providing additional housing, there could be uncertainties over whether specific demands can be met for a range of housing because of the location of the development.</p>
	<p><b>Likelihood/Certainty:</b> highly likely to be realised</p> <p><b>Geographical scale:</b> Effects likely across the City and wider sub-region</p> <p><b>Temporary or Permanent:</b> Permanent,</p> <p><b>Timing:</b> Medium to long term</p>	<p><b>Likelihood/Certainty:</b> uncertainties over meeting affordable housing provision related to local needs.</p> <p><b>Geographical scale:</b> Effects likely across the City</p> <p><b>Temporary or Permanent:</b> Permanent</p> <p><b>Timing:</b> Medium to long term</p>	<p><b>Likelihood/Certainty:</b> uncertainty over affordable housing provision related to local needs.</p> <p><b>Geographical scale:</b> Effects likely across the City</p> <p><b>Temporary or Permanent:</b> Permanent, subject to effective implementation</p> <p><b>Timing:</b> Medium to long term</p>

### 3.3 Summary of Appraisal Findings

The preceding analysis has identified a wide range of potential sustainability effects associated with each option. Drawing on **Table 3.1**, **Table 3.2** and **Appendix B**, compares each option (and sub-option) directly in respect of likely environmental, economic and social effects. These highlight the principal issues (at this stage at a high level), but sets out where further study of service provision could be required to fully evaluate the effects of specific potential urban extensions.

**Table 3.2 Cumulative Environmental, Economic and Social Effects by Option**

Option		Likely Cumulative Environmental Effects	Likely Cumulative Economic Effects	Likely Cumulative Social Effects
1. Do not accommodate additional projected growth		Efficient use of existing land resources, with opportunities to enhance existing urban environment associated with SUN approach.	Opportunities for growth could be missed through lack of additional employment land being allocated.	No provision for additional housing, leading to lack of housing opportunities and additional pressure on adjoining areas.
2. Accommodate additional projected growth within the existing urban area		As above, but loss/compromising of assets such as open space and cultural heritage resources.	Potential loss of employment land leading to reduced capacity to respond to future growth. Loss of economic opportunities to adjacent areas.	Potential over-burdening of services and transport network, although this would be location-specific. Decline in overall quality of life is likely.
3. Allocate land for an urban extension	Area A: Hill Wood, East of Watford Gap	Greenfield land-take, and potential increases in emissions associated with car-based travel, associated both with the development and from outside.  Sites of Local Interest for Nature Conservation and cultural heritage affected.	Additional employment land, either as part of a mixed use development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.	Service provision clustered at Mere Green (including health services, shops and schools) could provide the basis for complementary provision at this location. Butlers Lane railway station, for example, could provide a focus for sustainable travel to Sutton Coldfield, Birmingham and Lichfield. Supplementing the currently limited open space provision in the vicinity would demand particular attention as part of any development.
	Area B: West of the M6 Toll	Greenfield land-take, and potential increases in emissions associated with car-based travel, associated both with the development and from outside.  Flood risk associated with part of the site.  Sites of Importance for Nature Conservation and Sites of Local Interest for Nature Conservation and cultural heritage affected.	Additional employment land, either as part of a mixed use development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.	Service provision clustered at Mere Green, Sutton Coldfield and Reddip Heath (including health services, shops and schools) could provide the basis for complementary provision at this location. Four Oaks and Sutton Coldfield railway stations lie approximately 2km to the west but could be focal points for sustainable travel. Open space provision in the vicinity is reasonable (Sutton Park for example) but would demand particular attention as part of any development.
	Area C: West of	Greenfield land-take, and potential increases in	Additional employment land, either as part of a mixed use	Bounded by the existing urban edge and the A38, this area has

Option		Likely Cumulative Environmental Effects	Likely Cumulative Economic Effects	Likely Cumulative Social Effects
	the Sutton Coldfield Bypass, Walmley	emissions associated with car-based travel, associated both with the development and from outside. Flood risk associated with part of the site. Sites of Local Interest for Nature Conservation and cultural heritage affected.	development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.	access to a range of services at Reddip Heath and Walmley which could provide the basis for complementary provision at this location. Rail access is via Sutton Coldfield station at around 2.5km. Open space provision in the vicinity is reasonable but would demand particular attention as part of any development.
	Area D: East of the Sutton Coldfield Bypass, Walmley	Greenfield land-take, and potential increases in emissions associated with car-based travel, associated both with the development and from outside. Sites of Local Interest for Nature Conservation and cultural heritage affected.	Additional employment land, either as part of a mixed use development or stand-alone will provide opportunities for existing residents in adjacent areas, and the potential for future economic growth of the City.	This area is relatively remote from service provision to the west (by distance and severance by the A38), although there is some provision (retail and schools) to the south at Minworth. Rail access is a around 4km distant at Sutton Coldfield. Open space provision in the vicinity is limited and would demand particular attention as part of any development.

The various effects associated with each option presents dilemmas in the selection of a preferred solution to the demands for growth of the City associated with projected population increase. The baseline strategy of accommodating growth within the existing urban envelope using SUNs as the focus for development remains, but needs to be modified through additional land allocation. Option 2, which is likely to result in over-intensification of the existing urban area threatens not only quality of life (notably through the erosion of limited open space resources and over-burdening of services), but also the capacity of the City to respond to future economic growth where employment land is used for housing. The appraisal concludes that, notwithstanding issues associated with loss of greenfield land and effects on nature conservation and cultural heritage, a sustainable urban extension on land to the north east of the City presents a relatively sustainable solution to accommodating the additional housing required.

In many respects, there is relatively little difference between the environmental, economic and social effects associated with sub-options A, B, C and D. Much would depend on the opportunities for additional and complementary service provision and hence relative self-containment through a significant development of 5-10,000 units. In this regard, Options B and C probably present the greatest potential given their ready access to existing services in the vicinity of Sutton Coldfield. However, there is relatively little to choose, at this stage, between the merits of Options A, B and C. The relative remoteness of area D means that its sustainability qualities are relatively poor, compared to Options A, B and C. Whether a single site or multiple sites (either within Options or between them) represents the best planning solution is dependent upon a range of factors, notably transport infrastructure and the capacity of existing services such as schools. More detailed transport and service capacity modelling, would be required to appraise these impacts.

## 4. Conclusions and Next Steps

This SA has explored three options available to Birmingham City Council to deliver development land associated with projected growth to 2031. In the context of the physical constraints of the City these are limited with the only realistic solution being to deliver a sustainable urban extension (or multiples thereof) on part of the remaining greenfield land within the City boundary. Under the Duty to Co-operate, some of the additional growth demand can be accommodated by adjoining areas, notably the Black Country and Solihull, but the residual requirement (i.e. around 10,000 homes) demands significant further land-take.

This SA has identified that the urban extension option could represent a reasonable compromise if of a sufficient scale and carefully integrated with the existing urban edge, both physically and in terms of service provision. The precise physical disposition of such development would need to be explored in greater detail (exploring the capacity of road systems and services, for example), but in principle, the objectives of sustainability are probably better achieved through a single development which provides a critical mass for the provision of services and green infrastructure, for example, which would promote a relatively high degree of self-containment. The approach is not without potential risks which would need to be mitigated, including anticipating issues regarding cross-commuting to and from employment areas, and the long-term integration of any extension into the existing urban fabric and adjoining rural area.

This SA will be developed in light of further work on a preferred approach to accommodating anticipated growth in Birmingham. This could include, for example, a hybrid approach which uses elements from all three options evaluated in this document. Part of this work will need to include detailed modelling of transport impacts, for example.

### 4.1 Quality Assurance Checklist

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.	Chapter 1 and updated Scoping Report
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Sustainability issues facing the City (section 2.2.1) See also baseline data published in the Scoping Report and the previous Interim Sustainability Report (November 2010)
c) The environmental characteristics of areas likely to be significantly affected.	Sustainability issues facing the City (section 2.2.1)



SEA Directive requirement	Where covered in the SA Report
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.	Sustainability issues facing the City (section 2.2.1)
e) The environmental protection objectives established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation.	Scoping Report (January 2008, July 2010, October 2012)
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects).	Analysis of significant effects (Table 3.1)
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 (Tables 3.1 and 3.2)
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Methodology (chapter 1) Appraisal of plan options (chapter 3) Uncertainties (section 1.4)
i) A description of measures envisaged concerning monitoring in accordance with Art. 10.	Not relevant at this stage
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

# Appendix A

## Stages of the SA/SEA Process

### 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.

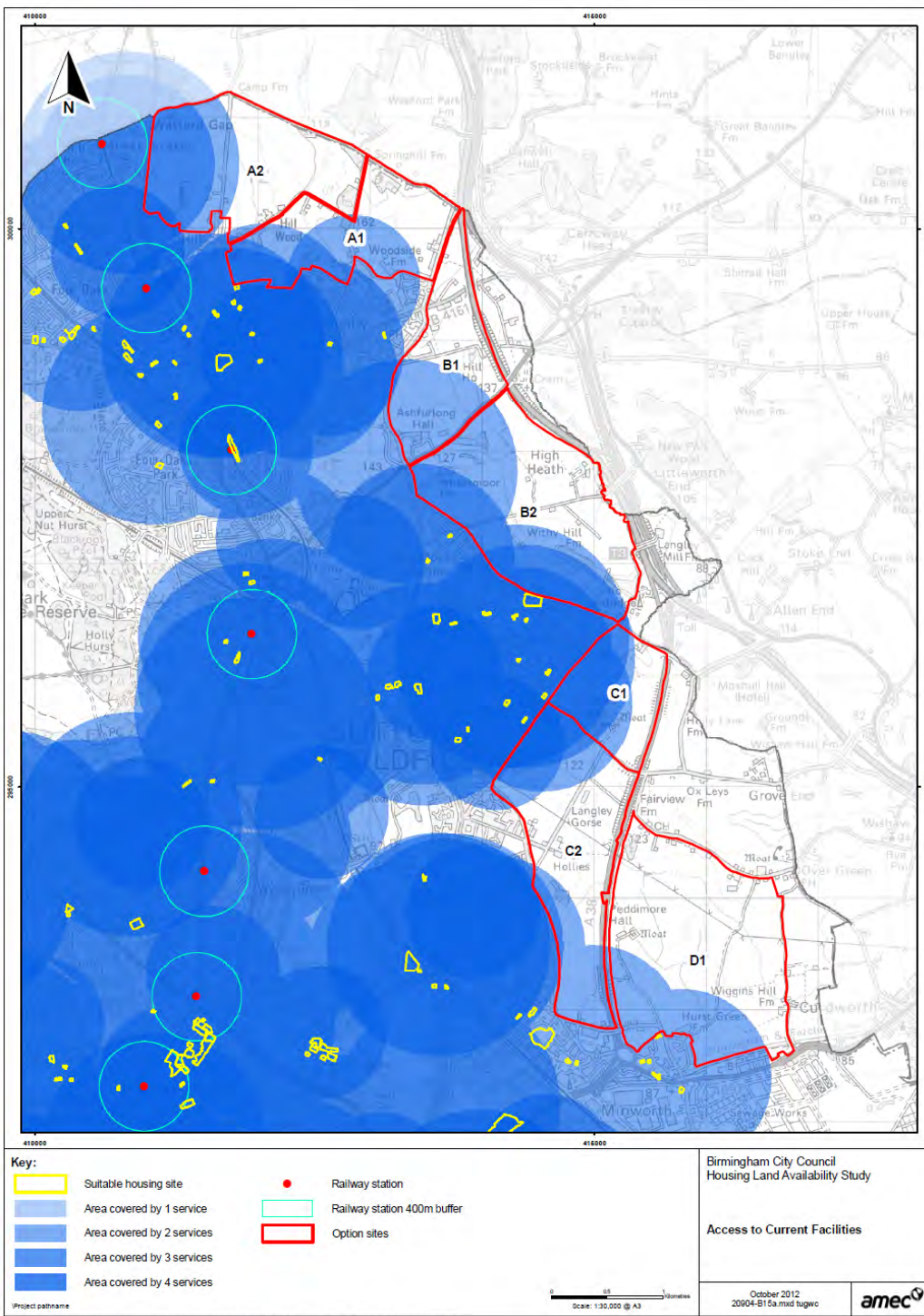
### Stage E: Monitoring the significant effects of implementing the Plan

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

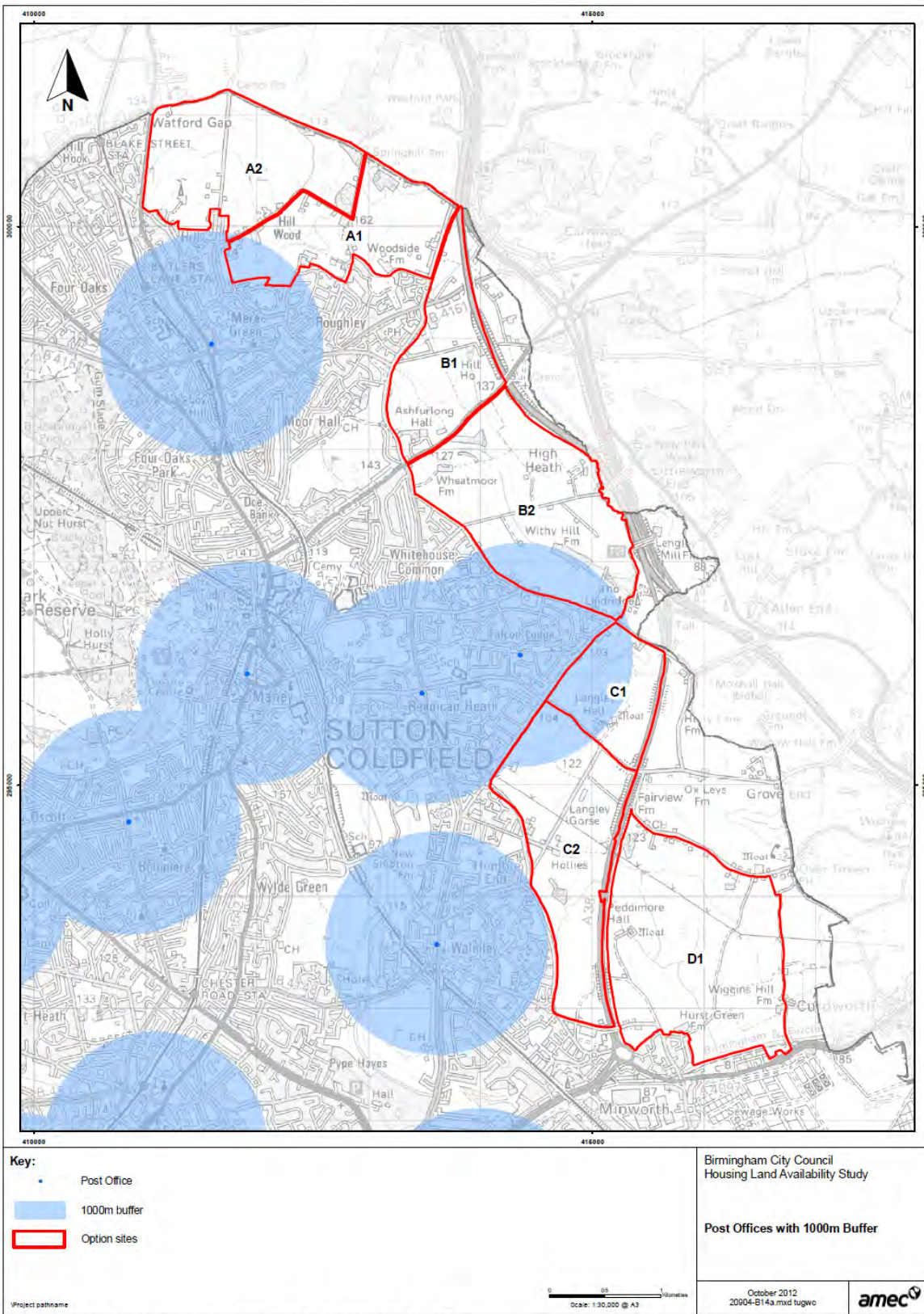


# Appendix B Facilities and Resources in the Vicinity of the Sub- options

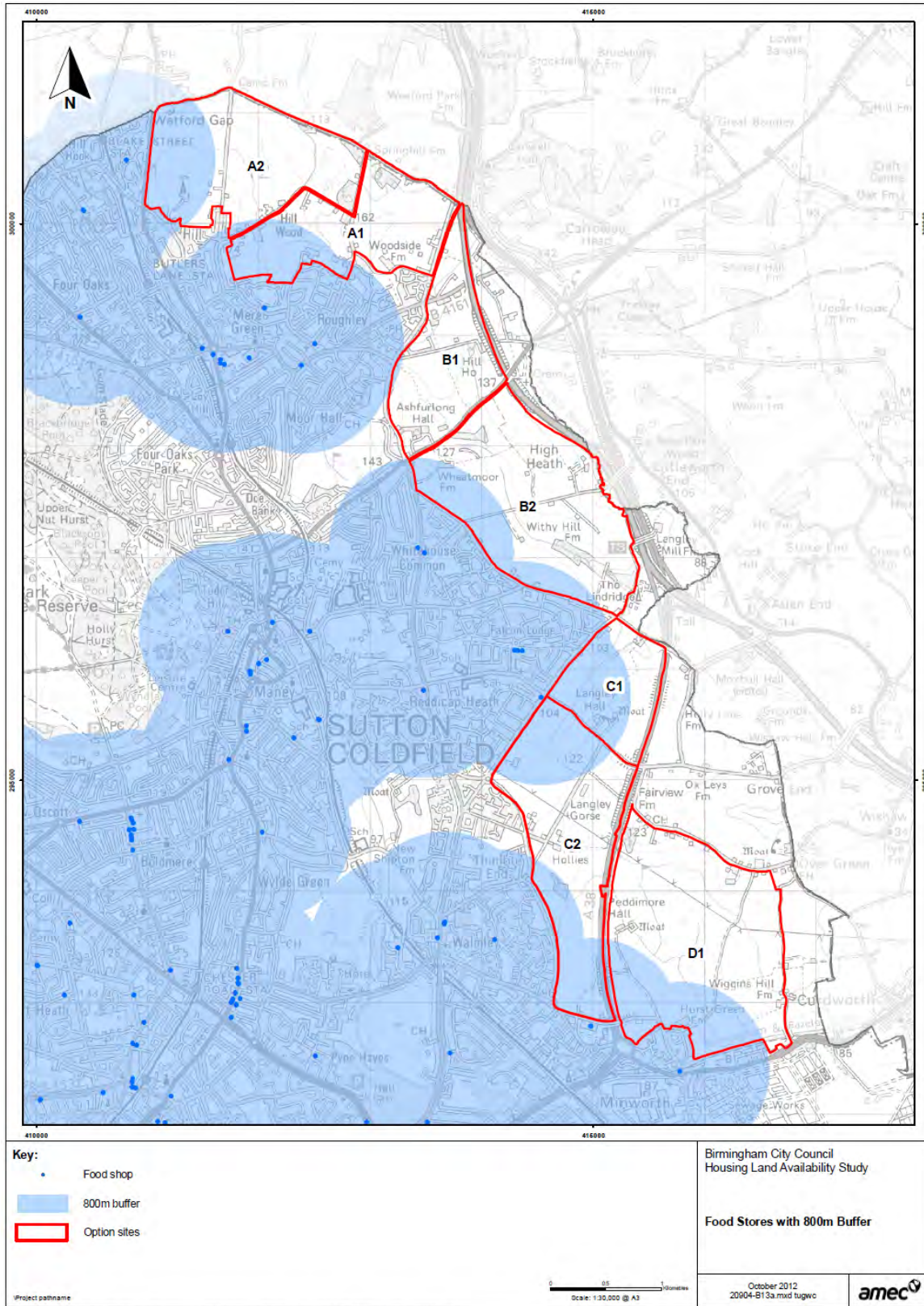
Compilation of Access to all Facilities (Post Offices, Schools, Food Stores, Healthcare)



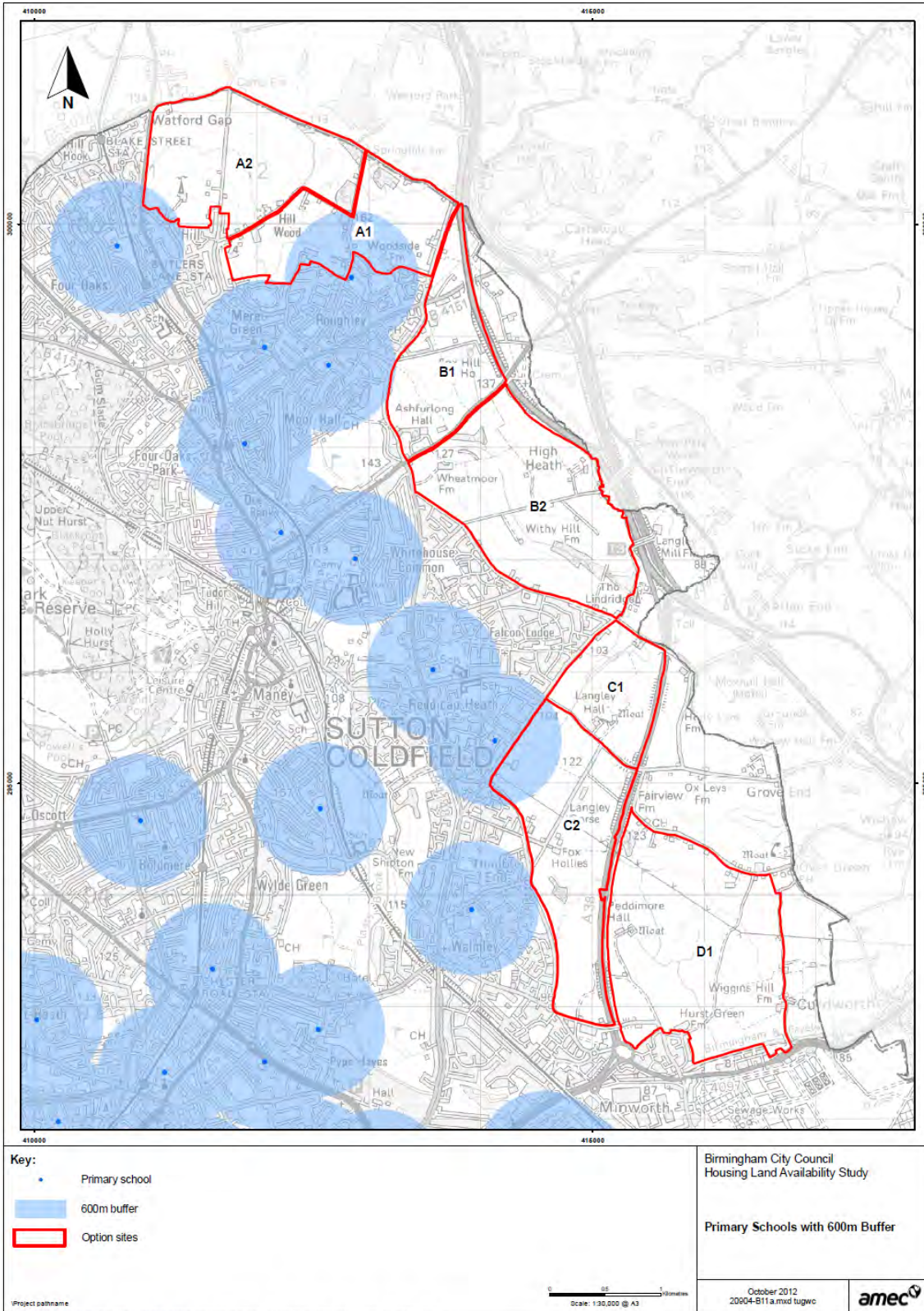
Access to Post Offices



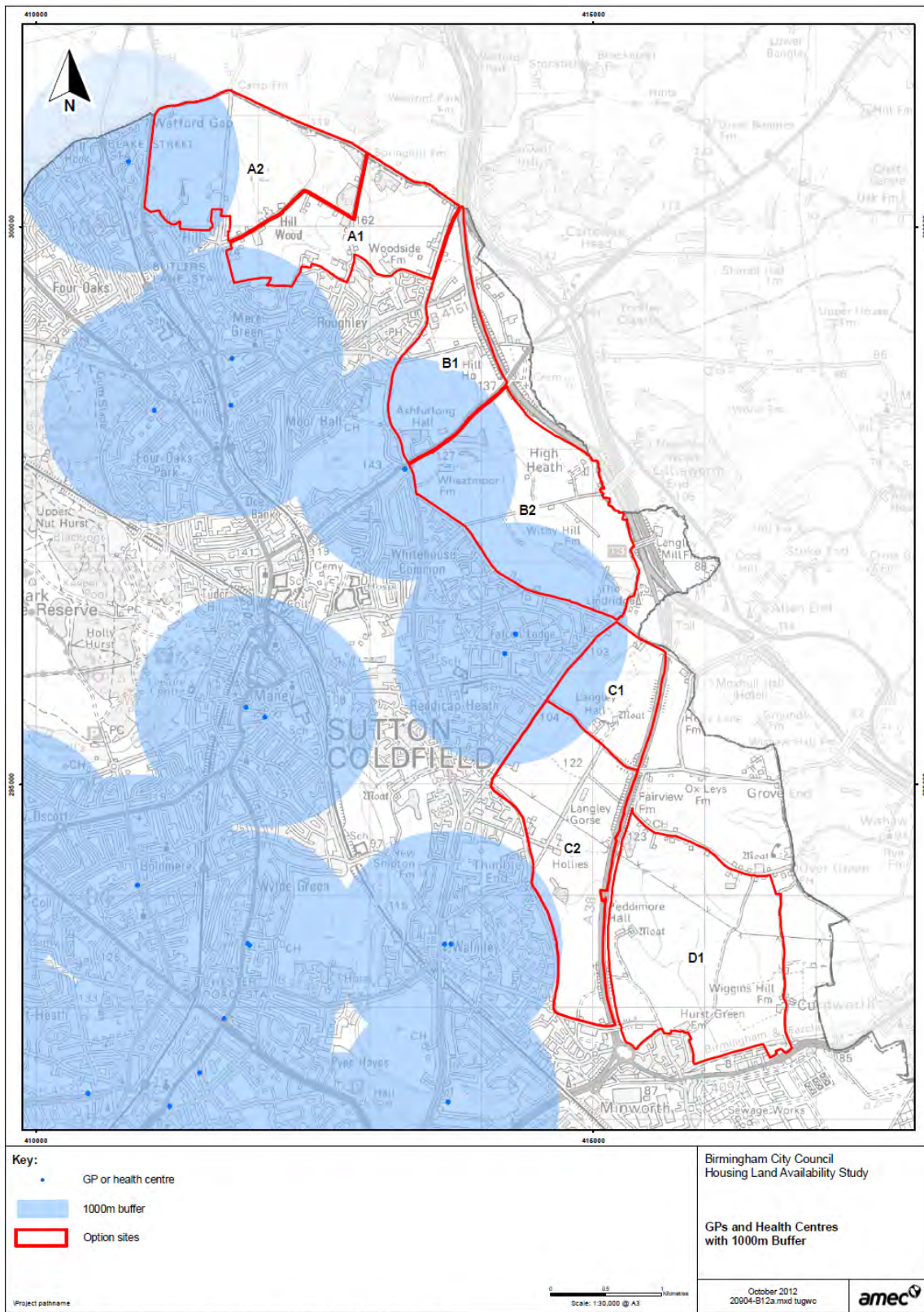
### Access to Food Stores



### Access to Primary Schools

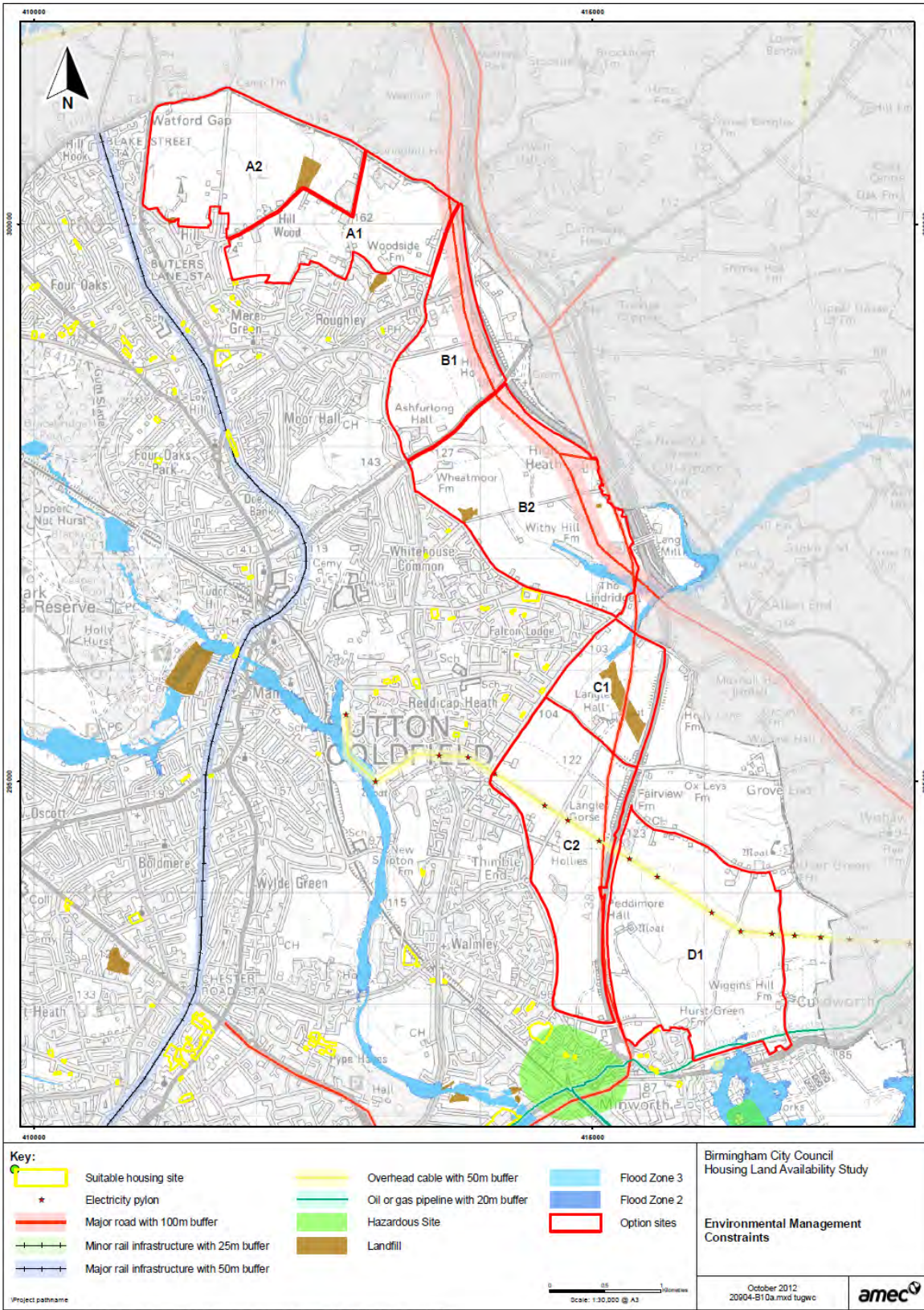


### Access to GPs and Health Care Facilities

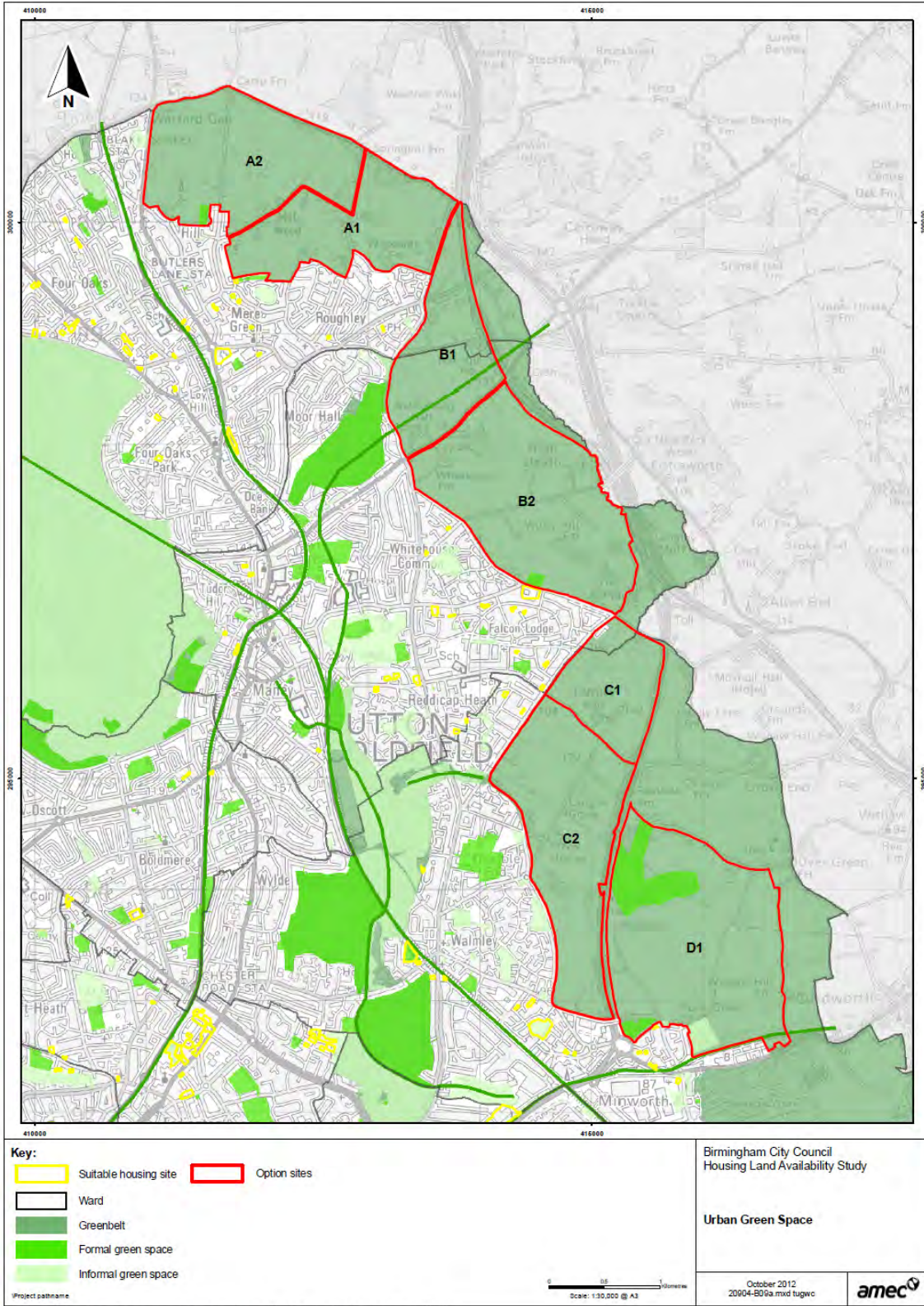




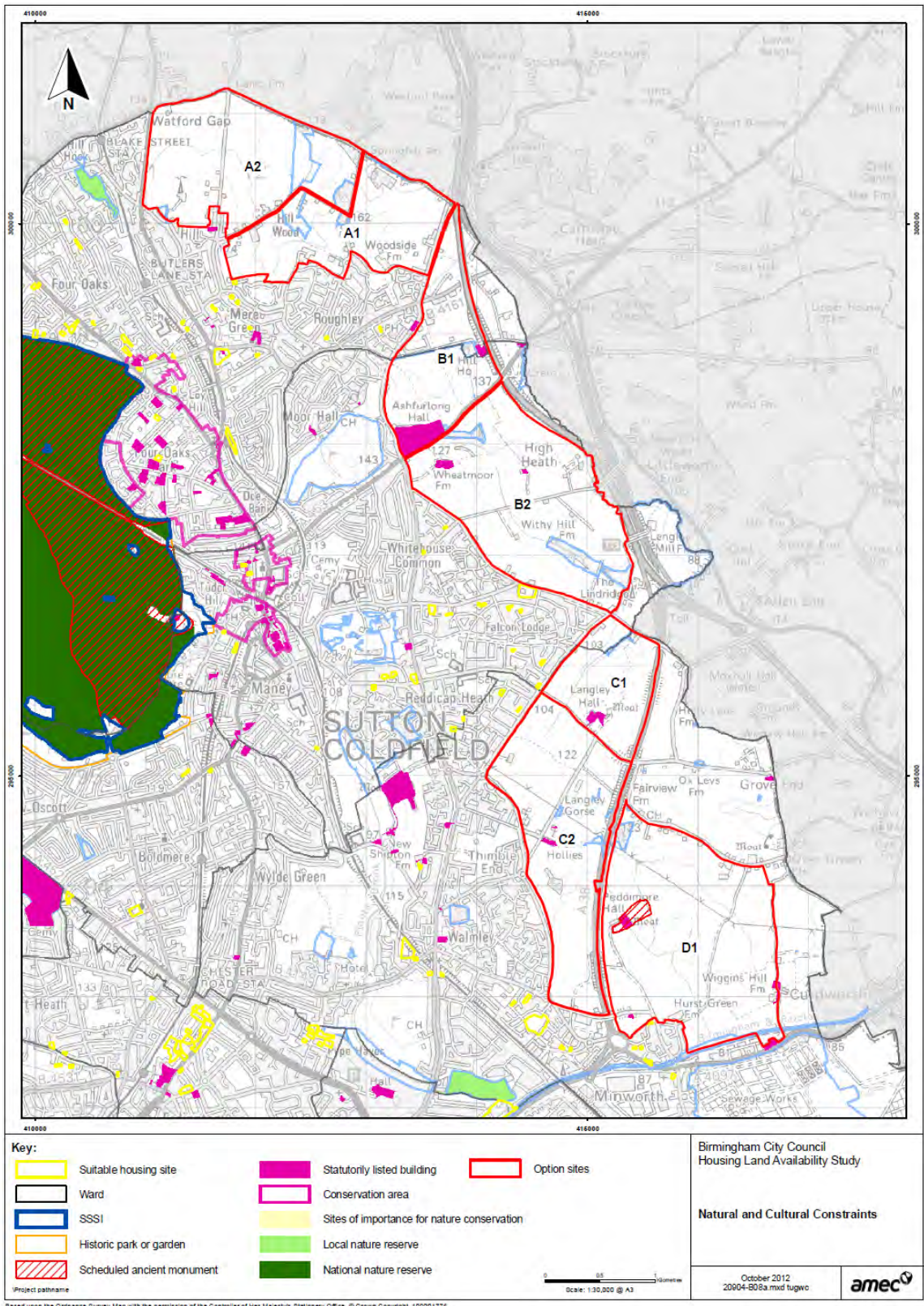
### Environmental Management Constraints



# Urban Green Space



### Natural and Cultural Constraints



**Appendix 2: Communication with Martin  
Eade. Birmingham City  
Council.**

## Colin Morrison

---

**From:** Martin Eade <Martin.Eade@birmingham.gov.uk>  
**Sent:** 20 January 2014 10:10  
**To:** Colin Morrison  
**Subject:** RE: BDP - Interim Sustainability Appraisal - Evidence base

Hello Colin

This has proved to be a little more complicated than I had expected.

The version of the 2012 Options SA on the website is in fact not the final version, but an earlier draft. We will correct this and I am attaching the final version to this email.

You will see that the only substantive difference between the two versions is that the material relating to the option locations does not feature in the final version. As I explained when we spoke, we decided to remove this for three reasons:

- It was based on very limited evidence.
- Largely because of this, it actually identified very little difference between the locations so it wasn't very helpful.
- As we were at a consultation stage we didn't want to appear to be leading the response in any particular direction.

A more detailed assessment of the sites (informed by additional evidence) has subsequently been undertaken and can be found in the Site Allocations SA Study which is on the website. This utilises material that would have gone into the missing appendix. This appendix was never actually produced - so there is nothing further that I can send to you.

I have confirmed all of this with Robert Deanwood at AMEC and I am happy for you to contact him directly if you need any further clarification.

Regards  
Martin

---

**From:** Colin Morrison [<mailto:cmorrison@turleyassociates.co.uk>]  
**Sent:** Thursday, January 16, 2014 3:17 PM  
**To:** Martin Eade  
**Subject:** RE: BDP - Interim Sustainability Appraisal - Evidence base

Hi Martin, I hope you are well.

Have you had any luck in tracking down the SA tables discussed below?

Kind Regards

Colin

Colin Morrison  
Director of Sustainability  
**TURLEYASSOCIATES**  
9 Colmore Row, Birmingham, B3 2BJ  
D: 0121 234 9122 | T: 0121 233 0902  
M: 07827 352 711 | F: 0121 233 0968

[cmorrison@turleyassociates.co.uk](mailto:cmorrison@turleyassociates.co.uk)  
[www.turleyassociates.co.uk](http://www.turleyassociates.co.uk)

 Follow @turleyplanning

Think of the environment, please do not print unnecessarily  
This e-mail is intended for the above named only, is strictly confidential and may also be legally privileged. If you are not the intended recipient please do not read, print, re-transmit, store or act in reliance on it or any attachments. Instead, please notify the sender and then immediately and permanently delete it. Turley Associates is a limited company registered in England and Wales Registered No 2235387 Registered Office 1 New York Street, Manchester, M1 4HD.

---

**From:** Colin Morrison  
**Sent:** 13 January 2014 17:12  
**To:** 'martin.eade@birmingham.gov.uk'  
**Subject:** BDP - Interim Sustainability Appraisal - Evidence base

Martin, good to speak to you on Friday.

As discussed, I have noticed that the sustainability appraisal on the site options supporting the October 2012 interim SA is missing from the document and specifically Appendix B. I understand that you are aware of this and will track this document down to send onto me. Is this correct?

I consider this an important part of the evidence base in support of the BDP and would like the opportunity to review and comment on the appraisal.

If you need any further information from me please do not hesitate to contact me.

Kind Regards

Colin

\*\*\*\*\*

\*\*\*\*\*

The information contained within this e-mail (and any attachment) sent by Birmingham City Council is confidential and may be legally privileged. It is intended only for the named recipient or entity to whom it is addressed. If you are not the intended recipient please accept our apologies and notify the sender immediately. Unauthorised access, use, disclosure, storage or copying is not permitted and may be unlawful. Any e-mail including its content may be monitored and used by Birmingham City Council for reasons of security and for monitoring internal compliance with the office policy on staff use. E-mail blocking software may also be used. Any views or opinions presented are solely those of the originator and do not necessarily represent those of Birmingham City Council. We cannot guarantee that this message or any attachment is virus free or has not been intercepted and amended.

\*\*\*\*\*

## Colin Morrison

---

**From:** Deanwood, Robert <robert.deanwood@amec.com>  
**Sent:** 06 February 2014 10:07  
**To:** Colin Morrison  
**Cc:** Martin Eade; Harridge, Clive  
**Subject:** RE: Birmingham BDP

Hello Colin,

I have located the 'missing' table, which is attached – unfortunately there is no electronic version as this early draft was discarded. Martin has agreed that I send these and he will deal with the formal FOI request separately.

With regard to your detailed comments and requests for justification, we feel that it is inappropriate to enter into a dialogue on these issues.

Regards

Robert

Robert Deanwood  
Planning & Environmental Appraisal  
AMEC  
Gables House  
Kenilworth Road  
Leamington Spa  
CV32 6JX

01926 439078  
[Robert.Deanwood@amec.com](mailto:Robert.Deanwood@amec.com)

---

**From:** Colin Morrison [<mailto:cmorrison@turleyassociates.co.uk>]  
**Sent:** 04 February 2014 15:03  
**To:** Deanwood, Robert  
**Subject:** Birmingham BDP

Hi Robert, I hope you are well.

Have you managed to look at my email regarding queries on the SA?

Many thanks

Colin

Colin Morrison  
Director of Sustainability  
**TURLEYASSOCIATES**  
9 Colmore Row, Birmingham, B3 2BJ  
D: 0121 234 9122 | T: 0121 233 0902  
M: 07827 352 711 | F: 0121 233 0968

[cmorrison@turleyassociates.co.uk](mailto:cmorrison@turleyassociates.co.uk)  
[www.turleyassociates.co.uk](http://www.turleyassociates.co.uk)



Think of the environment, please do not print unnecessarily

This e-mail is intended for the above named only, is strictly confidential and may also be legally privileged. If you are not the intended recipient please do not read, print, re-transmit, store or act in reliance on it or any attachments. Instead, please notify the sender and then immediately and permanently delete it. Turley Associates is a limited company registered in England and Wales Registered No 2235387 Registered Office 1 New York Street, Manchester, M1 4HD.

---

This email contains confidential information. The contents must not be disclosed to anyone else except with the authority of the sender. Unauthorised recipients are requested to maintain this confidentiality and immediately advise the sender of any error or misdirection in transmission.

The following notice applies to emails originating in the UK.  
E-mails sent on behalf of AMEC are sent on behalf of the relevant AMEC company below. These are registered in England and Wales with registered office at Booths Park, Chelford Road, Knutsford, Cheshire WA16 8QZ and number as shown: AMEC plc 01675285, AMEC Group Limited 04612748, AMEC Capital Projects Limited 02804109, AMEC Earth and Environmental UK Limited 04987981, AMEC Nuclear Holdings Limited 03725076, AMEC Nuclear M & O Limited 05664844, AMEC Nuclear UK Limited 01120437, AMEC Nuclear International Limited 03260477, AMEC Nuclear Projects Limited 05664962 and National Nuclear Corporation Limited 02290928

---



## **Appendix 3: Missing Sustainability Appraisal Tables**

# Appendix B Appraisal of greenfield sites

*Rel*  
 It would have been good to have identified more differentiation between B C & D. What about some from major roads, access to rail? to name but two potential differentiators. Also would E only be developed after D? If so would the residential comments still apply? Is there any differentiation on L/scene character/impact grounds??  
*Ch*

**Key**

<b>++</b>	Major Positive Impact	<b>+</b>	Positive Impact	<b>0</b>	Neutral Impact;	<b>-</b>	Negative Impact	<b>--</b>	Major Negative Impact	<b>#</b>	No Relationship	<b>?</b>	Uncertain Relationship
-----------	-----------------------	----------	-----------------	----------	-----------------	----------	-----------------	-----------	-----------------------	----------	-----------------	----------	------------------------

SA Theme	SA Objectives	Site B	Site C	Site D	Site E
1. Natural resources and waste	<b>1. Resource Use:</b> Use natural resources such as water and minerals efficiently. <b>7. Waste Reduction and Minimisation:</b> Encourage and enable waste minimisation, reuse, recycling and recovery. <b>8. Efficient use of land:</b> Encourage land use and development that optimises the use of previously developed land and buildings.	-	-	-	-
		Site will involve use of greenfield land. Opportunities for community-scale waste management.	Site will involve use of greenfield land. Opportunities for community-scale waste management.	Site will involve use of greenfield land. Opportunities for community-scale waste management.	Site will involve use of greenfield land. Opportunities for community-scale waste management.
2. CO <sub>2</sub> emissions	<b>2. Sustainable design, construction and maintenance:</b> Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations. <b>3. Renewable Energy:</b> Encourage development of alternative and renewable resources. <b>4. Energy Efficiency:</b> Reduce overall energy use through energy efficiency. <b>5. Sustainable Transport:</b> 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. <b>6. Reduce the need to travel:</b> Ensure development reduces the need to	<b>+</b>	<b>+</b>	<b>+</b>	-
		There are opportunities for the sustainable design of a new urban extension which could be relatively self-contained. Sustainable transport networks to serve the new community and link to the existing urban edge.	There are opportunities for the sustainable design of a new urban extension which could be relatively self-contained. Sustainable transport networks to serve the new community and link to the existing urban edge.	There are opportunities for the sustainable design of a new urban extension which could be relatively self-contained. Sustainable transport networks to serve the new community and link to the existing urban edge.	There are opportunities for the sustainable design of a new urban extension which could be relatively self-contained. Sustainable transport networks to serve the new community and link to the existing urban edge.

SA Theme	SA Objectives	Site B	Site C	Site D	Site E
	travel. <b>9. Reduce climate change:</b> Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.				
3. Climate change adaptation	<b>10. Manage Climate Change:</b> 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.	+	+	+	+
		Scale of development will offer opportunities for climate change mitigation e.g. through use of SUDS.	Scale of development will offer opportunities for climate change mitigation e.g. through use of SUDS.	Scale of development will offer opportunities for climate change mitigation e.g. through use of SUDS.	Scale of development will offer opportunities for climate change mitigation e.g. through use of SUDS.
4. Historic environment, landscape, biodiversity and geodiversity	<b>12. Built and Historic Environment:</b> Value, protect, enhance and restore Birmingham's built and historic environment and landscape. <b>13. Natural Landscape:</b> Value, protect, enhance and restore Birmingham's natural landscape. <b>14. Biodiversity:</b> Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	-	-	-	-
		Development affects Sites of Local Interest for Nature Conservation.	Development affects Sites of Importance for Nature Conservation and Sites of Local Interest for Nature Conservation.	Development affects Sites of Local Interest for Nature Conservation	Development affects Sites of Local Interest for Nature Conservation
5. Pollution	<b>15. Air Quality:</b> Minimise air pollution levels and create good quality air. <b>16. Water Quality:</b> Minimise water pollution levels and create good quality water. <b>17. Soil Quality:</b> Minimise soil pollution levels and create good quality soil. <b>18. Noise:</b> Minimise noise pollution levels.	-	-	-	-
		Potential increases in emissions associated with car-based travel, associated both with the development and from outside.	Potential increases in emissions associated with car-based travel, associated both with the development and from outside.	Potential increases in emissions associated with car-based travel, associated both with the development and from outside.	Potential increases in emissions associated with car-based travel, associated both with the development and from outside.
6. Economic growth	<b>20. Economy and Equality:</b> Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants. <b>21. Learning and Skills:</b> Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	0/?	0/?	0/?	0/?
		Scale of site offers the opportunity for local and strategic employment, but dangers of cross-city commuting and business re-location.	Scale of site offers the opportunity for local and strategic employment.	Scale of site offers the opportunity for local and strategic employment.	Scale of site offers the opportunity for local and strategic employment.

SA Theme	SA Objectives	Site B	Site C	Site D	Site E
7. Communities, healthy lifestyles and equality	<p><b>11. Sense of Place:</b> Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.</p> <p><b>19. Social and Environmental Responsibility:</b> Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.</p> <p><b>22. Community Involvement:</b> Enable communities to influence the decisions that affect their neighbourhoods and quality of life.</p> <p><b>23. Equality:</b> Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.</p> <p><b>24. Poverty:</b> Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.</p> <p><b>25. Health:</b> Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.</p> <p><b>26. Crime:</b> Reduce crime, fear of crime and antisocial behaviour.</p> <p><b>28. Culture/Sport/Recreation:</b> Improve opportunities to participate in diverse cultural, sporting and recreational activities.</p>	+	+	0	-
		<p>Service provision clustered at Mere Green (including health services, shops and schools) could provide the basis for complementary provision at this location. Butlers Lane railway station, for example, could provide a focus for sustainable travel to Sutton Coldfield, Birmingham and Lichfield. Supplementing the currently limited open space provision in the vicinity would demand particular attention as part of any development.</p>	<p>Service provision clustered at Mere Green, Sutton Coldfield and Reddicap Heath (including health services, shops and schools) could provide the basis for complementary provision at this location. Four Oaks and Sutton Coldfield railway stations lie approximately 2km to the west but could be focal points for sustainable travel. Open space provision in the vicinity is reasonable (Sutton Park for example) but would demand particular attention as part of any development.</p>	<p>Bounded by the existing urban edge and the A38, this area has access to a range of services at Reddicap Heath and Walmley which could provide the basis for complementary provision at this location. Rail access is problematic, with Sutton Coldfield being the nearest station at around 2.5km. Open space provision in the vicinity is reasonable but would demand particular attention as part of any development.</p>	<p>This area is relatively remote from service provision to the west (by distance and severance by the A38), although there is some provision (retail and schools) to the south at Minworth. Rail access is a around 4km distant at Sutton Coldfield. Open space provision in the vicinity is limited and would demand particular attention as part of any development.</p>
8. Housing	<p><b>27. Housing:</b> Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.</p>	+/?	+/?	+/?	+/?
		<p>Scale of site offers the opportunity for the provision of a diverse range of housing. The extent to which this would serve City's housing needs (i.e. in terms of affordable housing where people wish and need to live) is less certain, however.</p>	<p>Scale of site offers the opportunity for the provision of a diverse range of housing. The extent to which this would serve City's housing needs (i.e. in terms of affordable housing where people wish and need to live) is less certain, however.</p>	<p>Scale of site offers the opportunity for the provision of a diverse range of housing. The extent to which this would serve City's housing needs (i.e. in terms of affordable housing where people wish and need to live) is less certain, however.</p>	<p>Scale of site offers the opportunity for the provision of a diverse range of housing. The extent to which this would serve City's housing needs (i.e. in terms of affordable housing where people wish and need to live) is less certain, however.</p>

**Appendix 4: Sustainability Appraisal  
Matrices of Sites B - C.  
Sustainability Appraisal of  
Proposed Site Allocations**

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+

*Overall commentary on character and sustainability performance of site(s)*

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

**Area B1: West of M6 Toll, North of Tamworth Road**

A 43ha site between the urban edge of Roughley and the M6 Toll.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	0
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management reflecting potential scale of development.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-
2. CO <sub>2</sub> EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a site of this size.	+?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major	There is moderate access to Four Oaks and Sutton Coldfield stations to the west and south west, and good access to the	-

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	urban areas, making efficient use of existing physical transport infrastructure.	strategic road network via Tamworth Road which could encourage car travel.	
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Opportunities for self-containment through mixed use.	-
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to distance to service centres and ready access to strategic road network (A453/A38)	-
<b>3. CLIMATE CHANGE ADAPTATION</b>	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+
<b>4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY</b>	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Limited historic assets.	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Limited visual sensitivity	+
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Moderate ecological value.	-
<b>5. POLLUTION</b>	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport.	-
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely.	0
<b>6. ECONOMIC GROWTH</b>	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development?	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development?	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
<b>7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY</b>	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.	Probably limited opportunities to create a new community at this scale.	0
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Probably limited opportunities to create a new community at this scale.	0
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Probably limited opportunities to create a new community at this scale and hence opportunities for additional service provision.	0
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop GI links as part of a development.	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Development could provide recreational opportunities through new provision of facilities.	+
<b>8. HOUSING</b>	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+

*Overall commentary on character and sustainability performance of site(s)*

The site has a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing and employment provision, green infrastructure and renewable. Equally, the infrastructure and landscape and biodiversity constraints mean that development would not meet a range of sustainability objectives.



### Area B2: West of M6 Toll, South of Tamworth Road

A site of 109ha between the urban edge of Whitehouse Common/Falcon Lodge and the M6 Toll.

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
1. NATURAL RESOURCES AND WASTE	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	0
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management reflecting potential scale of development.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-
2. CO <sub>2</sub> EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a site of this size.	+?
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	There is reasonable access Sutton station to the west. Good strategic road access via Tamworth Road which could encourage car travel.	0
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Potential opportunities for self-containment through mixed use.	0
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to relative distance from services and employment.	-
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+
4. HISTORIC ENVIRONMENT,	12. Built and Historic Environment: Value, protect, enhance and restore	Limited historic assets.	0

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	Birmingham's built and historic environment and landscape.		
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Medium visual sensitivity with opportunities for mitigation.	0
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Moderate-high ecological value.	-
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport, although opportunities for walking and cycling links to Sutton, and for the provision of green infrastructure at this scale of development could help to offset impacts	0
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely.	0
6. ECONOMIC GROWTH	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development.	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development.	+
7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a new community at this scale.	+
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Opportunities to create a new community at this scale.	+
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Relatively good access to higher order services, Mere Green local centre 2.9km and Sutton town centre 2.8km.	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop GI links as part of a development.	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Development could provide recreational opportunities through new provision of facilities.	+
<b>8. HOUSING</b>	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+

*Overall commentary on character and sustainability performance of site(s)*

The site has a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing and employment provision, green infrastructure and renewable energy. Equally, landscape and biodiversity constraints mean that development would not meet a range of sustainability objectives.

**Area C: West of Sutton Coldfield Bypass, Walmley**

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

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
<b>1. NATURAL RESOURCES AND WASTE</b>	1. Resource Use: Use natural resources such as water and minerals efficiently.	New development but opportunities for sustainable construction.	0
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Opportunities for sustainable waste management reflecting potential scale of development.	+
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Greenfield land.	-

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
2. CO <sub>2</sub> EMISSIONS	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Assumed that best practice would be adopted.	+
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Opportunities for innovation on a site of this size.	+
	4. Energy Efficiency: Reduce overall energy use through energy efficiency.	Assumed that best practice would be adopted.	+
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	Reasonable access to Sutton station to the west (3km) and limited direct access to the strategic road network could discourage car use.	+
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Potential opportunities for self-containment through mixed use.	0
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Emissions likely to rise due to relative distance from services and employment.	-
3. CLIMATE CHANGE ADAPTATION	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Opportunities to include climate change mitigation as part of new development.	+
4. HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND GEODIVERSITY	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Limited historic assets.	0
	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural landscape.	Low visual sensitivity with opportunities for mitigation.	+
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and geodiversity.	Low-moderate ecological value.	0
5. POLLUTION	15. Air Quality: Minimise air pollution levels and create good quality air.	Air pollution likely to increase as a result of car-based transport, although opportunities for walking and cycling links to Sutton and the for provision of green infrastructure at this scale of development could help to offset impacts.	0

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
	16. Water Quality: Minimise water pollution levels and create good quality water.	No overall impact likely.	0
	17. Soil Quality: Minimise soil pollution levels and create good quality soil.	No overall impact likely.	0
	18. Noise: Minimise noise pollution levels.	No overall impact likely.	0
<b>6. ECONOMIC GROWTH</b>	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity for the benefit of all of Birmingham's inhabitants.	Potential employment opportunities through mixed use development.	+
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Potential employment opportunities through mixed use development.	+
<b>7. COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY</b>	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Opportunities to create a new community at this scale.	++
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Opportunities to create a new community at this scale.	++
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	No relationship identified	#
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	Relatively good access to higher order services, Walmley local centre 1.6km and Sutton town centre 3.0km.	+
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	Inclusion of a proportion of affordable homes could help those in need in this relatively affluent area.	+
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Opportunities to develop GI links as part of a development.	+
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	No relationship identified	#
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Development could provide recreational opportunities through new provision of facilities.	+

SA THEME	SA OBJECTIVES	COMMENTARY	SIGNIFICANCE ASSESSMENT
8. HOUSING	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Could deliver a range of house types, although the deprivation indices for this locality are relatively good.	+

*Overall commentary on character and sustainability performance of site(s)*

The site has a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing and employment provision, green infrastructure and renewable energy, particularly for a site of this size. Negative impacts are associated with the loss of greenfield land and impacts on CO2 emissions due to increased car travel.

### Former Yardley Sewage Works

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

# Appendix 5: Turley Associates Summary Sustainability Matrices

Sustainability Appraisal Themes.	NATURAL RESOURCES AND WASTE			CO2 EMISSIONS				CLIMATE CHG		HISTORIC ENVIRONMENT, LANDSCAPE, BIODIVERSITY AND				POLLUTION		ECONOMIC GROWTH		COMMUNITIES, HEALTHY LIFESTYLES AND EQUALITY				HOUSING							
	1. Resource Use	7. Waste Reduction	8. Efficient Use of Land	2. Sustainable Design	3. Renewable Energy	4. Energy efficiency	5. Sustainable Transport	6. Travel Reduction	9. Reduce Climate Chg.	10. Manage Climate Chg.	12. Built and Historic Env.	13. Natural Landscape	14. Biodiversity	15. Air Quality	16. Water Quality	17. Soil Quality	18. Noise	20. Economy and Quality	21. Learning and Skills	11. Sense of Place	19. Social and Env. Resp.	22. Comm. involvement	23. Poverty	24. Equality	25. Health	26. Crime	28. Culture	27. Housing	
<b>Area A1 and A2. Hill Wood</b>	We support the councils conclusions with reagrds to the sustainability performance of Areas A1 and A2.																												
<b>Area B1 - Land West of M6 Toll, north of Tamworth Road - Original SA scoring</b>	0	+	-	+	+	?	+	-	-	-	+	0	+	-	-	0	0	0	+	+	0	0	#	0	+	+	#	+	+
<b>Area B1 - Land West of M6 Toll, north of Tamworth Road - Turley Associates Sustainability Appraisal</b>	0	+	-	+	+	+	+	0	-	+	0	+	0	0	0	0	0	+	+	++	++	#	+	+	+	#	+	+	
<b>Area B2 - Land west of M6 Toll, south of Tamworth Road - Original SA scoring</b>	0	+	-	+	+	?	+	0	0	-	+	0	0	-	0	0	0	+	+	+	+	#	+	+	+	#	+	+	
<b>Area B2 - Land west of M6 Toll, south of Tamworth Road - Turley Associates Sustainability Appraisal</b>	0	+	-	+	+	+	+	0	-	+	0	+	0	0	0	0	0	+	+	++	++	#	+	+	+	#	+	+	
<b>Area B - Land West of the M6 Toll - Combined Turley Associates Scoring</b>	0	+	-	+	+	+	+	0	-	+	0	+	0	0	0	0	0	+	+	++	++	#	+	+	+	#	+	+	
Commentary on achieving Environmental, Economic and Social Objectives	The site has a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing and employment provision, green infrastructure and renewable energy, particularly for a site of this size. Negative impacts are associated with the loss of greenfield land and impacts on CO2 emissions due to increased car travel.																												
<b>Area C - Land west of the A38, Waimley - Original SA Scoring</b>	0	+	-	+	+	+	+	0	-	+	0	+	0	0	0	0	0	+	+	++	++	#	+	+	+	#	+	+	
Commentary on achieving Environmental, Economic and Social Objectives	The site has a mixed performance across the sustainability objectives, with opportunities for positive effects in terms of a range of housing and employment provision, green infrastructure and renewable energy, particularly for a site of this size. Negative impacts are associated with the loss of greenfield land and impacts on CO2 emissions due to increased car travel.																												
<b>Area D. Peddimore</b>	We support the councils conclusions with regards to the sustainability performance of Area D.																												
<b>Significance Assessment</b>	<b>Description</b>																												
++	Likely to be very sustainable and contribute significantly to the SA objective																												
+	Likely to be sustainable and contribute to the SA objective																												
?	Uncertain impacts on the SA objective																												
0	Neutral - Option is unlikely to impact on the SA objective																												
-	Likely to be unsustainable and have minor adverse impacts on the SA objective																												
--	Likely to be very unsustainable and have significant adverse impacts on the SA objective.																												
#	No clear relationship																												





9 Colmore Row  
Birmingham  
B3 2BJ

T 0121 233 0902

**Turley**