

Sustainability Appraisal of the Bordesley Park Area Action Plan Preferred Options

Sustainability Appraisal
Report

July 2013



LEPUS CONSULTING

LANDSCAPE ECOLOGY, PLANNING AND URBAN SUSTAINABILITY



Sustainability Appraisal of the Bordesley Park Area Action Plan

Sustainability Appraisal Report to accompany the
AAP Preferred Option Report

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Abbreviations

AAP	Area Action Plan
BAP	Biodiversity Action Plan
BCC	Birmingham City Council
BREEAM	BRE Environmental Assessment Methods
CHP	Combined Heat and Power
(D)CLG	(Department of) Communities and Local Government
CfSH	Code for Sustainable Homes
GI	Green Infrastructure
GIS	Geographic Information Systems
HGV	Heavy Goods Vehicle
PPP	Policy, Plan or Programme
SA	Sustainability Appraisal
SEA	Strategic Environmental Assessment
SLINC	Sites of Local Importance for Nature Conservation
SuDs	Sustainable Drainage Systems

Non-technical summary

What is SA?

A Sustainability Appraisal (SA) is being carried out alongside the development of the Bordesley Park Area Action Plan Preferred Options Report (July, 2013). The Area Action Plan (AAP) is a new plan that helps to shape the area's growth strategy for the coming years. The AAP sets out where houses and places of work will be located. SA is a statutory process incorporating the requirements of the European Union Strategic Environmental Assessment (SEA) Directive.

Local Planning Authorities such as Birmingham City Council use SA to assess local plans against a set of sustainability objectives developed in consultation with local stakeholders and communities. This assessment helps Local Planning Authorities identify the relative environmental, social and economic performance of possible strategic and policy options, and to evaluate which of these may be most sustainable.

This document is known as an SA Report. It includes the requirements of an environmental report in accordance with the SEA Directive. It has been prepared to appraise the preferred options of the Bordesley Park AAP.

Purpose and content of the Sustainability Appraisal Report

The purpose of this SA Report is to:

- Identify, describe and evaluate the likely significant effects of the AAP and its reasonable alternatives; and
- Provide an early and effective opportunity for statutory consultees, interested parties and the public to offer views on any aspect of the SA process which has been carried out to date.

The SA Report contains:

- An outline of the contents and main objectives of the AAP and its relationship with other relevant plans, programmes and strategies;
- Relevant aspects of the current state of the environment and key sustainability issues for the area
- The SA Framework of objectives and indicators against which the AAP has been assessed;
- The appraisal of alternative options for the AAP;
- A summary of the appraisal findings from earlier stages in the plan making process;
- The likely significant effects of the AAP in sustainability terms;
- The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects which may arise as a result of the AAP;
- A description of the measures envisaged concerning monitoring; and

- The next steps for the SA.

The scoping stage for the SA

A Scoping Report was prepared by Birmingham City Council (BCC) and submitted to stakeholders in November 2009. This set out the intended scope and level of detail to be included in the SA Report and included a plan, programme and policy review, an evidence base for the assessment, key issues and environmental challenges to address, and an SA Framework of objectives and indicators against which the AAP could be assessed. Following consultation on the Scoping Report, the information presented in the document was updated to take into account responses received. This concluded the first stage of the SA process.

Assessment of reasonable alternatives

The plan making process involved the consideration of options, to inform thinking about the plan. Such options can be thought of as “reasonable alternatives”. Initial versions of these options were assessed in November 2010. The reasonable alternatives were refined due to discussions with major stakeholders, Members and Senior Officers, changes in Government Policy and to take into account further background studies.

The purpose of assessing the different options, or reasonable alternatives, is to evaluate a number of different approaches to delivering new development in Bordesley Park. This assessment took place in the Options SA Report published by UE Associates (Lepus Consulting) in September 2011.

The Council shortlisted various options and introduced strategic Development Principles (known as ‘Key Objectives’ in draft versions) as well as detailing opportunities which could take place in each neighbourhood. These constitute the ‘preferred options’. Assessment of the preferred options is presented in Chapter 5.

Assessment of the opportunities included in the Preferred Options Report of the AAP

The Preferred Options AAP Report (July, 2013) includes preferred options which are presented as a series of opportunities. These proposals are either strategic and cover the whole AAP area (known as Development Principles) or are more specific and relate more locally (neighbourhood or change area scale). In total there are 16 preferred options. These include four Development Principles, six Neighbourhoods and five Key Opportunities for Change Areas. All content has been assessed against the SA Framework of objectives and indicators. The likely positive and adverse effects established within this report are presented in Table N1 and Table N2.

Table N1: Potential positive sustainability effects of the AAP

Potential positive sustainability effects of the AAP
Accessibility and transportation
Strong focus on supporting a modal shift from the private car to more sustainable forms of transport; Develops rapid transit routes through the area which provide better sustainable transport links to the city centre and airport; Seek to reduce traffic and congestion through improvements to busy junctions and increased parking facilities; Supports enhancements in walking and cycling routes.
Air quality
Improved accessibility and sustainable modes of transport promote good air quality in the area; Reducing congestion is likely to improve air quality.
Biodiversity and geodiversity
Green areas, the canals, River Rea, parks and playing fields are protected and enhanced; Enhancements to the area's Green Infrastructure (GI) network as well as developing pedestrian friendly water spaces, can help support and protect biodiversity within the area and improve the connectivity between habitats; Opportunities to create new GI are also encouraged and a GI network is actively promoted within each neighbourhood.
Climate change
New residential development must meet CfSH standards; Strong focus on promoting sustainable transport and reducing the area's carbon footprint; Improves the energy efficiency of the city's buildings and homes and reduces the City's reliance on traditional energy sources.
Economic factors
Strong focus on building an extensive and co-ordinated programme of support for businesses and improving the economic vitality of Bordesley Park; Support for sustainable methods could create a new thriving and vibrant green economy; New transportation links improve business accessibility.
Health
Options will improve the legibility, attractiveness and safety of walking; encourage walking and cycling; and help promote healthier and more active lifestyles in the district; Health and wellbeing is supported by the encouragement of non-car use and healthier modes of travel.
Historic environment and townscape
Aims to recognise and enhance the historic environment, as well as historically significant buildings and sites; The historic environment will also be used to influence the design of new development.
Housing
Sustainability and efficiency of new housing in the area has been supported as new residential development must meet CfSH and BREEAM standards; Delivery of up to 750 new homes to meet existing and future housing needs.
Material assets
Improves vacant and under used buildings and sites to bring them back into productive use; Focus on redeveloping vacant and derelict properties where possible.
Population and quality of life
The focus on employment and providing a stable economy could help alleviate poverty; The proposals also aim to reduce poverty and build an inclusive city; Aim to improve the learning and skills base of Bordesley Park; Enhancements to the area's GI network will be a key contributor to overall quality of life.
Water and soil

Potential positive sustainability effects of the AAP

Improvements to Bordesley Park's general environment could improve the River Rea's water quality;

Improvements to Bordesley Park's general environment could go towards remediating land contamination in the area;

Contaminated land such as the Wheels Site is to be developed which will require remediation.

Table N2: Potential negative sustainability effects of the AAP

Potential negative sustainability effects of the AAP and areas for improvement
Accessibility and transportation
Increases in traffic could be stimulated by additional parking facilities.
Air quality
Increases in traffic have the potential to affect air quality within Bordesley Park.
Biodiversity and geodiversity
Biodiversity assets are likely to come under increasing pressures from development: the average open space area in Bordesley Park AAP per 1000 population is 1.88ha, below the 2ha target, and new housing and development will only worsen this ratio unless new open and green space is created;
New developments can lead to habitat fragmentation;
Depending on design, the consolidation of the existing sport and leisure activities at the Wheels Site and Cranby Street could reduce the amount of green space in the area if no relocation occurs;
A GI network is encouraged within each neighbourhood, however specific targets and policies should be put in place to ensure its realisation.
Climate change
Additional houses, new employment sites and increased parking facilities can lead to increased greenhouse gas emissions.
Economic factors
Could encourage corporate social and environmental responsibility to a greater extent within the preferred options.
Health
A reduction and/or a consolidation of green and open spaces could lead to a reduction in sport and active recreation if no relocation occurs.
Historic environment and townscape
The policies include a general mention of historic protection, however protection and enhancement could be emphasised further in neighbourhoods/ key opportunities for change areas with listed and historic buildings.
Housing
The proposed expansion of the local centre east along Alum Rock Road and the incorporation of houses on Bordesley Green Road into the Wheels site is going to result in the loss of some housing, affordable housing should be allocated elsewhere to offset the potential loss of housing caused by development.
Material assets
Policies to increase residential properties and employment areas could increase demand for energy and water;
Very restricted emphasis on protecting and conserving natural resources;
Not sought to emphasise the waste hierarchy.
Water and soil
Improvements are still required to meet the target of all watercourses to reach 'good' water quality status by 2015;
There is potential for development and expansion to take place in areas of flood risk.

Mitigation

In cases where adverse effects have been identified, mitigation suggestions have been cited in Chapter 4. Mitigation should be considered as part of a sequential hierarchy to deal with adverse effects: avoid, reduce, and then mitigate. Mitigation prescriptions might include changes to policy wording, advocating design guides, offsetting biodiversity effects or provision of new supporting GI. In the case of this SA Report, mitigation has been supplied to help address negative effects so that, if possible, no residual affects remain.

Recommendations

Whilst the AAP as it stands brings a range of positive sustainability effects; a number of recommendations have been proposed to help the AAP further improve its sustainability performance when implemented. These are presented in Chapter 5.

Monitoring

Chapter 6 of the SA Report explains why there should be a monitoring programme for measuring the AAP's implementation in relation to the areas where the SA has identified significant effects, and where opportunities for an improvement in sustainability performance may arise. Monitoring for the SA will be carried out in conjunction with the Annual Monitoring Report processes.

Conclusions

Having appraised all policies in the Preferred Options Report (July, 2013), the process has identified several positive and negative effects. Through applying a suite of mitigation measures, it is possible to ensure that most residual significant adverse effects are overcome. These measures have been presented in Chapter 4. Recommendations for dealing with uncertainty in the assessment process are presented in Chapter 5.

Those aspects of the plan that involve development on flood zones constitute a significant negative residual effect. These are upheld by the appraisal process since it is not possible to provide tangible or practical mitigation recommendations other than avoidance.

Next Steps

This SA report forms part of the evidence base that the Planning Inspectorate will refer to in order to assess the soundness of the AAP during Independent Examination. If the Inspector suggests significant changes should be made to the AAP, the changes will be subject to SA.

Following Independent Examination, a Post Adoption Statement will be published with the adopted version of the AAP. This will outline how the SA process has informed and

influenced the AAP development process and demonstrate how consultation on the SA has been taken into account.

1 Introduction

1.1 Background

1.1.1 Sustainability Appraisal (SA) provides a means to assess the economic, social and environmental effects of a plan at various points during its preparation. SA is a requirement of the Planning and Compulsory Purchase Act 2004 and is the process of informing and influencing the development of the Area Action Plan (AAP) to maximise the sustainability value of the plan.

1.1.2 The SA Report has been prepared by Lepus Consulting on behalf of Birmingham City Council as part of the SA of the Bordesley Park AAP. Comprising the latest stage of the SA, this document sets out an assessment of the preferred options currently proposed for the Bordesley Park area. It also sets out a series of recommendations which are intended to feed into the on-going evolution of the AAP.

1.1.3 SA is the process of informing and influencing the development of the AAP to help ensure the plan is sustainable. In this context this report should be read alongside the Bordesley Park AAP Preferred Options Report.

1.1.4 The SA report has been produced in compliance with the Town and Country Planning (Local Development) (England) Regulations 2004 SI No. 2204 and the Environmental Assessment of Plans and Programmes Regulations 2004 SI No. 1633. The report incorporates the requirement to produce an Environmental Report as required by the SEA Directive 2001/42/EC.

1.1.5 Strategic Environmental Assessment (SEA) is a systematic process for evaluating the environmental consequences of proposed plans or programmes to ensure environmental issues are fully integrated and addressed at the earliest appropriate stage of decision-making. Government policy recommends that both SA and SEA are undertaken under a single sustainability appraisal process, which incorporates the requirements of the SEA Directive. This is to be achieved through integrating the requirements of SEA into the SA process.

1.2 Overview of Bordesley Park Area Action Plan

1.2.1 The Bordesley Park AAP covers an area of approximately 585 hectares in inner city Birmingham, directly adjacent to the city centre. The Bordesley Park AAP lies within Nechells, Bordesley Green, Washwood Heath & South Yardley wards, and within Ladywood, Hodge Hill & Yardley Constituencies (see **Figure 1.1**) with a population of over 33,000. The AAP has been split into six neighbourhoods to assist in tackling issues and opportunities throughout the area. These boundaries broadly separate the different areas and promote a neighbourhood approach, to increase emphasis on local issues within the wider AAP.

- 1.2.2 There are few sites within the AAP and wider area of influence that are statutorily protected for nature conservation. These sites include one SINC (Site for Importance in Nature Conservation) at “The Ackers” an outdoor activity centre of which approximately 6ha of the total 80ha site is designated. There are additionally two extensive SLINCs (Sites of Local Importance for Nature Conservation) in the form of the linear corridors of the River Rea and Grand Union Canal. There are a number of small scale SLINCs including Warren Road, New Saltley Pool and areas along the River Cole. The northern area of the Kingfisher Country Park is divided into three Local Nature Reserves (LNR) Kingfisher, Yorks Wood and Babbs Mill.

Table 1.1: Key facts relating to the Bordesley Park Area Action Plan

Name of Responsible Authority	Birmingham City Council
Title of plan	Bordesley Park Area Action Plan
What prompted the plan (e.g. legislative, regulatory or administrative provision)	The Sustainability Appraisal of the Bordesley Park Area Action Plan is being prepared as part of Birmingham City Council’s Local Development Framework.
Subject (e.g. transport)	Sustainability Appraisal
Period covered by the plan	2013 to 2031.
Frequency of updates	When required.
Area covered by the plan	The area covered by Bordesley Park (Figure 1.1).
Purpose and/ or objectives of the plan	To appraise the sustainability of the Bordesley Park Area Action Plan.
Plan contact point	Doug Lee Bordesley Park AAP, Development Planning Manager Planning and Regeneration Birmingham City Council P.O. Box 2470 Birmingham B1 1TR

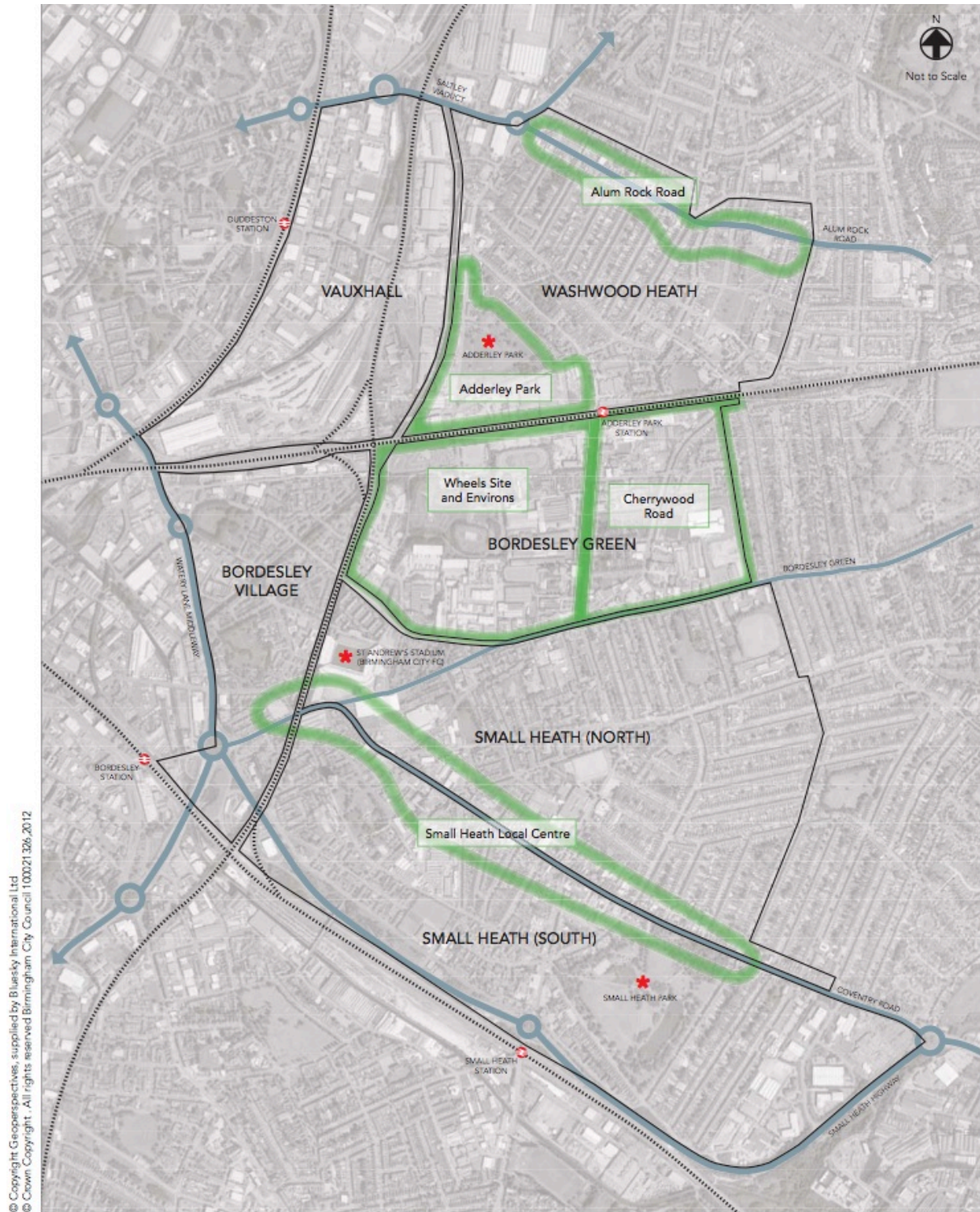


Figure 1.1: Opportunity areas within Bordesley Park

1.3 The Bordesley Park Area Action Plan

1.3.1 The Bordesley Park AAP will form a statutory development plan document and will be a material consideration of future planning applications and development proposals for the Bordesley Park area. The AAP will set out the statutory plan to:

- Set out a vision for the area;
- Establish objectives to develop the vision;
- Set out land use proposals and policies to guide development;
- Show how the proposals for the area link to and build upon other strategies, plans and guidance to help to achieve local aspirations and wider objectives; and
- Act as a tool to promote the area to potential investors and developers.

1.3.2 The Bordesley Park AAP, once adopted, will replace existing planning policies for the area. It will also complement and be consistent with policies and proposals within the emerging Birmingham Development Plan.

1.3.3 The Plan area has been divided into six key neighbourhoods: (1) Vauxhall, (2) Washwood Heath, (3) Bordesley Village, (4) Bordesley Green, (5) Small Heath North and (6) Small Heath South. Five main transformational areas have been identified within the AAP for future re-development.

1.3.4 The 2011 Options report (August, 2011) identified four Key Opportunities for Change areas with various developmental options. Within each area broad land-use and options were suggested to provide a variety of potential development opportunities. These were expanded in the draft Preferred Options Document (of November 2012) to include a fifth area: Cherrywood Road Area. Previously a number of local issues regarding the Cherrywood Road area were considered within the Bordesley Green Neighbourhood discussion. Additional development opportunities became available in the area and led to the Cherrywood Road area being considered as an area with greater potential for change.

1.4 An integrated approach to SA and SEA

1.4.1 Integrated SA should fulfil the requirements for producing an Environmental Report under Annex 1 of the SEA Directive. In the interests of efficiency, following guidelines and the desire to avoid duplication, the two assessment types, SA and SEA, have been integrated under the umbrella of SA and are being undertaken simultaneously for the AAP. The combined approach has been prepared on the following principles:

- Objectives are used as the basis for appraising impacts on various environmental, social and economic components;
- A review of the baseline situation is undertaken, including social and economic factors;
- Options are appraised against environmental, social, and economic objectives, as well as baseline conditions;
- Proposals are appraised on the same basis;
- Indicators are devised for all objectives to assist in monitoring delivery of the plan and any negative effects thereof; and
- SA is an objectives-led methodology and is based on published evidence. Analysis is undertaken on the basis of professional judgement, recognised methodologies, qualitative and quantitative information.

2 Methodology

2.1 Sustainability Appraisal

2.1.1 Birmingham City Council has appointed Lepus Consulting (formally UE Associates) to lead the SA process in order to fully integrate sustainability considerations within the production of the AAP. The Council, statutory consultees, other environmental bodies and working groups have been engaged in the SA process at different times.

2.2 Best practice guidance

2.2.1 The approach for carrying out the SA of the AAP is based on current best practice and the following guidance:

- Office of the Deputy Prime Minister (September 2005): A Practical Guide to the SEA Directive;
- Planning Advisory Service (December 2007): Local Development Frameworks Guidance on Sustainability Appraisal; and
- Department for Communities and Local Government (CLG; September 2009): CLG Plan Making Manual: Sustainability Appraisal.

2.2.2 The CLG Plan Making Manual replaces the previous SA guidance for Local Development Frameworks (Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents). The Manual brings together council experience, advice and guidance in developing sustainability appraisals for local development frameworks.

2.2.3 The Manual is web-based, and can be accessed by following this link: <http://www.pas.gov.uk/pas/core/page.do?pagelId=152450>

2.3 Stages of Sustainability Appraisal

2.3.1 The SA process has so far involved the preparation of a Scoping Report, which was published and consulted upon in October 2009. An Options SA Report was published in September 2011 which undertook an appraisal of the Bordesley Park AAP Options Report (BCC, August 2011), which was released for consultation in August 2011. This report is the latest stage of appraisal and accompanies the final July 2013 version of the Bordesley Park AAP Preferred Options Report.

2.4 Approach to appraisal

2.4.1 Full details of the appraisal procedure are set out in the Scoping Report. A SA framework of 23 objectives (see **Table 2.2**) has been used to assess the effects of the plan. The integration of SA and SEA has meant that all objectives have been derived from sustainability themes which incorporate the SEA 'topics' derived from Annex I(f) of the SEA Directive:

- Biodiversity flora and fauna;
- Population;

- Human health;
- Soil;
- Water;
- Air;
- Climatic factors;
- Material assets;
- Cultural heritage (including architectural and archaeological heritage);
- Landscape; and
- The inter-relationship between these factors.

2.5 Scoping Report

2.5.1 The first phase of the SA process is the scoping stage. Scoping is the process of deciding the scope and level of detail of an SA, including the relevant background and environmental issues; the assessment methods to be used; and the structure and contents of the SA Report. Documenting this process, the Scoping Report sets out the scope of, and methodology for the SA of the AAP and summarises the tasks and outcomes of the first stage of the SA process.

2.5.2 The purpose of the Scoping Report is to set the criteria for assessment (including the SA objectives), and establish the baseline data and other information, including a review of relevant policies, programmes and plans. The scoping process involves an overview of key issues, highlighting areas of potential conflict and includes:

- Identification of other relevant policies, plans and programmes, and sustainability objectives;
- Collection of baseline information;
- Identification of sustainability issues and problems; and
- Development of the SA Framework.

2.5.3 The Scoping Report for the AAP was completed by Birmingham City Council and was published for consultation with key stakeholders in November 2009.

2.5.4 The comments received on the Scoping Report were reviewed, and following receipt of responses, the Scoping Report was updated to take into account comments received and to reflect new information that had become available.

2.5.5 The revised Scoping Report can be found at the following web link: <http://www.birmingham.gov.uk/bordesleyparkaap>

2.6 Policy, plan and programme review

2.6.1 An AAP may be influenced in various ways by other plans or programmes, or by external environmental protection objectives such as those laid down in policies or legislation. The full policy, plan and programme (PPP) review can be found in the Scoping Report.

2.7 Baseline and key sustainability issues

- 2.7.1 A key part of the scoping process is the collection of baseline data. The purpose of this exercise is to help identify key issues and opportunities facing the area which might be addressed by the AAP and to provide an evidence base for the assessment.
- 2.7.2 The baseline section in the Scoping Report provided a review of social, economic and environmental conditions within Bordesley Park. One of the purposes of consultation on the Scoping Report was to seek views on whether the data selected was appropriate and up to date.
- 2.7.3 The baseline was constructed utilising a wide range of data sources, with GIS (Geographic Information Systems) data where available. The data has been presented through tables, text and GIS mapping, and all data sources were referenced as appropriate. Meaningful data for the purposes of comparison and to address the topics being assessed as part of the SA processes is not always available. Where data is available at a local scale it was used to inform the Scoping process.
- 2.7.4 Where relevant, data was presented specifically at a neighbourhood level. This enabled more specific information to be included on the communities and areas most affected by possible issues; to help identify areas most in need of change.

2.8 The sustainability appraisal framework

- 2.8.1 The purpose of the SA Framework is to provide a way of ensuring that the AAP considers the sustainability needs of the area in terms of its social, environmental and economic effects. It also enables the sustainability effects of the AAP to be described, analysed and compared.

2.9 Approach to the appraisal of the options

- 2.9.1 The assessment of the options contained within the sixteen opportunities adopted a strategic level assessment technique. The findings are presented in matrix format and are accompanied by a commentary on identified effects. The matrix is not a conclusive tool. Its main function is to identify whether or not the proposed options are likely to bring positive, adverse or uncertain effects in relation to the SA Objectives. **Table 2.1** shows the key to identifying whether the effects of an option are positive, adverse or uncertain.

Table 2.1: Key to the matrix assessment of Bordesley Park's AAP Options

Key:	
Likely strong positive effect	++
Likely positive effect	+
Neutral/no effect	0
Likely adverse effect	-
Likely strong adverse effect	--
Uncertain effects	+/-

- 2.9.2 The SA Objectives have been developed through the policy, plan and programme (PPP) review, the baseline data collection and the key issues identified for the area during the Scoping Review. Alongside, the SEA topics identified in Annex I (f) of the SEA Directive were one of the key determinants when considering which SA Objectives should be used for appraisal purposes. The SA Objectives seek to reflect each of these influences to ensure the assessment process is robust and thorough.
- 2.9.3 The SA Objectives included within the SA Framework, and the sustainability theme to which they relate are set out in **Table 2.2**.

Table 2.2: SA Framework

SA Objective	Sustainability theme
1 Use natural resources such as water and minerals efficiently.	Material assets, air, water and soil.
2 Reduce overall energy use and contributions to the causes of climate change.	Climate change, accessibility and transport.
3 Make efficient use of the existing transport infrastructure by promoting sustainable transport, promoting modal shift and minimising the need to travel by private car.	Climate change, accessibility and transport.
4 Encourage and enable waste minimisation, reuse, recycling and recovery.	Material assets.
5 Encourage land use and development that optimises the use of previously developed land and buildings.	Material assets.
6 Ensure that the design and planning process reduces the impact of climate change and the risk of flooding.	Climate change.
7 Promote the expansion and improvement of a comprehensive and multifunctional green infrastructure network.	Biodiversity and geodiversity.
8 Value, protect, enhance and restore the AAP area's built and historic environment and landscape.	Historic environment and townscape.
9 Value, protect, enhance, restore and re-create local biodiversity.	Biodiversity and geodiversity.
10 Minimise air pollution levels and create good quality air.	Air, Accessibility and transport.
11 Minimise water pollution levels and improve water quality.	Water.
12 As part of new development address and mitigate land contamination issues with the AAP area.	Soil.
13 Minimise noise pollution levels.	Accessibility and transport.
14 Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.	Economic factors.
15 Encourage regeneration and economic growth to achieve a strong, stable and sustainable economy that benefits the inhabitants of the AAP area.	Economic factors, population and quality of life.
16 Promote investment in future prosperity, including on-going investment and engagement in learning and skill development.	Population and quality of life.
17 Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	Population and quality of life
18 Promote social inclusion by ensuring easy and equitable access to services, facilities and opportunities, including	Accessibility and transport, population and quality of life,

	jobs and learning.	economic factors.
19	Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantages.	Population and quality of life, housing.
20	Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health as well as providing equitable access to health services and facilities.	Human health.
21	Improve community safety and reduce crime, fear of crime and antisocial behaviour.	Population and quality of life, human health.
22	Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	Housing, population and quality of life.
23	Improve opportunities to participate in diverse cultural sporting and recreational activities.	Human health, population and quality of life.

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3 Assessing the preferred options

3.1 Introduction

- 3.1.1 This chapter sets out the appraisal findings for the assessment of the Bordesley Park AAP Preferred Options Report. The options are presented as a series of opportunities, which could be taken strategically by the whole AAP area, or more locally on a neighbourhood or change area scale. The assessment findings are presented in matrix format as described in **Chapter 2** and are accompanied by a commentary describing why each SA Objective was assessed in this manner.
- 3.1.2 All of the AAP options can be seen in **Table 3.1**. The appraisal assesses each preferred option in turn and the overall results can be seen in the synoptic high-level matrices **Table 3.4**, **Table 3.6** and **Table 3.8** which were prepared to illustrate the findings in this report.
- 3.1.3 Site visits were undertaken on 15th February and 4th September 2012.

Table 3.1: Index of Neighbourhoods and Key Opportunities for Change Areas

Neighbourhoods and Key Opportunities for Change Areas	
Development Principles	
1	Growth
2	Connectivity
3	Local Character
4	Sustainability
Neighbourhoods	
1	Vauxhall
2	Washwood Heath
3	Bordesley Village
4	Bordesley Green
5	Small Heath (North)
6	Small Heath (South)
Key Opportunities for Change Areas	
1	The Wheels Site and Environs
2	Cherrywood Road Area
3	Adderley Park
4	Alum Rock Road
5	Small Heath Local Centre

- 3.1.4 The twenty-three SA Objectives for Bordesley Park AAP are in **Table 3.2**. The SA Objectives are used to assess the sustainability of the preferred options and provide a framework for analysis.

Table 3.2: The 23 SA Objectives

	SA Objective
1	Use natural resources such as water and minerals efficiently.
2	Reduce overall energy use and contributions to the causes of climate change.
3	Make efficient use of the existing transport infrastructure by promoting sustainable transport, promoting modal shift and minimising the need to travel by private car.
4	Encourage and enable waste minimisation, reuse, recycling and recovery.
5	Encourage land use and development that optimises the use of previously developed land and buildings.
6	Ensure that the design and planning process reduces the impact of climate change and the risk of flooding.
7	Promote the expansion and improvement of a comprehensive and multifunctional green infrastructure network.
8	Value, protect, enhance and restore the AAP area's built and historic environment and landscape.
9	Value, protect, enhance, restore and re-create local biodiversity.
10	Minimise air pollution levels and create good quality air.
11	Minimise water pollution levels and improve water quality.
12	As part of new development address and mitigate land contamination issues with the AAP area.
13	Minimise noise pollution levels.
14	Encourage corporate social and environmental responsibility, with local organisations and agencies leading by example.
15	Encourage regeneration and economic growth to achieve a strong, stable and sustainable economy that benefits the inhabitants of the AAP area.
16	Promote investment in future prosperity, including on-going investment and engagement in learning and skill development.
17	Enable communities to influence the decisions that affect their neighbourhoods and quality of life.
18	Promote social inclusion by ensuring easy and equitable access to services, facilities and opportunities, including jobs and learning.
19	Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantages.
20	Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health as well as providing equitable access to health services and facilities.
21	Improve community safety and reduce crime, fear of crime and antisocial behaviour.
22	Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.
23	Improve opportunities to participate in diverse cultural sporting and recreational activities.

3.2 Development Principles

- 3.2.1 This section discusses the assessment of the five development principles identified for the AAP. The principles are aspirational and challenging and set criteria which aid the monitoring and evaluation of the AAP. The inclusion of these strategic principles provides an opportunity to guide the plan, and including the development principles within the SA could lead to a more sustainable plan. They should not be confused with SA Objectives (see **table 3.2**).

Table 3.3: Development Principles

Development Principles	
1	Growth
2	Connectivity
3	Local Character
4	Sustainability

Growth (Development Principle 1)

- 3.2.2 The principle for Growth is assessed as strongly positive for SA Objective 3,15, 18 and 22. It is also assessed as positive for SA Objective 2, 5, 6, 7, 9, 16, 18, 19 and 23.
- 3.2.3 The principle is assessed as strongly positive for SA Objective 22 on housing, as it aims to enhance the quality and range of housing in the area. The AAP proposes delivery of up to 750 new homes to meet existing and future housing needs, these will include affordable housing, large family housing, and housing for the elderly and disabled.
- 3.2.4 The principle introduces the development of rapid transit routes through the area which provide better links to the city centre and airport. Improvements to public transport could lead to more people using these sustainable modes of transport and a reduction in car use and so the objective is assessed as strongly positive for SA Objective 3 on sustainable transport.
- 3.2.5 The development of rapid transit routes through the area also lead to a positive assessment for SA Objective 2 on energy use as the new routes could provide better links to the city centre and airport and reduce emissions.
- 3.2.6 The growth principle is assessed as strongly positive for SA Objective 15 on economic growth as there is a strong focus on building an extensive and co-ordinated programme of support for businesses. The principle includes the expansion of local centres and other key economic growth sectors which is likely to lead to a vibrant and stable economy. Improvements in connectivity through public transport are also likely to benefit the local economy.

3.2.7 The focus on employment and providing a stable economy could help alleviate poverty and the principle is consequently assessed as positive for SA Objective 19. The programme also aims to reduce poverty and build an inclusive city. This is aided by the aim to reduce the unemployment level of Bordesley Park (SA Objective 16) through aspirational employment opportunities.

Table 3.4: Assessment matrix of development principles

SA Objective		Development Principles			
		1	2	3	4
1	Natural resources	+	0	0	+
2	Energy use	+	+	+	++
3	Sustainable transport	++	++	+	0
4	Waste minimisation	0	0	0	+
5	Previously developed land	+	0	++	0
6	Climate change	+	0	+	+/-
7	Green Infrastructure	+	++	++	0
8	Historic environment	0	0	++	0
9	Biodiversity	+	+	++	0
10	Air	0	+	0	0
11	Water	0	+	+	0
12	Land contamination	0	0	0	0
13	Noise	0	+	0	0
14	Corporate social and environmental responsibility	0	0	0	+
15	Economic growth	++	++	0	+
16	Investment	+	0	0	0
17	Community influence	0	+	+	0
18	Social inclusion	++	++	+	0
19	Poverty and disadvantage	+	0	+	0
20	Health	0	+	+	0
21	Community safety	0	+	++	0
22	Affordable housing	++	0	+	0
23	Recreational activities	+	+	+	0

3.2.8 Economic support of Bordesley Park leads to a positive assessment for SA Objective 18 on social inclusion. Improvements to the local centres of Bordesley Park, as well as the support of local initiatives and businesses is likely to lead to easy and equitable access to services, facilities and opportunities. Promoting the existing areas of employment and developing new employment sites could help remove barriers to jobs and reduce disadvantage. Again, the improvements in transportation could also facilitate access to jobs.

- 3.2.9 The principle also aims to protect, enhance and promote the parks, sports facilities, open areas and other Green Infrastructure (GI) assets within the AAP. This leads to a positive assessment of the principle against SA Objectives 7 and 9 which relate to biodiversity and GI. Protecting and improving sporting and recreational facilities retains these facilities and ensure they are of high quality, making it more likely they will be used (SA Objective 23). Furthermore, the benefits of GI and green areas such as parks are manifold and help the area adapt to climate change (SA Objective 6) by capturing carbon, improving infiltration rates and providing a cooling effect to counteract the urban heat island effect.
- 3.2.10 The principle advocates improving existing houses, and bringing vacant properties back into use. Both SA Objectives 1 and 5 concern redevelopment, and the use of brownfield sites and are consequently both assessed as positive.

Connectivity (Development Principle 2)

- 3.2.11 The principle concerned with Connectivity is assessed as strongly positive for SA Objective 3, 7, 15 and 18. The assessment is positive for SA Objectives 2, 9, 10, 11, 13, 17, 20, 21 and 23.
- 3.2.12 The principle has a strong focus on using public transport to connect Bordesley Park, which accounts for the strong positive assessment for SA Objective 3 on sustainable transport. The focus includes rail and bus services as well as improvements to walking and cycling routes. Such a strong focus and investment in public and sustainable modes of transport could encourage people to use it, and reduce car use. A modal shift away from cars could reduce emissions (SA Objective 2), improve air quality (SA Objective 10) and reduce the noise pollution that traffic causes (SA Objective 13).
- 3.2.13 Within the connectivity development principle, the walkability of Bordesley Park is also emphasised. By making the routes safer, more legible and attractive it could encourage more people to walk and reduce the use of cars. More people walking and less using cars could reduce emissions from transport
- 3.2.14 The strong emphasis on using public transport culminates in a strong positive assessment for SA Objective 15 on economic growth as public transport connects the AAP area to Birmingham and the airport. Connectivity and ease of pedestrian movement between the city centre and the AAP area is also highlighted. By improving the ease of access into the neighbourhood it could encourage more people into the area and promote the local economy. This link benefits the AAP area by maximising the benefit gained from the area's proximity to the proposed HS2 rail station which would link Birmingham to London and Europe. Promoting connectivity to these National and International centres could improve the local centres within Bordesley Park. An additional benefit of connectivity through public transport throughout Bordesley Park and Birmingham is the improvement of access to facilities and services (SA Objective 18). In addition the sustainability development principle emphasises the creation of a low carbon green economy to reduce carbon dioxide emissions.

- 3.2.15 The principle is assessed as strongly positive for SA Objective 7 on GI as enhancements are to be made to walking and cycling routes which could support a comprehensive and multifunctional GI network. The pedestrian walkways, using the canals for pedestrian linkages, as well as developing an 'Emerald Ring' of pedestrian friendly water spaces are all examples of GI.
- 3.2.16 Improved cycling and walking routes provide additional recreational facilities (SA Objective 23) and could encourage people to undertake physical activity (SA Objective 20). The walkability principle improves the legibility, attractiveness and safety of walking. These improvements could lead to an increase in people walking to their destinations and therefore improve people's health (SA Objective 20). This is because the proposals advocate walking as an activity and the principle suggests improvements in connectivity to leisure and recreational activity facilities through walking and cycling routes (SA Objective 23). Improvements to the safety of pedestrian areas could reduce crime and fear of crime (SA Objective 21).
- 3.2.17 Introducing attractive pedestrian walkways and the development of an 'Emerald Ring' of pedestrian friendly water spaces is likely to improve the attractiveness of the AAP area. It is assessed as positive for SA Objective 17 on community influence because an aesthetically pleasing appearance could increase the percentage of people who would like to remain living in the neighbourhood. The focus on the canals and the implementation of attractive water spaces could lead to an improvement to the water quality in the AAP area (SA Objective 11). The principle's aim to enhance the canal network means it is also assessed as positive for SA Objective 9 because the canals are a diverse habitat and home to a myriad of biodiversity features.

Local Character (Development Principle 3)

- 3.2.18 The Local Character principle consists of Historic Landscape Characterisation, Historic Legacy and Green Infrastructure. Local Character is assessed as strongly positive for SA Objectives 5, 7, 8, 9 and 21. Assessed positively are SA Objectives 2, 3, 6, 11, 17, 18, 19, 20, 22 and 23.
- 3.2.19 The Local Character principle recognises that there are vacant and under used buildings in the AAP area. It is assessed as strongly positive for SA Objective 5 on previously developed land as it suggests a programme to improve vacant and under used buildings and sites to bring them back into productive use.
- 3.2.20 SA Objective 9 on biodiversity is assessed as strongly positive because green areas, the canals, River Rea, parks and playing fields are protected and enhanced. Furthermore, green spaces will be protected and enhanced where appropriate by the AAP, with schemes to maximise access to these green spaces. This principle will protect biodiversity and habitats in the AAP area and could improve the water quality of the River Rea and the AAP area's canals (SA Objective 11). The canals, railways and the River Rea are all identified as important GI assets (SA Objective 7). These GI features, parks, playing fields and other open spaces will be protected and enhanced by this principle. Opportunities to create new GI are also encouraged.

- 3.2.21 The multifunctional nature of many GI features could allow them to be used for sports and active recreation SA Objective 23). GI has the potential to improve the AAP areas health, and provide improved recreational facilities (SA Objective 20).
- 3.2.22 Enhancements to green spaces within the AAP area, as well as increases in the number of trees could lead to a reduction in carbon dioxide (SA Objective 2) and could help reduce the impact of climate change (SA Objective 6). Green spaces have a cooling effect and improve infiltration rates by providing additional green areas for drainage and attenuation of water. Trees contribute to carbon capture. Increased GI features are likely to improve the aesthetics of the AAP area and could increase resident's satisfaction with their neighbourhood (SA Objective 17).
- 3.2.23 The canals and the section of River Rea running through the area are part of the AAP area's historical heritage. The principle is assessed as strongly positive for SA Objective 8 on the historic environment as it aims to recognise and enhance these features, as well as the other historically significant buildings. The historic environment will also be used to influence the design of new development. The principle mandates that all new development should reflect the local context, as well as protect the local distinctiveness of the area and townscape.
- 3.2.24 The proposals aim to maximise the access to open space, as well as improve the connections between the City Centre GI network to the west and the River Cole linear open space to the east. These linkages help biodiversity, but also improve the accessibility of green space (SA Objective 18).
- 3.2.25 The priority promotes the long term partnership with police through the West Midlands Policies Priority Areas project. The priority on local character is assessed strongly positive against SA Objective 21 on crime as it strongly promotes the design of accessible routes and walkways which are overlooked. Both the community safety initiatives and natural surveillance schemes could help reduce crime and the fear of crime in the AAP area. Through making walking routes safer, more legible and overlooked, it could encourage people to use them, and lead to the beginnings of a modal shift in transport patterns (SA Objective 3).
- 3.2.26 There is also mention of accessible, good value housing. This has led to the assessment of the priority to be positive for SA Objective 22 on housing. Provided the housing is good value and inclusive it could address poverty and disadvantage in Bordesley Park, which could reduce household poverty (SA Objective 19).

Sustainability (Development Principle 4)

- 3.2.27 The development principle concerned with Sustainability is assessed as strongly positive for SA Objective 2. It is also assessed positively against SA Objectives 1, 4, 14 and 15. The Sustainability principle is assessed as uncertain for SA Objective 6.

- 3.2.28 The principle is assessed as strongly positive for SA Objective 2 on energy use as the development principle states that all homes must meet level 4 of the Code for Sustainable Homes (CfSH) from 2015 and level 6 from 2016. Non-domestic buildings over 1000 square metres should meet the 'very good' BRE Environmental Assessment Methods (BREEAM) standards, with the extension of being required to meet 'excellent' BREEAM standards by 2015. The objective aims to reduce carbon emissions in line with the City Council's 60% reduction target by 2027¹. There are also proposals to improve the energy efficiency of the City's buildings and homes as well as reduce the City's reliance on traditional energy sources.
- 3.2.29 The principle is assessed as positive for SA Objective 1 for natural resources as it promotes sustainable construction methods. It clarifies support of the CfSH which consists of objectives to reduce water consumption and use sustainable building materials. The sustainability development principle is assessed as uncertain for SA Objective 6 on adaptation to climate change. CfSH is based on a points system, with the requirement to reach certain points thresholds. Implementing CfSH and sustainable construction methods to collect points in a certain way, such as rain water harvesting and green roofs, could lead to implementation of designs which help buildings adapt to climate change. However the principle is assessed as uncertain as builders and designers may choose other options which do not impact climate change adaptation to make up the required points.
- 3.2.30 Although the CfSH and BREEAM are mandatory, the remainder of the proposals allow freedom to businesses and could lead to businesses becoming increasingly sustainable. The principle is assessed as positive for SA Objective 14 on corporate social and environmental responsibility as it encourages sustainable methods and an awareness of climate change issues.
- 3.2.31 SA Objective 15 on economic growth is assessed as positive as the sustainability principle aims to use waste as a resource and explore its potential to generate employment. Support for sustainable methods could create a new thriving and vibrant green economy. Using waste as a resource could improve efficiency and reduce the overall amount of waste being produced (SA Objective 4).

3.3 Neighbourhoods

- 3.3.1 There are six neighbourhoods within the Bordesley Park AAP area (see **Table 4.5**). The Preferred Options Report identified a number of opportunities within each neighbourhood which will be taken forward through the AAP. These opportunities are assessed using the methodology described in **Chapter 2**. The high level assessment can be seen in matrix format in **Table 4.6**.

¹ Birmingham's Green Commission Building a Green City (2013)

Table 3.5: Neighbourhood preferred options

Neighbourhoods	
1	Vauxhall
2	Washwood Heath
3	Bordesley Village
4	Bordesley Green
5	Small Heath (North)
6	Small Heath (South)

Table 3.6: Assessment matrix of the neighbourhood preferred options

SA Objective		Neighbourhood					
		1	2	3	4	5	6
1	Natural resources	0	0	0	0	0	0
2	Energy use	+	++	+	+	+	++
3	Sustainable transport	++	+/-	++	++	+	++
4	Waste minimisation	0	0	0	0	0	0
5	Previously developed land	+	+	+	+	+	++
6	Climate change	-	0	+	0	+	+
7	Green Infrastructure	++	++	++	+	++	++
8	Historic environment	0	+/-	+	0	+/-	0
9	Biodiversity	+	+	++	+	+	++
10	Air	+/-	+	+	+	+	+
11	Water	+	+	+	0	0	0
12	Land contamination	+	+	0	++	0	0
13	Noise	+/-	+	+	+	+	+
14	Corporate social and environmental responsibility	0	0	0	0	0	0
15	Economic growth	+	+	+	++	+	++
16	Investment	0	+	0	+	+	+
17	Community influence	0	+	0	0	+/-	+
18	Social inclusion	0	+	+	+	+	+
19	Poverty and disadvantage	0	0	0	0	0	0
20	Health	0	0	0	+/-	+	+
21	Community safety	0	0	0	0	0	0
22	Affordable housing	0	+	+	+	+	0
23	Recreational activities	+	+/-	+	+/-	+	+

Vauxhall (Neighbourhood 1)

- 3.3.2 The options for Vauxhall are assessed as strongly positive for SA Objectives 3 and 7 and positive for SA Objectives 2, 5, 9, 11, 12, 15 and 23. The assessment is negative for SA Objective 6 and uncertain for SA Objectives 10 and 13.
- 3.3.3 The assessment is strongly positive for SA Objective 3 on sustainable transport because of the proposals to improve Vauxhall and plans to improve the environment and accessibility of Duddeston Rail Station, the towpath, pedestrian access and landscaping of the Birmingham and Warwick Junction Canal. The enhancement of access and setting of these sustainable methods of transportation could encourage more people to walk (SA Objective 23) and take the train.
- 3.3.4 The Vauxhall options are assessed as positive for SA Objective 7 on GI as they provide improvements to the general environment as well as specific improvements to the canal area. There is also mention of improving the general quality of the GI network across the neighbourhood. The canal network is an important GI feature as it provides multifunctionality between human use, and an ecological network which links separate habitats.
- 3.3.5 The River Rea is currently classified as having 'bad' ecological quality (Environment Agency 2012). The proposals aim to improve the general environment in the area and enhance the River Rea which could improve its water quality and satisfy SA Objective 11. Natural England's Nature on the Map maps (2012) show there are no areas or populations of biodiversity importance in the neighbourhood. However improvements to the general environment in the neighbourhood and particularly the focus on improving the Birmingham and Warwick Junction Canal could aid biodiversity (SA Objective 9) as canals are noted as a habitat type of principal importance for the purpose of conserving biodiversity within the Birmingham and Black Country 2010² Biodiversity Action Plan (BAP).
- 3.3.6 Focusing and expanding industry in this one area is likely to improve the vitality of the local economy. Improvements to access could also support local businesses (SA Objective 15). The options include an aim to address the localised traffic congestion which could speed up traffic and reduce the amount of emissions produced by slow moving vehicles (SA Objective 2). Currently there is much congestion due to Heavy Goods Vehicles (HGVs) along Landor Street. The option suggests a number of improvements which would enhance access to the area and reduce congestion within the neighbourhood which could improve the situation. However, the consolidation and expansion of industrial facilities within the area could mean further HGVs and increase noise pollution (SA Objective 13) and make air quality worse (SA Objective 10).
- 3.3.7 The neighbourhood has been assessed as positive for SA Objective 12 on land contamination as Vauxhall is mainly industrial and could be contaminated. Vauxhall has experienced two significant pollution incidents, rated as category 2 incidents, which suggests the area has contamination potential. The preferred option aims to improve the general environment and so could go towards remediating the contamination.

² <http://www.bbcwildlife.org.uk/sites/default/files/bbcapfinal2010.pdf>

- 3.3.8 The opportunities mention the potential re-use of the vacant former Wagon Works building which would conserve natural resources (SA Objective 5). In addition, the overview development principle on local character introduces initiatives to improve vacant and under-used buildings and sites, to bring them back into productive use.
- 3.3.9 The opportunities were assessed as adverse for SA Objective 6 on climate change due to the flood risk to the neighbourhood. Development within Vauxhall should be aware of the risk of flooding; buildings and uses which would be vulnerable to flooding should be curtailed in the areas of highest risk, to minimise damage. The environmental agency maps show there is a moderate (equivalent to a flood zone 2) flood warning/flood risk area covering much of the south east corner of the neighbourhood area, the flood risk area surrounds the EMR Recycling Facility which is noted for potential expansion.
- 3.3.10 In addition the Environment Agency maps show there is a significant area of Vauxhall that is at risk from flooding from reservoirs. Reservoirs, which may affect this area, include: Frankley Balancing Reservoir, Northfield, Wyehall, Bartley, Frankley Row Water. The map shows the largest area that might be flooded if a reservoir upstream were to fail and release the water it holds (see **Figure 3.1**). Since this is a prediction of a worse case scenario, it's unlikely that any actual flood would be this large. The neighbourhood opportunities have not been assessed as strongly negative as they propose working with the Environment Agency to reduce the risks of flooding; however flood mitigation should be incorporated into plans for development in the Vauxhall Neighbourhood.

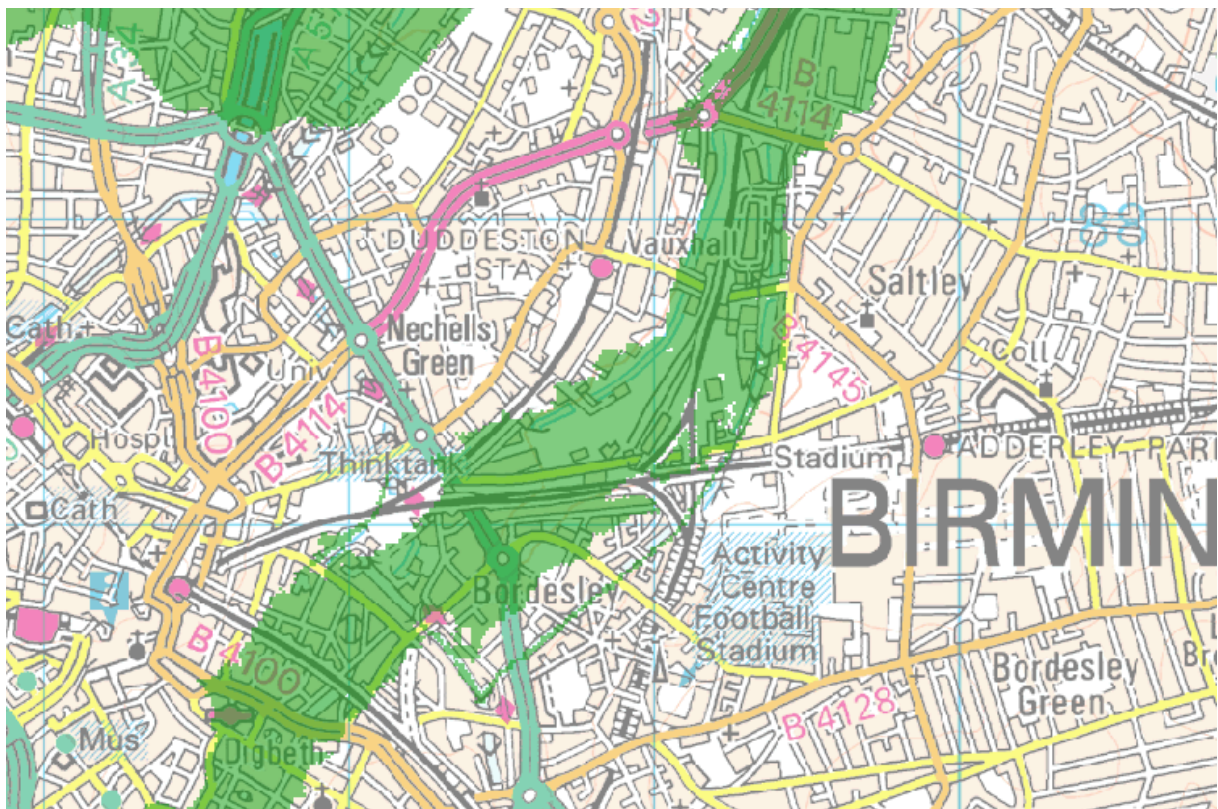


Figure 3.1: Risk of flooding from reservoirs (Environment Agency 2013)

Washwood Heath (Neighbourhood 2)

- 3.3.11 The Washwood Heath neighbourhood options are assessed as strongly positive for SA Objectives 2 and 7 and assessed as positive for SA Objectives 5, 9, 10, 11, 12, 13, 15, 16, 17, 18 and 22. The neighbourhood options were assessed as negative for SA Objective 3 and uncertain for SA Objectives 8 and 23.
- 3.3.12 The opportunities within the Washwood Heath neighbourhood will explore methods to improve the energy efficiency of the housing stock. A review of HGV movement in the area will be undertaken which will aim to reduce congestion through improvements to access and increases in parking. Reductions in congestion could speed up traffic and lead to a reduction in emissions and so Washwood Heath is assessed as strongly positive for SA Objective 2 on energy use. It could also improve air quality leading to a positive assessment against SA Objective 10.
- 3.3.13 The principle source of noise pollution within the AAP area is traffic noise (Birmingham City Council 2010). A reduction in congestion could reduce noise pollution in Washwood Heath (SA Objective 13).
- 3.3.14 The Birmingham and Warwick Junction Canal is rated as having moderate ecological quality (Environment Agency 2013). Improvements to the general neighbourhood environment could improve the quality of the water (SA Objective 11). The options also aim to enhance Adderley Park which would benefit biodiversity (SA Objective 9) and GI (SA Objective 7). In addition, the opportunities suggest improving the quality of the GI network across the neighbourhood.
- 3.3.15 The options are assessed as positive for SA Objective 5 on previously developed land as they advocate the conversion and refurbishment of the Crown Buildings. They also aim to redevelop former cleared sites in Clodeshall Road.
- 3.3.16 There are opportunities for new businesses at refurbished sites such as the Crown Buildings which could help provide a strong and stable economy (SA Objective 15). Refurbishment of these buildings could also be for community use and provide opportunities for community influence (SA Objective 17). Community facilities at St. Peter's College are proposed to be enhanced. Improvements to Alum Rock Road's shopping environment could improve access to local services and facilities (SA Objective 18).
- 3.3.17 The options are assessed as positive for SA Objective 16 on investment in future prosperity as there is a focus on the enhancement of education provision within Washwood Heath. The options include a number of possibilities such as expansion of existing schools; potential refurbishment of the Crown Buildings into education use; and improvements to the physical school environment.
- 3.3.18 SA Objective 22 for affordable housing is assessed as positive because the options promote housing growth within the neighbourhood and encourages residential development at a number of locations. Furthermore, improvements to the residential stock and environment are supported.

- 3.3.19 The option is assessed as uncertain for SA Objective 8 on the historic environment as there are a number of listed buildings within the Washwood Heath neighbourhood including St. John's House and St. Saviour Church which could be adversely affected by development. The policies support the enhancement of facilities at St. Peter's College which is a grade II listed building.
- 3.3.20 The proposals have been assessed as positive for SA Objective 12 land contamination, as Washwood Heath has experienced three significant pollution incidents (Environment Agency 2013), rated as category 2 incidents, which suggests the area has contamination potential. The preferred option aims to improve the general environment which could include addressing contamination issues on individual sites.
- 3.3.21 Washwood Heath is assessed as uncertain for access to recreational activities (SA Objective 23) as the future of the existing sports pitch on Cranby Street is uncertain. General improvements to Washwood Heath's environment, especially the sports facilities in Adderley Park are likely to improve opportunities to participate in sporting activities.
- 3.3.22 The preferred option is assessed as uncertain for SA Objective 3 on sustainable transport. The proposals incorporate improved off-street parking to serve Alum Rock Local Centre. Birmingham City Council's (BCC) Annual Parking Report (2012) declares that parking policies have an influence on the level of car journeys and travel behaviour, with increased parking facilities leading to additional car journeys. This is due to additional off-street parking facilities making it easier to drive as there are more places to park at the end of the journey. On the other hand, the proposals could have a positive impact and reduce congestion by transferring vehicles currently parked on-street to off-street sites. Therefore it is important to ensure the off-street parking is accompanied by a reduction in on-street parking through stricter enforcement. In addition, the effect of localised parking increases should be considered alongside wider-scale sustainable transportation policies.

Bordesley Village (Neighbourhood 3)

- 3.3.23 The options for Bordesley Village are assessed as strongly positive for SA Objectives 3, 7 and 9. Assessed as positive for SA Objectives 2, 5, 6, 7, 8, 10, 11, 13, 15, 18, 22 and 23. There are no negative or uncertain assessments for any SA Objectives.
- 3.3.24 Bordesley Village options are assessed as strongly positive for SA Objective 3 sustainable transport, as there is a strong emphasis on sustainable modes of transportation. Pedestrian linkages and access is supported, and public transport is incorporated through the rapid transit and bus priority measures. Improving pedestrian and public transport facilities could encourage more people to use these sustainable methods of transportation and reduce the use of cars. In addition the proposals include reducing levels of congestion. Speeding up traffic flows could lead to reductions in emissions (SA Objective 2), improve air quality (SA Objective 10) and reduce noise pollution (SA Objective 13).

- 3.3.25 The proposals in this neighbourhood strongly support biodiversity (SA Objective 9). The plan suggests enhancements to Kingston Hill Park and Garrison Lane Park to make high quality green spaces. There are also proposals to support the wildlife assets of the canal corridor. Landscaping to improve the green frontage of the ring road and general planting enhancements to the neighbourhood gateways are also likely to protect, restore and re-create local biodiversity.
- 3.3.26 Green spaces and waterways in an urban environment provide important GI assets (SA Objective 7). There is also an opportunity to improve the quality of the GI network across the neighbourhood. The plans propose wide scale enhancements to these areas, including support for the wildlife assets of the canal corridor. Improvements to green areas, and the introduction of new green spaces in the area such as planting at gateways, and enhancements to green frontage, could go towards helping the neighbourhood adapt to climate change (SA Objective 6). Trees, and green spaces help provide a cooling effect in urban areas and improve the infiltration rates which could reduce the risk of flooding.
- 3.3.27 The proposals to support the recreational use and wildlife assets of the canal corridor, as well as general environmental improvements to the neighbourhood could lead to an improvement in the water quality of the canals (SA Objective 11). GI features are multifunctional and can support a range of uses. The improvements to GI assets, such as the canal, could aid opportunities for recreational activities (SA Objective 23).
- 3.3.28 Further residential development is proposed along the canal corridor, for example at Lower Dartmouth Street. Additional housing should include the provision of affordable housing (SA Objective 22). Residential development opportunities have been identified on vacant or under-used sites which leads to a positive assessment against SA Objective 5 on previously developed land.
- 3.3.29 New development is encouraged along the frontage of junctions and the ring road. Improvements to the permeability of the Bordesley Village local centre are suggested and could support the local economy's vitality and viability (SA Objective 15). Improving connections and permeability through the introduction of pedestrian walkways and public transport provides equitable access to opportunities throughout the neighbourhood (SA Objective 18).
- 3.3.30 The proposals were assessed as positive for SA Objective 8 on the historic environment. The locally listed canal bridge on Coventry Road was identified as potentially being upgraded. There are other historic buildings within the neighbourhood such as the grade II listed Garrison Centre and the locally listed Sportsman Pub, these are not explicitly mentioned within the neighbourhood proposals but the general section on Local Character refers to the general protection of historic buildings.

Bordesley Green (Neighbourhood 4)

- 3.3.31 Bordesley Green preferred options were assessed as strongly positive for SA Objectives 3, 12 and 15 and positive for SA Objectives 2, 5, 10, 13, 16, 18 and 22. They were assessed as uncertain for SA Objectives 20 and 23

- 3.3.32 Bordesley Green is assessed as strongly positive for SA Objective 3 on sustainable transport as the proposals aim to improve public transport in the neighbourhood. The proposals support the introduction of a Rapid Transit Route and plans to explore improvements to accessibility and rail services at Adderley Park Station. Improvements in public transport could lead to more people using sustainable modes of transportation. There is also a proposal to improve the safety of the busy Garrison Lane, Bordesley Green junction which could reduce road accidents. Furthermore the opportunities emphasise improvements to the accessibility of the canal and cycle network.
- 3.3.33 Improvements to the public transport system could encourage more people to use it. SA Objective 2 on energy use is positive as a reduction in car use is likely to lead to a reduction in emissions and improve the neighbourhood's air quality (SA Objective 10). Encouraging people onto public transport and out of their cars, as well as reducing congestion, could lead to improved traffic flow and a reduction in noise (SA Objective 13).
- 3.3.34 The Wheels site is known to be contaminated as it is the former Adderley Park Brickworks Landfill Site. Development on the site will require remediation and consequently the proposals will reduce and mitigate land contamination issues in the AAP area, satisfying SA Objective 12 on land contamination.
- 3.3.35 Bordesley Green is assessed as strongly positive for SA Objective 15 as strong support is shown for employment facilities within the neighbourhood.
- 3.3.36 Although not explicitly stated, development in the neighbourhood is likely to take place on previously developed land due to the lack of greenfield sites within the neighbourhood. Development on brownfield sites leads to a positive assessment against SA Objective 5 on previously developed land.
- 3.3.37 There is also a proposal which recommends improving the quality of the GI network within the neighbourhood. This has led to the positive assessment of the proposals against SA Objectives 7 and 9.
- 3.3.38 Currently the education facilities in the neighbourhood are constrained by availability of space. The proposals explore opportunities for the Bordesley Green Girls School and the Al-Hijrah School to expand and show investment in future prosperity (SA Objective 16). Expansion of the local schools could lead to an increase in access to education facilities. In addition the support for employment facilities could lead to improvements in access to services and facilities (SA Objective 18).

3.3.39 There are proposals to expand the local schools which could increase educational attainment (SA Objective 20). However the proposals are assessed as uncertain against SA Objectives 20 and 23 due to the consolidation or relocation of the existing sport activities (such as speed skating) on the Wheels Site. Although the main use of the site is not for sporting activities, the consolidation of these facilities without relocation could lead to a reduction in availability of speed skating facilities (SA Objective 23) and could lead to people living less active lives and taking part in less exercise (SA Objective 20).

3.3.40 Residential development is proposed in the Cherrywood Road area. Additional housing could lead to the provision of more affordable housing (SA Objective 22).

Small Heath (North) (Neighbourhood 5)

3.3.41 The Small Heath (North) neighbourhood preferred options were assessed as strongly positive for SA Objective 7 and positive against SA Objectives 2, 3, 5, 6, 9, 10, 13, 15, 16, 18, 20, 22, and 23. There was uncertainty regarding the assessment of SA Objectives 8 and 17.

3.3.42 Small Heath (north) is assessed as strongly positive for SA Objective 7 on GI as there are plans to enhance open and green spaces within the neighbourhood and improve the quality of the GI across the neighbourhood. The Henry Barber Recreation Ground, Green Lane Playing Fields and Digby Park are all examples of GI assets. Increasing and improving the GI within Small Heath (North) is likely to increase the amount of biodiversity in the neighbourhood (SA Objective 9). GI assets are multifunctional and can offer recreational facilities as well as provide habitats.

3.3.43 Another benefit of GI and retaining key green areas is the adaption to climate change service it plays (SA Objective 6).

3.3.44 The proposals aim to enhance the existing open spaces and sports facilities within the neighbourhood, including the Henry Barber Recreation Ground, Green Lane Playing Fields and Digby Park, potentially providing additional areas to take part in sport and other active recreation (SA Objective 20).

3.3.45 The proposals advise that Bordesley Green local centre is likely to be reconfigured due to the implementation of the rapid transport route. The location of the rapid transport route along the top of the neighbourhood could encourage people to use more sustainable modes of transportation (SA Objective 3) due to ease and proximity. There is also an emphasis on a reduction in congestion and improving traffic flow through traffic management measures and junction improvements. Increasing the speed of traffic is likely to reduce the amount of emissions (SA Objective 2) and could improve the air quality of the neighbourhood (SA Objective 10).

3.3.46 The focus on reducing congestion and improving road junctions is why the assessment for SA Objective 13 is positive. Improving traffic flow and reducing the amount of vehicles diverting onto residential roads could lead to a reduction in noise pollution.

- 3.3.47 Small Heath (North) was assessed as positive for SA Objective 15 on economic growth as the options promote the enhancement of the local centres as well as the vitality of St Andrew's Retail Park. The focus on improving employment and business sites could encourage economic growth and lead to a strong and resilient local economy.
- 3.3.48 Increases in employment opportunities and additional provision of community facilities could increase the ability for people to access services and amenities (SA Objective 18) and could aid participation (SA Objective 23). The neighbourhood is also near to the Heartlands Hospital and provides easy access to health facilities. Locating residential development within proximity to health services improves access to health facilities (SA Objective 20).
- 3.3.49 Small Heath (North) encourages the redevelopment of vacant sites and buildings such as the former Emerald Club, and aims to bring them back into productive use (SA Objective 5). There are multiple opportunities for community facilities within Small Heath (North) such as the under-used open space at Millward Street. If development at Millward Street included community facilities this would lead to a positive assessment against SA Objective 17 on community involvement. However, the space could also be used for housing development which would not influence SA Objective 17. This has led to an uncertain assessment as the proposals support either of the uses.
- 3.3.50 Residential development is proposed on Eversley Road, Millward Street, Hafton Grove, Talfourd Street and Wright Street. Additional housing could lead to the provision of more affordable housing (SA Objective 22).
- 3.3.51 Opportunities include the potential for extension of the sites of Wyndcliffe, Marlborough and Small Heath Schools. New facilities and an improvement in the environment surrounding the schools could aid the achievements of children and improve the educational attainment of the residents within the neighbourhood (SA Objective 16).
- 3.3.52 There are five listed buildings within the neighbourhood: 147, 149 and 155 Green Lane, the Vicarage as well as Small Heath Public Library and Baths. Development and improvements to the areas surrounding these historic buildings is encouraged and could harm these historic buildings if the design and setting of new development does not consider the historic environment. Therefore the proposals are assessed as uncertain for SA Objective 8.

Small Heath (South) (Neighbourhood 6)

- 3.3.53 The Small Heath (South) preferred option was assessed as strongly positive for SA Objectives 2, 3, 5, 7, 9 and 15. The proposals were also assessed as positive for SA Objectives 6, 10, 13, 16, 18, 20 and 23.
- 3.3.54 The Small Heath (South) options are assessed as strongly positive for SA Objective 3 as they support improvements to public transport. They aim to enhance bus routes as well as introduce a rapid transit route within the neighbourhood. Improvements to rail services are also supported and could lead to more people using public transport. There are also proposals to improve pedestrian routes across the area and this could further reduce car use.

- 3.3.55 Improvements to public transport and walking could lead to reductions in emissions due to a reduction in the use of cars, improvements to air quality (SA Objective 10) and also reduce the noise pollution caused by vehicles on the road (SA Objective 13). In addition there are proposals to explore the potential for Combined Heat and Power (CHP) in the area which could also reduce emissions (SA Objective 2).
- 3.3.56 The preferred option aims to enhance Small Heath Park, a park which hosts deciduous woodland - named in the BAP as a priority habitat. The opportunities also aim to enhance Sara Park. These, together with the protection and enhancement of green areas has led to a strong positive assessment for SA Objective 9 on biodiversity. The Grand Union Canal is also identified for improvement and is a priority habitat for conserving biodiversity as identified within section 41 of the Natural Environment and Rural Communities Act 2006 (BAP 2010).
- 3.3.57 The proposals explore the potential to improve linkages to the River Cole Linear Open Space which is a Country Park and an excellent GI asset. The plan also aims to improve linkages to the Grand Union Canal, Small Heath Park and Sara Park, as well as pedestrian linkages across the area. Improved green and blue corridors link fragmented habitats and provide a network for biodiversity and provide a strong positive assessment for SA Objective 7 on GI.
- 3.3.58 The proposals to improve pedestrian linkages and the existing green areas within the neighbourhood such as Small Heath Park and Sara Park provide and create additional access to recreation opportunities (SA Objective 23).
- 3.3.59 Improvements to the general environment could include the planting of trees which help cooling in urban environments. Enhancements to the existing green areas of Small Heath (south) could also reduce the impact of climate change and help reduce the risk of flooding through improving infiltration rates (SA Objective 6).
- 3.3.60 The proposals aim to support the vitality and viability of the local centre of Small Heath. The focus on the opportunities for growth and regeneration as well as enhancing the centres niche role could facilitate a strong and stable local economy (SA Objective 15). This is reinforced by the support of Small Heath local centre, the Small Heath Business Park and the 'enterprise environment' in Parliament Street. The community uses in the Parliament Street area will also be regularised (SA Objective 17) and could increase the number of community networks.
- 3.3.61 The Small Heath (South) opportunities also aim to make the Small Heath Business Park more attractive to potential occupiers and support the occupation of vacant units (SA Objective 5) as well as utilising vacant sites to transform the gateway to the Small Heath local centre. Making the area more legible and attractive, as well as promoting mixed-use opportunities within the neighbourhood could have the additional benefit of easy access to facilities and amenities (SA Objective 18).

3.3.62 The neighbourhood is fairly close to Heartlands Hospital and residents in this area will have access to health facilities. In addition the neighbourhood includes parks and other green spaces which will be enhanced and provide access to areas where people could take part in sport or active recreation (SA Objective 20).

3.3.63 The requirements of the local schools are considered and there are potential opportunities for site expansion as well as improved facilities. The consideration of schools could lead to improved educational attainment in the neighbourhood (SA Objective 16).

3.4 Key Opportunities for Change

3.4.1 Within Bordesley Park, five areas have been identified as key opportunities for change (see **Table 3.7**). These areas offer the greatest potential for positive transformational change. Within each area, and following on from the previous option report, a preferred option is acknowledged. Each preferred option is comprised of opportunities which will be taken forward. These opportunities are assessed using the methodology in **Chapter 2** and the resulting high-level matrix is shown in **Table 3.8**.

The Wheels Site and Environs (Change Area 1)

3.4.2 The first Key Opportunity for Change area is assessed as strongly positive for SA Objectives 12, 15 and 16. The proposals are assessed as positive for SA Objectives 2, 3, 8, 10, 11, 13, 18 and 19. The assessment is uncertain for SA Objectives 5, 7, 9, 20, 21 and 23 and adverse for SA Objective 22.

3.4.3 There is a strong positive assessment for SA Objective 12 on land contamination. The Wheels site is known to be contaminated due to its previous use as a landfill site; development on the site will require remediation and consequently the proposals will reduce and mitigate land contamination issues in the AAP area.

3.4.4 The water quality of the canal to the west of the site is currently classified as of 'moderate' ecological quality. Improvements to the contamination of the Wheels site, through remediation works prior to development, as well as general improvements to the surrounding area, is likely to improve the water quality. Remediation and environmental improvements mean there is less contamination in the area to leach into the water body (SA Objective 11). From the diagram representing the planned changes it can be seen that there is existing and planned landscaping between the site and the canal. These features are likely to help screen the canal from the site and protect the water quality.

3.4.5 The Wheels site option is assessed as strongly positive for SA Objective 15 on economic growth because the opportunities promote new industrial and employment opportunities on the site. There is the potential for expansion of existing businesses and the ability for additional businesses to relocate into the area. The proposals also suggest improvements to Bordesley Green local centre. This strong promotion of businesses and the economy, as well as improved access could encourage economic growth within the area.

Table 3.7: Key opportunities for change area preferred options

Key Opportunities for Change Areas and preferred options	
1	The Wheels Site and Environs
The promotion of new industrial and employment opportunities.	
2	Cherrywood Road Area
The creation of a new residential area with improved community facilities and improvements of the Bordesley Green local centre.	
3	Adderley Park
A new mixed-use neighbourhood focused on Adderley Park with an emphasis on improving residential environment with supporting employment and community uses.	
4	Alum Rock Road
Investment within the existing centre and growth of the centre to the east.	
5	Small Heath Local Centre
Investment within the existing centre and creation of a gateway at the western end of the centre.	

Table 3.8: Assessment matrix of key opportunities for change areas preferred options

SA Objective		Key Opportunity for Change Areas				
		1	2	3	4	5
1	Natural resources	0	0	0	0	0
2	Energy use	+	+	0	0	+
3	Sustainable transport	+	+	++	+/-	++
4	Waste minimisation	0	0	0	0	0
5	Previously developed land	+/-	+	+	++	++
6	Climate change	0	0	0	0	0
7	Green Infrastructure	+/-	+/-	0	0	+
8	Historic environment	+	+	+	+	+
9	Biodiversity	+/-	0	0	0	+
10	Air	+	+	+	+/-	+
11	Water	+	0	0	0	0
12	Land contamination	++	+	0	0	0
13	Noise	+	+	+	+/-	+
14	Corporate social and environmental responsibility	0	0	0	0	0
15	Economic growth	++	+/-	+	++	++
16	Investment	++	+	++	+	+
17	Community influence	0	+	+	0	+
18	Social inclusion	+	+	+	+	+
19	Poverty and disadvantage	+	+	+	0	0
20	Health	+/-	+	++	0	+
21	Community safety	+/-	0	0	0	0
22	Affordable housing	-	++	+	-	++
23	Recreational activities	+/-	+	+	0	+

- 3.4.6 The proposals score strongly positive against SA Objective 16 on investment in future prosperity due to the aim to enhance education facilities within the Wheels site by potentially expanding the Bordesley Green Girls School and providing additional space for teaching and learning. Furthermore, the proposals promote links with universities and other education and training establishments, all of which could promote investment in the future and encourage learning and skills development.
- 3.4.7 The focus on economic growth and skills development also leads to a positive assessment for SA Objectives 18 and 19 on social inclusion and poverty respectively. Employment opportunities could improve social inclusion and ensure that nearby residents have easy and equitable access to facilities. Furthermore the focus on employment could reduce the amount of unemployed people in the area and could reduce the number living in poverty.
- 3.4.8 Introducing a rapid transit route near to the site (along Garrison Lane and Bordesley Green Road) will provide additional and more efficient public transportation. Making public transport quick and easy to use is likely to encourage people to use these more sustainable modes of transportation and reduce travel by private car (SA Objective 3). By promoting public transportation and introducing the rapid transit route the policies could reduce car use in the area and consequently reduce greenhouse gas emissions (SA Objective 2).
- 3.4.9 Currently the Wheels park site is poorly serviced by buses (BCC Scoping report 2009). By introducing a rapid transit route along Garrison Lane and increasing accessibility to the Wheels site the proposals could reduce the use of cars and HGV's as people start to use more sustainable modes of transportation. This could improve air quality in the vicinity and is assessed as positive for SA Objective 10.
- 3.4.10 The scoping report (BCC 2009) advised that the principal source of noise in the area is traffic. The Wheels site experiences much HGV traffic due to the surrounding industrial activities. There is also noise pollution generated at the Wheels site during race days at the Wheels Stock Car Stadium. Redevelopment of the site, improvements to access, implementation of the rapid bus transit route, relocation of some activities as well as addressing the environmental and amenity issues for residents could minimise noise pollution levels (SA Objective 13).
- 3.4.11 The closest listed building is the Small Heath Public Library and Baths, which is approximately 400m away. This key opportunity for change is assessed as positive for SA Objective 8 on historic environment because Small Heath Public Library and Baths are screened from the development by houses and are consequently unlikely to be adversely affected. In addition, refurbishment and redevelopment of the Wheels site and environs as a whole could improve the area's built environment.

- 3.4.12 Enhancement of learning facilities as well as links to universities could improve the educational attainment in the area (SA Objective 20). Improvements in the local economy, as well as reductions in unemployment and deprivation levels are all likely to improve the health of residents. Due to the presence of speed skating facilities at the Wheels site it provides opportunities for enthusiasts to take part in moderate physical activity. Consolidating these facilities without relocation could lead to a reduction in sports facilities, hence the uncertain assessment for SA Objective 20.
- 3.4.13 The majority of the Wheels site and environs is currently developed. According to the Bordesley Park GI Report (2013) there are areas of trees and scrub around the track which have been left undeveloped. Depending on the design and location, new development could again utilise the developed land and retain the areas of undeveloped green space (SA Objective 5).
- 3.4.14 The Wheels site and environs is assessed as uncertain for SA Objective 9 on biodiversity and geodiversity as the canal system (Grand Union) to the northwest of the site is a SLINC. Depending on design and setting there is a possibility that development could adversely affect the biodiversity found in this habitat. The Birmingham and Black Country BAP (2010) advises that canals represent a priority habitat for conserving biodiversity as identified within section 41 of the Natural Environment and Rural Communities Act 2006. The existing and proposed landscaping reduces the likelihood of adverse effects to biodiversity.
- 3.4.15 It is uncertain whether the proposed design of the Wheels site would reduce the amount of green space in the area (SA Objective 7). It appears that the borders of tree and shrub species which currently screen the tracks will remain under the new plan; this would be positive for GI. It also appears that the green corridor connection to the canal network to the northwest would not be cut-off by development. The policy addresses the environmental issues faced by adjoining residents, this aspect, coupled with the general enhancement of the area, and improved accessibility may promote green spaces in the area. However development should be carefully designed and sited in order to avoid impacts to the nearby SLINC.
- 3.4.16 Improving the rate of employment and increasing training and education in the area is likely to lead to a reduction in crime (SA Objective 21). The Wheels site was originally opened, in part, to help provide a destination for recreation and positive community activities for disengaged youths. Today the Wheels site is used mostly for motor racing and go karting with youth activities playing a more minor role. Where possible a loss of provision of facilities for this age group should be avoided through relocation of facilities.
- 3.4.17 The option is assessed as negative for SA Objective 22 on housing as housing along Bordesley Green Road will be incorporated into the proposed employment site, leading to the loss of some housing. Although increasing employment opportunities in the area is encouraged, affordable housing should be allocated elsewhere within the AAP area to offset the potential loss of housing caused by development.

Cherrywood Road Area (Change Area 2)

- 3.4.18 Cherrywood Road was assessed as strongly positive for SA Objective 22 and positive for SA Objectives 2, 3, 5, 8, 10, 12, 13, 16, 17, 18, 19, 20 and 23. It was assessed as uncertain for SA Objectives 7 and 15.
- 3.4.19 The option proposes new residential development which caters for many different types of people through a varied provision of tenure types. Providing affordable housing could lead to a reduction in homeless families (SA Objective 19).
- 3.4.20 New housing will be built to meet Code for Sustainable Homes (CfSH; as stated in the Sustainability Development Principle – level 4 by 2015 and level 6 by 2018) and is likely to be more efficient than existing houses which helps meet SA Objective 3 on reducing energy use. In addition, the rapid transit route could encourage more people to take public transport and reduce car use and greenhouse gas emissions.
- 3.4.21 The Cherrywood Road area is assessed as strongly positive for SA Objective 22 on housing because the opportunities promote new residential development within the site. These houses will provide a wide range of housing types to meet the needs of the local area. Implementing the CfSH procedures could also improve the longer term affordability of new housing due to improved energy efficiency and a consequent reduction in energy bills.
- 3.4.22 Two sites have been identified for potential residential development should they become available (industrial land at Cherrywood Road and land at Humpage Road). Both sites are previously developed (SA Objective 5). The density of new development is unknown, but in order to make the most efficient use of land residential development should be fairly dense.
- 3.4.23 Introducing a rapid transit route near to the site will provide additional and more efficient public transportation. Currently 68% of people drive to work, with 19% of people within the AAP area using public transport (BCC Scoping Report 2009). Improving public transport could increase the amount of people using these sustainable modes of transportation (SA Objective 3).
- 3.4.24 The proposal to introduce a rapid transport route directly to the south of the Cherrywood Road Area could reduce the use of cars as people start to use more sustainable modes of transportation. The reduction in car use, coupled with increases in public transport could reduce congestion on Bordesley Green Road and therefore improve air quality in the vicinity (SA Objective 10).
- 3.4.25 Bordesley Green Road which borders the area to the south, experiences high levels of noise pollution during the day. As part of the option, the rapid transit route proposed along this road could lead to a reduction in car use and noise pollution (SA Objective 13).

- 3.4.26 The proposals consider the needs of the Al Hijrah School which could lead to enhancements to the school, there is also the opportunity for further education uses on Bordesley Green Road in the future. Improvements to the school will be investment in the learning and skills of the residents (SA Objective 16). There could consequently be improvements in educational attainment. The option also proposes improvements to the local centre which could provide additional health services. Finally the option focuses on housing provision and is likely to reduce the proportion of people living in non-decent housing (SA Objective 20).
- 3.4.27 The option suggests improvements to the setting of existing residential areas, introducing complementary frontages, as well as reviewing the impact of large numbers of vehicle repair premises which could enhance the quality of the built environment. In addition, development opportunities along Bordesley Green aim to safeguard historic buildings (SA Objective 8).
- 3.4.28 There is the opportunity to address development needs along the Bordesley Green Road, and improve the local centre. These changes could provide additional access to general services and facilities (SA Objective 18) as well as specifically providing additional sports and leisure facilities (SA Objective 23).
- 3.4.29 Meeting the needs of the residents by providing a range of housing types, as well as improving the environment of the area could encourage people to stay within the area (SA Objective 17).
- 3.4.30 The Cherrywood Road Area is assessed as positive for SA Objective 12 on contamination as the proposals address the impact of the existing hazardous substances consents and recommend the involvement of the Health and Safety Executive. The Environment Agency maps suggest there was a significant waste pollution incident within the Cherrywood Road Area in 2002. In addition, the site occupied by AkzoNobel Packaging Coatings Ltd is designated as a Hazardous Installation, and there are industrial units which may be contaminated from their previous manufacturing use. For development to take place on these sites remediation will be needed, therefore development will reduce the amount of land contamination.
- 3.4.31 This Key Opportunity for Change was assessed as uncertain for SA Objective 7 on GI. There are two parks within the Cherrywood Road area - Denbigh Street, which is 0.4ha and Priory Gate Way which is 0.5ha, meaning new housing in the area will have some green areas nearby. Dramatically increasing the population of Bordesley Park will mean more people are using the existing green and open spaces. Disregarding the quality of the existing spaces, the average open space in Bordesley Park AAP per 1000 population is 1.88ha, below the 2ha target. New housing will worsen this ratio unless new open and green space is created in the area.

- 3.4.32 The proposals include potential improvements to the local centre which could enhance and support the local economy. The uncertainty in regard to SA Objective 15 on economic growth is due to employment sites such as vehicle repair and other industrial premises potentially being lost to make way for residential development. Consideration therefore needs to be given to a relocation strategy.

Adderley Park (Change Area 3)

- 3.4.33 The Adderley Park area was assessed as strongly positive for SA Objectives 3, 16 and 20 and positive for SA Objectives 5, 8, 10, 13, 15, 16, 17, 18, 19, 22 and 23. There are no negative or uncertain assessments.
- 3.4.34 The option proposes traffic management and improvement to junctions. This could reduce the number of people and children harmed in road accidents (SA Objective 3). There is also mention of enhancing the pedestrian environment at the junction of Adderley Road and Arden Road which could encourage more people to walk.
- 3.4.35 Adderley Primary School experiences high levels of HGV traffic on Landor Street/Arden Road which leads to high amounts of noise pollution. This poor environment could be improved by improvements to traffic management and junctions in the area which could reduce congestion and improve air quality (SA Objective 10). The preferred option recommends improvements to traffic management and improvements to key junctions as well as a parking restrictions for HGVs, all of which could improve noise levels (SA Objective 13).
- 3.4.36 Reducing noise pollution levels around Adderley Primary School could help students perform better. There are proposals to promote training facilities and education facilities which could improve learning and skills development (SA Objective 16). Exploring opportunities for improvement and relocation in the longer term could improve the quality of educational facilities in the area and improve educational attainment (SA Objectives 16 and 20).
- 3.4.37 Adderley Park is assessed as positive for SA Objective 5 on previously developed land as the sites identified for development are brownfield sites.
- 3.4.38 Adderley Park is located near to the Birmingham and Warwick Junction Canal which is also a public right of way and acts as a GI asset. The park is highlighted for enhancement, through improvements to the quality and use of the park as a recreational and green asset for the area. These improvements include footpaths and outdoor fitness equipment to encourage exercise which could be beneficial for the health of the neighbourhood (SA Objective 23).
- 3.4.39 The option identifies opportunities for additional business uses along Adderley Road leading to a positive assessment of SA Objective 15 on economic growth. The option aims to promote investment in existing industrial premises in the area. This focus on economic growth could provide a strong and stable economy which benefits local residents.

- 3.4.40 The focus on creation of employment and training space could reduce the amount of unemployed people in the area. This has been assessed as positive for SA Objective 19 on poverty and disadvantage as it could reduce the number living in poverty.
- 3.4.41 The description of the neighbourhood refers to Adderley Park as a mixed-use area. The scope to offer a wider mix of uses along Adderley Road and to the south of Arden Road encourages employment, training, education, community and potentially leisure use within the area. Promoting a more diverse mix of uses within the neighbourhood could ensure easy and equitable access to services and opportunities (SA Objective 18). The proposals also strongly promote new community facilities in the neighbourhood (SA Objective 17).
- 3.4.42 Adderley Park is assessed as positive for SA Objective 8 on the historic environment. The grade two listed building: Church of St Saviour is located next to the Adderley Park area. There is unlikely to be any affect on the church as it is screened from the view of potential development by the houses along Ash Road. Improvements to the environment of the park could enhance the historic building's setting.

Alum Rock Road (Change Area 4)

- 3.4.43 The fourth Key Opportunity for Change area: Alum Rock Road was assessed as strongly positive for SA Objectives 5 and 15 and positive for SA Objectives 8, 16 and 18. It was assessed as negative for SA Objective 22 and uncertain for SA Objectives 3, 10 and 13.
- 3.4.44 Due to the land constraints the preferred option is focused on utilising existing space efficiently. There is a strong positive assessment of the preferred option against SA Objective 5 on previously developed land as the former Leyland Club and the former Tilt Hammer Public House are both proposed for redevelopment. The use of the upper floors of existing properties within the local centre are being considered.
- 3.4.45 The option is assessed as positive for historic environment (SA Objective 8) because the improvement of existing buildings is encouraged. The protection of Saltley Methodist Church helps safeguard some of the area's historic environment. In addition, the character of the built environment is enhanced by improvements to the setting of gateways and the public realm throughout the area.
- 3.4.46 The assessment is strongly positive for SA Objective 15 on economic growth as there is a strong focus on the economy and supporting the local centre. The preferred option proposes a potential expansion of the centre and supports the provision of new facilities. The support and enhancement of the local centre is likely to lead to a vibrant and thriving local economy. Increases in the vitality of the local centre could increase employment opportunities as well as increase access to services, facilities and opportunities (SA Objective 18).
- 3.4.47 The opportunities within the area includes the expansion of St. Saviour's School, which increases the accessibility of the school to all (SA Objective 16). Enhancements to education facilities and improvements to the access of these facilities represents investment in learning and skills development.

- 3.4.48 The option is assessed as negative for SA Objective 22 on housing as there will be a reduction in housing numbers. The proposed expansion of the local centre east along Alum Rock Road is going to result in the loss of some housing. Properties which adjoin Alum Rock Road could have their uses changed to commercial. Although the strengthening of the local centre is encouraged, affordable housing should be allocated elsewhere within the AAP area to offset the potential loss of housing caused by development.
- 3.4.49 There is uncertainty in relation to SA Objectives 3, 10 and 13 due to the potential consequence of increasing parking facilities. Development is to take place in the local centre which makes use of the existing transport infrastructure. There is the potential that increasing parking facilities could lead to an increase in road traffic and conflict with the area wide objective to reduce car use (SA Objective 3).
- 3.4.50 There is a strong focus on providing additional parking areas within the preferred option, leading to uncertainty when assessing SA Objectives 10 and 13 on air quality and pollution respectively. Additional parking could either encourage more people to drive and cause a deterioration of air quality, or reduce congestion, improve traffic flow and air quality as well as reduce noise pollution (SA Objective 13). There is a proposal to tackle traffic congestion and as Alum Rock Road sees much congestion in the afternoon, increased parking facilities may improve air quality. This uncertain effect should be monitored.

Small Heath Local Centre (Change Area 5)

- 3.4.51 The final key opportunity for change, Small Heath Local Centre was assessed as strongly positive for SA Objectives 3, 5, 15 and 22 and positive for SA Objectives 2, 7, 8, 9, 10, 13, 16, 17, 18, 20 and 23. The remaining SA Objectives were assessed as having neutral or no effect.
- 3.4.52 There are proposals for housing development to take place the former cinema site, on part of the former tram/bus depot and at the corner of Golden Hillock Road and Coventry Road. The additional housing will consolidate existing housing adjoining the site (in the case of the former cinema) and could reduce the vacancies in the existing housing stock (SA Objective 22) through providing a range of types and tenures as well as affordable housing.
- 3.4.53 The opportunities suggest improvements to the public realm and pedestrian environment which could encourage people to walk more. In addition, the construction of the Bordesley Chords is likely to have a positive impact on public transport and benefit the Birmingham area generally, reducing car commutes into the city centre of Birmingham. Facilitating easy and convenient sustainable modes of transport could reduce car use (SA Objective 3), reduce congestion, improve air quality and reduce emissions (SA Objective 2 and 10). There could also be improvements in noise pollution (SA Objective 13).

- 3.4.54 The preferred option suggests additional retail units and other facilities to create a high quality business and enterprise environment. General improvements to the setting, a reduction of congestion and additional parking is likely to attract more people to the centre and support a vibrant economy (SA Objective 15). The preferred option plans to implement additional education facilities whilst improving and enhancing local employment. This plan could promote social inclusion and ensure equitable access to services, facilities and opportunities (SA Objective 18).
- 3.4.55 The site adjacent to 511 Coventry Road is likely to be used for education (SA Objective 16) where it would provide additional facilities and access to education and training. Or it could be used for community uses and lead to a positive assessment for SA Objective 17.
- 3.4.56 The option is assessed as positive for SA Objective 5 on previously developed land as it seeks to redevelop the derelict premises at 670-672 Coventry Road. It also aims to safeguard heritage throughout the centre and provide investment in existing buildings (SA Objective 8).
- 3.4.57 There are plans to improve the environment including Small Heath Park which is assessed positively against SA Objective 7 on GI. Small Heath Park has assorted habitats including grassland, woodland and a pond. The variety of habitats and the size of the park means there is a myriad of biodiversity features within Small Heath Park. The preferred option aims to improve the park and could positively impact biodiversity (SA Objective 9). There is also a proposal to complete general environmental works which could go towards increasing biodiversity within Small Heath.
- 3.4.58 The preferred option aims to provide increased services and improve Small Heath Park which could facilitate opportunities to participate in diverse recreational activities and improve health (SA Objectives 20 and 23).

4 Significant effects and mitigation

4.1 Significant effects, mitigation and uncertainty

4.1.1 This chapter considers significant adverse effects that have been identified through the assessment process. Two types of negative effect are discussed: confirmed negative effects and uncertain effects. Where possible, mitigation has been prescribed. In cases where uncertainty prevails, to recognise the fact that some uncertainty might be positive, a series of recommendations to enhance positive assessment findings have been presented in **Chapter 5**. Monitoring recommendations are designed to help ensure that assessment findings are in fact correct.

4.1.2 The mitigation hierarchy is a sequential process that operates in the following way: firstly, if possible, adverse effects should be avoided. Failing this, the nature of the effect should be reduced, if possible, so that it is no longer significant. If neither avoidance nor reduction is feasible, mitigation measures should be considered. Mitigation prescriptions might include changes to policy wording, advocating design guides, offsetting biodiversity effects or provision of new supporting GI. In the case of this SA Report, mitigation has been supplied to help address negative effects so that, if possible, no residual effects remain.

4.2 Accessibility and transportation

4.2.1 SA Objectives relevant to this sustainability theme include SA Objectives 2 (reduce energy use and causes of climate change), 3 (promotion of sustainable transport), 10 (minimise air pollution), 13 (minimise noise pollution) and 18 (promote social inclusion).

4.2.2 The appraisal process has identified an adverse impact of the AAP on SA Objective 3 in the Washwood Heath Neighbourhood. The adverse effect was due to the implementation of additional parking in the neighbourhood. BCC's Annual Parking Report (2012) declared that parking policies have an influence on the level of car journeys and travel behaviour.

4.2.3 Within the AAP there is a focus on encouraging public transport, rapid transport and walking, which will help mitigate the potential adverse impact additional parking facilities may have. In the short term the effect of off-street parking is likely to reduce congestion and improve road safety. However it should be borne in mind that introducing more accessible parking could lead to an increase in car journeys, not the reduction and modal shift promoted within Bordesley Park as a whole. This issue should be monitored to ensure the focus on sustainable methods of transportation sufficiently mitigates against the potential for easier driving.

4.2.4 In order to mitigate the adverse effect there should be attempts to limit the increase in parking provision. Solely limiting parking availability will not by itself lead to more sustainable methods of transportation. A reduction in parking provision should be introduced alongside an increase in sustainable transport infrastructure to provide opportunities for people to travel sustainably. As reducing parking facilities may not be feasible in the short term, policies in the AAP should continue to support a large-scale modal shift in transportation modes to increase the use of more sustainable methods in the long term.

4.2.5 Uncertainty was also identified in relation to the following opportunities:

- SA Objective 3: Alum Rock Road Key Opportunity for Change Area;
- SA Objective 10: Vauxhall Neighbourhood, and Alum Rock Road Key Opportunity for Change Area;
- SA Objective 13: Vauxhall Neighbourhood, and Alum Rock Road Key Opportunity for Change Area.

4.2.6 The uncertainty associated with these findings is due to the fact that the plan is relying on behavioural change for the policy to be successful in delivering benefits against the three objectives (3, 10 and 13). There is also uncertainty as to the effects of introducing more parking as well as consolidating and expanding industrial facilities within one area. It is recommended that these issues be carefully monitored to ensure that a modal shift in transportation does occur, and that the air quality, emissions and noise pollution improves.

4.3 Air quality

4.3.1 SA Objectives relevant to this sustainability theme include SA Objectives 1 (natural resources) and 10 (air pollution).

4.3.2 The appraisal process has not identified any adverse impacts of the AAP in relation to SA Objectives 1 or 10. Uncertainty was identified in the following opportunities:

- SA Objective 10: Vauxhall Neighbourhood, and Alum Rock Road Key Opportunity for Change Area.

4.3.3 Please see **section 4.2** for information on how to mitigate the uncertainty regarding air quality.

4.4 Biodiversity and geodiversity

4.4.1 SA Objectives relevant to this sustainability theme include SA Objectives 7 (multifunctional GI network) and 9 (local biodiversity).

4.4.2 The appraisal process has identified no adverse impacts against SA Objectives 7 or 9.

4.4.3 Uncertainty was identified in relation to the following opportunities:

- SA Objective 7: The Wheels Site and Environs Key Opportunity for Change Area, and Cherrywood Road Key Opportunity for Change Area;
- SA Objective 9: The Wheels Site and Environs Key Opportunity for Change Area.

4.4.4 Uncertainty was due to the potential loss of biodiversity from residential development at Cherrywood Road with a deficit in green space (when compared to the areas target of 2ha per 1000 population). Residential development by itself is not necessarily an issue, if green areas are introduced and enhanced alongside. The introduction of new, and enhancement of existing green spaces should continue to be promoted throughout the AAP area.

4.4.5 There was also uncertainty because of ambiguity in relation to the design of the Wheels site development. The Grand Union canal (a SLINC) neighbours the site and could be adversely affected by unsympathetic development. Canals are highlighted within the BAP (2010) as a priority habitat for conserving biodiversity. To mitigate the adverse effect development could have on biodiversity, development should be designed and sited in a manner which least affects (or benefits) the SLINC and other important features for biodiversity. GI features such as green roofs and walls should be promoted.

4.5 Climate change

4.5.1 SA Objectives relevant to this sustainability theme include SA Objectives 2 (reduce energy use and causes of climate change), 3 (promotion of sustainable transport) and 6 (reduce impact of climate change).

4.5.2 The appraisal process has identified an adverse impact of the AAP on SA Objective 3 for Washwood Heath Neighbourhood and SA Objective 6 for Vauxhall Neighbourhood. The adverse assessment of SA Objective 3 is discussed in **section 4.2**. SA Objective 6 is assessed as negative due to flood risk. The Environment Agency maps (2013) show that the Vauxhall neighbourhood is at risk from extreme flood events and floods from the failure of reservoirs upstream. There is very little that can be done to mitigate against flood risk, and the NPPF (2012) advises that building in flood prone areas should be avoided. BCC has already started to mitigate the flood risk by working with the Environment Agency to reduce the risks of flooding. Additional investigation and monitoring of flood risk should also be carried out in the neighbourhood.

4.5.3 Uncertainty was identified in relation to the following opportunities:

- SA Objective 3: Alum Rock Road Key Opportunity for Change Area;
- SA Objective 6: Sustainability Development Principle.

4.5.4 Please see **section 4.2** for information on how to mitigate the uncertainty regarding energy use.

4.5.5 There is uncertainty regarding SA Objective 6 due to design. CfSH and sustainable construction could encourage the design of development which helps the building to adapt to climate change, but this is not assured. Where possible, the design of development should reduce the risk of flooding through implementation of GI.

4.6 Economic factors

4.6.1 SA Objectives relevant to this sustainability theme include SA Objectives 14 (corporate social and environmental responsibility), 15 (regeneration and economic growth) and 18 (promote social inclusion).

4.6.2 The appraisal process has not identified any adverse impacts of the AAP in relation to SA Objectives 14, 15 or 18. Uncertainty was identified in the following opportunities:

- SA Objective 15: Cherrywood Road Key Opportunity for Change Area.

4.6.3 Uncertainty was identified due to the competition of employment against housing provision. Employment sites could be lost to residential development in the Cherrywood Road area. Employment opportunities are identified elsewhere (such as at the Wheels Site) which overall could mitigate the effect and ensure no net loss. It is important to ascertain whether housing or employment is required most in each area in order to improve the local economy and guide employment relocation. The impact of the housing proposals should be monitored to ensure no overall loss to the economy.

4.7 Health

4.7.1 SA Objectives relevant to this sustainability theme include SA Objectives 20 (improve health), 21 (community safety) and 23 (recreational activities).

4.7.2 The appraisal process has not identified any adverse impacts of the AAP in relation to SA Objectives 20, 21 or 23. Uncertainty was identified in the following opportunities:

- SA Objective 20: Bordesley Green Neighbourhood, and The Wheels Site and Environs Key Opportunity for Change Area;
- SA Objective 21: The Wheels Site and Environs Key Opportunity for Change Area;
- SA Objective 23: Washwood Heath Neighbourhood, Bordesley Green Neighbourhood, and The Wheels Site and Environs Key Opportunity for Change Area.

4.7.3 The uncertainty seen in SA Objectives 20, 21 and 23 is due to the potential trade-off between employment and industrial units against recreation and open space facilities. The future of the sports pitch off Cranby Street is uncertain. In addition, there could be a reduction in the size of the Wheels Site which could lead to a decrease in the availability of recreation facilities such as speed skating. This effect is significant due to the cumulative effect of loss on an area which has an average amount of open space of 1.88ha per 1000 people; below the target level of 2ha per 1000 people.

4.7.4 However, the loss of these sites is to provide additional employment sites and opportunities. Improvements in the local economy, as well as reductions in unemployment and deprivation levels indirectly improve the health of residents. Nevertheless, the loss of open space and multifunctional recreational facilities should be avoided; where possible, additional areas of open space should be introduced. The inclusion of proposals to introduce GI within each neighbourhood proposal and the Local Character (GI) Development Principle go towards mitigating the potential loss. These policies have the additional benefit of increasing the amount of GI in the area, which has multiple benefits for Bordesley Park, as well as providing an area to take part in sport and active recreation.

4.8 Historic environment and townscape

4.8.1 The only SA Objective relevant to this sustainability theme is SA Objective 8 (built and historic environment).

4.8.2 The appraisal process has not identified any adverse impacts of the AAP in relation to SA Objective 8. Uncertainty was identified in the following opportunities:

- SA Objective 8: Washwood Heath Neighbourhood and Small Heath (North) Neighbourhood.

4.8.3 There are numerous historic sites and buildings within the AAP area. These historic buildings could be adversely affected by unsympathetic development. It is not necessary for all listed or historic buildings and sites to be named as protection is implied by the general Local Character Development Principle, however to ensure the preservation of these important features stronger emphasis could be put on the protection of the historic buildings and sites within the policies. Development should also be designed and sited in a manner which least affects historic buildings.

4.9 Housing

4.9.1 SA Objectives relevant to this sustainability theme include SA Objectives 19 (poverty and disadvantage) and 22 (affordable housing).

4.9.2 The appraisal process has identified an adverse impact of the AAP on SA Objective 22 for Alum Rock Road Key Opportunity for Change Area and the Wheels Site and environs Key Opportunity for Change Area. This negative assessment is due to the loss of housing to retail units and other employment uses. Although strengthening the local centre and increasing the amount of employment opportunities available in the area is encouraged, affordable housing should be allocated elsewhere within the AAP area to offset the potential loss of housing caused by development.

4.9.3 No uncertainty was identified in relation to any opportunities.

4.10 Material assets

4.10.1 SA Objectives relevant to this sustainability theme include SA Objectives 1 (natural resources), 4 (waste minimisation) and 5 (previously developed land).

4.10.2 The appraisal process has not identified any adverse impacts of the AAP in relation to SA Objectives 1, 4 or 5. Uncertainty was identified in the following opportunities:

- SA Objective 5: The Wheels Site and Environs Key Opportunity for Change Area.

4.10.3 The design and siting of new development caused uncertainty as to whether development would take place on previously developed land. To most efficiently use resources and material assets it is important that development take place on previously developed land where possible. The Wheels site is mostly previously developed and the landscaped areas can be either retained or reconfigured as part of redevelopment. The principle of no net loss of biodiversity should be upheld.

4.11 Population and Quality of life

4.11.1 SA Objectives relevant to this sustainability theme include SA Objectives 15 (regeneration and economic growth), 16 (investment in future prosperity), 17 (community influence), 18 (promote social inclusion), 19 (poverty and disadvantage), 21 (community safety), 22 (affordable housing) and 23 (recreational activities).

4.11.2 The appraisal process has identified an adverse impact of the AAP on SA Objective 22 for Alum Rock Road Key Opportunity for Change Area. See **section 4.9** for explanation of the adverse effect. Uncertainty was identified in the following opportunities:

- SA Objective 15: Cherrywood Road Area Key Opportunity for Change Area;
- SA Objective 17: Small Heath (North) Neighbourhood;
- SA Objective 21: The Wheels Site and Environs Key Opportunity for Change Area;

- SA Objective 23: Washwood Heath Neighbourhood, Bordesley Green Neighbourhood, and The Wheels Site and Environs Key Opportunity for Change Area.

4.11.3 The uncertainty relating to community influence is due to the policy not definitely stating what the under-used open space at Millward Street will be used for. The policy states it could be used for housing or community use. Therefore if it is used for housing it will not help community influence. However the emphasis on community opportunities at other sites and in other neighbourhoods will help mitigate against this uncertainty.

4.11.4 Please see **section 4.6** for information on how to mitigate the uncertainty regarding economic factors. **Section 4.7** contains information on uncertainty for community safety and recreational activities.

4.12 Soil

4.12.1 SA Objectives relevant to this sustainability theme include SA Objectives 1 (natural resources) and 12 (land contamination).

4.12.2 The appraisal process has not identified any adverse impacts of the AAP in relation to SA Objectives 1 or 12. No uncertainty was identified either.

4.13 Water

4.13.1 SA Objectives relevant to this sustainability theme include SA Objectives 1 (natural resources) and 11 (water pollution).

4.13.2 The appraisal process has not identified any adverse impacts of the AAP in relation to SA Objectives 1 or 11. No uncertainty was identified either.

4.13.3 The Grand Union canal is currently classified as of 'moderate' ecological quality, which could be improved, by remediation and general environmental improvements in the area. Care should be taken to improve the water quality of all watercourses in the AAP area in order to meet the target of all watercourses to reach 'good' water quality status by 2015 (as required by the Water Framework Directive). This could be done through a reduction in pollution, Sustainable Drainage Systems (SuDS) and general environmental improvements

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5 Recommendations to enhance sustainability performance

5.1 Introduction

5.1.1 This chapter provides recommendations for maximising the sustainability opportunities presented in the AAP. This will enable the sustainability performance of the AAP to be maximised.

5.2 Recommendations for enhancement

5.2.1 The SA has suggested measures to prevent, reduce or offset significant adverse effects of implementing the AAP throughout **Chapter 4**. These measures are collectively referred to as 'mitigation measures'. To improve the sustainability potential of the AAP, these mitigation measures should be implemented.

5.2.2 Whilst the AAP as it stands brings a range of positive sustainability effects, **Chapter 4** addressed where the effects are adverse or uncertain and suggests a number of strategic mitigation proposals to help the AAP further improve its sustainability performance through implementation.

5.2.3 Adverse effects were discovered due to:

- Increases in parking provision;
- Flood risk; and
- Loss of housing.

5.2.4 The adverse effects of the AAP should be investigated and steps taken to mitigate the potential adverse effects of development.

5.2.5 On a general scale, uncertainty was present due to a lack of information available to fully assess the policy or site, for example because the policy relies on behavioural change which may or may not occur; because the effect development has depends upon its design and layout, whereby issues such as flood risk could be mitigated by designing the development in such a way as to minimise the risk; or an ambiguity in how a policy could be interpreted, such as uncertainty over the whether community facilities or housing will be developed on site.

5.2.6 Those opportunities identified as uncertain should be monitored in order to establish early on in the process whether they will become negative, as well as provide time to compensate for and mitigate these potential negative effects. The uncertain impacts of the AAP should be mitigated where possible so that only positive impacts remain.

5.2.7 The mitigation recommendations included within this report are:

- Limit the increase in parking provision;

- Introduce new, and enhance existing green spaces;
- Ensure development is designed and sited in a manner which least affects (or benefits) the SLINC and other important features for biodiversity;
- Promote GI features such as green roofs and walls;
- Avoid building in flood prone areas;
- Identify employment opportunities elsewhere to mitigate the loss on one site to ensure no net loss;
- Avoid the loss of open space and recreational facilities;
- Where possible introduce additional areas of open space;
- Place stronger emphasis on the protection of the historic buildings and sites;
- Design and site development in a manner which least affects historic buildings;
- Offset the potential loss of housing caused by development;
- Ensure that development takes place on previously developed land where possible;
- The principle of no net loss of biodiversity should be upheld;
- Improve the water quality of all watercourses in the AAP area in order to meet the target of all watercourses to reach 'good' water quality status by 2015.

5.3

Limitations

5.3.1

There are a number of limitations which should be borne in mind when considering the results and conclusions of this assessment:

- SA is a tool for predicting potential significant effects. The actual effects of the policies may be different from those identified. Prediction of effects is made using an evidence based approach and incorporates a judgement.
- The appraisal has been prepared at a strategic level with the most up to date data available. The matrix is a visual aid and should not be regarded as conclusive; accompanying text should always be read in conjunction with it. Further drafting may be done on the policies, and additional information may come to light before the AAP is adopted.
- The strategic nature of the assessment identifies issues which could be improved and can therefore be used to guide the next iteration of the plan
- Every attempt has been made to predict effects as accurately as possible using the best available information.
- The full details of the completed policies are not known at this stage and some effects will depend on the size and location of development, building design and construction, proximity to sensitive receptors such as wildlife sites, conservation areas, flood risk areas and watercourses, and the range of uses taking place.

6 Monitoring

6.1 Monitoring proposals

6.1.1 The SEA Directive states that 'member states shall monitor the significant environmental effects of the implementation of plans and programmes...in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action' (Article 10.1). In addition, the Environmental Report (or SA Report) should provide information on a 'description of the measures envisaged concerning monitoring' (Annex I (i)).

6.1.2 The monitoring requirements typically associated with the SA process are recognised as placing heavy demands on authorities with SA responsibilities. For this reason, the proposed monitoring framework should focus on those aspects of the environment that are likely to be negatively impacted upon, where the impact is uncertain or where particular opportunities for improvement might arise. The areas specified for monitoring include:

- Housing including the amount of affordable housing built versus the amount needed;
- The effect of parking changes on improving ease and accessibility of driving, and its consequence on the number of car users;
- Flood risk;
- The behavioural response of residents to ensure a modal shift in transportation methods;
- The water quality of local water bodies;
- The design of new development;
- The impact of housing proposals on the local economy.

6.1.3 Monitoring is particularly useful in answering the following questions:

- Were the assessment's predictions of sustainability effects accurate?
- Is the AAP contributing to the achievement of desired sustainability objectives?
- Are mitigation measures performing as well as expected?
- Are there any unforeseen adverse effects? Are these within acceptable limits, or is remedial action required?

6.1.4 The purpose of monitoring is to measure the environmental effects of a plan, as well as to measure success against the plan's objectives. It is therefore beneficial if the monitoring strategy builds on monitoring systems which are already in place. To this end, many of the indicators of progress chosen for the SA require data that is already being routinely collected at a local level by BCC and their partner organisations. It should also be noted that monitoring could provide useful information for future plans and programmes.

6.2 Links with the Annual Monitoring Report

- 6.2.1 The SA guidance suggests that SA monitoring and reporting activities can be integrated into the regular planning cycle. As part of the monitoring process for their Local Plan, Birmingham City Council will be required to prepare Annual Monitoring Reports. It is anticipated that elements of the SA monitoring programme for the AAP could be incorporated into these processes.
- 6.2.2 The monitoring programme is, at this stage, preliminary and may evolve over time based on the results of consultation and the identification of additional data sources (as in some cases information will be provided by outside bodies). The monitoring of individual schemes/proposals should also be addressed at project level.
- 6.2.3 Consultees are invited to suggest any further indicators, or propose amendments to this monitoring programme.

7 Conclusions & next steps

7.1 Conclusions

7.1.1 This SA report has appraised the preferred options of the Bordesley Park AAP (July, 2013).

7.1.2 Having appraised all 16 opportunities in the plan, the process has identified several positive and negative effects. Through applying a suite of mitigation measures, it is possible to ensure that most residual significant adverse effects are overcome. These measures have been presented in **Chapter 5**. Recommendations for dealing with uncertainty in the assessment process are presented in **Chapter 5** and **6**.

7.1.3 Those aspects of the plan that involve development on flood zones constitute a significant negative residual effect. These are upheld by the appraisal process since it is not possible to provide tangible or practical mitigation recommendations other than avoidance.

7.2 Next steps

7.2.1 The next stage of the SA process is to prepare an SA report to accompany the Pre-Submission version of the AAP. This report will meet the Environmental Report requirements of the SEA Directive.

7.2.2 Following this, and after adoption of the plan, SEA Regulations 16.3c)(iii) and 16.4 require that a 'statement' be made available to accompany the plan, as soon as possible after the adoption of the plan or programme. The purpose of the SA Statement is to outline how the SA process has influenced and informed the development of the Local Plan (Allocations) and demonstrate how consultation on the SA has been taken into account.

7.2.3 As the regulations outline, the statement should contain the following information:

- The reasons for choosing the preferred strategy in the light of other reasonable alternatives dealt with;
- How environmental considerations have been integrated into the AAP;
- How consultation responses have been taken into account; and
- Measures that are to be taken to monitor the significant environmental effects of the AAP.

7.2.4 To meet these requirements, following an Independent Examination, a Post Adoption Statement will be published with the adopted version of the AAP.

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