



**Horsham
District
Council**



**HORSHAM DISTRICT AND CRAWLEY BOROUGH
LOCAL DEVELOPMENT FRAMEWORKS**

Sustainability Appraisal and Strategic Environmental Assessment

Report on the adopted

West of Bewbush
Joint Area Action Plan
(2009)

July 2009

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1.0 INTRODUCTION

- 1.1. The Planning and Compulsory Purchase Act 2004, requires that Local Authorities prepare Local Development Frameworks (LDFs), which are a series of documents governing land use planning within a Local Authority Area.
- 1.2. It is a legal requirement for Local Development Frameworks to contribute to sustainable development. To ensure that this is achieved, each document prepared as part of the LDF is subject to a process known as Sustainability Appraisal (SA). This process incorporates the requirements of Strategic Environmental Assessment (SEA), in accordance with European legislation. These processes test how a document contributes to sustainable development, and suggests measures as to how the document could be improved in order to become more sustainable.
- 1.3. Horsham District Council and Crawley Borough Council have started the process of preparing their Local Development Frameworks. Both authorities have adopted Core Strategies which set out the key elements of the planning framework for their respective administrative areas. Both these documents were subject to an SA/SEA, the results of which are published alongside the adopted Core Strategies.
- 1.4. Both the Horsham and Crawley Core Strategies identify Land to the West and North West of Crawley as a location for development. Work has begun on preparing a West and North West of Crawley Joint Area Action Plan (JAAP). This document will provide more detail on the requirements for this development. To ensure that the JAAP contributes to sustainable development as far as possible, the JAAP has been subject to a SA/SEA, and this report sets out the results of this process.
- 1.5. As set out in paragraph 1.2, the processes of Sustainability Appraisal and Strategic Environmental Assessment have been combined. There are however some differences in the requirements of the two processes, and Table 1 sets out where the statutory requirements of a Strategic Environmental Assessment have been addressed in this document.

Table 1: REQUIREMENTS OF THE SEA DIRECTIVE 2001/42/EC	WHERE / HOW COVERED
Preparation of an environmental report: <i>taking into account current knowledge and methods of assessment, the content and level of detail of the plan, its stage in the decision making process, and the extent to which certain matters are more appropriately assessed at different levels the information to be given in the report is:</i>	
An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes.	Chapter 2, Chapter 4
The relevant aspects of the current state of the environment and the likely evolution without implementation of the plan or programme.	Chapter 5, Appendix A
The environmental characteristics of areas likely to be significantly affected.	Chapter 5, Appendix A
Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directive 79/409/EEC and 92/43/EEC.	Chapter 5 / Chapter 6
Any existing environmental protection objectives established at international, community or national level which are relevant to the programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	Chapter 4

The likely significant effects on the environment, including: short, medium and long term; permanent and temporary; positive and negative; secondary, cumulative and synergistic effects on issues such as: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and their interrelationships between the above factors.	Chapter 7 & Chapter 8 Appendix B
The measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse effects on the environment of implementing the plan or programme.	Chapter 8
An outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Chapter 7, Appendix B
A description of measures envisaged concerning monitoring (in accordance with regulation 17).	Chapter 9
A non-technical summary of this information.	Separate Non-technical summary
Consultation with:	
Authorities with environmental responsibility when deciding on the scope and level of detail of the information to be included in the environment report.	Chapter 3
Authorities with environmental responsibility and the public to be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan and accompanying environmental report before its adoption.	Chapter 3
Other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country.	Not Applicable
Taking the environmental report and the results of the consultations into account in decision making	
<p>Provision of information on the decision: When the plan or programme is adopted the public and any countries consulted must be informed and the following made available:</p> <ul style="list-style-type: none"> • The plan or programme as adopted • A statement summarising how environmental considerations have been integrated into the plan or programme in accordance with the requirements of the legislation • The measures decided concerning monitoring 	Adoption notification achieved by contacting all involved in the JAAP preparation with formal notices in the press / on website. This includes the statement summarising how environmental considerations have been taken into account. The statement also sets out how monitoring will be undertaken
Monitoring of the environmental effects of the plan or programme's implementation must be undertaken	To be undertaken as part of the LDF monitoring process at both Councils, with the results set out in their respective Annual Monitoring Reports.

2.0 OBJECTIVES OF THE JOINT AREA ACTION PLAN

- 2.1 As part of the production of an SA/SEA of the West and North West of Crawley Joint Area Action Plan (JAAP), it is helpful to have an understanding of the context in which the JAAP is being prepared, together with the main principles for the development.
- 2.2 Policy CP6 of the Horsham District Core Strategy and Policy W1 of the Crawley Borough Council Core Strategy identify that a Joint Area Action Plan should be prepared to enable the development of a neighbourhood of 2,500 homes on land to the West and North West of Crawley.
- 2.3 The policies of both Core Strategies have been written to conform with, and reflect each other. To this end, both Core Strategies set out a number of principles that work together to guide the development in the West / North West of Crawley area. These can be viewed in full by referring to the CP6 of the Horsham District Core Strategy (2007), and section 10 – (Land West and North West of Crawley), of the Crawley Borough Council Core Strategy.
- 2.4 As part of the preparation of the Joint Area Action plan, the principles of development to the West and North West of Crawley have been developed further and the vision and objectives for the development are summarised below. Further detail is available in the adopted West of Bewbush Joint Area Action Plan.

Vision

“To develop a sustainably built and located development, based on the neighbourhood principle, where a wide range of local services are accessible by residents, who are involved in their community and share the benefits of enjoying a high quality of life, and where there are strong and sustainable links, both into Crawley and the surrounding countryside which will be respected and utilised in conjunction with the provision of high quality open spaces and informal leisure facilities. The neighbourhood will provide excellent public transport opportunities which will include giving access to all resident to services, facilities the town centre and employment opportunities.

Objectives

- The development should take place on a ‘neighbourhood’ principle with the provision of a mix of uses which are likely to include shops, employment, a primary school, a library service, doctors’ surgery, public open space, land local transport infrastructure as well as housing, which will include affordable homes;
- the new development should be integrated with the physical and social infrastructure of Crawley, and with the landscape;
- the new development should avoid contributing to the coalescence of settlements by maintaining the sense of separation between Horsham and Crawley;
- to ensure development protects and where possible, enhances the setting of Ifield Village Conservation Area;
- the development should provide a mix of housing types and sizes including the provision of up to 40% affordable housing;
- the development should be based on maximising the opportunities for the use of sustainable construction methods;

- new development should avoid areas of flood risk and aircraft noise contours of 60dBA or more (either as existing or as indicated in relation to the alignment of the potentials second runway and safeguarded area);
- the development should seek to minimise any increase in the levels of traffic through the existing neighbourhoods of Crawley and, where possible, relieve pressure on the existing road network;
- sufficient transport infrastructure should be provided to meet the needs of the new development whilst maximising the opportunities for sustainable transport; and
- to provide opportunities for new employment, beyond that required in a neighbourhood centre, including the possibility of an employment allocation within the area.

3.0 METHODOLOGY FOR THE SUSTAINABILITY APPRAISAL

- 3.1 The Sustainability Appraisal process was started at the same time as preparation of the West of Bewbush Joint Area Action Plan began. The assessment process has been led by the Senior Environmental Officer based in the Strategic and Community Planning Department at Horsham District Council, and a Planning Officer with responsibility for SA/SEA from the Forward Planning Section at Crawley Borough Council. The process has however drawn on technical information and expertise from other members of the two planning departments, and from a number of external organisations.
- 3.2 The methodology for each element of the SA/SEA process is set out in more detail in the following paragraphs. The methodology also includes details on the consultation that has taken place as part of the sustainability appraisal process. It should be noted that although the JAAP covers the West of Bewbush location, the plan preparation process began with an analysis of the entire area of study to the West/North West of Crawley. As a consequence the early stages of the SA/SEA process also focussed on the whole area of study, with more location specific work being undertaken at the later stages of the plan preparation and SA/SEA process.

Plans and Programmes Influencing the Joint Area Action Plan

- 3.3 As part of the SA/SEAs of the Horsham District Council and Crawley Borough Council Core Strategies, Planning Policy Officers were interviewed and asked to identify which plans and policies they had referred to when undertaking policy research. These lists have been reviewed and the documents most relevant to the preparation of the West and North West of Crawley JAAP are listed in this document.

Baseline Data

- 3.4 Baseline data (information about the current status of an area) was collected for the area of study by reviewing a range of documents and data (including web sites) available to the two councils. Further information was collected through the commissioning of studies relating to the proposed development area, for example a Strategic Flood Risk Assessment. External organisations, including prospective developers were also asked to provide data where relevant. Data was collected for three broad topic areas – the environment, the economy, and social issues. Data was set out in tabular, map or chart form as appropriate, and includes any relevant comparative data, trends as to how the area may change without development in the area, and any problems with data collection.

Identification of Sustainability Issues, Objectives and Indicators

- 3.5 By examining the requirements of the plans and policies influencing area of study, together with the findings of the baseline data, the different sustainability issues affecting the West / North West of Crawley were identified. From these issues it was possible to develop a number of sustainability objectives against which the effects of development within the West / North West of Crawley area of study could be tested, in order to examine the JAAP's contribution to sustainable development. This process was carried out through meetings between the officers carrying out the SA/SEA and those working on the JAAP. Indicators to measure the contribution the development makes towards each objective were then devised in consultation with the District and Borough Council's officers with responsibility for LDF monitoring.
- 3.6 The Sustainability Objectives for the Sustainability Appraisal were compared against each other and also against the development objectives for the Joint Area Action Plan. This process identified areas where the objectives conflict, which can then be taken into account during the sustainability appraisal process.

Identification of Preliminary Options

- 3.7 There are several alternative ways that the objectives of the West of Bewbush JAAP could be met. This led to the development of a range of options based on how achievable they were in planning terms and the requirements of higher level plans and strategies (in particular the Horsham and Crawley Core Strategies).

Scoping Report

- 3.8 The Plans, Programmes, baseline data, sustainability issues, objectives, and preliminary options were set out for consultation in a Scoping Report which accompanied the Land to the West and North West of Crawley Issues and Options. Consultees included Natural England, the Environment Agency and English Heritage. A number of representations were made on the Scoping Report (details can be viewed on the West and North West of Crawley website www.westofcrawley.gov.uk). Most comments made suggested additional plans and programmes, as well as possible indicators.
- 3.9 The comments made on the Scoping Report were taken into account, with updates being made to the plans and programmes and baseline data. Changes were also made to the indicators where appropriate – suggestions could not always be incorporated as the indicators need to show that any effect on an objective is directly linked to the planning process.

Assessment of Alternative Options

- 3.10 The different options for the West of Bewbush Joint Area Action Plan were tested against the sustainability objectives using a series of matrices to compare the effects of different options. An example of the matrix and key used is illustrated below. The options were tested by the officers with responsibility for SA/SEA, in collaboration with the officers with the responsibility for the JAAP. By involving a number of officers in the option assessment process, the assessment drew on a wide range of environmental and planning expertise, thus helping to minimise the subjectivity of the assessment method. Following on from the initial option assessment, a preliminary assessment of the cumulative effects was carried out. From these processes it was possible to identify the most sustainable options, and propose preliminary mitigation measures.

Sustainability Objective	Summary of Effects	Option	
		a	b
1			
2			

Key

Strong positive effect:	☺☺
Positive effect:	☺
No Effect / Not applicable:	☹
Negative effect:	☹
Strong negative effect :	☹☹
Effect uncertain	?

Preferred Options Consultation

- 3.11 The updated plans and programmes and baseline data, were published with the results of the Assessment of Options in the draft SA/SEA report at the same time as the Preferred Options JAAP. This enabled consultees to respond to the findings of the assessment, together with how the results had influenced the chosen options for the west of Bewbush development. Fewer responses were received on this document than were made on the scoping report. They can be viewed on the West of Crawley website www.westofcrawley.gov.uk

Assessment of Preferred Option and Preparation of the Final SA /SEA report.

- 3.12 Comments made on the Draft Final SA/SEA, together with those made on the Preferred Options JAAP were fed in to the final SA/SEA published with the submission documentation. The effects of the chosen options were also investigated in more detail using the matrices and methods outlined above in paragraph 3.10, but giving greater consideration as to the permanence and timeframe of the different effects. These findings led to suggested mitigation measures to be incorporated into the Submission JAAP.

Examination and Adoption

- 3.13 Following the submission of the West of Bewbush Joint Area Action Plan, and the Final SA/SEA, questions were posed by the Inspector concerning the location of the areas assessed by the Council's as part of the JAAP. As a consequence the Council made available the maps of the different development options that were assessed as part of the SA process, together with an Examination Statement setting out further reasoning behind the selection of the sites. These documents were available for comment as part of the Examination process. The Sustainability Appraisal has now been updated to include the map, and provide further information on the option selection process.

4.0 OTHER PLANS AND PROGRAMMES

- 4.1 The West of Bewbush JAAP is influenced by a wide range of other plans and strategies. Many of these have already been identified as part of Horsham District Council's Sustainability Appraisal and Strategic Environmental Assessment of the Core Strategy (2007), and Crawley Borough's Sustainability Appraisal and Strategic Environmental Assessment of the Core Strategy (2007). The full list of these plans and strategies can be viewed by referring to both documents.
- 4.2 The documents which are of the most relevance to the West of Bewbush JAAP are summarised in the tables below. The plans and programmes have been continually reviewed, and updated where necessary, incorporating relevant documents identified in representations made at Issues and Options and Preferred Options stages as well as any new publications.

Table 2: International

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
EC Directive 2001/42/EC (SEA Directive)	An SEA must be carried out for the West/ North West of Crawley JAAP.	Requires that the environmental effects of certain plans and programmes are assessed, documented and mitigated against where necessary.

Table 3: National

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
Planning and Compulsory Purchase Act (2004)	Requires local authorities to prepare LDFs with a view to achieving sustainable development.	Section 39 places a duty on Local Authorities to prepare LDF documents with the objective of contributing to the achievement of sustainable development. Associated regulations require a Sustainability Appraisal of all Development Plan Documents
Government Aviation White Paper (2003)	The Government will not seek to overturn the 1979 agreement preventing construction of a second runway at Gatwick before 2019. Should a second runway be needed after 2019, land should be safeguarded for this.	There is a need to ensure that the land surrounding Gatwick Airport that could potentially be affected by high levels of air noise is not made available for noise sensitive development.
Planning Policy Statement (PPS) 1- Delivering Sustainable Development (2005)	Sets out the Government's vision for planning and the key policies which should underpin the planning system.	The JAAP should seek to reduce social inequality, ensure provision of homes, jobs, services and facilities, deliver safe, healthy and attractive places to live and support promotion of health & well-being.

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
Planning Policy Statement: Planning and Climate Change. Supplement to Planning Policy Statement 1(2007)	Sets out the Government's approach to tackling climate change through the planning process	The JAAP should ensure that development minimises emissions of greenhouse gases and is also built to cope with the predicted change to the climate
PPS3 – Housing (2006)	Sets out the Government's approach to the provision of housing, including the location of development and its density.	Requires high quality housing to be delivered through planned timescales at a minimum of 30 dwellings per hectare.
Planning Policy Guidance (PPG) 4 – Industrial, commercial development and small firms (1992)	Sets out the approach to encouraging economic growth.	Growth should be managed to encourage industrial and commercial development in Crawley and the wider area.
PPS 9 - Biodiversity and Geological Conservation (2005)	Sets out the Government's approach to biodiversity and geology in the planning system.	The JAAP will need to consider any protected sites or species, as well as identifying areas for creation or restoration of biodiversity.
PPS 12 - Local Development Frameworks (2008)	Sets out guidance on how to prepare development plan documents.	Contains guidance and advice on preparing AAPs, undertaking consultation and Sustainability Appraisals.
PPG 13 – Transport (2001)	Sets out the Government's approach to the provision of transport in relation to development.	Urban growth should be managed to maximise use of public transport, and ensure facilities are accessible by walking and cycling, and reduce the reliance on the car, as well as considering disabled users.
PPG 15 – Planning and the historic environment (1994)	Sets out the Government's approach to the historic built environment in the planning system.	The JAAP will need to consider the protection of listed and historic buildings and conservation areas.
PPG 16 – Archaeology and planning (1990)	Sets out the Government's approach to archaeology in the planning system.	The JAAP will need to consider the protection and enhancement of archaeological sites and monuments.
PPG 17 -Planning for Open Space, Sport and Recreation (2002)	Sets out the need for Local Authorities to ensure that open space, sport and recreation facilities are provided.	Open space, sport and recreation facilities should be provided according to an assessment of local needs.
PPG24- Planning and Noise (1994)	Sets out the Government's approach to noise-sensitive developments and	The JAAP will need to consider noise levels in the study area, particularly to the north in the area close to Gatwick Airport.

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
	activities which generate noise	
PPS25 - Development and Flood Risk (2006) and A Practice Guide Companion to PPS25 'Living Draft' (2006)	Sets out the Government's approach relating to the consideration of flooding in relation to planning. The Practice guide provides more detail on the implementation of the policy set out in PPS25	Strategic Flood Risk Assessments should be undertaken at regional and local level. Increased emphasis to be put on the impact of climate change on flooding. Development should incorporate measures to reduce the likelihood of flooding on or off site.
Code for Sustainable Homes (2006)	Provides guidance on the design and construction of sustainable homes	The JAAP will aim to deliver homes to meet the Code for Sustainable Homes standards. The precise level will vary as technology changes.
Building a Greener Future: Towards Carbon Zero Development (2006)	Provides an introduction to measures aiming to provide zero carbon homes within a decade.	The JAAP should follow these principles in the aim of reducing the carbon footprint of the new development.
Natural Environment and Rural Communities Act 2006	Requires the consideration and conservation of biodiversity.	The JAAP should have regard to this when dealing with the natural environment

Table 4: Regional

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
"A Clear Vision for the South East" The South East Plan Core Document, March 2006.	Document setting out the framework for development in the South East up to 2026.	Sets out potential growth areas and total housing numbers for south east, including the provision for the Gatwick sub-area in which the West and North West of Crawley strategic location falls.
The High Weald AONB Management Plan 2004 – a 20 year strategy	The document identifies the important features of the AONB and sets out guidance and objectives on the ways in which these features can be protected, restored and enhanced. It does not contain land use policies but deals with good management practice of the area.	The land and countryside management issues in the document should be considered when formulating new policies and proposals which affect the AONB.
Regional Economic Strategy for the South East 2006-2016	Sets out the regional vision for sustainable prosperity and economic success.	The JAAP will need to deliver development which meets needs and contributes towards the goals set out in the strategy.

Table 5: County

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
The Adopted West Sussex Structure Plan 2001-2016	Sets out the vision for West Sussex to 2016 in terms of land-use policy.	Contains a range of policies relating to land use planning, including LOC1, which identifies land to the West of Crawley as an area for development.
Sussex Biodiversity Action Plan	Identifies key habitats and species and sets out actions to enhance the biodiversity of these areas.	Contains actions for hedgerows, woodland, in riverine and grassland habitats which occur in the West and North West of Crawley area.
The West Sussex Transport Plan 2006-2016	Has the following objectives: 1) Reduce congestion and pollution; 2) Improve road and personal safety; 3) Improve accessibility for our residents to key services; and 4) Improve overall quality of life in West Sussex.	The JAAP should take these issues into account.

Table 6: District / Borough

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
Horsham District Council Local Development Framework Core Strategy (2007)	Sets out the spatial vision for the District with particular reference to land-use planning.	CP1, 2 and 3 set out principles for sustainable development in the District. CP6 identifies Land West of Crawley for Development with policies CP10 and 12 setting out the need for employment and affordable housing provision.
Crawley Borough Local Development Framework Core Strategy (2007)	Sets out an overall spatial vision for the future development of the town to 2018 and beyond. It focuses on guiding and controlling development within the Borough.	Policy W1 sets out the principles for West and Northwest of Crawley. Policy W2 sets out the requirement for appropriate transport infrastructure to support development. Policies S1 and S2 seek sustainable locations and development.
Horsham District Council SA/SEA of the Core Strategy (2007)	An assessment of the effects of the Core Strategy on sustainability including allocation of land to the West / North West of Crawley	Provides recommendations for policy development and mitigation to better meet sustainability objectives some of which should be incorporated into the JAAP.
Crawley Borough Local Development Framework – Sustainability Appraisal & Strategic Environmental Assessment of the Core Strategy (2007)	An assessment of the effects of the Crawley Borough Council Core Strategy on sustainability including allocation of land to the West / North West of Crawley	Provides recommendations for policy development and mitigation, to better meet sustainability objectives some of which should be incorporated into the JAAP
Horsham District Council Community Strategy 2005-2008	Sets out the shared visions for the future of the District created through partnership with a number of organisations.	Visions under key strategy areas of Community Safety, Health, Leisure and Cultural Activities, Lifelong Learning, Local Housing, Facilities and Services for Younger / Older People, Transport, Local Business and the Environment need to be incorporated into JAAP.
Crawley Borough Council Community Strategy - 'A Vision for Crawley' (2003)	The Community Strategy is a shared vision for the town created through partnership.	Identifies 6 key areas (Affordable Housing, Community Safety Local Economy, Health & Social Care Education and Lifelong Learning Local Environment) that need to be addressed in the JAAP.
Horsham District Landscape Character Assessment (2003)	Sets out the different areas of landscape character across the District, together with	Development areas mainly fall in K1 "Upper Mole Farmlands" and I2 "Warnham and Rusper Wooded Ridge" Features of these areas

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
	their condition and sensitivity.	need to be conserved and enhanced.
Urban Rural Fringe Study for Crawley (July 2006)	Provides an assessment of landscape areas West and North West of Crawley with and sets out capacity for development in landscape terms. Makes suggestions as to how development could be incorporated into the landscape.	When determining development location and design the JAAP will take into account the findings of this work, which suggests locations for the development of housing.
Horsham District Council Housing Needs Survey (2003)	Survey seeks to identify the number of people in need of an affordable home in Horsham.	In excess of 900 new affordable homes are required each year.
Crawley Borough Council Housing Needs Assessment (2004)	Survey seeks to identify the number of people in need of an affordable home in Crawley	926 new affordable homes are required each year.
Crawley Borough Council Housing Strategy (2004-2007)	Emphasises the need for a good supply of quality homes to meet needs, including key workers is a priority issue. Also to provide for the needs of vulnerable people including the homeless.	New sites, including those in the Action Areas to be allocated for housing development to meet growth needs of the town. These sites to include a mix of house types and tenures and a proportion of affordable housing.
Crawley Supply/Demand Analysis, 2004	Provides information on the supply and demand of housing within Crawley, and on planned movement of households.	The JAAP should have regard to the supply and demand of housing within Crawley.
Crawley Borough Council Affordable Housing Viability Study, 2006	Discusses the likely impacts on changes to the affordable housing target.	The JAAP should take into account the principles of affordable housing provision.

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
Appropriate Assessment of Horsham District Council's Core Strategy (2006)	Looks at the implications of land use plans for European Sites. Assesses the impacts of the plan against the conservation objectives of the European Site to determine if the plan will have an adverse affect on the site.	Where necessary, the JAAP will need to take the findings of the Appropriate Assessment into account when deciding on the options for location and design of the development.
Horsham District Council Final Supplementary Planning Document on Planning Obligations (2007)	Sets out details of services and facilities that will be required when land is proposed for development and where planning obligations would be sought.	This will need to be taken into account in the masterplanning process.
Strategic Flood Risk Assessment (Upper Mole Catchment) (2007)	Assessment of the risk of flooding in Crawley, Horsham and Reigate and Banstead, and how increased development will affect flood patterns.	The JAAP should have regard to the results of the study, and put into place mitigation of adverse effects.
Appraisal of Landfill & Remediation Plan, Neighbourhood Assessment, Appraisal of Transport Studies, Employment Provision and Development Costs and Revenue 2007 - URS	Looks at the principles of development on the landfill site, the neighbourhood principle, employment, transport and development viability.	The JAAP will be informed by the outcome of this work in preparing the Preferred Options.
Crawley Borough Council Central Langley Green SPD (2007)	Provides guidance on the expected uses, scale and form of development and transport and access issues in relation to the Central Langley Green area.	The JAAP should have regard to the principles of development in the neighbouring area of Langley Green.
Crawley Borough Council Bewbush SPD (2007)	Provides guidance on the expected uses, scale and form of development and transport and access issues in relation to the Central Bewbush area.	The JAAP should have regard to the principles of development in the neighbouring area of Bewbush.

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
Various Development Plan Documents of neighbouring local authorities e.g. Mole Valley Local Plan (2000)	Documents set out the planning strategies in the neighbouring authority areas.	Development has the potential to affect the plans in neighbouring authorities, and the JAAP should therefore have regard to this.
Feasibility Study for Development Options at Crawley (2003)	Sets out the issues and implications of development around Crawley.	Identifies the land to the west of Bewbush as a developable site.

Table 7: Local

Name of Policy / Programme	Broad Aims of Policy / Programme	Requirements in relation to JAAP
Ifield Village Conservation Area Statement – September 1999	To promote environmental enhancements consistent with the character of the village. Provides guidance for residents to ensure any proposals for development are consistent with the overall objectives of the Conservation Area.	The JAAP will need to ensure that the character of Ifield Conservation Area is conserved and enhanced.

- 4.3 The different plans and strategies influencing the Joint Area Action Plan present a number of challenges and requirements that the Councils must address. Some of these challenges arise from conflicting requirements of the different documents. For example there is a need to safeguard land from development that may be needed for a future runway at Gatwick, but land for 2,500 homes still needs to be allocated. Other documents and strategies also conflict with the need to provide housing and associated infrastructure in the area – these are most notably those which seek to protect the high quality landscape, biodiversity and historical features which are present in the area.

5.0 BASELINE DATA

- 5.1 Before any appraisal as to how the West of Bewbush Joint Area Action Plan will contribute to sustainable development, it is important to have an understanding of the current characteristics of the area as it is today. This information or 'baseline data' helps to provide a basis for identifying the key sustainability issues for the land West and North West of Crawley area of study, as well as providing a measure against which the predicted effects of the JAAP will be tested.
- 5.2 Baseline data was collected for the entire area of study West / North West of Crawley. The information collected is more detailed than the baseline data in the Sustainability Appraisal and Strategic Environmental Assessment of the Horsham and Crawley Core Strategies. However, the wider Crawley / Horsham based data is useful in setting the overall context for the area, and has been used where local level data has not been available.
- 5.3 Where possible, the baseline data collected has included current data for the area together with any relevant comparisons, and where known any trends and targets. A summary of the key findings of the baseline data is outlined below, and where appropriate further detail is set out in Appendix A.

General Characteristics

- 5.4 The land within the area of study is mainly situated within Horsham District, in the Parish of Rusper, and within Crawley Borough to the north of the Langley Green neighbourhood. The land within Horsham District adjoins the Crawley neighbourhoods of Ifield and Bewbush. The location of this area can be viewed on Map 1, at the rear of the document.

Population

- 5.5 The population of Crawley in 2001 was 99,744. Ifield has a population of 8,414, of which 60% are of working age (16-64). Bewbush has a population of 9,079, of which 69% are working age. Gossops Green has a population of 5,012 with 62% of working age. Langley Green has a population of 7,284 with a working age population 61%. Within Horsham District, Rusper Parish has a population of 1,389 with a working age population of 62% of the total (2001 Census).
- 5.6 Without development to the West or North West of Crawley, the population of the town is predicted to reach 104,700 by 2010 (with development West of Crawley this figure will increase by around another 6,500). In common with the rest of the UK, the populations of Crawley and Horsham District are ageing. This will occur irrespective of any development west or north-west of Crawley, and has the potential to place pressure on certain resources (e.g. health care).

Housing

- 5.7 The four neighbourhoods on the western side of Crawley have an average of 2,900 households each. Rusper Parish in Horsham District has just 579 households. Most households are owner occupied, with the remainder of homes a mix of private rental and social housing. Owner occupation ranges from 74% in Rusper Parish and Gossops Green, to 57% in Bewbush. This compares with average level of owner occupation of 68% in Crawley Borough and 79% in Horsham District (2001 Census).
- 5.8 Household and population density also vary in the different neighbourhoods. Bewbush has a density of 23.5 households per hectare, Gossops Green 20.9, Langley Green 25.9 and Ifield has a density of 15.3 households per hectare. Figures are not currently available for Rusper Parish, however the population is dispersed across a wide rural area, although most residents of the Parish live in Rusper village itself.
- 5.9 The average cost of housing in Crawley borough was £216,940 between April and June 2007. This was close to the national average, but does not reflect the wide variation in house prices in the different neighbourhoods – for the same April – June period, the average house price in Bewbush was £187,046, and in Ifield £233,219. Average house prices in Rusper Parish were higher for the same period - £235,971. (www.upmystreet.com) It is not possible to forecast how house prices may change in the future with or without further development, but at the current time the economic downturn has reduced house prices. More detail on house prices in the Crawley area can be found in Appendix A.
- 5.10 Within both Crawley Borough and Horsham District, the cost of housing is considerably higher than average incomes (see Appendix A for more detail). This has resulted in a high need for affordable housing. Within Horsham District the Housing Needs Assessment identified a need for 937 new affordable units per annum for the period of 2003- 2011. The Crawley Housing Needs assessment 2004, identified a need for 926 affordable units per annum for the period of 2004-2011.

Social Inclusiveness and Deprivation

- 5.11 Horsham District has very low levels of deprivation and social exclusion; nationwide only 12 authorities are less deprived (ranking 342 out of 354 where 1 is the most deprived) Crawley Borough ranks 215 out of 354 (English Indices of Deprivation 2004). Within Crawley, the western neighbourhoods are more deprived, in particular Broadfield North, Broadfield South, Southgate and Bewbush.
- 5.12 In addition to the indices of deprivation, there are other forms of social inclusion and deprivation affecting the area. This includes a lack of access to facilities in Ifield West. (See para 5.17 for more detail).

Crime / Community Safety

- 5.13 Within Crawley Borough as a whole, notifiable crimes have fallen in recent years. Offences dropped between the first and the last quarter of 2005/06 with offences per 1000 population falling from 37.3 to 34.0. In 2005/06 most crimes were for vehicle and other theft, criminal damage and violence against the person. Within the Horsham area in the same period crime also fell from 13.3 to 13.1 crimes per 1000 population.
- 5.14 Crime figures for 2001 can be broken down by neighbourhood. There were 1,847 recorded crimes in the western neighbourhoods of Crawley in 2000/2001. This represents 21% of the total number of recorded crimes in Crawley. The number of recorded crimes in Gossops Green, Ifield and Langley Green are all below this average; Bewbush was slightly above the average with 668 recorded crimes. It should be noted that in addition to recorded crime, many residents also report a fear of crime.

Health

- 5.15 The English Indices of Deprivation (2004) show that approximately 70% of residents in Crawley as a whole (including those in the western neighbourhoods) reported themselves to be in good health, with less than 10% of residents in poor health. (See Appendix A for more information).
- 5.16 Access to health care is more of an issue. At the current time there are 17 GP surgeries including 5 branch surgeries in Crawley, and the nearest main hospital is at Redhill, with others at East Grinstead, Haywards Heath, Worthing and Brighton, all of which can be difficult to access by public transport, although a shuttle bus runs between Horsham and Crawley Hospitals. At the current time, discussions concerning future hospital provision in Sussex are ongoing. There is concern that downgrading of some hospitals within East and West Sussex would put added pressure on services within Redhill, even without the future increases in population that would arise from large scale development West of Crawley and elsewhere in Sussex.

Education

- 5.17 Overall, levels of education in Horsham and Crawley are good. Residents of Horsham District have particularly good levels of education, with a higher level of qualifications than the national average, and fewer people than average with no qualifications. Within Crawley, residents of the Western Neighbourhoods have fewer high level qualifications than the average for the town, but a higher percentage of the population have lower level qualifications. (Refer to Appendix A for more detail).

Leisure and Recreation

- 5.18 An assessment of the quantity of open space within the neighbourhoods of Crawley has been undertaken, to give an indication of how many hectares of space is provided per head of population. This data is summarised in Appendix A. This data does not however provide any indication as to how this compares with other Districts or national figures, and there is no indication of the quality of these services. Notwithstanding this however, it is generally considered that Ifield West is lacking in these (and other) facilities. There are also concerns about the open space on the edge of Bewbush, as this land is

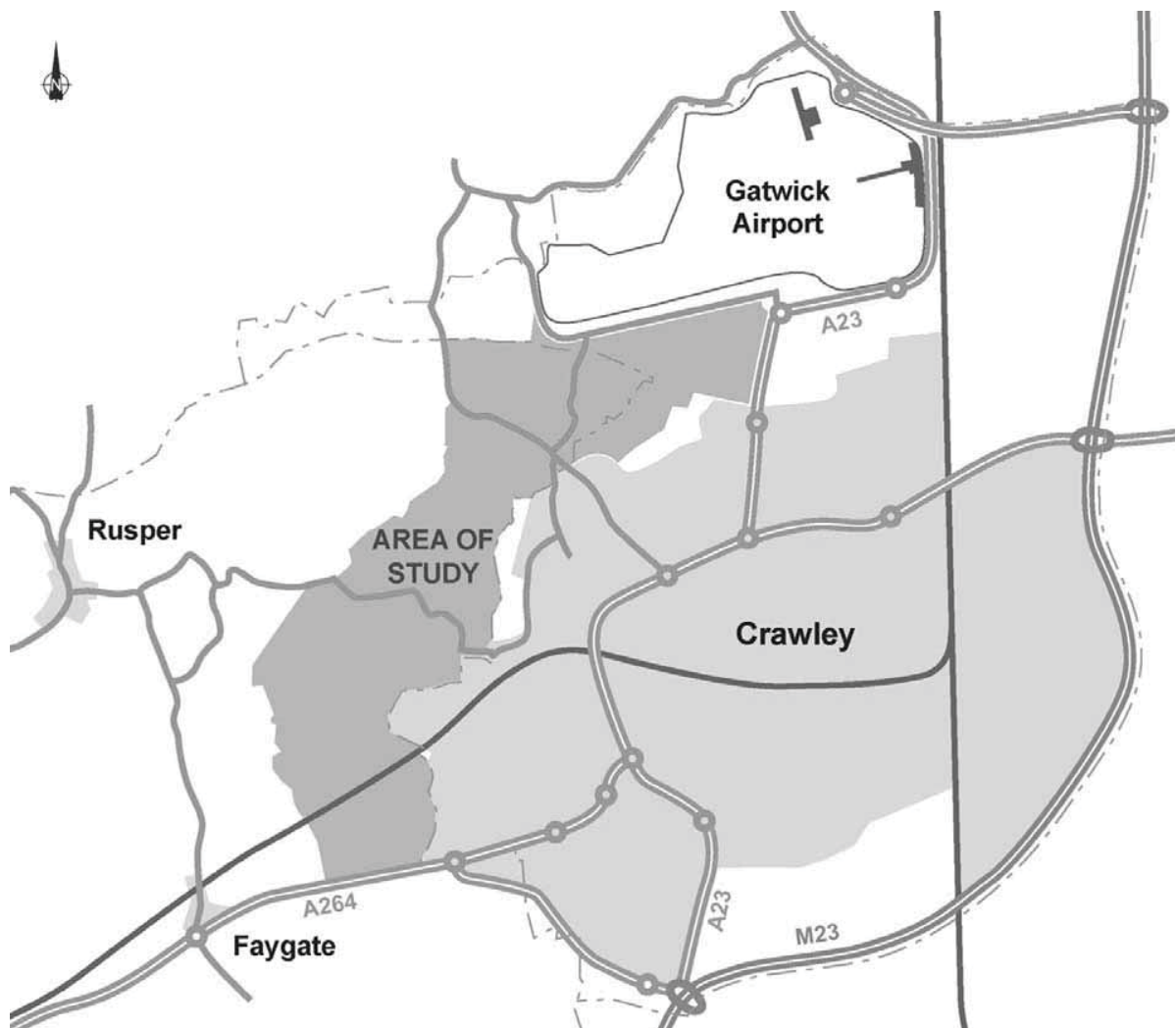
not overlooked, and concerns about antisocial behaviour in the area, have resulted in its under use.

- 5.19 Within Horsham District, the PPG17 Assessment of recreation and leisure facilities revealed that Rusper Parish is short of many types of leisure facilities, although the rural location of Rusper Village provides residents with good access to the surrounding countryside. The countryside is also accessible from the western neighbourhoods of Crawley, where good footpath and bridleway links provide many opportunities for residents to use the area for more informal recreation.
- 5.20 Without the implementation of the JAAP, leisure provision would be provided in the borough and district councils according to needs identified in the respective PPG17 assessments and the high quality links to the countryside are likely to remain.

Transport

- 5.21 The road network serving the area West and North West of Crawley contains two A roads. The A264 runs to the south of the study area, and the A23 bounds the eastern edge of the town, before turning south towards Brighton. (See Map 2 Overleaf) Railway links in Crawley are good, with a number of stations. There are 2 railway stations on either side of the study area, Ifield to the east and Faygate village to the west. These form part of services between the south coast and London Victoria.
- 5.22 Car ownership in the settlements of Crawley and Horsham is high. Nearly 88% of households in Horsham and 80% of Households in Crawley have at least 1 car. Figures for 2 car ownership for both settlements are 26% (Crawley) and 36% (Horsham), which is high when compared at a national level. Given the high levels of car ownership it is perhaps unsurprising that for both Horsham and Crawley around 68% of people travel to work by car. (Over 30,000 people commute to work in Crawley www.go-se.gov.uk). 45% of people in Ifield and 44% in Bewbush 44% commute by car. This rises to 54% in Langley Green and 64% in Gossops Green. (2001 Census) Walking is the next most popular mode of transport, with train, bus and cycling having a low level of uptake. There are also relatively high levels of commuting to London from both settlements.
- 5.23 The high levels of commuting by car in Crawley means that the road network within Crawley can often suffer from congestion at peak periods. Residents outside Crawley also place pressure on some of the more residential roads, particularly in Ifield West, which are used as ratruns by those living in nearby villages to gain access to the town.
- 5.24 Given the forecast that traffic levels are set to increase in the future (regardless of any new development), there have been attempts to ease congestion in recent years. The Fastway Service was introduced in Crawley in 2005, the result of which has been an increase of 96.1% in bus patronage in the western neighbourhoods between June 2001 and June 2007. (Source-Metrobus).

Map Two: The Road Network around Crawley



Material Assets - Employment

- 5.25 Crawley is an important town in terms of its role as a centre for employment within the north Sussex area. Gatwick Airport, on the northern boundary of the town, is a particularly large employer, which together with related industries provides 25,000 jobs. This equates to 29% of the jobs that are available within the town.
- 5.26 In July 2007, unemployment levels in Crawley Borough and Horsham District were 1.3% and 0.9%; considerably lower than the national average of 2.3% (ONS). These figures do however mask variations, with some wards, e.g. Bewbush, having relatively high levels of unemployment. (See Appendix A for more detail).
- 5.27 In the neighbourhoods closest to the land west / north west of Crawley, the residents of Bewbush and Ifield is employed in a wide range of occupations, but there are lower percentages of people employed in managerial and

professional occupations in these wards than for the Crawley and Horsham District average. Instead the two wards have a higher number employed within elementary occupations. (See Appendix A for more detail).

- 5.28 It is difficult to predict exactly how employment trends may change without housing provision resulting from the JAAP, as wider economic influences at a national or even international level can affect this. It is however possible that recruitment difficulties could arise if housing is not provided to attract a potential workforce to the area.

Material Assets - Retail

- 5.29 The retail sector forms an important part of Crawley Borough's economy. 20.1% of all businesses are in the Retail & Distribution sector, and retail employs 16% of the workforce (Annual Business Inquiry Employee Analysis 2004). Crawley town centre has an important role in retail terms both within the town and also in the wider area. Nationally the retail catchment ranks 54th out of 4,500 (EXPERIAN GOAD) and those that visit the town to shop spend £500.22 million annually. A high retail spend is possible as those that shop in the town are ranked the 19th most affluent on a national basis (PROMIS PMA Affluence Indicator).
- 5.30 In addition to Crawley town centre, each ward in the town also has a shopping parade/s constructed as part of the neighbourhood. These shops do not compete with the town centre and instead help meet more basic day to day needs. Ifield has a retail floorspace of (A1) of 1,036m². Bewbush Parade has a retail floorspace (A1) of 1,421m², Langley Green has 1,443m² retail floorspace within the parade and Gossops Green 436m² (calculated from GIS data). Ifield West was built without a neighbourhood parade, therefore lacks some basic facilities.

Cultural Heritage

- 5.31 Within the area to the West and North West of Crawley there are some areas which are of historical importance. The most important of these are as follows:
- Scheduled Ancient Monument at Ifield Court Farm: – setting includes former park land.
 - Scheduled Ancient Monument – Moat at Bewbush water gardens
 - Ifield Village Conservation Area:– This area is characterised by its small village nucleus with low-density development, historic settlement pattern and rural recreational uses. It is characteristic of settlements formed in clearings of the Sussex Weald. The countryside edge is important to the setting of the Conservation Area.
 - Listed Buildings – various grade II listed buildings in the study area, the settings of which would need to be considered as part of any development proposal.
 - Kilnwood Archaeological Parkscape – Early maps show the land to be a former parkscape, but much of the land is now agricultural. A survey undertaken in 2008 confirmed there is no evidence of a designated landscape, although several specimen trees predating development at Kilnwood remain.

In addition to the above, further archaeological features may exist within the area, and will be the subject of further investigation prior to any development in the area.

Biodiversity, Flora and Fauna

5.32 The area to the West and North West of Crawley contains several areas which have been identified as being of importance for Nature Conservation. Some of these areas have been designated as a Site of Special Scientific Interest (SSSI) or a Site of Nature Conservation Importance (SNCI). The locations of these are marked on the Map 1 , and further details about each site are set out in the table below:

Table 8: Designated sites West and North West of Crawley

Name of Site	Site details
House Copse SSSI	An area of ancient coppiced woodland dating back to the middle ages. Species of importance include the small leaved lime which is rare in the south-east. The site has been assessed as being in favourable condition by Natural England.
SNCI nr Lower Prestwood Farm	This woodland site is of importance for its mosses and liverworts.
Orltons Copse SNCI	An area comprising ancient woodland, streams and hay meadow. It is of importance for several bird species including nightingale, goldcrest and tawny owl.
Kilnwood Copse SNCI	An area of woodland and ponds. It also contains the small leaved lime as well as mosses and liverworts.
Hyde Hill SNCI	An area of ancient woodland, stream and neutral grassland. Species include small leaved lime, wild service tree and a wide variety of birds.
Ifield Brook and Meadows SNCI	Neutral grassland, semi natural woodland and stream. Species include birds-foot-trefoil, yellow rattle, bluebells, butterflies, damselflies and kingfishers.
Willoughby Fields SNCI	Unimproved grasslands with a network of hedgerows, areas of scrub and small copses. The area is a breeding ground for bird, butterfly and damselfly.

Source: HDC and CBC Planning Records

- 5.33 In addition to the designated SNCIs and SSSIs, other areas of land have also been identified as of importance for their biodiversity. This includes ancient woodland at Ifield Wood, hedgerows and conservation grassland, for example in the Stumbleholm Farm area. Ifield Brook and the River Mole have also been identified as being of importance in terms of nature conservation.
- 5.34 Protected species have also been recorded as being present in the area West and North West of Crawley. Species include breeding pairs of barn owls, bats and reptiles. Rare species have been recorded as being present in the area, including nesting pairs of Lapwings and Skylarks on the Holmbush Farm landfill site.
- 5.35 Without the implementation of the JAAP, there is potential for the biodiversity of the area to change for a number of reasons. There is potential for land ownership to change which could result in changing land management practices. In addition the closure of the landfill site and restoration of the site to agriculture could change the species assemblage – particularly of nesting birds – on this site.

Landscape and Townscape

- 5.36 Much of the landscape surrounding Crawley is of high quality. The High Weald Area of Outstanding Natural Beauty (AONB) is located to the south and east of the town, and is of national importance. The landscape to the west and north of Crawley has been identified in a number of studies as being of high quality, although there are no landscape designations on the land that reflect this.
- 5.37 The Horsham District Landscape Character Assessment (2003) identified a number of landscape areas within the District of which four are within, or adjoin the identified area of study. (The work did not examine the landscape north of Crawley outside the District boundary) More information about these character areas is set out in the table below. The location of these landscape areas can be viewed in the Horsham District Proposals Map 2007.

Table 9: Landscape Character Areas West and North West of Crawley

Character Area	Main features	Condition and Sensitivity
I2 – Warnham and Rusper Wooded Ridge	Rural and undulating small pasture fields divided by hedges shaws and ghylls. Some noise intrusion from Gatwick Airport. Local vernacular of timber, brick, tile hanging and weather boarding.	The landscape condition is generally good and sensitivity to change is high. Urban development, poor woodland and hedgerow management and traffic all threaten the landscape.
K1 – Upper Mole Farmlands	Mainly flat land with medium sized fields. Some small areas woodland, some field trees and ponds. Affected by noise from Gatwick Airport and visual impact of Crawley.	Condition of landscape is declining due to horsification, noise and visual intrusion. The area has moderate sensitivity to change, although the remaining woods, unimproved grasslands and historic lanes are more sensitive. Threats include loss of hedgerows, urban development and increasing traffic.
K2 – Warnham and Faygate Vale	Flat / gently undulating clay vale. Dominated by road and rail. Some areas of visual intrusion from retail and industrial, sand and gravel workings.	The condition of the landscape is declining, and locally poor where visual intrusion. Sensitivity to change is moderate. Threats include urban development and increased traffic.
L1 – St Leonard's Forest	To south of area of search. Comprises wooded ridges and ghylls, with conifer plantations interspersed with deciduous woods. Some heathland. Local vernacular includes sandstone tile hanging and brick.	Condition is declining whilst the sensitivity to change is high. Threats to the area include loss of heathland, rhododendron invasion, loss of ancient woodland and suburbanisation / urban edge development.

- 5.38 In addition to the Landscape Character Assessment work, a more detailed study of the urban–rural fringe around the western side of Crawley was undertaken in May / June 2006. This study again highlighted the high quality of much of the landscape to the west and North West of Crawley, and also identified the positive relationship this side of the town has with the adjoining countryside. This is partly because other edges of the town have physical barriers between the town and the landscape in the form of roads, industry and Gatwick Airport.
- 5.39 The Study identified three possible sites which could accommodate development in landscape terms. These are, land between Gatwick and Langley Green, Ifield Golf Course and land between Faygate and Bewbush.
- 5.40 Without the implementation of the JAAP, the landscape of the area would remain largely similar to its current state, although there may be some changes that result from changes to land management, the restoration of the landfill site to agriculture, and from human activities such as increased traffic.
- 5.41 In addition to the landscape west and north-west of Crawley, the townscape character of Crawley should be noted. A modern town, Crawley is generally characterised by modern post war development, although there are small areas of more historic development, such as that in Ifield Conservation Area. One key feature of Crawley is that it is a very “green” town, with good provision of green corridors, for example along the wide boulevards that characterise the town, and through the provision of green space such as that at Tilgate Park to the south of the town.

Soil and waste

- 5.42 Within the West and North West of Crawley area the soil is in the main, likely to be in good condition. It is, however, predominantly clay which can make drainage difficult. The area is predominantly agricultural and there are few industrial sources of pollution. Possible areas where contamination may exist include areas adjacent to roads, which may be contaminated by pollutants such as benzene; and landfill / earthwork sites. Details in relation to those in the area are as follows:
- Little Foxes, Ifield Wood, Charlwood Road, RS/20/84 – Tipping of clay and other sub-soils to raise low lying land for garden.
 - Bonwyks Place, Ifield RS/6/86 – Tipping of sub and topsoil to restore site to ground level for agriculture.
 - Holmbush Potteries LB/39/53 – A former clay pit granted consent for infilling with construction refuse.
 - Bewbush north of A264 (LB/20/71) – Site used for controlled tipping of construction waste of silts and clays. Inert waste has been tipped on the adjoining land at Holmbush since 1977 (CG/29/97) and (CG/42/02) to a depth of between 0.35 and 12m. Tipping ended in May 2006 with restoration still ongoing. The waste licence surrender was submitted to the Environment Agency in October 2008, and was accepted by the Agency in early 2009.

- 5.43 Although most of the waste on the Holmbush landfill site was inert, some areas of contamination have been found on the site. This has occurred where tipping occurred over existing sediment from Bewbush brook. Studies have shown that remediation of some section of the site would be necessary prior to housing development of the site. (Less remediation would be required without a JAAP – the landfill site would instead be returned to agricultural use). The two potential remediation methods for the site are as follows:
- excavation of fill from areas containing concentrations of wood, timber and alluvium above 5%, the installation of gas protection membranes, placement of suitable subsoil and topsoils and the installation of a drainage system to treat leachate from the site.
 - placement of suitable subsoil and topsoils, the diversion of Bewbush Brook into a purpose built clay-lined channel and the installation of gas impermeable membranes and passive venting systems across the parts of the site that would be used for built development.
- 5.44 In addition to specific waste disposal sites, it is worth noting that in 2002/3 Crawley created 331kg of waste per person. This is below the regional average of 529kg. This figure is rising by 2 to 3% per annum. Currently 22.75% of domestic refuse in Crawley is recycled or composted. The 2005/2006 target was set at 30%. Horsham has a recycling figure of 34.9% and exceeds its target of 30% (DEFRA 2006).

Water

- 5.45 The two main watercourses in the land to the West and North West of Crawley are the River Mole and its tributary Ifield Brook. (Bewbush Brook and Hoppers Brook also run through the area). A Strategic Flood Risk Assessment has been undertaken for the study area, as part of a joint study between Horsham District, Crawley Borough and Reigate and Banstead Borough Councils. The indicative flood plains published as part of this study are shown on the Map 3, at the rear of the document. It should be noted that the flood risk assessment also examines other forms of flooding.
- 5.46 The indicative floodplain maps show that both watercourses have fairly narrow flood plains, but nevertheless a few properties do fall within them, particularly in the Ifield area. The area of flood risk may increase in the future (regardless of any development in the area) as a result of climate change.
- 5.47 Limited information is available about the water quality for the Mole and Ifield Brook, although the available data shows that in general river quality in Horsham District and Crawley Borough is good. Furthermore, the 1993 study of the Mole shows it to have a good species assemblage, which would indicate that the area has a good water quality. The nearest area with lower water quality is at Gatwick Airport, but this is downstream of the two watercourses and is not therefore likely to have any effect on water quality in the upstream areas in west and north west of Crawley.
- 5.48 In addition to flooding and river quality, the issue of water as a resource is also important. The National Average domestic water consumption is 155 litres per day (unmetered) and 136 litres per day (metered). Crawley Borough falls within the Sussex North water supply area, and in 2005/6 the estimated domestic consumption for this area was 154 litres per day (unmetered) and

140 litres per day (metered). (Information is not available from Southern Water for Crawley at a Borough level). The long-term trend for water consumption in the region has been to increase by 50% in the last 25 years.

- 5.49 The Water supply for Crawley and its immediate surrounds comes from the Weir Wood Reservoir at Forest Row. This does not therefore impact the Arun Valley Special Protection Area (SPA), which as noted in the Appropriate Assessment of Horsham District Council's Core Strategy, could be affected by increased water extraction rates at Hardham (near Pulborough).
- 5.50 At the current time, sewage effluent from Crawley is treated at the nearby Crawley Sewage Works. The current Asset Management Plan has capacity to meet development up to 2012, after which further works will be necessary to deal with the medium to long term capacity.

Air

- 5.51 Under the requirements of the 1995 Environment Act, both Crawley Borough and Horsham District Councils have had to investigate their local air quality and determine whether levels of air pollutants are likely to exceed specified levels, and if necessary, declare a Local Air Quality Management Area (LAQM) with an action plan to reduce levels of air pollution.
- 5.52 Within Horsham District, potential for air pollutants to exceed the government levels has been found within Horsham and some village centres, and monitoring of air pollution levels has therefore been focussed on these areas rather than more rural parts of the District. Monitoring of air pollution has taken place in Crawley Borough which is likely to be more indicative of air quality in the area of study.
- 5.53 Studies of a range of air pollutants in Crawley revealed that nitrogen dioxide (NO₂) and particulate matter (PM₁₀s) may exceed government levels, particularly around Gatwick Airport but it was not considered that levels were sufficiently high to warrant a Local Air Quality Management Area designation. Although the land to the West and North West of Crawley is close to Gatwick, it is unlikely that current air pollution levels in the search area are affected by it as the prevailing wind is westerly which would blow any pollution from Crawley or Gatwick away from this area.
- 5.54 Without the implementation of the JAAP, it is unlikely that air quality levels would change significantly in the near future, but air quality could be adversely affected by increased traffic in the area, and in the longer term through the construction of a second runway at Gatwick Airport.

Noise

- 5.55 The proximity of Gatwick Airport means that much of the land West and North West of Crawley is affected by noise from aeroplanes taking off and landing. In recent years noise from aircraft has fallen due to improved technology, but this effect could be reversed if aircraft numbers increase significantly, for example should a second runway be constructed. Notwithstanding the reduction in noise levels from the airport in recent years, the level of noise still precludes residential development taking place on land close to the airport.

- 5.56 At the current time there is uncertainty as to whether a second runway will be needed at Gatwick, although it should be noted that the Government's preferred strategy is for expansion at Heathrow and Stansted. Notwithstanding this, there is no intention on behalf of the Government and BAA to bring forward proposals for a second runway by 2015, following a legal agreement signed in 1974 between West Sussex County Council and BAA which prevents start of any construction of a second runway before August 2019.
- 5.57 The Urban and Rural Fringe Study (2006) identified potential areas for development in the West / North West of Crawley area. Due to noise restrictions to the north of the area of study any development within the area would be subject to noise levels above recommended levels. Therefore the study identified that residential is not a suitable use within this area.

Climatic Factors and Energy use

- 5.58 Information on climate change at a very local level is not currently available, but data at a District, Borough and global level shows that temperatures in the UK are rising. It is predicted that overall, winters are likely to become warmer and wetter, and summers hotter and drier. Emissions of gases which contribute to climate change have increased since 2002. There have been particularly high increases in emissions from transport since 1990.
- 5.59 Emissions of greenhouse gases arise from a number of sources, including energy consumption. Within Crawley, the total energy consumption is recorded as being 2,529.7 Gwh (giga watt hours). The largest proportion of this use was gas at 1,101 Gwh followed by petroleum products and electricity, only 1.5 Gwh (0.06%) came from renewable sources (Department for Trade and Industry, 2004). The use of renewable sources is lower than that for the south east as a whole, which itself stands at just 0.65% of all energy use.
- 5.60 Information from DEFRA shows the contribution from each local authority towards carbon dioxide emissions. It shows that in 2004 Crawley had a contribution of 2.3 tonnes per capita, and Horsham 2.8 tonnes. Within Crawley the contributions per year from industrial and commercial is 405 tonnes, from domestic 229 tonnes and road transport 149 tonnes. Horsham's contribution is 349 tonnes per year from industrial and commercial, 347 tonnes from domestic and 373 tonnes from road transport.

6.0 SUSTAINABILITY ISSUES AND FRAMEWORK

Sustainability Issues

- 6.1 From the analysis of the plans and programmes and the baseline data for the West and North West of Crawley Study area, it was possible to identify a range of sustainability issues facing the area. Sustainability issues were also identified taking into account responses to the Issues and Options and Preferred Options consultation, and from stakeholders meetings with external organisations such as Rusper Parish Council, Bewbush Community Forum and Ifield Village Conservation Area Advisory Committee and officers from both Councils.
- 6.2 The key sustainability issues are summarised in the box below, and are discussed in more detail in the following paragraphs.

Figure 1- KEY SUSTAINABILITY ISSUES – STRATEGIC DEVELOPMENT WEST AND NORTH WEST OF CRAWLEY

- Large scale housing development is planned in the West / North West of Crawley area. House prices remain high relative to earnings, with a lack of provision of affordable housing.
- Some neighbourhoods in Crawley lack access to some services. Development pressure will create the need for new facilities, including health care and schools.
- Development has the potential to impact on crime rates; fear of crime is also an issue.
- Car ownership and use is high, creating pressure on the road network. At the same time use of public transport is relatively low.
- Development pressure has the potential to adversely affect biodiversity, and in particular designated sites, ancient woodlands, hedgerows and the river valley.
- Development has the potential to adversely affect the high quality landscape which adjoins the western edge of Crawley. Development could also harm the links from the town to the surrounding countryside.
- Development has the potential to harm the cultural and historical environment of the landscape and adjoining neighbourhoods.
- Development has the potential to increase the risk of flooding. Flood risk may also increase as a result of climate change.
- Whilst environmental quality in the area is currently generally good, there is potential for development to adversely affect water and air quality.
- Development will increase pressure on resources, including water and energy resources.
- Development has the potential to be affected by noise from Gatwick airport; development could also contribute to noise, and also adversely affect air quality in the area.
- Development can impact on and be affected by climate change.
- There is a need to maintain the buoyant economy of the area, and provide employment opportunities to meet the needs of the new residents.
- There is a need to provide retail facilities to meet the needs of new residents.

Social

- 6.3 At the current time, a key sustainability issue in the Crawley and Horsham area is the affordability of housing. In both Crawley and Horsham, the house prices considerably exceed the average income of its residents. There is therefore the potential for the additional houses planned for the area to help address this issue.
- 6.4 Development within the area of study will result in an increase in the population of the Crawley area. Based on an average household size of 2.57 people, a development of 2,500 homes is likely to house a resident population of up to 6,425. This will place a number of pressures on the area, increasing pressure on services and facilities and creating the potential for anti-social behaviour. Any development that takes place will need to meet the needs of the new community by providing a range of services and facilities such as education, healthcare, infrastructure and greenspace provision.
- 6.5 The development also provides an opportunity to help meet the needs of the existing residents of Crawley. At present, Crawley has a comparatively young population placing a particular demand on housing, employment and services, but also has a fast growing elderly population. There are also wide differences in deprivation, with the western neighbourhoods of Bewbush and Broadfield being the most deprived. In addition, Ifield West lacks access to local services and facilities. Therefore the development must meet the needs of its existing population in terms of the provision of housing, employment and services, as well as providing for the new neighbourhood.
- 6.6 A key issue affecting the development is transport. The new development may result in changes being made to the existing road network, and it will be important to ensure that any new roads are designed to minimise severance with the countryside beyond.
- 6.7 Data shows that the existing community has very high levels of car ownership and most use their cars to reach their work destination, which is often relatively local. It is essential to the success of the development that this pattern is changed to ensure that undue pressure is not placed upon the existing or new road networks that arise as part of the development. As part of this it will be important to provide good pedestrian, cycle and public transport links, within and beyond the new development areas.

Environmental

- 6.8 Development of the land within the area of study is likely to result in the loss of some greenfield land. It will be important to protect and enhance existing biodiversity as far as possible. Sensitive habitats that have already been identified include ancient woodlands and hedgerows and the Mole Valley corridor. Some of these habitats have been designated for their importance to biodiversity at a county or national level. Development in the area of study could also bring about a change to the landscape some of which is particularly high quality, and is also of historical importance. It will also be important to protect key landscape, historical and archaeological features and that development is designed to ensure that links to the countryside are retained.

- 6.9 Use of resources is also a key issue, with for example the potential for development to increase the pressure on resources. For example, a larger population will increase pressure on sewerage infrastructure and it will be necessary to ensure that these facilities can cope and that the higher levels of treated water entering rivers from the sewage works does not lower the water quality of the River Mole. Development will also need to take into account the potential for the area to flood in both the current and any future floodplains that may arise as result of climate change.
- 6.10 In addition to increasing flood risk, climate change may also have other effects on any new development. It will be necessary to design developments so that the buildings are able to cope with these changes - e.g. coping with warmer conditions in the summer. It will also be important to ensure that the development incorporates measures to minimise the emission of greenhouse gases, for example through the installation of renewable energy sources.
- 6.11 The development will also need to consider the impact on air quality, both from traffic and the proximity of development to Gatwick Airport.
- 6.12 Consideration will also need to be made to the waste and energy usage arising from the resident population but also during construction phase of development. Depending on the location of development, it may also be necessary to consider whether remediation of the landfill site is necessary.

Economic

- 6.13 Crawley town has a strong economic base, providing a high proportion of the county's employment, compared to the proportion of land. The economy is buoyed by the presence of Gatwick Airport, and is the location of residence of many of its employees. It will be important to ensure that new employment facilities are provided to enable the new residents to live and work locally, rather than creating a commuter area. It will also be important to ensure that a range of employment opportunities are provided, to meet the variety of skills of those living the area, and to enable those who wish to do so to advance their careers.
- 6.14 Retail is an important sector of the economy, but the presence of Crawley town centre could mean that the provision of some stores in a neighbourhood centre may not be viable. The role of retail within such a neighbourhood centre will therefore need to be considered carefully.

Sustainability Framework

- 6.15 In order to assess the contribution that the West of Bewbush Joint Area Action Plan makes in achieving sustainable development, it is necessary to compare them against a range of sustainability objectives and indicators. As part of the SA/SEAs of the Horsham and Crawley Core Strategies, a range of sustainability objectives and indicators were developed. Many of these are relevant to the West of Bewbush JAAP, but others are either too broad to apply to the strategic location, or are not relevant. As a result of this the objectives and indicators from each Core Strategy have been reviewed and where appropriate combined or removed. The following sustainability objectives for the West of Bewbush SA/SEA are set out below.

Figure 2: Proposed Sustainability Objectives for Land West and North West of Crawley

1. To ensure that everyone has access to a good quality affordable home that meets their needs.
2. To ensure that everyone has access to the health, education, leisure and recreation facilities that they require.
3. To reduce crime, the fear of crime and antisocial behaviour.
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside.
6. To conserve and enhance the historic and cultural environment, including important green spaces.
7. To reduce the risk of flooding
8. To maintain and where possible enhance, levels of water quality.
9. To maintain and where possible enhance, levels of air quality.
10. To minimise the impact of noise on residents and the wider environment.
11. To minimise the use of resources, particularly water, energy and materials.
12. To seek to reduce the emission of greenhouse gases, in particularly by encouraging the provision and use of renewable energy.
13. To make the most efficient use of land.
14. To reduce car journeys and promote alternative methods of transport.
15. To ensure that development maintains, support and promote a diverse employment base to serve the local and sub-regional economy.
16. To ensure development contributes to maintaining and enhancing the vitality and viability of the neighbourhood and Crawley town centre.

Sustainability Indicators

- 6.16 In order to measure the Councils' progress towards achieving the sustainability objectives a series of indicators have been developed. The indicators have been selected so that as far as possible they are directly attributable to the development which takes place. This has not always been possible and it may be that the indicators will need to be reviewed and amended as more data becomes available.
- 6.17 Where possible, existing indicators have been chosen, for example from the Councils' Annual Monitoring Reports, and also from the SA/SEA of the two Council's Core Strategies. The list of indicators that will be used to monitor each objective are listed in the table below. More detailed information on each indicator can be obtained by referring to the Councils' Annual Monitoring Reports, or the Core Strategy SA/SEAs.

Table 10: Sustainability Objectives and Indicators for West and North West of Crawley Area of Study

Sustainability Objective	Sustainability Indicator
1 To ensure that everyone has access to a good quality affordable home that meets their needs	<ul style="list-style-type: none"> • Number and proportion of affordable housing completions • % of 1,2&3 bedroom houses built as a proportion of the total
2 To ensure that everyone has access to the health, education, leisure and recreation facilities that they require	<ul style="list-style-type: none"> • Number and type of different facilities provided as part of the development • Percentage of homes within 30 minutes public transport time of; a GP surgery; a hospital; a primary school and a secondary school
3 To reduce crime, the fear of crime and antisocial behaviour	<ul style="list-style-type: none"> • Number of crime incidents reported in the new development in comparison with other parts of Crawley • Post completion residents survey
4 To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	<ul style="list-style-type: none"> • Condition of Landscape Character Areas K2 and L1
5 To conserve and enhance the biodiversity within Crawley and the surrounding countryside	<ul style="list-style-type: none"> • Change in areas and populations of key species and key habitats including i) change in habitats and species ii) change in areas designated for their intrinsic environmental value
6 To conserve and enhance the historic and cultural environment, including important green spaces.	<ul style="list-style-type: none"> • Number of listed or locally important buildings lost or damaged as a result of development • Number of archaeological sites / historical landscapes or features lost or damaged as a result of development • Number of archaeological sites, historical landscapes or features and historical (listed) buildings enhanced as a result of development
7 To reduce the risk of flooding	<ul style="list-style-type: none"> • Number of properties / other land-uses developed in the current or future floodplain • Number of properties/other uses developed against the advice of the Environment Agency
8 To maintain and where possible enhance, levels of water quality	<ul style="list-style-type: none"> • Water Quality of River Mole at measuring points at and downstream from the development site
9 To maintain and where possible enhance, levels of air quality	<ul style="list-style-type: none"> • Number / Extent of Air Quality Management Zones • Complaints regarding air quality at Gatwick Airport • Post completion residents survey

Sustainability Objective	Sustainability Indicator
10 To minimise the impact of noise on residents and the wider environment	<ul style="list-style-type: none"> • Number of new dwellings permitted within air noise contours • Complaints regarding noise at Gatwick Airport • Post completion residents survey
11 To minimise the use of resources, particularly water, energy and materials	<ul style="list-style-type: none"> • Number of homes /buildings built to Code for Sustainable Homes / BREEAM standards at each level • Incorporation of Sustainable Urban Drainage Systems into the development • Number of local recycling centres incorporated within development
12 To seek to reduce the emission of greenhouse gases, in particularly by encouraging the provision and use of renewable energy	<ul style="list-style-type: none"> • Number of homes / developments linked to a combined heat and power system • Amount of renewable energy incorporated into the development as a % of the schemes predicted energy requirements
13 To make the most efficient use of land	<ul style="list-style-type: none"> • Percentage of dwellings completed at <ul style="list-style-type: none"> i) less than 30 dwellings per hectare ii) between 30 and 50 dwellings per hectare iii) above 50 dwellings per hectare
14 To reduce car journeys and promote alternative methods of transport	<ul style="list-style-type: none"> • % of population travelling to work by car, cycle and foot (from post completion residents survey) • % population within 10 minutes walk of hourly or better bus or train service • % population within 400m of hourly or better bus service
15 To ensure that development maintains, support and promote a diverse employment base to serve the local and sub-regional economy	<ul style="list-style-type: none"> • Amount of employment floorspace provided within new development areas and within the Crawley area • Total housing provision to employment provision ratio
16 To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre.	<ul style="list-style-type: none"> • Amount of new retail floorspace provided within new development areas and within Crawley town centre

6.18 It is useful to consider how compatible the sustainability objectives are with each other, and also the objectives of the JAAP itself. This enables any conflicts to be addressed when mitigating the impacts which arise from the plan. Generally, the objectives have a neutral or positive impact on each other, but there are inherent conflicts in the need to provide a large development on the environmental objective such as the need to protect the landscape and biodiversity.

7.0 SELECTION AND ASSESSMENT OF DEVELOPMENT OPTIONS

7.1 The legislation and guidance governing SA/SEA requires that the impacts of a plan, together with a range of alternatives are tested against a range of social, environmental and economic (i.e. sustainability) objectives. It is, however, recognised that it is unlikely for it to be appropriate for every alternative that is identified to be tested against the sustainability objectives and that only 'reasonable' alternatives need to be considered.

7.2 When identifying the possible JAAP options, the Councils referred to "The Environmental Assessment of Plans and Programmes Regulations 2004", (usually referred to as the SEA regulations), PPS12, and the Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents to help to help to determine which options could be considered 'reasonable' and therefore appropriate for consideration as part of the SA/SEA process. The reasoning as to why certain options were selected or excluded from further consideration is set out below.

- **Higher Level Plans and Strategies:** One of the key reasons for eliminating options from further consideration are higher level plans and programmes that preclude approaches that conflict with the requirements of the higher level plan. In the case of the JAAP, two key higher level plans are the Horsham District and Crawley Borough Core Strategies. Both these documents were been found sound at their respective Examinations, and are now adopted forming the policy framework for the two authorities¹. The three main constraints to the JAAP options that stemming from the Core Strategies are:
 1. *The area of search* – both Core Strategies identify that development to the West of Crawley should be within the defined area of search.
 2. *The size of development* – the Core Strategies state that development in the West of Crawley area should be for around 2,500 homes. Options for a development of, for example, 200 or 10,000 homes would not therefore be a realistic alternative.
 3. *A neighbourhood development* – As set out in Chapter Seven of CDHDCB18, the Core Strategies state that development to be constructed on a neighbourhood basis, thus limiting options as to the 'style' of the development.
- **The Strategic Level of the Option:** Other options were ruled out because they are not considered to be sufficiently strategic in nature. For example, an objective of development in the West / North West of Crawley area is to provide sufficient level of services and facilities to meet the needs of residents. However it is not considered that a precise breakdown and location of these facilities are options to be considered at this stage. These should instead be examined as part of an Environmental Impact Assessment (EIA), which will need to be prepared to accompany any planning application. It was, however, felt that it would be appropriate to consider what types of facilities should be provided – e.g. a cemetery or sewage treatment facilities.

¹ Both the Horsham and Crawley Core Strategies were subject to a SA/SEA, where higher level strategic issues such as the 'no development' option were appraised.

- **Baseline Data and Background studies:** A key part of the SA/SEA process has been the collection of data and information arising from a number of studies and investigations that were undertaken covering the Land West / North West of Crawley area of study. The outcomes from these studies helped to inform the identification of sustainability issues and the development of different plan options.

As an example, environmental and landscape data was collected for the area of search. This information limited the options as to where development could be located due to physical constraints such as the River Mole floodplain, nature conservation designations and noise contours from Gatwick Airport. The possible development areas were then further limited as other background studies were completed. For example the Urban- Rural Fringe study undertaken in 2006 identified land within the area of study that was of a high landscape quality and therefore unsuited to development. This had the result of limiting the location as to where development could be reasonably located to the West of Bewbush or West of Ifield areas.

- **Consultation:** Options were devised in consultation with planning officers, who have a good technical understanding of the issues facing development in the West / North West of Crawley area. This consultation enabled the development of options which are achievable in planning terms. Following this initial internal consultation, external organisations were also given the opportunity to consult on the possible options in response to the SA/SEA scoping report published with the Issues and Options, and the draft final report published with the Preferred Options.

Following the preferred options consultation, the options were reviewed to take into account the updated position regarding the feasibility of the different development options following comments submitted to the Councils as part of the consultation process, and during stakeholder meetings with interested parties. Very few specific comments were made on the options set out in the SA/SEA, and the Councils therefore concluded that there were no major objections to the options put forward for consideration as part of the SA/SEA process. Amendments to the options were however made following the Preferred Options consultation in light of wider 'planning' responses, for example if new evidence was presented.

- 7.3 The options selected for testing against the sustainability objectives are set out below, together with further explanation regarding any changes to the options that have been made during the SA/SEA process where appropriate. The options are set out following a 'hierarchical approach' whereby the most strategic options are set out were appraised first, with the more 'detailed' options flowing from them.

Location of the Neighbourhood

- 7.4 Baseline and environmental data collected for the area of search to the west and North West of Crawley indicated that development could be accommodated on land to the West of Bewbush, or land to the West of Ifield. Following the identification of these two locations, the options developed

considered how the development should be brought forward in these location(s) as set out below:

- a) Should the development be a single new neighbourhood located to the West of Bewbush?
- b) Should the development be a single new neighbourhood located to the West of Ifield?
- c) Should the development of a new neighbourhood be split between the two areas and be located partially West of Bewbush and partially West of Ifield?
- d) Taking into account the likely need for more housing development in the longer term (as set out in the draft Regional Spatial Strategy), should two new neighbourhoods be developed - one to the west of Bewbush and one to the West of Ifield?

Map 4 at the rear of the document shows the location of the options that were considered.

New Road and Sustainable Transport Provision

7.5 Any new development within the area of study will require some form of road access. Development may also place pressure on the existing road network, and there is therefore the potential for some new road infrastructure to be provided to alleviate the additional traffic. Options therefore ranged around the level of road access that should be provided, ranging from access to the new development only, to a full 'relief road' around the western edge of Crawley. The options considered are as follows:

- a) Should no new roads be provided other than for direct access to the new development?
- b) Should a link road be provided to the development from the A23?
- c) Should a link road be provided to the development from the A264?
- d) Should a relief road be provided, linking the A264 to the A23?

7.6 It is acknowledged that there is potential for the impact of new development on the road network to be minimised through the provision of sustainable transport, such as a bus service, pedestrian and cycle facilities, a good footpath network and a new railway station. The need to provide for alternatives to car travel as part of any new development is set out within the objectives of the adopted Horsham and Crawley Core Strategies. As this is a requirement of a higher level plan, the option of whether or not to provide sustainable transport was not pursued beyond the Preferred Options stage. However, it has been considered whether a park and ride or similar facility could be provided as part of any strategic development. The options are set out as follows:

- a) Do not provide a new park and ride facility
- b) Do not provide a park and ride facility, but within the new neighbourhood West of Bewbush, provide parking in conjunction with a new railway station
- c) Provide a park and ride facility away from the new neighbourhood
 - i) West of Ifield
 - ii) North West of Crawley

Employment Provision

- 7.7 As part of the creation of any neighbourhood, there is an accepted need to provide sufficient employment land (e.g. as part of a neighbourhood centre) to meet the needs of residents moving to the area. It is however acknowledged that Crawley has an important employment role within the Gatwick sub region. There is therefore the potential to provide additional 'strategic employment' land in the land West / North West of Crawley area. This strategic employment could be located separately from residential development in the area of study. Employment options are therefore as follows:
- a) Should employment land be provided as part of a new neighbourhood only?
 - b) Should employment land be provided in a neighbourhood centre with additional provision elsewhere within the development as part of a new neighbourhood, to meet the wider employment needs of the new residents?
 - c) In addition to employment land provided as part of a neighbourhood centre, should a strategic employment site be provided, and if so should it be located
 - i) West of Bewbush
 - ii) West of Ifield
 - iii) North West of Crawley?

Alternative Land Uses

7.8 In addition to the provision of a new neighbourhood within the area of study, there are a number of other different land uses that could be accommodated in the area (either adjoining or separate from a new neighbourhood). The potential uses have been identified as a result of baseline studies and other plans and programmes², and their provision would meet the needs of new and existing residents of Crawley, and in some instances those in the wider sub region. The options for consideration are set out below.

1) Cemetery Provision

Responses to the Issues and Options consultation indicated that there may be a need for the provision of land for use as a cemetery. The option as to whether this land use could be sited in the West / North West of Crawley area has therefore been considered as follows:

- a) Make land available for a cemetery, either i) West of Bewbush ii) West of Ifield or iii) North West of Crawley
- b) Do not make provision for a cemetery

2) Gypsies, Travellers and Travelling Show people

Where a need is identified, it is a requirement for Local Authorities to allocate sites for gypsies, travellers and travelling show people. There is the potential for land to the West / North West of Crawley to be allocated for such as site, but the need to do so may be best considered as part of a comprehensive assessment of the Issue and set out in a separate DPD. This is reflected in the options selected for assessment.

- a) Make land available for gypsies, travellers and travelling show people
 - i) West of Bewbush ii) West of Ifield or iii) North West of Crawley

² It should be noted that some options assessed at the Preferred Options stage have not been presented in this final draft, due to a lack of evidence for their need.

- b) Make land available for a gypsy, traveller and travelling show people site if needed as part of a further DPD on this matter
- c) Do not make land available for a gypsy, traveller and travelling show people site

3) Substantial Medical Health Facility

As set out in the baseline data, concern has been expressed about the lack of access to hospitals for residents in the wider sub-region around Crawley. It has therefore been proposed that the land West or North West of Crawley could accommodate a larger scale substantial medical facility (for example able to perform initial medical assessments before transfer to an appropriate medical establishment). This option was therefore subject to the sustainability appraisal process.

- a) Make land available in the JAAP for a substantial medical facility i) West of Bewbush ii) West of Ifield or iii) North West of Crawley
- b) Do not make land available for a substantial medical facility in the JAAP

4) Sewage Treatment Facilities

New development will place pressure on existing sewage treatment facilities, and Thames Water have indicated that an upgrade of existing facilities will be needed beyond 2010, either by extending the existing site, or providing a new facility. Both these options have therefore been considered as part of the sustainability appraisal process. The option of keeping the facilities as they are has not been examined, as this is not a feasible option in meeting the needs of the new neighbourhood, or the wider needs of Crawley Borough as set out in its Core Strategy and other policy documents. However, at this stage it is considered that in the case of option b, future upgrades are not prejudiced by the plan, and that the specific allocation of land for the extension of the sewage works is not necessary.

- a) Make land available in the JAAP for a new sewage treatment works i) West of Bewbush ii) West of Ifield or iii) North West of Crawley
- b) Do not prejudice the upgrading or extension of the existing sewage treatment facilities (but do not allocate land for this purpose in the JAAP)

5) Strategic Open Space

It is accepted that there is a need to provide open space and recreation as part of the development of a new neighbourhood. There is however the potential for the West / North West of Crawley area to accommodate a larger more strategic area of open space (such a country park). The options considered were therefore as follows:

- a) In addition to formal and informal open space within the new neighbourhood, make land available for Strategic Open Space i) West of Bewbush ii) West of Ifield or iii) North West of Crawley
- b) Provide only formal and informal open space within the new neighbourhood

6) Provision of a Road Maintenance Depot / University.

The draft SA/SEA published with the Preferred Options set out an initial assessment of the options as to whether to allocate a road maintenance depot and university in the West / North West of Crawley area. These options have not been given further consideration in this document, as a location for the maintenance depot is being sought outside the West / North West of Crawley area, and the location of University facilities are being considered and examined across Crawley and may be the subject of further planning documents in due course.

RESULTS OF THE ANALYSIS OF OPTIONS

- 7.9 The full results of the Sustainability Appraisal of the development options for the Joint Area Action Plan are set out in Appendix B, but a summary of the results is set out table 11. The table provides a brief summary of the findings of the assessment, and sets out which option was selected for incorporation into the Joint Area Action Plan.

Table 11: Summary of the Results for the Appraisal of Development Options West / North West of Crawley

Development Options	Summary of Findings	Additional Remarks
<p><u>Location of the neighbourhood</u></p> <p>a) Should the development be a single new neighbourhood located to the West of Bewbush?</p> <p>b) Should the development be a single new neighbourhood located to the West of Ifield?</p> <p>c) Should the development of a new neighbourhood be split between the two areas and be located partially West of Bewbush and partially West of Ifield?</p> <p>d) Taking into account the likely need for more housing development in the longer term (as set out in the draft Regional Spatial Strategy), should two new neighbourhoods be developed - one the West of Bewbush and one West of Ifield?</p>	<p>Any development to the west of Crawley will have adverse effects on the surrounding landscape, biodiversity and flood risk. Option d would have the largest negative effect due to the scale of the development. Option c would also have a relatively large negative effect on the environment, as there would be development in both locations. Option c would also limit provision and access to services and facilities as these would be divided across two sites. Of the remaining two options, a) development at Bewbush was considered to be less environmentally damaging as it would involve development of a brownfield landfill site, and development West of Ifield would impact upon Ifield Village Conservation Area, and the high quality landscape in the area. Option a) has therefore been chosen as the most sustainable option.</p>	<p>Remediation of the landfill site will be necessary before development can take place West of Bewbush</p> <p>Mitigation measures will need to focus on addressing negative environmental effects arising from the development.</p>
<p><u>New Road and Sustainable Transport Provision</u></p> <p><i>New Road provision</i></p> <p>a) Should no new roads be provided other than for direct access to the new development?</p> <p>b) Should a link road be provided to the development from the A23?</p> <p>c) Should a link road be provided to the development from the A264?</p> <p>d) Should a relief road be provided, linking the A264 to the A23?</p>	<p>The construction of any new road around the western edge of Crawley will have an adverse impact on the landscape and biodiversity creating a hard boundary between the town and the countryside and severing habitats. Other impacts include noise and worsening air quality. This effect would be greatest with option d) the relief road. Option a) was therefore selected as the most sustainable option</p>	<p>In not providing a new link or service road, development may increase traffic on the existing road network. This issue will need to be mitigated as part of the development masterplan, informed by a full Transport Assessment.</p>

Development Options	Summary of Findings	Additional Remarks
<p><i>Park and Ride</i></p> <p>a) Do not provide a new park and ride facility</p> <p>b) Do not provide a park and ride facility, but within the new neighbourhood West of Bewbush, provide parking in conjunction with a new railway station</p> <p>c) Provide a park and ride facility away from the new neighbourhood</p> <p>i) West of Ifield</p> <p>ii) North West of Crawley</p>	<p>The provision of a park and ride site will have a mixture of positive and negative effects, the balance of which varies depending upon its exact location. In general however, a park and ride facility would reduce congestion on roads between the site and the centre of Crawley. By reducing congestion, a park and ride site would also assist in improving air quality in the area. A park and ride site would however potentially be damaging to the landscape and environment, particularly if sited to West of Ifield.</p> <p>On balance, option b) is considered to be the most sustainable, as it would be linked to the new development location, which is partly on brownfield land, and would maximise the positive effects of the provision of such a site.</p>	
<p><u>Employment Provision</u></p> <p>a) Should employment land be provided as part of a new neighbourhood centre only?</p> <p>b) Should employment land be provided in a neighbourhood centre, with some additional provision elsewhere within the development to meet wider employment needs of the new residents?</p> <p>c) In addition to employment land provided as part of a neighbourhood, should a strategic employment site be provided, and if so should it be located</p> <p>i) West of Bewbush</p> <p>ii) West of Ifield</p> <p>iii) North West of Crawley?</p>	<p>The assessment found that provision of employment at a neighbourhood level was more sustainable than provision of further strategic employment land, which would have further negative effects on the landscape and environment, (especially on land to the West of Ifield), in addition to the provision of a new neighbourhood. Furthermore, the allocation of strategic employment land is not considered necessary as the need is being met from redevelopment of existing employment land.</p> <p>Of options a and b, it was found to be more sustainable to provide a range of employment types in different locations, as this would better meet the needs of new residents of the neighbourhood. Option b was therefore selected as the most sustainable option</p>	<p>It should be noted that the need for any further Strategic Employment Provision will be addressed through the respective Core Strategy Reviews.</p>

Development Options	Summary of Findings	Additional Remarks
<p><u>Alternative Land Uses</u></p> <p>1) <i>Cemetery Provision</i></p> <p>a) Make land available for a cemetery, either i) West of Bewbush ii) West of Ifield or iii) North West of Crawley</p> <p>b) Do not make provision for a cemetery</p>	<p>The provision of land for a cemetery has a potentially positive effect in meeting a specific community need. If incorporated into a neighbourhood development [option a),i)] it could provide an area of greenspace with positive impacts on biodiversity and air quality. Location of a site outside the neighbourhood would have a negative effect, altering the landscape and generating car journeys to an otherwise rural location.</p> <p>Option b – not providing a cemetery – would not generate negative landscape impacts, but could generate problems in not meeting an identified need and placing pressure on existing burial sites in Crawley.</p> <p>Option b) has been selected as the new development is not considered to generate sufficient pressure on existing provision to warrant the allocation of a new site.</p>	<p>Uncertainties surrounding the exact need for the provision of a cemetery created difficulties when attempting to determine the most sustainable option. Burial provision is, however, an issue within Crawley, but is being addressed holistically through wider corporate initiatives.</p> <p>On balance, option b is currently felt to be more sustainable, as there is limited evidence for the need to provide additional cemetery land. Should new evidence come forward, then provision within the new neighbourhood [option a)] would become the more sustainable option.</p>
<p>2) <i>Gypsies, Travellers and Travelling Show People</i></p> <p>a) Make land available for gypsies, travellers and travelling show people i) West of Bewbush ii) West of Ifield or iii) North West of Crawley</p> <p>b) Make land available for a gypsy, traveller and travelling show people site if needed as part of a further DPD on this matter</p> <p>c) Do not make land available for a gypsy, traveller and travelling show people</p>	<p>There is a need to provide sites for gypsies and travellers, to help provide for this section of the community. However, the allocation of such a site will have negative effects on the environment, for example changing the landscape, and damaging biodiversity (particularly if the site were located to the West of Ifield). Non provision of a gypsy site (option c) would however also have negative effects, as it could lead to unauthorised encampments that may be more damaging to the environment over one that has been allocated. At this stage, there are still uncertainties¹ as to the overall need for gypsies and travellers in the area, and allocation at this stage would</p>	<p>¹The need for gypsies and travellers sites is being examined at a Regional level with the West Sussex Needs Assessment completed. This information will which will feed into the Regional Spatial Strategy which will identify the definitive need.</p>

Development Options	Summary of Findings	Additional Remarks
<p>3) <i>Substantial Medical Health Facility</i></p> <p>a) Make land available in the JAAP for a substantial medical facility i) West of Bewbush ii) West of Ifield or iii) North West of Crawley</p> <p>b) Do not make land available for a substantial medical facility in the JAAP area</p>	<p>prejudice the plan led approach through the Regional Spatial Strategy. Option b) has therefore been selected.</p> <p>The allocation of land for a substantial medical facility would have a significant positive effect in helping access to health care for residents in the area. Construction of such a facility would however have negative effects on a range of issues, from the landscape, biodiversity and the road network. The sensitive countryside west of Ifield would be particularly at risk from such a development. Of the two remaining locations, development west of Bewbush is likely to have a more positive effect as it is more accessible to residents in the wider sub-region (e.g. Horsham). Option a)i) was therefore assessed as being the most sustainable option</p>	<p>Allocation of a site does not guarantee that a medical facility will be provided – this is dependent on the health care strategy that is selected for the region by the relevant Health Care Authority.</p> <p>At the current time, the provision of a new health care facility in the West /North West of Crawley area is not being progressed by the Health Care Authority, and as a consequence it was considered that Option b should be selected.</p>
<p>4) <i>Sewage Treatment Facilities</i></p> <p>a) Make land available in the JAAP for a new sewage treatment works i) West of Bewbush ii) West of Ifield or iii) North West of Crawley</p> <p>b) Do not prejudice the upgrading or extension of the existing sewage treatment facilities (but do not allocate land for this purpose in the JAAP)</p>	<p>Beyond 2012, the existing sewage treatment works need to be upgraded or relocated to accommodate new development. An extension of the existing site would the least environmentally damaging option, requiring less land-take, and fewer resources during the construction phase. The land is also lower in landscape quality and in a location where odour issues are minimised. It is therefore considered that the JAAP should not prejudice any extension to the existing sewage works, and option b was therefore selected as the most sustainable option.</p>	<p>Post 2012, the options for increasing capacity of the sewage works will be explored through the next Asset Management Plan prepared by Thames Water. This will be published in 2009. At this stage it is therefore considered that there is no need for a specific allocation will be made through the JAAP.</p>
<p>5) <i>Strategic Open Space</i></p> <p>a) In addition to formal and informal open space within the new neighbourhood make</p>	<p>Provision of strategic open space will assist in the provision of recreational facilities, and provide a link between the town and wider rural area. Open space located west of Ifield would</p>	

Development Options	Summary of Findings	Additional Remarks
<p>land available for Strategic Open Space i) West of Bewbush ii) West of Ifield or iii) North West of Crawley</p> <p>b) Provide only formal and informal open space within the new neighbourhood</p>	<p>help conserve and enhance the setting of the conservation area. A site north west of Crawley would have less benefit, as it is further from most residents and heavily affected by aircraft noise. Strategic open space could however harm biodiversity by increasing pressure on nearby protected sites. Although options a i) and ii) are most sustainable, option b has been selected as it is felt to be more achievable to focus on open space within the new development.</p>	

8.0 APPRAISAL OF THE WEST OF BEWBUSH PREFERRED OPTION

- 8.1 Following on from the assessment of the development options for the West and North West of Crawley area, it was considered helpful to conduct a more in depth assessment of the effects of the preferred development location west of Bewbush. This assessment enabled shorter and longer term effects to be considered, and the most significant effects of development to be identified along with mitigation measures to be incorporated into the West of Crawley masterplan to counteract any adverse effects.
- 8.2 In order to consider the effects of development West of Bewbush, a meeting was held between the officers at both Councils with responsibility for the SA/SEA and the officers writing the west of Crawley masterplan. This meeting enabled the most likely effects of the development to be identified, and the mitigation measures to be incorporated into the masterplan to be identified at the earliest possible stage.
- 8.3 The effects of the plan that were identified are set out in Table 12 below. It sets out a summary of the likely effects of the development on each objective over both the shorter and longer term. The timescales considered were as follows:-

Short term: 2010 -1013
Medium Term:2014 – 2017
Long term: 2018 onwards

The assessment used the following key when determining the effects of the development.

Key

Strong positive effect:	☺☺
Positive effect:	☺
No Effect / Not applicable:	☹
Negative effect:	☹
Strong negative effect :	☹☹
Effect uncertain	?

Table 12: Assessment of Effects of Development to the West of Bewbush.

SA/SEA Objective	Summary of Effects	Short term	Medium Term	Long Term
<p>1. To ensure everyone has access to a good quality affordable home that meets their needs</p>	<p>Development will provide approximately 2,500 homes, of which up to 40% will be affordable. The houses will also be a mixture of sizes to help meet a range of needs. The positive effect of the development on this objective will increase over time as more dwellings are completed. There is potential for the long term needs of the population to be met through careful design of the development; for example the provision of lifetime homes.</p>	😊	😊😊	😊😊😊
<p>2. To ensure everyone has access to the health, education, leisure and recreation facilities they require</p>	<p>The Horsham and Crawley Core Policies for West of Crawley set out the need to provide sufficient facilities to meet needs of the new residents. This provision could assist other western neighbourhoods (Ifield West) which currently lack access to facilities. Provision of facilities is likely to increase over time as more of the development is completed.</p>	😊	😊😊	😊😊😊
<p>3. To reduce crime, the fear of crime and antisocial behaviour</p>	<p>The land west of Bewbush is currently undeveloped, and as a consequence, the creation of a new neighbourhood is likely to result in some increase in crime over the existing level, although it is difficult to predict what future crime levels may be like. Notwithstanding this, the potential for crime can be minimised by following specific design codes set out by the police. Providing these codes are used, the overall effect of the development on crime and antisocial behaviour is likely to be minimal.</p>	😊	😊😊	😊😊😊
<p>4. To maintain and enhance landscape character including the setting of Crawley and protection of links from the town to the surrounding countryside</p>	<p>In terms of landscape quality, Land West of Bewbush is the least sensitive site in the west of Crawley area. Although development of the site effectively narrows the Strategic Gap between Horsham and Crawley, the land is well screened from the surrounding countryside, and the visual impact of the development is likely to be limited. Furthermore 30% of the site is previously developed land rather than undeveloped countryside. Development of the site also presents opportunities to enhance links to the countryside and the nearby AONB. On balance it is considered that, providing mitigation measures such as advance planting is undertaken, the effect of the development is neutral to positive.</p>	😊	😊😊	😊😊😊

SA/SEA Objective	Summary of Effects	Short term	Medium Term	Long Term
<p>5. To conserve and enhance biodiversity within Crawley and the surrounding countryside</p>	<p>At the current time, the land west of Bewbush is not considered to be of particular importance for biodiversity, although development of the landfill site will result in a loss of land for certain birds that have been recorded as breeding on the site. It should however be noted that the restoration of the site to agriculture would also have this effect by changing the habitat on the land. Development could also impact on biodiversity in the short term, for example if construction sediments reach watercourses and damage water quality. In the longer term, there is also the potential for higher numbers of residents in the area to increase pressure on biodiversity through increased recreational pressure on the surrounding landscape. The effect of this is however thought to be relatively minimal. Development west of Bewbush also presents an opportunity to enhance biodiversity in the longer term through the provision of urban greenspace, and wildlife features within the development.</p>	☹	☹	☹
<p>6. To conserve and enhance the historic and cultural environment, including important green spaces</p>	<p>The initial Sustainability Appraisal raised uncertainty as to the effect of the development on cultural heritage, in particular because of the potential sensitivity of Kilnwood archaeological parkscape. A study undertaken in 2008 however, demonstrated that there is no evidence of a designed landscape at the site, although there are several specimen trees that pre-date the landscape that should be retained where possible. There is also the possibility that increased recreation pressure arising from the development could also impact on the moat in Bewbush, which is a scheduled ancient monuments. Development does however have potential to improve greenspaces and links to the AONB.</p>	☹	☹	☹
<p>7. To reduce the risk of flooding</p>	<p>Without mitigation, development on the site could significantly increase the risk of flooding, for example as a result of clay lining Bewbush Brook and re-profiling of the landfill site, as well as from increased rates of run-off to streams as a result of hard surfaces such as concrete. A strategic flood risk assessment has been undertaken for the area, and providing that the mitigation measures set out in this document are followed, the development will not alter the risk of flooding from that of a greenfield site. These measures will need to be implemented from the construction phase of the development.</p>	☹	☹	☹

SA/SEA Objective	Summary of Effects	Short term	Medium Term	Long Term
8. To maintain and where possible enhance water quality levels	<p>At the current time, there is potential for water quality to be adversely affected by leachate from the landfill site, although levels are likely to be very limited. Remediation of the landfill site will however mitigate this. This would result in a positive impact on water quality in the longer term. In the short term however, construction may have a negative impact on water quality – with mud and sediment from earth works having the potential to enter nearby watercourses.</p> <p>Development will inevitably result in some increase in traffic, both during the construction and operational phases of development. This will have an adverse impact on air quality in the area to some extent, although the overall effect is likely to be relatively limited, both in the short term where construction effects (which could also include dust and particulates) are temporary, and also in the longer term if mitigation measures in reducing traffic levels are successful.</p>	☹️?	☺️?	☺️?
9. To maintain and where possible enhance levels of air quality	<p>The greatest impact of noise on the site is from the A264 and the railway, rather than from aircraft at Gatwick airport. Development will generate some noise during the construction phase, although this is temporary effect, but could affect residents of Bewbush and properties on the site which are completed in an early phase of the development. Controlling hours of working will help mitigate this. The completed development may also create noise, but this would be at normal domestic levels and not therefore significant for other residents or the wider environment. The impact of noise from rail and roads on the new residents can be mitigated by screening / bunding and the impact is therefore likely to be neutral in the longer term.</p>	☹️	☹️	☹️
10. To minimise the impact of noise on residents and the wider environment	<p>Development will require the use of resources during both the construction and operational phases. The construction phase will require raw materials e.g. for roads and buildings, whilst the operational phase of the development will mainly require resources such as energy and water. Without mitigation, this would have a large negative effect, but there is an opportunity to minimise this, encouraging buildings to be built to high standards, such as those set out in the Code for Sustainable Homes.</p>	☹️	☹️	☹️
11. To minimise the use of resources, particularly water, energy and materials	<p>Development will require the use of resources during both the construction and operational phases. The construction phase will require raw materials e.g. for roads and buildings, whilst the operational phase of the development will mainly require resources such as energy and water. Without mitigation, this would have a large negative effect, but there is an opportunity to minimise this, encouraging buildings to be built to high standards, such as those set out in the Code for Sustainable Homes.</p>	☹️	☹️	☹️

SA/SEA Objective	Summary of Effects	Short term	Medium Term	Long Term
12. To reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	Development will result in greenhouse gas emissions during the construction and operational phases of development, for example as a result of vehicle movements and the energy involved in production of construction materials (e.g. concrete). In the longer term there is the potential for the development to produce more limited amounts of carbon dioxide e.g. through provision of a CHP plant and other renewable sources of energy. It is however likely that the development will produce some greenhouse gas emissions resulting in an overall negative effect.	☹	☹☹	☹
13. To make the most efficient use of land	30% of the west of Bewbush site comprises brownfield land, rather than being a development of a wholly greenfield site. Housing densities will be a minimum of 35 dwellings per hectare, but this may be greater in some parts of the development, for example the land at the eastern side of the development area, which adjoins Bewbush, which is already fairly densely developed.	☺	☺	☺
14. To reduce car journeys and promote alternative methods of transport	Development west of Bewbush will inevitably result in some increase in traffic, as many residents of the area will own and use cars. However the lack of a new relief road will limit a major increase in traffic levels. There is also the potential for commuter traffic to be drawn into the area to reach any new station that is provided. This could create congestion in the new neighbourhood. The masterplan for the west of Bewbush area will promote alternative forms of transport, which will help to mitigate any negative effects. Any increase in traffic is likely to occur in the medium to longer term as greater numbers of houses are completed and occupied.	☹	☹	☹
15. To ensure development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	The development west of Bewbush will provide some employment opportunities to serve the local neighbourhood economy. The development will also provide a residential base for those employed in the wider sub-region. These positive effects will increase over time as more dwellings are completed and occupied.	☹	☺	☺

SA/SEA Objective	Summary of Effects	Short term	Medium Term	Long Term
<p>16. To ensure development contributes to maintaining and enhancing the vitality and viability of the neighbourhood and Crawley town centre.</p>	<p>Development will provide a new neighbourhood parade / high street thus maintaining the viability and vitality of the neighbourhood. New residents in the area will also contribute to helping to maintain the economic vitality of Crawley town centre. The positive effect on the retail economy of both the neighbourhood and Crawley town centre will increase over time as more dwellings are completed and occupied.</p>	<p>😊</p>	<p>😊</p>	<p>😊</p>

Assessment of Cumulative Impacts

- 8.4 In addition to the assessment of the effects of development on each individual objective, there may be other wider consequences arising from the development. These can arise where a number of different effects combine to have a greater positive or negative impact than they may do individually.
- 8.5 The assessment of the cumulative effects arising from the development to the west of Bewbush was undertaken by the officers undertaking the sustainability appraisal of the West / North West of Crawley Joint Area Action Plan. The possible cumulative effects have by necessity been identified using the professional judgement of the officers undertaking the assessment process. The main cumulative effects of the development that have been identified are set out below.
- The provision of high quality public transport in the new neighbourhood may increase rates of public transport use in the wider area – for example a new station, if provided has the potential to increase rail commuting by residents living outside the neighbourhood. Good bus routes into the development may also encourage wider use of the services elsewhere in Crawley.
 - The positive effect that the development will have on the local and wider retail services together with positive impacts on employment will combine to have a greater positive effect on the local and sub-regional economy than they do in isolation.
 - There is the potential for the development west of Bewbush to increase the likelihood of further development in the area in the future, although it should be noted that the need for, and allocation of, any land for future development in the area will be a matter for the reviews of the Horsham and Crawley Core Strategies. Any further development in the area would however have a greater impact on the surrounding landscape, environment and the road network (which may need to be expanded), than development of a single neighbourhood, particularly as the environment north of the West of Bewbush site is more sensitive to change.
 - Activities that arise as a result of the development such as heating of buildings, together with any increases in traffic or congestion may combine to have a greater effect on climate change.
 - Development has the potential to increase the risk of flooding upstream as well as on the site itself. This could for example arise if the re-profiling of the landfill site, together with the laying of new impermeable surfaces such as roads, combines to increase rates of runoff.
 - Increased levels of sewage effluent and polluted run-off from roads could combine to decrease the water quality of any nearby watercourses.
 - Negative effects on water quality or air quality and the impact on climate change could all combine to have an adverse effect on biodiversity. Locally, there is the potential for the river Mole to be adversely affected downstream from the site. The development will, as a result of increased greenhouse gas emissions will also on some level have some impact upon global biodiversity.
 - Although development will provide a number of services and facilities which will provide for the immediate needs of new residents in the area, the development may still increase pressure larger more regional facilities such as hospitals, which may also have to cater for new residents from other new developments in the wider area.

Significant Impacts

- 8.6 Following on from the identification of the possible effects that may arise from the West of Bewbush development, their significance was determined. This was a useful

exercise as it enables resources to be applied efficiently and effectively when mitigating any adverse effects. The significance of the impacts was assessed by the officers undertaking the SA/SEA of the Joint Area Action Plan. Whilst the significance that can be assigned to any impact is by nature a matter of professional judgement, a number of different factors were taken into account when making the assessment. These included the overall magnitude and scale of the impact, and the timescale over which it would occur. Therefore a temporary impact occurring in a small area would generally not be considered as significant as a longer term impact with an impact over a large geographical area.

8.7 The assessment identified both positive and negative significant effects, which are discussed in more detail below. It should be noted however that the most significant negative effects are those where some adverse effects are likely despite mitigation measures being put in place. The most significant effects arising from the development are as follows:

- The development will have a positive effect in providing affordable homes. If 40% of the dwellings constructed are affordable, this equates to around 1000 homes.
- If the design and provision of high quality public transport is incorporated into the development there is likely to be a significant positive effect in increasing the take up of public transport within the neighbourhood and more widely into the rest of Crawley. Notwithstanding this however, the development will still generate some car trips, which can impact on air quality and, more significantly on climate change.
- Development will require resources during both the construction and operational phases. Even with mitigation there will still be some requirement for energy that will involve the consumption of fossil fuels which contributes to climate change. Whilst the overall contribution from the development will be small on a global scale, it is these smaller scale incremental uses of fossil fuels that combine to have a worldwide impact.

8.8 In addition to the impacts outlined above, other effects arising from the development are felt to be less significant providing mitigation is undertaken effectively. There are however still some uncertainties as to how some of these measures may work, and it is therefore considered useful to highlight some of these potentially significant effects below.

- If designed correctly, development will have a positive impact in helping to meet the needs of other communities on the western side of Crawley. For example, links could be provided to Ifield West, which would provide this area of Crawley with better access to services and facilities.
- A strategic flood risk assessment has identified land in or close to the development area that is at risk from flooding, and the contribution that new development make to this risk. Some of the development works (such as the re-profiling of the landfill site) could if not correctly designed, inadvertently increase flood risk and careful design and mitigation measures will need to be provided to ensure that this does not occur.
- Whilst development of the site is likely to have limited impacts on the surrounding landscape and biodiversity, (and may in fact provide opportunities for enhancement of both these features), there is the potential for negative effects to occur if mitigation does not work as effectively as planned. There is potential for this to occur, as the natural environment is not easily predictable and despite well planned protection measures, there is always the possibility that unforeseen consequences may occur.

Mitigation Measures

8.9 There are a number of different means by which the negative effects of development west of Bewbush can be mitigated, but they fall into two main categories. The first of these is amendment of the wording of the JAAP to require that certain measures or features are incorporated into the development. The second main type of mitigation measure is the requirement to undertake further studies and determine and undertake mitigation measures at a later stage. This could for example be through an EIA submitted with any planning application, or as part of planning conditions set as part of any granting of planning permission. The mitigation measures are set out in more detail in the table below.

Table 13: Suggested mitigation measures for the West / North West of Horsham JAAP

Sustainability Matter	Suggested Mitigation Measure	Mitigation measures incorporated into the JAAP
Housing	In general the JAAP is positive in terms of meeting housing needs in the area. However, to ensure that the development meets the needs of the community in the longer term, the JAAP needs to highlight the importance of designing the development to ensure that the needs of residents are met over a number of years (e.g. lifetime home standards).	JAAP outlines the need for a range of house sizes and types to meet needs. Greater emphasis on meeting a wide range of residents needs as part of any affordable housing is set out, including a requirement in WB11 for approximately 20% of these homes to be built to Lifetime-Home standards.
Crime	The Masterplan should highlight the need for good design of the development in order to ensure that the potential for crime is minimised.	Paragraph 4.4 highlights the need for good design in order to minimise the potential for crime. In addition, the text sets out the requirement for a design and access statement that may assist when considering the issue of crime.
Landscape Character	Adverse effects on the landscape can be minimised by a requirement to undertake advance planting in order to ensure that by the time development takes place it is screened from the surrounding countryside. Further details as to the location and type of landscape features could be identified as part of an EIA to accompany any planning application.	Supporting text highlights the need for advance planting, reinforcing the requirements for landscaping in policy WB12
Biodiversity	The JAAP should emphasise the opportunity that development of the site presents to enhance biodiversity. This can be through the provision of green space which can act as a wildlife corridor, and the incorporation of wildlife features such as nest boxes into the development. New planting should also be with species that maximise biodiversity. The detail of these features	Policy WB13 sets out the need to carry out biodiversity surveys prior to development. The supporting text also highlights the need to protect existing nearby nature conservation and woodlands designations. The supporting text also outlines the potential for enhancements to biodiversity – e.g. provision of

Sustainability Matter	Suggested Mitigation Measure	Mitigation measures incorporated into the JAAP
	could be identified in the EIA which would accompany any planning application for the development.	bat boxes.
Cultural Heritage and Green Spaces	<p>It was suggested that if not completed prior to the submission of the JAAP, the document should set out the need to undertake an assessment of Kilnwood archaeological parkscape.</p> <p>The masterplan should also identify potential green linkages including those to the AONB. Impacts on cultural features such as Bewbush moat should also be considered.</p>	<p>The assessment of the Kilnwood 'historical parkscape' was undertaken in 2008, which revealed that further protection of the land (bar some significant trees) would not be necessary.</p> <p>Policy WB14 requires the development to provide links to green spaces beyond the development boundary</p> <p>References in the supporting text are also made to Bewbush moat .</p>
Flooding	The masterplan will need to ensure that no land uses sensitive to flooding are placed in the flood plain identified in the SFRA. To prevent the risk of flooding downstream the JAAP will need to set out the requirement for Sustainable drainage systems as appropriate. A Site Flood Risk Assessment as part of any planning application will also be necessary, for example to assess the impact that re-profiling of the former landfill site will have on drainage. It is suggested that the results from this work, together with any further mitigation measures are set out in an Environmental Impact Assessment.	The suggested mitigation measures are addressed in Policy WB16 and supporting text
Water Quality	Development will require remediation of the landfill site, which may improve water quality. Other measures to ensure that water quality is not adversely affected will be required to prevent pollution from construction and new roads. These measures could be specified as part of conditions on granting of any planning application.	Document includes policy WB22 on the need to remediate the landfill site. Other water quality issues can be addressed at the planning application stage.
Air Quality	Any adverse impact on climate change can be mitigated by the presence of good public transport links and cycle and pedestrian access. The need for this was recognised in both the Horsham and Crawley Core strategies and more detailed information will need to be set out in the masterplan.	Detailed information regarding sustainable transport is set out in the JAAP under the transport section, and in particular WB25.

Sustainability Matter	Suggested Mitigation Measure	Mitigation measures incorporated into the JAAP
Noise	Development will need to be designed to minimise the impact of road and rail noise on residents. This can be achieved by bunding and planting, but the exact types and locations are matters for more detailed work to inform a planning application. Planning conditions could also minimise the impact of noise on nearby residents by controlling the hours of working on the site.	Policy WB15 seeks to ensure development will not be subject to noise levels greater than 60dBA.
Resource Use and Climate Change	The JAAP will set out the importance of the development meeting the highest possible sustainability standards such as those set out in the Government's Code for Sustainable Homes. The JAAP should also highlight the potential for low carbon energy systems such as a combined heat and power plant and for non residential buildings to be built to BREEAM standard of "very good" or above where possible. Good public transport measures will also help to mitigate against climate change.	WB21 sets out the need to devise an energy strategy to assist carbon emissions reductions. A water strategy to minimise rates of water use is also required. Where feasible and viable homes should be built to the highest standards set out in the Code for Sustainable Homes.

9.0 IMPLEMENTATION AND MONITORING

9.1 This document sets out the results of the sustainability appraisal of the different options for development in the West / North West of Crawley area. In addition, the document also sets out the results of the appraisal of the more detailed appraisal of development to the West of Bewbush. The results of the appraisal have been taken into account in the preparation of the JAAP, as set out in earlier chapters of this document.

9.2 It is a requirement that the effects of the West of Bewbush JAAP are monitored. This will be achieved by monitoring the indicators which are set out in this document and in the JAAP. The monitoring will be undertaken on an annual basis and will be incorporated into the wider annual monitoring process which is required for the Local Development Framework. As the proposed development west of Bewbush currently lies within Horsham District, the reporting of the indicators will be set out in the Horsham District Annual Monitoring Report. It will however be necessary for Crawley Borough Council to assist in providing any necessary data, for example in relation to air quality data or affordable housing requirements. Crawley Borough Council will need to reflect any data that may be necessary within their own Annual Monitoring Report.

9.3 In accordance with the regulations regarding monitoring, the report will be prepared prior to the end of December each year. It should be noted that there may be some indicators that cannot be measured on an annual basis (for example landscape condition), and these will instead be monitored according to the most relevant timescales.

9.4 The findings of these indicators will help measure how well the JAAP contributes to sustainable development. It will enable any unforeseen adverse effects to be identified and mitigated quickly, and to inform any future reviews of plans and policies.

APPENDIX A- Baseline Data

This Appendix sets out additional baseline information for the West and North West of Crawley area. It supports the data which is set out in Chapter 5.

Population

Area	Population	% Population of working age (16 -64)	Possible Change without development W /NW of Crawley
Crawley Borough	99,744		Population of the borough is expected to rise to 104,700 by 2010 without development. The population of the area is ageing which will decrease the percentage of working age population and could change pressures on resources.
Ifield:	8,414	60%	
Bewbush:	9,079	69%	
Langley green:	7,284	61%	
Gossops green	5,012	62%	
Rusper Parish (in Horsham District)	1,389	62%	

Data source: ONS 2001 Census

Housing

Area	Number of Households	% owner occupied and social rented	Possible Change without development W /NW of Crawley
Crawley Borough			HDC requires 937 affordable homes per year, and CBC 926. Without development west of Crawley pressure on the affordable housing market will increase
Ifield:	3,452	68% owner occupied 66% owner occupied 29% social rented	
Bewbush:	3,173	57% owner occupied 36% social rented.	
Langley green:	2,878	66% owner occupied, 28% social rented	
Gossops green	2,093	74% owner occupied 36% social rented.	
Rusper Parish (in Horsham District)	579	74% owner occupied(5% Social Housing),	

Data source: ONS 2001 Census & Housing need assessments

Average property prices						
	Average price	Detached	Semi-Detached	Terraced	Flat	
National	£173,717	£263,070	£164,640	£134,772	£162,418	
Crawley (numbers in parenthesis)	£205,062 (556)	£324,803 (92)	£223,838 (112)	£179,016 (244)	£142,436 (108)	
Ifield (numbers in parenthesis)	£205,050 (70)	£407,481 (8)	£277,627 (11)	£171,236 (38)	£117,911 (13)	
Bewbush(numbers in parenthesis)	£162,938 (9)	*	*	£162,938 (9)	*	
Gossops Green (numbers in parenthesis)	£180,013 (70)	£262,750 (6)	£216,399 (16)	£170,685 (32)	£131,257 (16)	
Langley Green (numbers in parenthesis)	£191,466 (48)	*	£209,727 (22)	£183,733 (21)	£143,600 (5)	
Rusper (numbers in parenthesis)	£258,903 (68)	£387,928 (14)	£261,172 (25)	£216,457 (20)	£146,222 (9)	

Source: Land Registry, December 2006

* No sales in quarter

Human Health

Health of Residents			
	% reported to be in good health	% Reported to be in fairly good health	% reported to not be in good health %
Crawley	71	21	7
Horsham	74	20	6
Bewbush	73	21	6
Ifield	68	23	9
Gossops Green	68	24	8
Langley Green	67	20	6

Source: The English Indices of Deprivations (2004)

Education

Qualifications										
April 2001 Data Age 16-74	Bewbush	Ifield	Gossops Green	Langley Green	Crawley	Horsham	South East	England		
No qualifications	26%	30%	28%	35%	25%	19%	24%	29%		
Level 1 qualifications	27%	21%	22%	23%	22%	17%	17%	17%		
Level 2 qualifications	25%	22%	22%	18%	23%	25%	21%	19%		
Level 3 qualifications	7%	8%	7%	7%	8%	10%	9%	8%		
Level 4 / 5 qualifications	9%	11%	13%	12%	15%	23%	22%	20%		
Other qualifications: Level unknown	6%	7%	9%	7%	7%	6%	7%	24%		

Level 1 qualifications cover: 1+'O' level passes; 1+ CSE/GCSE any grades; NVQ level 1; or Foundation level GNVQ.
 Level 2 qualifications cover: 5+'O' level passes; 5+ CSE (grade 1's); 5+GCSEs (grades A-C); School Certificate; 1+'A' levels/'AS' levels; NVQ level 2; or Intermediate GNVQ.
 Level 3 qualifications cover: 2+'A' levels; 4+'AS' levels; Higher School Certificate; NVQ level 3; or Advanced GNVQ.
 Level 4/5 qualifications cover: First Degree, Higher Degree, NVQ levels 4 and 5; HNC; HND; Qualified Teacher Status; Qualified Teacher Doctor; Qualified Medical Doctor; Qualified Nurse; Midwife; or Health Visitor.

Leisure and Recreation

Neighbourhood	Principle Sites	Total Area of Open space	Area of Open space per head of population
Bewbush	Bewbush West Playing Fields The Green Bewbush Water Gardens Bewbush Leisure Centre Bewbush Community Centre	32.94ha	0.0018ha

Neighbourhood	Principle Sites	Total Area of Open space	Area of Open space per head of population
Ifield	Ifield Green, Rusper Road Ifield Mill SNCI Ifield Brook Wood SNCI	29.96ha	0.0018ha
Gossops Green	Woodhurst-Lea Wood SNCI Dormans Playing Field Gossops Green Community Centre Dormand Arts Youth Centre Scout Hall	12.80ha	0.0020ha
Langley Green	Willoughby Fields SNCI Ewhurst Wood SNCI Cherry Lane Langley Green Community and Youth Centre	42.76ha	0.0029ha
Rusper Parish (in Horsham District)	N/A	1.45ha	?

Source: CBC and Horsham District Council PPG 17 Assessment 2004

Information collected by Crawley Borough Council and presented in this table does not give any indication of how well each neighbourhood is provided for in terms of different leisure and recreational facilities. However, the HDC PPG17 assessment showed that Rusper Parish has provision below the basic recommended standards, with the exception of equipped play space.

Material Assets (Employment and Retail)

Levels of unemployment within Horsham and Crawley Source: National Statistics 2001

	Bewbush (%)	Ifield (%)	Gossops Green (%)	Langley Green (%)	Crawley (%)	Rusper and Colgate (%)	Horsham (%)	GB (%)
All people-working age	64.7	60.4	62	61	62.1	62.6	60.1	61.5
Economically active	81.9	84.4	71	62	83.5	79.4	82.2	76
Employees	73	74.4	62	57	73.7	60.7	67.7	62.6
Self employed	5.5	7.1	6	5	7	17	12.5	9
Unemployed	4.1	3.4	2	3	3.4	2.1	2.4	5.8

Employment by Sector (%)	Crawley	Bewbush	Ifield	Langley Green	Gossops Green	Horsham	Rusper & Colgate	UK
Managers and senior officials	14.2	9.8	12.0	10.0	12.8	20.4	22.6	15.0
Professional	8.0	4.2	7.5	5.7	7.6	12.9	12.2	11.0
Associate Professional and Technical	12.4	10.0	11.3	9.6	12.1	15.4	16.0	14.0
Administrative and secretarial	15.4	14.1	16.3	12.8	16.7	13.9	12.3	13.0
Skilled trades	9.5	10.3	10.8	10.4	10.2	10.5	11.1	12.0
Personal services	8.7	7.5	9.7	7.0	8.1	7.1	7.0	6.9
Sales and customer services	10.3	13.3	9.9	11.0	11.2	6.6	6.0	7.7
Process Plant and Machine operatives	8.4	10.5	9.2	10.9	8.4	4.8	5.5	8.7
Elementary occupations	13.1	20.2	13.3	22.6	12.9	8.3	7.3	12.0

TOPIC	INDICATOR	CURRENT STATUS / QUANTIFIED DATA COMPARATORS	TRENDS	TARGETS	DATA PROBLEMS / COMMENTS DATA SOURCE
Cultural Heritage	Scheduled Ancient Monuments	1 - Ifield Court Farm: Medieval moated site, with remaining parkland setting 2. Bewbush Mill and Pond	Setting has the potential to be adversely affected by development	Aim to protect setting as far as possible	No information on the condition of the site HDC & CBC Planning Records
	Listed Buildings	9 grade II listed buildings in HDC area, more in CBC Large number of historic buildings in wider region eg over 1700 in Horsham District			No information on the condition of the site HDC Planning Records

TOPIC	INDICATOR	CURRENT STATUS / QUANTIFIED DATA COMPARATORS	TRENDS	TARGETS	DATA PROBLEMS / COMMENTS DATA SOURCE
Cultural Heritage	Conservation Areas	Ifield Conservation Area - historic buildings and settlement pattern, characteristic of High Weald Settlement Pattern	Setting has the potential to be adversely affected by development	Aim to protect setting as far as possible	No information on the condition of the site CBC Planning Records (?)
	Other	Kilnwood Archaeological Parkscape – area of former parkland – some is now agricultural land, but some remnant parkland features may remain	Site has potential to be adversely affected by development	Aim to protect as far as possible	WSSC Limited data about the site – further study needed
Landscape	AONB	High Weald AONB runs to the south of the A264	Potential to be adversely affected by West of Crawley development	No reduction in quality	HDC Planning Records / High Weald AONB Unit
Water	Per capita consumption of water	Sussex North domestic customers use 154 litres per day (unmetered) 140 litres per day (measured). This compares with national rates of 155 litres per day (unmetered) 136 litres per day (measured).	Water use has increased 50% in the last 25 years. Resources could be pressurised as more people move to the area	No data at a District / Local Level	www.southernwater.co.uk
	Number of Air Quality Management Zones	None in Crawley / west of Horsham 1 in Horley area (Reigate and Banstead)	may worsen due to development / if new runway is built	Only NO ₂ and PM10s monitored	http://www.crawley.gov.uk

TOPIC	INDICATOR	CURRENT STATUS / QUANTIFIED DATA COMPARATORS	TRENDS	TARGETS	DATA PROBLEMS / COMMENTS DATA SOURCE	
Noise	LEQ levels	The area currently falls in the 57 to 66 LEQ decibel levels from Gatwick airport	Aircraft noise has been decreasing in recent years but may rise in the event of a second runway. There is uncertainty as to whether this will occur – it is dependent on whether further expansion at Heathrow and Stanstead is possible. A legal agreement prevents further expansion of a second runway before 2019.			
Climatic Factors	Percentage electricity consumption from renewables	0.65% in South East. This compares with just under 4% nationally	Not known	10% by 2010	No data available at a local level	Energy White Paper / Environment Agency state of the Environment
	Emissions of greenhouse gases	Reduction in 10% between 1990 and 2002			No data available at a local level	Office for National Statistics
	Emissions of greenhouse gases from transport	86 million tonnes CO ₂ in 2002	increasing- 58.5 million tonnes in 1990		No data available at a local level	Office for National Statistics
	Average temperatures	Average summer temperatures 1961-1990: 15 - 16°C Average winter temperatures 1961-1990: 3.5 - 4.75°C	Five of the six warmest years since 1990. Average increase of 1°C since 1900 Average summer temperatures predicted to rise to 17-19°C between 2050 - 2080 Rising - predicted to rise to 6-8°C between 2050 -2080		Rises are predicted through modelling - no hard data No data available at a local level	Office for National Statistics / Impacts of Climate Change in the South east - Technical Report 1999
		Domestic Energy Consumption	1960kg oil consumption per household in 2001	5% increase from 1870 in 1971		No data available at a local level

Appendix B: Assessment of Development options for Land West / North West of Crawley

This appendix sets out the full results of the assessment of the possible development options for the Land to the West or North West of Crawley. The initial assessment has been refined taking into account comments made at the Preferred Options stage. The assessment was undertaken using the following key:

Strong positive effect on the SA/SEA objective:	😊
Positive effect on the SA/SEA objective:	🙂
No Effect on the SA/SEA objective / Not applicable:	😐
Negative effect on the SA/SEA objective:	😞
Strong negative effect on the SA/SEA objective:	😡
The effect on the SA/SEA objective is unknown / uncertain	?

LOCATION OF THE NEIGHBOURHOOD

Option a) Should the development be a single new neighbourhood located to the West of Bewbush?

Option b) Should the development be a single new neighbourhood to the West of Ifield?

Option c) Should the development of a new neighbourhood be split between the two areas be located partially West of Bewbush and partially west of Ifield?

Option d) Taking into account the likely need for more need housing development in the longer term (as set out in the draft Regional Spatial Strategy), should two new neighbourhoods be developed – one to the west of Bewbush and one to the west of Ifield?

Sustainability Objective	Summary of Effects	Option			
		a)	b)	c)	d)
1. To ensure everyone has access to good quality affordable home that meets their needs.	All options will help to provide affordable housing to meet the needs of the population living in the area. Provision of two neighbourhoods will provide a greater number of affordable homes and would therefore have a more positive effect on this objective.	☺	☺	☺	☺
2. To ensure that everyone has access to the health, education, leisure and recreation facilities they require.	Facilities will need to be provided as part of any development to accord with the neighbourhood principle. Option c would have these services split across two sites, and not all facilities would be easily accessible to all of the residents in a 'split' neighbourhood.	☺	☺	☹	☺
3. To reduce crime, the fear of crime and antisocial behaviour	Effects are uncertain at this stage.	?	?	?	?
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	As large scale development, all options will have some negative impacts on the landscape. Option a may be less damaging as some development would be on brownfield land, but it (and option d) may place particular pressure on the Strategic Gap between Horsham and Crawley. Options a, c and d may harm the setting of the High Weald AONB, and options b, c and d will be located near to the Ifield Village Conservation Area. Option d would have the largest negative effect due to the large scale of the development.	☹	☹	☹	☹
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	Development of each site has the potential to impact on biodiversity by placing pressure on nearby nature conservation designations, which includes a SSSI near the Bewbush site. Biodiversity will also be affected by direct land-take, particularly options b, c and d. Option d would have the largest negative effect due to the large scale of the development.	☹	☹	☹	☹

Sustainability Objective	Summary of Effects	Option			
		a)	b)	c)	d)
6. To conserve and enhance the historic and cultural environment, including important green spaces	Each of the sites have some archaeological sites and listed buildings in the surrounding vicinity, with the West of Ifield location most affected due to the proximity of Ifield Village Conservation Area. These are unlikely to be directly harmed by the development, but the new neighbourhood may affect their setting. The larger land take of option d will mean that this option will have a larger impact.	☹️	☹️	☹️	☹️
7. To reduce the risk of flooding	The sites either contain or adjoin river floodplains. The extra hard standing created by development could cause or exacerbate existing flooding problems downstream. The extra hard standing created by the scale of development in option d may mean this option will have a larger impact.	☹️	☹️	☹️	☹️
8. To maintain and where possible enhance, levels of water quality	Each of the options is likely to have the same effect on water quality	☹️	☹️	☹️	☹️
9. To maintain and where possible enhance, levels of air quality	The construction of a new development will have negative impacts on air quality. Option c may have a larger negative impact on air quality as it may require people to make more trips to reach facilities, as there is the potential for each part of the development to have fewer facilities than in a single neighbourhood. The extent of the impact will depend on the sustainable transport links provided.	☹️	☹️	☹️	☹️
10. To minimise the impact of noise on residents and the wider environment	The Bewbush site is further away from Gatwick Airport and is likely therefore to be less affected by noise, but is closer to the A264 and railway line.	☹️	☹️	☹️	☹️
11. To minimise the use of resources, particularly water, energy and materials	It is likely that options a, b and c will use the same amount of resources. Option d is likely to use more resources than these options due to its greater overall scale.	☹️	☹️	☹️	☹️
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	Options a, b and d could make it easier to provide on-site renewable energy	☺️	☺️	☹️	☺️

Sustainability Objective	Summary of Effects	Option			
		a)	b)	c)	d)
13. To make the most efficient use of land	All sites will result in the development of greenfield land, although this is minimised in option a, where the former landfill means that around 30% is previously developed land. All sites would need to be developed to meet government housing density requirements which would help minimise land take.	☹	☹	☹	☹
14. To reduce car journeys and promote alternative methods of transport	More car journeys may be created to access facilities that will be split across two locations as is the case with option c. It may also be more difficult to provide sustainable transport links to c.	☹	☹	☺	☺
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	Each of the options is likely to have the same effect on employment	☹	☹	☹	☹
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	Each option is likely to have the same effect on vitality and viability of Crawley town centre	☹	☹	☹	☹

Summary of findings

Any development to the West / North West of Crawley will have adverse effects on the surrounding landscape, biodiversity and flood risk. Option d would have the largest negative effect due to the overall scale of the development. Option c would also have a relatively large negative effect on the environment, as there would be development in both locations. Option c would also limit provision and access to services and facilities as these would be divided across two sites. Of the remaining two options, a) development at Bewbush was considered to be less damaging as it would involve development of a brownfield landfill site, and development West of Ifield would impact upon Ifield Village Conservation Area, and the high quality landscape in the area. **Option a) has therefore been chosen as the most sustainable option.**

TRANSPORT

New Road Provision

- e) Should no new roads be provided other than for direct access to the new development?
- f) Should a link road be provided to the development from the A23?
- g) Should a link road be provided to the development from the A264?
- h) Should a relief road be provided, linking the A264 to the A23?

Sustainability Objective	Summary of Effects	Option			
		a	b	c	d
1. To ensure everyone has access to good quality affordable home that meets their needs.	Provision of highway infrastructure will not make any direct contribution to the overall provision of the 2,500 homes west of Crawley.	☹️	☹️	☹️	☹️
2. To ensure that everyone has access to the health, education, leisure and recreation facilities.	Each of the options is likely to enable everyone to be able to access facilities they require.	☹️	☹️	☹️	☹️
3. To reduce crime, the fear of crime and antisocial behaviour	Effects uncertain.	?	?	?	?
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	A full relief road is likely to have a large impact on the landscape character setting of Crawley. A link road in options c and d will also have an impact on the landscape although as it affects less land the impact is likely to be smaller. However with option c, the proximity of the link road to Ifield Village Conservation Area may mean there will be a greater impact in this instance. The extent of any impact will depend on the exact location and design of the options.	☹️	☹️	☹️	☹️☹️
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	Building a full relief road is likely to have a negative impact on biodiversity as it would have a large land take, and sever habitats. A link road is likely to have a smaller land take and will therefore have less of an impact on biodiversity. The extent of any impact will depend on the exact location of the options.	☹️	☹️	☹️	☹️☹️

Sustainability Objective	Summary of Effects	Option			
		a	b	c	d
6. To conserve and enhance the historic and cultural environment, including important green spaces	Building a relief link road (options b - d) would harm the historical and cultural environment, including the setting of Ifield village, and important green spaces. The exact impact would depend on the precise location of any road.	☺	☹	☹	☹☹
7. To reduce the risk of flooding	The hard standing created by building a full relief road or link road may increase run off and add to the risk of flooding. The larger the scale of road development, the greater this impact would be.	☹	☹	☹☹	☹☹
8. To maintain and where possible enhance, levels of water quality	Road building can generate run-off polluted with particulates, oil and other pollutants. This has the potential to reach and damage local watercourses. The impact of this is likely to be greatest with the largest scale of development, although mitigation measures are likely to minimise these impacts.	☹	☹	☹	☹
9. To maintain and where possible enhance, levels of air quality	Evidence shows that building new roads ultimately increases traffic levels, which will have an adverse effect on the air quality in the area. The greater the scale of road provision the greater that this impact is likely to be.	☹	☹	☹☹	☹☹
10. To minimise the impact of noise on residents and the wider environment	The construction of new roads will generate traffic in areas that are currently undeveloped, thus increasing noise levels in the west of Bewbush area. This impact will be greatest if a full relief road is constructed.	☺	☹	☹	☹☹
11. To minimise the use of resources, particularly water, energy and materials	Road building is a process that will require a large amount of raw materials and energy, particularly if a relief road is constructed. Options b and c will require fewer resources, with option a having the smallest, relatively minimal impact.	☹/☹	☹	☹	☹☹
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	The construction of any new road will use energy and resources during the construction period therefore adding to the emission of greenhouse gases in the short term. New roads will also result in an increase in traffic, raising emissions of carbon dioxide which is emitted from vehicle exhausts. Negative effects are greatest for the relief road which is a greater scale of development.	☹/☹	☹	☹	☹☹
13. To make the most efficient use of land	New roads will require land take – more so for a relief road, with the least for access to the new development only, which would only have a minor impact above the land already required for the new neighbourhood.	☹	☹	☹	☹☹
14. To reduce car journeys and promote alternative methods of transport	Evidence from other road building schemes shows that the construction of new roads increases traffic, particularly from cars, in the longer term. Effects worsen as the scale of road building increases.	☹/☹	☹	☹	☹☹

Sustainability Objective	Summary of Effects	Option			
		a	b	c	d
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	Increased provision of transport infrastructure could encourage businesses to locate in the area.	☺	☺	☺	☺
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	The provision of a relief road or link road may relieve congestion in Crawley Town Centre and routes through the western neighbourhoods. This could minimise passing trade, but the overall effect of this in relation to planned trips to Crawley town centre is likely to be minimal.	☹	☹	☹	☹

Summary of findings

The construction of any new road around the western edge of Crawley will have an adverse impact on the landscape and biodiversity creating a hard boundary between the town and the countryside and severing habitats. Other impacts include increased noise and worsening air quality. This effect would be greatest with option d) the relief road. **Option a) was therefore selected as the most sustainable option**

Park and Ride

- d) Do not provide a new park and ride facility
- e) Do not provide a park and ride facility, but within the new neighbourhood West of Bewbush, provide parking in conjunction with a new railway station
- f) Provide a park and ride facility away from the new neighbourhood; i) West of Ifield, ii) North West of Crawley

Sustainability Objective	Summary of Effects	Option		
		a	b (i)	c (ii)
1. To ensure everyone has access to good quality affordable home that meets their needs.	The provision of a park and ride facility is not likely to have an effect on the provision of good quality affordable homes.	☹	☹	☹

Sustainability Objective	Summary of Effects	Option			
		a	b (i)	c (i)	c (ii)
2. To ensure that everyone has access to the health, education, leisure and recreation facilities they require.	The provision of a new park and ride facility is not likely to impact on the provision of health / recreational facilities and so forth.	☹️	☹️	☹️	☹️
3. To reduce crime, the fear of crime and antisocial behaviour	There is potential for a park and ride facility, if not appropriately managed, to become a focus for car crime.	☹️	☹️	☹️	☹️
4. Maintain & enhance landscape character, including the setting of Crawley, & protection of links from the town to countryside.	Development of a park and ride site within a new neighbourhood would have a smaller negative effect on the landscape than a new park and ride site away from the development, as with option c. The landscape west of Bewbush is less sensitive to development than west of Ifield (option c ii), so effects of b on this objective would be more limited.	☹️	☹️	☹️☹️	☹️☹️
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	Development of a park and ride site within a new neighbourhood would have a smaller negative effect on biodiversity than a new site away from this development, which would be the case in option c (iii). The land west of Bewbush is less sensitive in biodiversity terms than development than west of Ifield (option c i), so effects of b on this objective would be more limited.	☹️	☹️	☹️☹️	☹️☹️
6. To conserve and enhance the historic and cultural environment, including important green spaces	Development of a park and ride site within a new neighbourhood would have a smaller negative effect on the cultural landscape than a new site away from this development, which would be the case in option c (iii). The landscape west of Bewbush is less sensitive to development in historical / cultural terms than west of Ifield (option c i), so effects of b on this objective would be more limited.	☹️	☹️	☹️☹️	☹️☹️
7. To reduce the risk of flooding	A park and ride site is likely to result in a large area of hardstanding which has the potential to increase the risk of flooding by increasing rates of run-off to nearby watercourses.	☹️	☹️	☹️	☹️
8. To maintain and where possible enhance, levels of water quality	The run-off from the park and ride facility may have a detrimental effect on water quality	☹️	☹️	☹️	☹️

Sustainability Objective	Summary of Effects	Option			
		a	b (i)	c (i)	c (ii)
9. To maintain and where possible enhance, levels of air quality	Air quality is likely to be improved in Crawley town centre with the provision of a park and ride facility with each of the options in c. The park and ride facility may however have a negative impact on the air quality in the area surrounding the facility as cars travel to the use the site. This may also be the case for b as commuters are attracted to use the site before making an onward journey by train.	😊?	😊?	😊?	😊?
10. To minimise the impact of noise on residents and the wider environment	Traffic noise may increase in the area surrounding the park and ride facility, this is likely to be the same for each of the locations set out under c. It may however have a positive effect on reducing traffic noise within Crawley town centre.	😊?	😊?	😊?	😊?
11. To minimise the use of resources, particularly water, energy and materials	Building a park and ride facility is likely to a use a lot of resources particularly in the construction stage. However, it will in the longer term, minimise the use of fuel by reducing the overall number of journeys into Crawley town centre. The overall effects of each option are therefore neutral	😊	😊	😊	😊
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	A park and ride site will help to reduce greenhouse emissions, by decreasing the length and number of car journeys into Crawley town centre. Option b(i) may further reduce emissions by encouraging train journeys.	😊	😊	😊	😊
13. To make the most efficient use of land	Option a would not require any land, whereas options c would require the highest amount of land take. Option b would be part of the neighbourhood, so would not require additional land take in addition to the new neighbourhood.	😊	😊	😊	😊
14. To reduce car journeys and promote alternative methods of transport	A park and ride facility is not likely to reduce car journeys in general, only those made into Crawley town centre. Option b will however help encourage journeys by train	😊	😊	😊😊	😊
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	A park and ride facility is not likely to have an effect on employment	😊	😊	😊	😊

Sustainability Objective	Summary of Effects	Option		
		a	b (i)	c (i) c (ii)
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	A park and ride facility in option c may enhance the vitality and viability of Crawley town centre by improving air quality and reducing congestion.	☹️	😊	😊

Summary of Findings

The provision of a park and ride site will have a mixture of positive and negative effects, the balance of which varies depending upon its exact location. In general however, a park and ride facility would reduce congestion on roads between the site and the centre of Crawley. By reducing congestion, a park and ride site would also assist in improving air quality in the area. A park and ride site would however potentially be damaging to the landscape and environment, particularly if sited to the west of Ifield.

On balance, **option b) was considered to be the most sustainable option**, as it would be linked to the new development location, which is partly on brownfield land, and would maximise the positive effects of the provision of such a site.

EMPLOYMENT

Option a) Should employment land be provided as part of a new neighbourhood centre only?

Option b) Should employment land be provided in a neighbourhood centre with some additional provision elsewhere within the development to meet wider employment needs of the new residents?

Option c) In addition to employment land provided as part of a neighbourhood, should a strategic employment site be provided and if so should it be located; i) West of Bewbush ii) West of Ifield iii) North West of Crawley?

Sustainability Objective	Summary of Effects	Option		
		a	b	c(i) c(ii) c(iii)
1. To ensure everyone has access to good quality affordable home that meets their needs.	Provision or otherwise of strategic employment land is not likely to have an impact on access to a good quality affordable home	☹️	😊	😊

Sustainability Objective	Summary of Effects	Option				
		a	b	c(i)	c(ii)	c(iii)
2. To ensure that everyone has access to the health, education, leisure and recreation facilities they require.	Provision or otherwise of strategic employment land is not likely to have an impact on access services and facilities	😊	😊	😊	😊	😊
3. To reduce crime, the fear of crime and antisocial behaviour	Effects uncertain – however, provision of any form of employment may help ensure crime levels remain low.	😊?	😊?	😊?	😊?	😊?
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	Option a) is likely to have a lesser impact on the landscape character as it will be integrated with the new neighbourhood development. Option c(iii) being located close to Gatwick Airport is likely to close to existing buildings and infrastructure and therefore have a smaller impact on landscape character. Options c (ii) is likely to have the greatest impact on the landscape character and links to the countryside.	😊	😊	😊	😊	😊
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	The provision of strategic / additional employment will take more land than providing only neighbourhood employment and is therefore likely to have a greater impact on biodiversity. As the development area is mainly greenfield land option c is likely to have a negative impact on biodiversity. This would be greatest for c (ii) which is the most environmentally sensitive location, and less for c (i) which is a part brownfield site.	😊	😊	😊	😊😊	😊
6. To conserve and enhance the historic and cultural environment, including important green spaces	Provision of strategic employment land will require additional land take. All options under c have some listed buildings, areas of archaeological parkscape, or archaeological sites surrounding the site. Option c (ii) is close to the Ifield Village Conservation Area the setting of which may be affected by strategic employment provision. Option a is likely to have a lesser impact as it will be integrated with the neighbourhood development.	😊	😊	😊😊	😊😊	😊
7. To reduce the risk of flooding	Any land developed for employment has the potential to increase the risk of flooding by increasing hardstanding and rates of run-off to rivers. This risk would be greatest for option c, which would require additional land take as well as that allocated for a new neighbourhood.	😊	😊	😊😊	😊😊	😊😊

Sustainability Objective	Summary of Effects	Option				
		a	b	c(i)	c(ii)	c(iii)
8. To maintain and where possible enhance, levels of water quality	Run off from hard standing that would be created by employment provision may have a negative effect on water quality. This is potentially more likely if strategic employment is provided given the larger land take and greater potential for more polluting activities. C(iii) may have a larger in combination effect being close to Gatwick Airport.	☹	☹	☹	☹	☹☹
9. To maintain and where possible enhance, levels of air quality	Air quality has the potential to be affected by new employment land, depending on the nature of the business on the site. Effects are likely to be limited with a neighbourhood employment centre, but a strategic employment site may support uses which are more polluting. Option c (iii) being close to Gatwick Airport could exacerbate the air quality problems in that area. Also the north of Crawley site being further away from the potential areas for the new neighbourhood would mean longer commuting distances, which may cause more car journeys, with a further negative impact on air quality.	☹	☹	☹	☹	☹☹
10. To minimise the impact of noise on residents and the wider environment	Noise levels have the potential to increase depending on the nature of the businesses that locate on a new employment site. Adverse effects are likely to be limited with a neighbourhood employment centre, but a strategic employment site may support uses which are more polluting in noise terms. Option c (iii) being close to Gatwick Airport could exacerbate the problem of air quality in that area.	☹	☹	☹	☹	☹☹
11. To minimise the use of resources, particularly water, energy and materials	Options a and b would require fewer resources to build as they would be smaller in scale. Options c all likely to use the same amount of resources.	☹	☹	☹☹	☹☹	☹☹
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	Not providing strategic employment may mean people would have to travel further for employment, if they travel by car this would contribute to the emission of greenhouse gases. Options b & c are likely to emit greenhouse gases in the short term during construction and in the long term, emissions could be reduced by encouraging the use of renewable energy sources, these would be easier to implement with options b and c(i) as they are likely to be where the new neighbourhood will be located.	☹	☹	☹	☹	☹

Sustainability Objective	Summary of Effects	Option				
		a	b	c(i)	c(ii)	c(iii)
13. To make the most efficient use of land	Options a and b will not require any additional land take other than that required for the new neighbourhood – more land would be required for options c.	😊	😊	😊	😊	😊
14. To reduce car journeys and promote alternative methods of transport	Option a, and to a lesser extent b may mean that employees will have to travel further to work, which may increase car journeys. Options c(i) would be closer to the new neighbourhood therefore reducing the need for travel, but c(ii) and (iii) would increase journeys. These options would however help reduce longer distance commutes to other centres of employment.	😊?	😊?	😊?	😊?	😊?
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	Option a) would be unlikely to develop a diverse employment base as it will provide only a small range of employment opportunities. Options b and particularly c would be likely to provide a much wider range of employment opportunities.	😊	😊	😊	😊	😊
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	Providing employment away from the town centre could have a negative impact on the vitality of Crawley town centre, with fewer visitors at lunch time. However the effects of this are likely to be relatively limited, as employment may attract residents to live in Crawley, which would increase the vitality of the town at other times.	😊?	😊?	😊?	😊?	😊?

Summary of findings

The assessment found that provision of employment at a neighbourhood level was more sustainable than provision of further strategic employment land, which would have further negative effects on the landscape and environment, (especially on land to the west of Ifield), in addition to the provision of a new neighbourhood. Furthermore, the allocation of a strategic employment land is not considered necessary as the need is being met from redevelopment of existing employment land.

Of options a and b, it was found to be more sustainable to provide a range of employment types in different locations, as this would better meet the needs of new residents of the neighbourhood. **Option b was therefore selected as the most sustainable option**

ALTERNATIVE LAND USES

1) Cemetery Provision

Option a) Make land available for a cemetery i) West of Bewbush, ii) West of Ifield, iii) North West of Crawley
 Option b) Do not provide a cemetery

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a(iii)	b
1. To ensure everyone has access to good quality affordable home that meets their needs.	The provision of a cemetery will not impact on access to a good quality affordable home.	☺	☺	☺	☺
2. To ensure that everyone has access to the health, education, leisure and recreation facilities they require.	A cemetery is an essential facility, it is therefore important to provide it if there is a need for it. At this stage however, it is not considered that a new development will generate sufficient pressure on existing sites within the town to require a new site.	☺	☺	☺	☺
3. To reduce crime, the fear of crime and antisocial behaviour	Cemeteries have the potential to be sites which attract crime and antisocial behaviour – but this would depend on its exact location, design and management.	?	?	?	?
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	A cemetery would have some urbanising impact on the surrounding area if located outside the development area at Bewbush. The impact would however be smaller than for other types of development. Location at Bewbush could potentially help increase links between the rural and urban landscape.	☺	☺	☺	☺
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	Providing a cemetery could potentially have a positive impact on biodiversity; if it is incorporated into the neighbourhood development it could help to retain some green space. Outside the development area, a cemetery may change the existing biodiversity, but this will depend on the exact location and layout of the site. Non provision of a cemetery would not change the current baseline.	☺	☺?	☺?	☺

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a(iii)	b
6. To conserve and enhance the historic and cultural environment, including important green spaces	Location of a new cemetery may have some impact on the historical and cultural development over and above any new neighbourhood, if located outside any allocation. However, impacts are likely to be relatively limited. Non provision of a cemetery would not change the current situation.	☹️?	☹️?	☹️?	☹️
7. To reduce the risk of flooding	Cemeteries are open areas and are unlikely to have an adverse effect on flooding.	😊	😊	😊	😊
8. To maintain and where possible enhance, levels of water quality	There is some potential for cemeteries to contaminate groundwater and watercourses. However the land west / north west of Crawley has clay soils which minimise this risk. The impact against this objective is therefore likely to be relatively limited.	😊	😊	😊	😊
9. To maintain and where possible enhance, levels of air quality	A cemetery provided within a development could provide a green lung improving local air quality.	😊	😊	😊	😊
10. To minimise the impact of noise on residents and the wider environment	Providing a cemetery is not likely to have an effect on noise.	😊	😊	😊	😊
11. To minimise the use of resources, particularly water, energy and materials	A cemetery would not require the use of many resources in comparison to other forms of development, and there is therefore little impact on this objective.	😊	😊	😊	😊
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	Providing a cemetery will not have a significant impact on this objective.	😊	😊	😊	😊
13. To make the most efficient use of land	Options a (i) and b will not require any additional land take other than that required for the new neighbourhood – more land would be required for options a (ii) and a (iii).	😊	☹️	☹️	😊
14. To reduce car journeys and promote alternative methods of transport	The provision of a cemetery will generate some visitor trips to the site, and many of these are likely to be by car. The journeys may be shorter or easier to reach by public transport if located within a neighbourhood development.	😊	😊	😊	😊

Sustainability Objective	Summary of Effects	Option		
		a (i)	a (ii)	a(iii)
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	The provision of a cemetery is not likely to have a significant effect on employment.	☹️	☹️	☹️
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	The provision of a cemetery is not likely to have an effect on vitality and viability of Crawley town centre.	☹️	☹️	☹️

Summary of findings

Provision a cemetery has a potentially positive effect in meeting a specific community need, and if incorporated into a neighbourhood development could provide an area of greenspace with positive impacts on biodiversity and air quality. Location of a site outside the neighbourhood would have a negative effect, altering the landscape and generating car journeys to an otherwise rural location. Not providing a cemetery would not meet an identified need and placing pressure on existing burial sites in Crawley. **Option b) was selected** as the new development is not considered to generate sufficient pressure on existing provision to warrant the allocation of a new site.

2) Gypsies, Travellers and Travelling Show People

Option a) Make land available for gypsies, travellers and travelling show people i) West of Bewbush, ii) West of Ifield iii) North West of Crawley
 Option b) Make land available for a gypsy, traveller and travelling show people site if needed as part of a further DPD on this matter
 Option c) Do not make land available for gypsies, travellers and travelling show people.

Sustainability Objective	Summary of Effects	Option		
		a (i)	a(ii)	a(iii)
1. To ensure everyone has access to good quality affordable home that meets their needs.	Providing a gypsy and traveller site in the JAAP or separate DPD would mean that they have a home that meets their needs. Option c, providing a site north of Crawley, being within the noise contours for Gatwick Airport would make it an unsuitable site. Exact levels of need are not yet known, making it difficult to make an accurate allocation at this stage.	☹️	☹️	☹️

Sustainability Objective	Summary of Effects	Option				
		a (i)	a (ii)	a (iii)	b	c
2. To ensure that everyone has access to the health, education, leisure and recreation facilities they require.	If gypsies and travellers are provided with a permanent site they will be close to the services and facilities that are available within Crawley.	😊	😊	😊	😊	😊
3. To reduce crime, the fear of crime and antisocial behaviour	There is the potential for a gypsy and traveller site to increase the fear of crime. The effects of this could be minimised by allocating the site in a DPD, which would give a greater opportunity for public consultation, which could help to allay any fears.	😞	😞	😞	😊	😊
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	A gypsy and traveller site is likely to impact on the landscape character setting as it would be in addition to the new neighbourhood. Landscape west of Ifield would be particularly sensitive to any development. Location of a site within a DPD would provide a better opportunity to address landscape character issues and minimise negative effects. Non provision of a site would not change the landscape over the existing situation.	😞	😞😞	😞	😊?	😊
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	A gypsy and traveller site is likely to impact on biodiversity as it would be in addition to the new neighbourhood. Landscape west of Ifield would be particularly sensitive to any development. Location of a site within a DPD would provide a better opportunity to address biodiversity issues and minimise negative effects. Non provision of a site would not change the existing situation.	😞	😞😞	😞	😊?	😊
6. To conserve and enhance the historic and cultural environment, including important green spaces	A gypsy and traveller site is likely to impact on historical and cultural issues as it would be in addition to the new neighbourhood. Landscape west of Ifield would be particularly sensitive to any such development. Location of a site within a DPD would provide a better opportunity to address historical and cultural issues and minimise negative effects. Non provision of a site would not change the existing baseline.	😞	😞😞	😞	😊?	😊
7. To reduce the risk of flooding	Provision of a gypsy and traveller site could increase hardstanding and the consequent risk of flooding in the area. This would however be dependent of the specific location and design of any site, and effects are therefore uncertain at this stage. The potential effects could better be examined in a specific gypsy and traveller DPD	😞	😞	😞	😊?	😊

Sustainability Objective	Summary of Effects	Option				
		a (i)	a (ii)	a (iii)	b	c
8. To maintain and where possible enhance, levels of water quality	A gypsy and traveller site is not likely to have a significant effect on water quality	☺	☺	☺	☺	☺
9. To maintain and where possible enhance, levels of air quality	A site would however increase the number of journeys from outside Crawley to the town centre, but the overall number of trips would be relatively small. Providing a gypsy and traveller site is not therefore likely to have a significant negative impact on air quality	☺	☺	☺	☺	☺
10. To minimise the impact of noise on residents and the wider environment	A gypsy and traveller site is not likely to create significant additional noise levels for nearby residents. However a site located north west of Crawley would be affected by noise from Gatwick Airport, which would negatively impact residents of a gypsy and traveller site.	☺	☺	☹☹	☺	☺
11. To minimise the use of resources, particularly water, energy and materials	Provision of a gypsy and traveller site will require a certain number of resources, particularly in the operational phase, where residents will require water and energy resources. The overall level of requirement is however likely to be relatively limited given the relatively small size of any such allocation.	☹	☹	☹	☹	☺
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	A gypsy and traveller site may increase emissions of greenhouse gases through on-site energy use and travel to Crawley as the site is likely to be outside the main town boundary. However the overall impact is likely to be relatively limited as the sites are likely to be relatively small.	☹	☹	☹	☹	☺
13. To make the most efficient use of land	Options a and b will require additional land take other than that required for the new neighbourhood.	☹	☹	☹	☹	☺
14. To reduce car journeys and promote alternative methods of transport	A gypsy and traveller site is likely to be located outside the main built-up area of Crawley. As a result there is likely to be some increase in car journeys to the town centre to reach services and facilities. However the overall impact is likely to be relatively limited as the sites are likely to be relatively small.	☹	☹	☹	☹	☺

Sustainability Objective	Summary of Effects	Option				
		a (i)	a (ii)	a (iii)	b	c
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	The provision of a gypsy and traveller site is unlikely to have an effect on employment.	☹️	☹️	☹️	☹️	☹️
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	The provision of a gypsy and traveller site is unlikely to have an effect on the vitality and viability of Crawley town centre.	☹️	☹️	☹️	☹️	☹️

Summary of findings

There is a need to provide sites for gypsies and travellers, in order to provide for this section of the community. However, the allocation of such a site will have negative effects on the environment, for example changing the landscape, and damaging biodiversity (particularly if the site were located to the West of Ifield). Non provision of a gypsy site (option c) would however also have negative effects, as it could lead to unauthorised encampments that may be more damaging to the environment over one that has been allocated. At this stage, there are still uncertainties as to the overall need for gypsies and travellers in the area, and allocation at this stage would prejudice the plan led approach through the Regional Spatial Strategy. **Option b) has therefore been selected.**

3) Substantial Medical Health Facility

Option a) Make land available in the JAAP for a substantial medical facility i) West of Bewbush, ii) West of Ifield, iii) North West of Crawley
 Option b) Do not make land available for a substantial medical facility in the JAAP area

Sustainability Objective	Summary of Effects	Option			
		a (i)	a(ii)	a(iii)	b
1. To ensure everyone has access to good quality affordable home that meets their needs.	These options do not have any effect on this objective.	☹️	☹️	☹️	☹️
2. To ensure that everyone has access to the health, education, leisure and recreation facilities they require.	The provision of a substantial medical facility in the area would help meet the need for “hospital type” care that has been identified in the sub-area. However, the allocation of a site does not necessarily mean that a site will be built as this is dependent on the decisions made by the relevant health authority.	☹️	☹️	☹️	☹️
3. To reduce crime, the fear of crime and antisocial behaviour	Effects uncertain	?	?	?	?
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	A substantial medical facility is likely to have a large visual impact on the landscape setting of Crawley if located on any of the sites in option a. West of Ifield is a particularly sensitive location in landscape terms.	☹️	☹️☹️	☹️	☹️
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	A substantial medical facility is likely to have a large impact on biodiversity. if located on any of the sites in option a. West of Ifield is a particularly sensitive location in terms of nature conservation.	☹️	☹️☹️	☹️	☹️
6. To conserve and enhance the historic and cultural environment, including important green spaces	A substantial medical facility is likely to have a negative impact on the historical and cultural environment as each of the options have areas of historical importance. Option a (ii) is close to Ifield Village Conservation Area, and a health care facility may have a negative impact on its setting.	☹️	☹️☹️	☹️	☹️
7. To reduce the risk of flooding	Hard standing created by building a substantial medical facility may increase runoff and contribute to the risk of flooding.	☹️	☹️	☹️	☹️

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
8. To maintain and where possible enhance, levels of water quality	Run-off from hard standing created by building a substantial medical facility may have a negative effect on water quality.	☹️	☹️	☹️	☹️
9. To maintain and where possible enhance, levels of air quality	Building a substantial medical facility could have a negative impact on the air quality in the local area due to the amount of traffic that would be created going to and from the site, and potentially from on-site uses such as an incinerator. However air quality within the wider region could be improved, as residents would not need to travel as far as they do currently to reach the medical facilities they need.	☹️	☹️	☹️	☹️
10. To minimise the impact of noise on residents and the wider environment	It is likely that a substantial medical facility would create some noise within the surrounding area, for example from of traffic as patients and staff travel to the facility. A site north west of Crawley could itself be adversely affected by noise from Gatwick airport.	☹️	☹️	☹️☹️	☹️
11. To minimise the use of resources, particularly water, energy and materials	Building a substantial medical facility will use a large amount of resources during the construction and operational phases. The level of resources required is likely to be similar for all the sub options of a).	☹️	☹️	☹️	☹️
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	A substantial medical facility is likely to have high energy requirements in its construction and use, which is likely to lead to the emission of greenhouse gases. Option a (i) being close to a new neighbourhood would have the potential to tap into any CHP scheme, which may reduce impacts. A site in this location would also be more accessible to residents within the wider region, reducing the number and length of trips to the site, again helping to minimise the emission of greenhouse gases.	☹️	☹️☹️	☹️☹️	☹️
13. To make the most efficient use of land	A new medical facility would require more land take than that required for a new neighbourhood alone.	☹️	☹️	☹️	☹️
14. To reduce car journeys and promote alternative methods of transport	A substantial medical facility in the Crawley area is likely to reduce the distance that people need to travel to a hospital therefore reducing car journeys.	☺️	☺️	☺️	☹️

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	A substantial medical facility will provide a range of employment opportunities. .	😊	😊	😊	😞
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	The employment produced as a result of a substantial medical facility could have a positive impact on the vitality and viability of Crawley town centre if staff to live locally.	😊?	😊?	😊?	😊

Summary of findings

The allocation of land for a substantial medical facility would have a significant positive effect in helping access to health care for residents in the area. Construction of such a facility would however have negative effects on a range of issues, from the landscape, biodiversity and the road network. The sensitive countryside west of Ifield would be particularly at risk from such a development. Of the two remaining locations, development west of Bewbush is likely to have a more positive effect as it is more accessible to residents in the wider sub-region (e.g. Horsham). **Option a)j) was therefore assessed as being the most sustainable option.** It should be noted that in planning terms the allocation of a site does not guarantee that a medical facility will be provided – this is dependent on the health care strategy that is selected for the region by the relevant health care authority.

At the current time, the provision of a new health care facility in the west of Crawley area is not being progressed by the health care authority, and as a consequence it was considered that **Option b should be selected.**

4) Sewage Treatment Facilities

Option a) Make land available in the JAAP for a new sewage treatment works

- a. West of Bewbush
- b. West of Ifield
- c. North West of Crawley

Option b) Do not prejudice the upgrading or extension of the existing sewage treatment works (but do not allocate land for this purpose in the JAAP).

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
1. To ensure everyone has access to good quality affordable home that meets their needs.	These options do not have any direct impact on this objective.	☺	☺	☺	☺
2. To ensure that everyone has access to the health, education, leisure and recreation facilities they require.	In order to cope with new residential development, the existing sewage treatment works will need upgrading in the medium term and extending or replacing in the longer term. Options a (i –ii) will help meet the longer term need, whereas option b will meet need in the medium term (indications are that it is not possible to extend the site sufficiently to meet the need of the entire development in the longer term).	☺☺	☺☺	☺☺	☺
3. To reduce crime, the fear of crime and antisocial behaviour	It is not anticipated these options will have any impact on this objective	☺	☺	☺	☺
4. To maintain and enhance landscape character, including the setting of Crawley, and protection of links from the town to the surrounding countryside.	A new sewage treatment works would require land-take and buildings on land that it is currently greenfield, and development would therefore have an urbanising effect on the landscape. West of Ifield would be most significantly affected, given the sensitivity of the landscape in this area. If a site could be found north-west of Crawley, effects would be smaller as the landscape is of a lower quality in this area.	☹	☹☹	☹	☹
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	A new sewage treatment works would require land-take and buildings on land that it is currently greenfield, and development in options a (i – iii) are likely to have an adverse effect on biodiversity. This impact is likely to be smaller for option b as development would take place at the existing sewage works site.	☹	☹☹	☹	☹

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
6. To conserve and enhance the historic and cultural environment, including important green spaces	A new sewage treatment works would require land-take and buildings on land that it is currently greenfield, and development in options a (i – iii) are likely to have an adverse effect on the historic and cultural environment. This impact is likely to be smaller for option b as development would take place at the existing sewage works site.	☹️☹️	☹️	☹️	☺️
7. To reduce the risk of flooding	Sewage treatment works often involve the removal of soil, so all options could change the local hydrology and increase the risk of flooding. New sewage treatment works would have a potentially greater effect given the greater land take involved.	☹️☹️	☹️☹️	☹️☹️	☹️
8. To maintain and where possible enhance, levels of water quality	A sewage treatment works is not likely to have a negative effect on water quality, as treated water would not be released back into the environment until it met high quality standards. Not providing a sewage new treatment works could have a negative impact in the longer term as the current system could not cope, resulting in poorer water quality discharges to the environment.	☹️	☹️	☹️	☹️
9. To maintain and where possible enhance, levels of air quality	Sewage treatment works can adversely affect air quality primarily through the emission of odours. Options a (i) and a (ii) may have greater problems in this respect as they would be closer to a centre of population than the current site or one north west of Crawley.	☹️☹️	☹️☹️	☹️	☹️
10. To minimise the impact of noise on residents and the wider environment	A sewage treatment works is not likely to create a large amount of noise that will impact on residents and the wider environment, except during the construction phase.	☹️	☹️	☹️	☹️
11. To minimise the use of resources, particularly water, energy and materials	The construction and running of a new sewage treatment works will require more resources during the construction phase in particular.	☹️	☹️	☹️	☹️
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	The process of sewage treatment releases a certain amount of greenhouse gases into the atmosphere. However the level of release is unlikely to vary significantly depending on the site. A new site is however likely to generate more emissions during the construction phase, than an extension of the existing site.	☹️	☹️	☹️	☹️
13. To make the most efficient use of land	Extension of the existing sewage facilities would require less land take than provision of a new facility.	☹️	☹️	☹️	☹️

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
14. To reduce car journeys and promote alternative methods of transport	A sewage treatment works is not likely to have a significant effect on the number of car journeys made.	☹️	☹️	☹️	☹️
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	A sewage treatment works is unlikely to have a significant effect on employment.	☹️	☹️	☹️	☹️
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	A sewage treatment works is unlikely to have an effect on the vitality and viability of Crawley town centre.	☹️	☹️	☹️	☹️

Summary of findings

An extension of the existing site would be the least environmentally damaging option, requiring less land-take, and fewer resources during the construction phase. The land is also lower in landscape quality and in a location where odour issues are minimised. It is therefore considered that the JAAP should not prejudice any extension to the existing sewage works, **and option b was therefore selected** as the most sustainable option in the shorter term. This does not however take into account that resources would be wasted if a new site becomes essential in the longer term. There are however a number of uncertainties as to the exact requirements in terms of sewage treatment for the new development.

5) *Strategic Open Space*

Option a) In addition to formal and informal open space within the new neighbourhood, make land available for strategic open space

- i) West of Bewbush
- ii) West of Ifield
- iii) North West of Crawley

Option b) Provide only formal and informal open space within the new neighbourhood

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
1. To ensure everyone has access to good quality affordable home that meets their needs.	The provision of strategic open space is not likely to have an effect on access to a good quality affordable home.	☺	☺	☺	☺
2. To ensure that everyone has access to the health, education, leisure and recreation facilities.	Options a and b will both ensure that the required amount of open space is provided to new residents. Positive effects would however be greater if strategic open space were provided.	☺☺	☺☺	☺☺	☺
3. To reduce crime, the fear of crime and antisocial behaviour	There is potential for strategic and local level areas of open space to become a focus for antisocial behaviour. Equally however, open space can improve quality of life and help to reduce problems such as crime. Overall effects are therefore uncertain.	?	?	?	?
4. Maintain and enhance landscape character, including the setting of Crawley, & protection of links from the town to the countryside.	Strategic open space has the potential to enhance the links between the urban and rural landscape. Care would however be needed to ensure that the natural landscape is respected and not harmed by large numbers of visitors to the area.	☺	☺	☺	☺
5. To conserve and enhance the biodiversity within Crawley and the surrounding countryside	Strategic open space has the potential to help conserve and enhance biodiversity, providing that the site is correctly managed, and pressure from the visiting public is managed. Strategic open space would be beneficial in the longer term by protecting the land against any future development.	☺☺	☺☺	☺☺	☺

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
6. To conserve and enhance the historic and cultural environment, including important green spaces	Strategic open space has the potential to help conserve and enhance the historic environment, providing that the site is correctly managed, and pressure from the visiting public is managed. Strategic open space would be beneficial in the longer term by protecting the land against any future development.	😊😊	😊😊	😊😊	😊
7. To reduce the risk of flooding	Designation of existing greenfield land as strategic open space is not likely to affect flood risk in the area in the short term, although it may have a more positive effect in the longer term by protecting the land against any future development.	😊	😊	😊	😊
8. To maintain and where possible enhance, levels of water quality	The provision of strategic open space is not likely to have an effect on water quality.	😊	😊	😊	😊
9. To maintain and where possible enhance, levels of air quality	Strategic open space could have a positive effect on air quality by retaining green spaces by protecting the land against any future development.	😊	😊	😊	😊
10. To minimise the impact of noise on residents and the wider environment	It is not considered that these options have any impact on this objective.	😊	😊	😊	😊
11. To minimise the use of resources, particularly water, energy and materials	It is not considered that these options have any impact on this objective.	😊	😊	😊	😊
12. To seek to reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	Designation of existing greenfield land is not likely to affect the emission of greenhouse gases in the short term, as the land already provides a sink to help absorb CO ₂ . There could however be a more positive effect in the longer term as the land would be protected against development in the future.	😊	😊	😊	😊
13. To make the most efficient use of land	The sub options of a) would require greater land take than that required for a new neighbourhood. However strategic open space would have limited adverse effects as it would not involve a large amount of built development.	😊	😊	😊	😊
14. To reduce car journeys and promote alternative methods of transport	Strategic open space may encourage car journeys as visitors travel to the area for recreation.	😞	😞	😞	😊

Sustainability Objective	Summary of Effects	Option			
		a (i)	a (ii)	a (iii)	b
15. To ensure that development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	It is not considered that these options have any impact on this objective.	☺	☺	☺	☺
16. To ensure development contributes to maintaining and enhancing the vitality and viability of Crawley town centre	It is not considered that these options have any impact on this objective.	☺	☺	☺	☺

Summary of findings

Provision of strategic open space will assist in the provision of recreational facilities, and provide a link between the town and wider rural area. Open space located west of Ifield would help conserve and enhance the setting of the conservation area. A site north west of Crawley would have less benefit, as it is further from most residents and heavily affected by aircraft noise. Strategic open space could however harm biodiversity by increasing pressure on nearby protected sites. Although options a i) and ii) are most sustainable, **option b was selected** as it is felt to be more achievable to focus on open space within the new development.