



**Horsham
District
Council**



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

NON-TECHNICAL SUMMARY OF THE Sustainability Appraisal and Strategic Environmental Assessment

**Final Report
on the**

**West of Bewbush
Joint Area Action Plan**

May 2008

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NON-TECHNICAL SUMMARY

It is a requirement that Local Authorities produce documents which set out the strategy for land use planning within their area. As part of this process, both Horsham District and Crawley Borough Council have identified land to the West of Crawley as a location for development. The two Councils are working jointly to produce a Joint Area Action Plan (JAAP) which will set out more detail on the requirements for this development.

During the preparation of the Joint Area Action Plan, a process known as Sustainability Appraisal/ Strategic Environmental Assessment (SA/SEA) has been undertaken. This process measured how well the document contributes to sustainable development, (that enabling change in order to meet the needs of today, without compromising those of future generations) and made suggestions as to how the sustainability of the report could be improved. This report provides a summary of the results of this process.

Background Research and Sustainability Objectives

The sustainability appraisal process began with the identification of other documents and plans that would have an impact on development in the West and North West of Crawley area. This included guidance set out in Government Planning Policy Statements, to more local publications such as the Ifield Village Conservation Area Statement.

The next stage in the process was to collect information about the area West and North West of Crawley as it is today. Data was collected on a range of subjects, including population numbers, the landscape and biodiversity and the local economy.

The background documents and data enabled sustainability issues for the West of Crawley Area to be identified. From these “sustainability objectives” were developed, against which the Joint Area Action Plan was measured to test its contribution to sustainable development. The sustainability objectives are as follows:

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 Crawley town centre.

Assessment of Options for the Joint Area Action Plan

There are a number of different ways in which development in the West and North West of Crawley Area could take place. For example, there were several possible locations in which development west or north-west of Crawley could be sited, and different ways to access the development in terms of road layout and provision. Finally there were also a number of other different land-uses other than residential development that could be located in the West / North West of Crawley area.

The different options for the West and North West of Crawley Joint Area Action Plan were tested against the sustainability objectives using a series of matrices to compare the effects of different options. From these processes it was possible to identify the most sustainable options, which was used to help inform the options selected for inclusion in the Joint Area Action Plan. A summary of the results of the sustainability appraisal of the options is set out in table 1 below.

Table 1

Development Options	Summary of Findings
<p><u>Location of the neighbourhood</u></p> <p>a) Should the development be a single new neighbourhood located west of Bewbush?</p> <p>b) Should the development be a single new neighbourhood located west of Ifield?</p> <p>c) Should the development of a new 'split' neighbourhood located partially west of Bewbush and partially west of Ifield?</p> <p>d) Given the likely need for more housing development in the longer term (to be set out in the Regional Spatial Strategy), should two new neighbourhoods be developed - one the west of Bewbush and one west of Ifield?</p>	<p>The assessment found any development to the west of Crawley will have adverse impacts on the landscape, biodiversity and flood risk. Options c and d were found to have the worst impacts as they involve development in two distinct locations, with the large scale of development in option d having the greatest negative impact.</p> <p>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, whereas development West of Ifield would impact upon Ifield Village Conservation Area, and the high quality landscape in the area. Option a) was therefore been chosen as the most sustainable option.</p>
<p><u>New Road and Sustainable Transport Provision</u></p> <p><i>New Road provision</i></p> <p>a) Do not provide any new roads other than for direct access to the new development.</p> <p>b) Provide a link road to the development from the A23</p> <p>c) Provide a link road to the development from the A264</p> <p>d) Provide a relief road linking the A264 to the A23</p>	<p>Construction of any new road around the western edge of Crawley was found to be damaging to the landscape and biodiversity by creating a hard boundary between the town and the countryside and severing habitats. New roads would also increase noise and worsening air quality. This effect would be greatest with option d) the relief road as it would be larger scale and carry more traffic. Option a) was therefore selected as the most sustainable option</p>

Development Options	Summary of Findings
<p><i>Park and Ride</i></p> <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> i) West of Ifield ii) North West of Crawley 	<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. .</p> <p>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.</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> <ul style="list-style-type: none"> a) Should employment land only be provided as part of a new neighbourhood centre? 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? 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 <ul style="list-style-type: none"> i) West of Bewbush ii) West of Ifield iii) North West of Crawley? 	<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, 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.</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><u>Alternative Land Uses</u></p> <p>1) <i>Cemetery Provision</i></p> <ul style="list-style-type: none"> a) Make land available for a cemetery, either <ul style="list-style-type: none"> i) West of Bewbush ii) West of Ifield or iii) North West of Crawley b) Do not make provision for a cemetery 	<p>Provision of a cemetery would be positive in terms of meeting a specific community need. If incorporated into west of Bewbush, (option a,i) it could provide an area of greenspace with positive impacts on biodiversity and air quality. Located outside a neighbourhood would generate more negative effects, altering the landscape and generating car journeys to an otherwise rural location.</p> <p>Uncertainties surrounding the exact need for the provision of a cemetery placed 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>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>

Development Options	Summary of Findings
<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. 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.</p> <p>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.</p> <p>Option b) has therefore been selected.</p>
<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>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).</p> <p>Option a)i) was therefore assessed as being the most sustainable option</p> <p>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.</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 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. Post 2012, the options for increasing capacity of the sewage works will be explored through the next Asset Management Plan prepared by Thames Water. At this stage it is therefore considered that there is no need for a specific allocation will be made through the JAAP</p>

Development Options	Summary of Findings
<p>5) <i>Strategic Open Space</i></p> <p>a) In addition to formal and informal open space, make land available for Strategic Open Space i) West of Bewbush ii) West of lfield or iii) North West of Crawley</p> <p>b) Provide only formal and informal open space within the new neighbourhood</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 lfield 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 has been selected as it is felt to be more achievable to focus on open space within the new development.</p>

Assessment of the chosen option West of Bewbush

Once the preliminary options for the Joint Area plan had been assessed and selected, a more detailed appraisal of the chosen site for development (West of Bewbush) was carried out. This assessment looked at shorter and longer term impacts on sustainability, and identified measures to help improve the sustainability of the plan. The results of this process are summarised in table two. The key for the table is as follows

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

Table 2

SA/SEA Objective	Summary of Effects	Overall Impact
1. To ensure everyone has access to a good quality affordable home that meets their needs	Development will have an increasingly positive effect on this objective over time, providing approximately 2,500 homes, of which 40% will be affordable.	☺☺
2. To ensure everyone has access to the health, education, leisure and recreation facilities they require	It is a requirement that the development provides the services and facilities to meet needs of the new residents. This could assist lfield West which currently lack access to facilities. Provision of facilities is likely to increase over time as more of the development is completed.	☺☺
3. To reduce crime, the fear of crime and antisocial behaviour	The site is currently not developed, and it is therefore likely there will be some increase in crime, but it is not possible to predict what future crime levels may be like. Providing the development is designed following codes set out by the police, the effect of the development on crime and antisocial behaviour is likely to be minimal.	☹

SA/SEA Objective	Summary of Effects	Overall Impact
4. To maintain and enhance landscape character including the setting of Crawley and protection of links from the town to the surrounding countryside	Land West of Bewbush has the least sensitive landscape west of Crawley. 30% of the site is previously developed land, and although development will narrow the Strategic Gap between Horsham and Crawley, the land is well screened from the surrounding countryside. Development of the site also presents opportunities to enhance links to the countryside and the nearby AONB. On balance it is considered that by providing mitigation measures, the effect of the development is neutral to positive.	☺/☺
5. To conserve and enhance biodiversity within Crawley and the surrounding countryside	Land west of Bewbush has not been found to be of particular importance for biodiversity, although some losses will inevitably occur as a result of development. These could be short term, e.g. mud from construction works could reach and damage wildlife in nearby rivers. In the longer term, higher numbers of residents could harm biodiversity through increased recreational pressure. Development does however present an opportunity to enhance biodiversity through the provision of greenspace and wildlife features in the development. If mitigation measures are provided it is considered the effect of the development on biodiversity will be neutral	☺
6. To conserve and enhance the historic and cultural environment, including important green spaces	There is uncertainty as to the effect of the development on cultural heritage. This is because there is a lack of data about Kilnwood archaeological parkscape, although it is thought development in this area is unlikely to have a significant adverse effect. Increased recreational pressure could also impact on the water mill in Ifield and moat in Bewbush, both of which are scheduled ancient monuments. Development does however have potential to improve greenspaces and links to the AONB.	☺?
7. To reduce the risk of flooding	Without mitigation, development of the site could significantly increase the risk of flooding. For example, hard surfaces such as concrete could increase the rates of run-off to streams. A strategic flood risk assessment has been undertaken, and providing 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, leading to a neutral impact on this objective.	☺
8. To maintain and where possible enhance water quality levels	There is currently potential for water quality to be harmed by leachate from the landfill site, although levels are likely to be very low. Remediation of the landfill site will mitigate this, generating a positive impact on water quality in the longer term. Construction may however have a negative impact on water quality if mud from earth works enters nearby watercourses.	☹?(short term) ☺?(long term)

SA/SEA Objective	Summary of Effects	Overall Impact
9. To maintain and where possible enhance levels of air quality	Development will inevitably result in some increase in traffic. This will have an adverse impact on air quality, 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.	☹
10. To minimise the impact of noise on residents and the wider environment	The site is mainly impacted by noise from the A264 and the railway. Development will generate some noise during construction, but controlling hours of working will help mitigate this. Completed development may also create noise, but this would be at normal everyday levels and not significant for other residents or the wider environment. The impact of noise from rail and roads can be mitigated by screening / bunding and the impact is therefore likely to be neutral in the longer term.	☺
11. To minimise the use of resources, particularly water, energy and materials	Development will use resources during the construction and operational phases of the development. The construction phase will require materials for roads and buildings, whilst the operational phase of the development will mainly require resources such as energy and water. There is an opportunity for development to minimise this resource use, for example by building to the government Code for Sustainable Homes level 4.	☹
12. To reduce the emission of greenhouse gases, in particular by encouraging the provision and use of renewable energy	Development will result emissions of greenhouse gases during construction, e.g. from vehicle movements on the site, and when completed as homes use energy for heating. There is the potential for the development to limit emissions of carbon dioxide e.g. by providing a combined heat and power plant and renewable sources of energy. .	☹
13. To make the most efficient use of land	30% of the site is brownfield land. Housing densities will be a minimum of 35 dwellings per hectare, but this may be greater in some parts of the development.	☺
14. To reduce car journeys and promote alternative methods of transport	Development will inevitably result in some increase in traffic, as many residents will own and use cars. However the lack of a new relief road will limit a major increase in traffic levels. 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.	☹
15. To ensure development maintains, supports and promotes a diverse employment base to serve the local and sub-regional economy	Development West of Bewbush will provide some local employment opportunities. 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	Overall Impact
16. To ensure development contributes to maintaining and enhancing the vitality and viability of the neighbourhood and Crawley town centre.	Development will provide a new neighbourhood shops maintaining the viability and vitality of the neighbourhood. New residents will also contribute to helping to maintain the economic vitality of Crawley town centre.	😊

Cumulative Effects

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 cumulative effects can arise where a number of different effects combine to have a greater positive or negative impact than they may do individually. The main cumulative effects of the development that have been identified are set out below.

- Providing high quality public transport may increase rates of public transport use in the wider area
- The positive effect that the development will have on retail and 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 the need for and allocation of any land for future development in the area will be a matter for any future reviews of the Horsham and Crawley Core Strategies). Any further development in the area would have a greater impact on the surrounding landscape, environment and the road network than development of one neighbourhood.
- 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.
- 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, air quality and the impact on climate change could combine to have an adverse effect on biodiversity.
- Although development will provide a number of services and facilities which will provide for the immediate needs of new residents, pressure may be placed on larger more regional facilities such as hospitals, which may also have to cater for new residents from other new developments in the wider area.

Mitigation Measures

In order to offset the negative effects of development that have been identified, a number of mitigation measures have been suggested and incorporated into the Joint Area Action Plan. These are as follows:

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	JAAP outlines the need for a range of house sizes and types to meet needs. Greater emphasis on meeting a range of needs is set out for affordable housing, including

Sustainability Matter	Suggested Mitigation Measure	Mitigation measures incorporated into the JAAP
	designing the development to meet the needs of individual residents over a number of years (eg lifetime home standards).	a requirement for 20% of these homes to be built to lifetime home standards.
Crime	The Masterplan should state the requirement to meet “Secured By Design” standards as identified by Sussex Police, who will be consulted as part of any planning application.	Supporting text amended to reflect this requirement
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, re-enforcing 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 could be identified in the EIA which would accompany any planning application for the development.	Policy WB13 sets out the need to protect existing nature conservation sites and woodlands on the site. The policy also sets out the need to mitigate against any adverse effects on biodiversity. The supporting text also outlines the potential for enhancements to biodiversity – e.g. provision of batboxes.
Cultural Heritage and Green Spaces	If not completed prior to the submission of the JAAP, the document should set out the need to undertake an assessment of Kilnwood archaeological parkspace. The masterplan should also identify green spaces, and how links to the nearby AONB and cultural features such as Bewbush moat and Ifield Mill.	Policy WB14 requires a survey of the historical parkscape at Kilnwood Policy WB15 requires the development to provide links to green spaces beyond the development boundary References in the supporting text are also made to Bewbush moat and Ifield Mill
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. A Site Flood Risk Assessment will also be necessary, for	The suggested mitigation measures are addressed in Policy WB17 and supporting text

Sustainability Matter	Suggested Mitigation Measure	Mitigation measures incorporated into the JAAP
	<p>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 the Environmental Impact Assessment that would accompany the planning application for the site.</p>	
Water Quality	<p>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.</p>	<p>Document includes a policy on the need to remediate the landfill site, which addresses this issue. Other water quality issues can be addressed at a planning application stage.</p>
Air Quality	<p>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.</p>	<p>Detailed information regarding sustainable transport is set out in the JAAP under the transport section.</p>
Noise	<p>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.</p>	<p>Policy WB16 requires a noise survey to ensure development will not be subject to noise levels greater than 60dba.</p> <p>The conceptual masterplan also sets out types of mitigation (eg landscaping) to remove noise impacts</p>
Resource Use and Climate Change	<p>The JAAP will need to specify the requirement for the development to conform to a high level of sustainability (ie 4 or above) as set out in the Government's Code for Sustainable Homes. The JAAP should also specify the requirement for a combined heat and power plant and for non residential buildings to be built to BREEAM standard of "very good" or above. Good public transport measures will also help to mitigate against climate change.</p>	<p>Requirement to meet code for sustainable homes /BREAAM set out in policy WB22. Requirement is for level 3 prior to 2013, but later phases to be built to levels 5 & 6, as technology progresses.</p>

