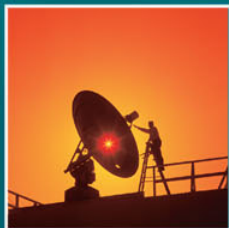
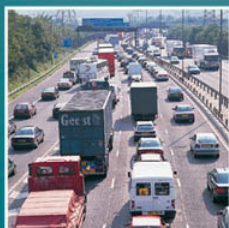
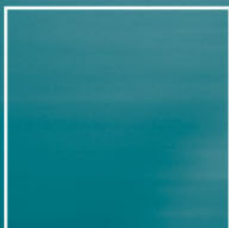


**Barratt Strategic**

# **Sustainability Appraisal of the Development Brief for land east of Woodpecker Drive, Iwade**

Sustainability Appraisal Report

April 2009



# **Entec**

*Creating the environment for business*

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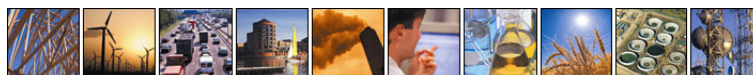
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## Document Revisions

No.	Details	Date
0	Draft Iwade SA Report	27/11/08
1	Final Iwade SA Report	08/12/08
2	Draft Iwade SA Report (Revised)	24/03/09
3	Final Iwade SA Report (Revised)	03/04/09
4	Final Iwade SA Report (Revised)	20/04/09





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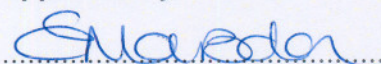
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## Barratt Strategic

## Sustainability Appraisal of the Development Brief for land east of Woodpecker Drive, Iwade

Sustainability Appraisal Report

April 2009

Entec UK Limited



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## Non Technical Summary

### Overview

This document is the non-technical summary of the Sustainability Appraisal (SA) of the Updated Development Brief for land east of Woodpecker Drive in Iwade, Kent. This non-technical summary sets out the approach used to undertake the SA as well as the conclusions and recommendations emerging from the process. This report has been prepared by Entec UK Ltd on behalf of Barratt Strategic.

### What is the background to the Updated Development Brief?

The recently adopted Swale Borough Local Plan (2008) allocates land to the east and south west of Iwade village in Kent for the development of 427 new homes up to 2016 (Policy H5(5) of the Local Plan). Land east of Woodpecker Drive on the east of the village can accommodate around 90 of these new homes. The remainder will mostly be located on land to the south west of Iwade, which is being promoted by Hillreed Homes.

In accordance with the requirements of the Local Plan, Barratt Strategic has produced an Updated Development Brief for the land east of Woodpecker Drive, to be approved by Swale Borough Council (the Council) prior to the grant of any planning permission. The Updated Development Brief sets out guidance on the development of the new homes within the land east of Woodpecker Drive.

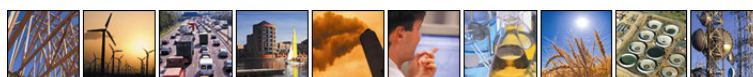
### Why has a Sustainability Appraisal of the Updated Development Brief been undertaken?

The Planning and Compulsory Purchase Act (2004) requires the Council to undertake SA of their development plan documents. Under the Environmental Assessment of Plans and Programmes Regulations (2004) it is also a requirement that plans (setting out a framework for development and likely to have significant environmental effects) are subject to Strategic Environmental Assessment (SEA). These regulations transpose into UK law the requirements of the EU Directive 2001/42/EC on the Assessment of Certain Plans and Programmes on the Environment, more commonly known as the SEA Directive.

Entec has been asked by Barratt Strategic to undertake a SA incorporating the requirements of SEA of the Updated Development Brief to accompany the brief and planning application. The purpose of this SA is to identify how the principles of sustainable development have been integrated into the proposals.

### How was the Updated Development Brief assessed for its contribution to sustainable development?

Swale Borough Council has already prepared a SA Scoping Report for their Core Strategy, which details the SA framework to be used in appraising Swale's development plan documents. The SA framework sets out 20 SA objectives and key guidance questions, designed to cover the broad range of sustainability issues facing the



Borough, and has been agreed with the statutory environmental consultation bodies (Natural England, Environment Agency and English Heritage) following a five week consultation period on the draft SA Scoping Report in May 2008. The SA of the Updated Development Brief involves an appraisal of the proposals within the Updated Development Brief against each of these SA objectives, taking into consideration the local context of Iwade.

## How have indicators for monitoring been developed?

The SEA Directive requires that the significant sustainability effects of implementing the plan be monitored. A number of indicators were identified in the Swale Borough SA Scoping Report for the Core Strategy (December 2008) and these indicators could also be used to monitor the effects of the Updated Development Brief against the SA objectives. The selection of a final set of indicators and development of a monitoring framework will require additional research into issues such as the future availability of data and what information is or could be collected.

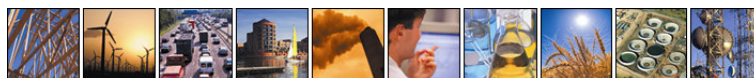
## What are the alternatives?

The alternative options of 'do-nothing' (whereby the site is not developed) and 'no brief' (whereby the site is brought forward for development without a development brief) were considered as part of the SA. It was found that although not developing the site is unlikely to have significant negative environmental or economic effects, not bringing the land forward for housing development would limit housing provision in Iwade. An appraisal of the 'no brief' option identified the potential for a number of adverse effects. Given the potential for adverse effects, it was determined that the additional advice and guidance provided by a development brief will be beneficial, promoting best practice with regard to design and construction. In this regard, producing a development brief for the land is considered to be the most appropriate option.

## What were the outcomes of the Sustainability Appraisal?

Overall, the Updated Development Brief performed well against the SA objectives, proposing a range of measures that should help to create a safe, attractive and inclusive community at Iwade. The assessment showed that the Updated Development Brief was likely to have a positive effect upon the majority of the sustainability themes, particularly housing, energy, sustainable living, water, waste, biodiversity and resource use. The Brief only scored negatively in relation to protecting soil quality, due to the loss of high quality farmland.

As part of the SA process, measures to increase the sustainability of the proposals have been identified, which include the use of constructors who commit to best practice construction methods, implementation of a Local Labour in Construction Scheme, which utilises the skills of local people, the installation of energy efficient lighting and goods where supplied, the provision of systems for collecting rainwater and greywater and the provision of facilities for composting.

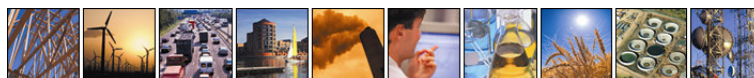


## What are the potential cumulative effects arising from other plans or programmes?

The SEA Directive requires that consideration is given to 'cumulative effects'. Cumulative effects arise where several developments each have insignificant effects but together have a significant effect (e.g. traffic caused by several projects together leading to significant congestion); or where several individual effects of the plan (e.g. noise, dust and visual) have a combined effect.

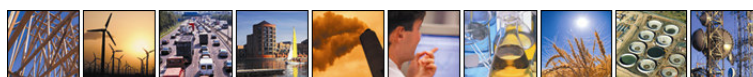
As highlighted above, the Local Plan allocates land to the east and south west of Iwade for housing development (Policy H5(5) of the Local Plan). Similar to the Updated Development Brief prepared for land east of Iwade, a Revised Development Brief has been prepared for the land south west of Iwade (being promoted by Hillreed Homes).

As part of this SA, an assessment of the potential cumulative effects of implementing the development briefs produced for each site has been undertaken. The results show that overall the cumulative effects of implementing the briefs is positive, particularly in relation to housing provision, given the scale of the combined proposals. Only one negative cumulative effect was identified, in relation to SA objective 6 (to protect and enhance soil quality) due to the cumulative loss of high quality farmland. The development briefs have been prepared with due regard to each other and to the long term proposals for Iwade and therefore collectively should help to reduce the potential adverse effects arising from the cumulative development.



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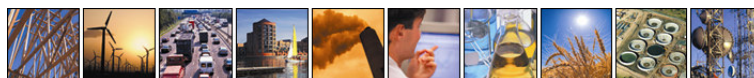
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## List of Abbreviations

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BAP	Biodiversity Action Plan
EA	Environment Agency
FRA	Flood Risk Assessment
IMD	Index of Multiple Deprivation
LDF	Local Development Framework
ODPM	Office of the Deputy Prime Minister
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SOA	Super Output Area
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage System



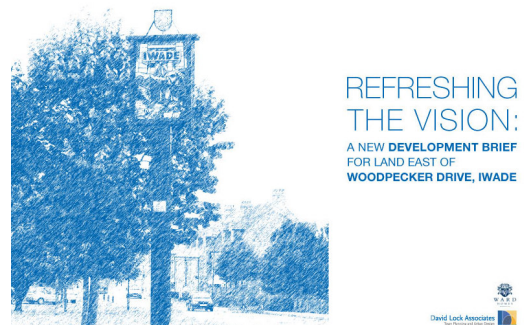


## 1. Introduction

### 1.1 Purpose of this report

1.1.1 The recently adopted Swale Borough Local Plan (2008) allocates land to the east and south west of Iwade village in Kent, for the development of 427 new homes. Barratt Strategic, acting for Ward Homes, control land to the east of Woodpecker Drive on the east of the village, which has the capacity to accommodate approximately 90 of these new homes. In accordance with the requirements of the Swale Borough Local Plan, Barratt Strategic have produced an Updated Development Brief for the land east of Woodpecker Drive<sup>1</sup> (see image), to be approved by the Council prior to the grant of any planning permission.

1.1.2 The Planning and Compulsory Purchase Act (2004) requires Swale Borough Council, as the Local Planning Authority for Swale Borough, to undertake Sustainability Appraisal (SA) of their development plan documents. Under the Environmental Assessment of Plans and Programmes Regulations (2004) it is also a requirement that plans (setting out a framework for development and likely to have significant environmental effects) are subject to Strategic Environmental Assessment (SEA). These regulations transpose into UK law the requirements of the EU Directive 2001/42/EC on the Assessment of Certain Plans and Programmes on the Environment, more commonly known as the SEA Directive.



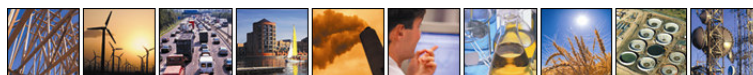
1.1.3 Entec has been commissioned by Barratt Strategic to undertake a Sustainability Appraisal (SA) incorporating the requirements of SEA of the Updated Development Brief, which is to be submitted alongside the Updated Development Brief and planning application for the site. The purpose of this SA is to identify how the principles of sustainability have been incorporated into the planning proposals for land east of Woodpecker Drive. The SA provides a qualitative assessment of the environmental, social and economic effects of the Updated Development Brief against a set of sustainability objectives.

1.1.4 The SA process for the Updated Development Brief has culminated in the production of this SA Report. The report is structured as follows:

**Section 1: Introduction:** Introduces the report and details the background to the Updated Development Brief.

---

<sup>1</sup> David Lock Associates (2008) Refreshing the Vision: A New Development Brief for Land East of Woodpecker Drive, Iwade.



**Section 2: Sustainability Appraisal Process:** Provides an overview of the SA process and methodology adopted by Entec.

**Section 3: Outcomes of the Appraisal:** Outlines the results of the SA process and details any recommendations for maximising sustainability.

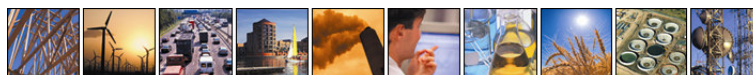
**Section 4: Conclusion:** Summarises the conclusions of the SA and the next steps.

## 1.2 Background to the Development Brief

- 1.2.1 The previous Swale Borough Local Plan (2000) identified the village of Iwade as a growth area to provide new homes. Guided by the original adopted Iwade Development Brief (1999), the village of Iwade has grown from 325 households in 1991 to around 1,125 households to date.
- 1.2.2 The recently adopted Swale Borough Local Plan (2008) allocates land to the east and south west of the village of Iwade for the development of 427 further new homes up to 2016 (Policy H5(5) of the Local Plan). Barratt Strategic, acting for Ward Homes, controls the land to the east of Woodpecker Drive on the east of the village, which has the capacity to accommodate approximately 90 of these new homes. The remainder will mostly be located on land to the south west of the village, which is being promoted by Hillreed Homes. Approximately 27 of the new homes will be located on land to the north of Iwade Church, to the north of the village.
- 1.2.3 In accordance with the requirements of the Swale Borough Local Plan, Barratt Strategic has produced an Updated Development Brief for the land east of Woodpecker Drive, to be approved by the Council prior to the grant of any planning permission. The Updated Development Brief for Land East of Woodpecker Drive represents an updating of the adopted Iwade Development Brief (1999) in relation to land east of the village.
- 1.2.4 The Updated Development Brief has been prepared to provide guidance on the implementation of Local Plan proposals, and to demonstrate how the development of land east of Woodpecker Drive (the site) will integrate with the wider vision for the village of Iwade as a sustainable community as set out in the original Iwade Development Brief (1999)<sup>2</sup>.
- 1.2.5 The Updated Development Brief sets out:
- A description of the context and location of the village and the site;

---

<sup>2</sup> The Iwade Development Brief (1999) was adopted by Swale Borough Council as supplementary planning guidance in November 1999 and provides detailed guidance on the future expansion of Iwade. The Development Brief was prepared by David Lock Associates on behalf of Ward Homes and Hillreed Homes Ltd, in conjunction with Swale Borough Council.

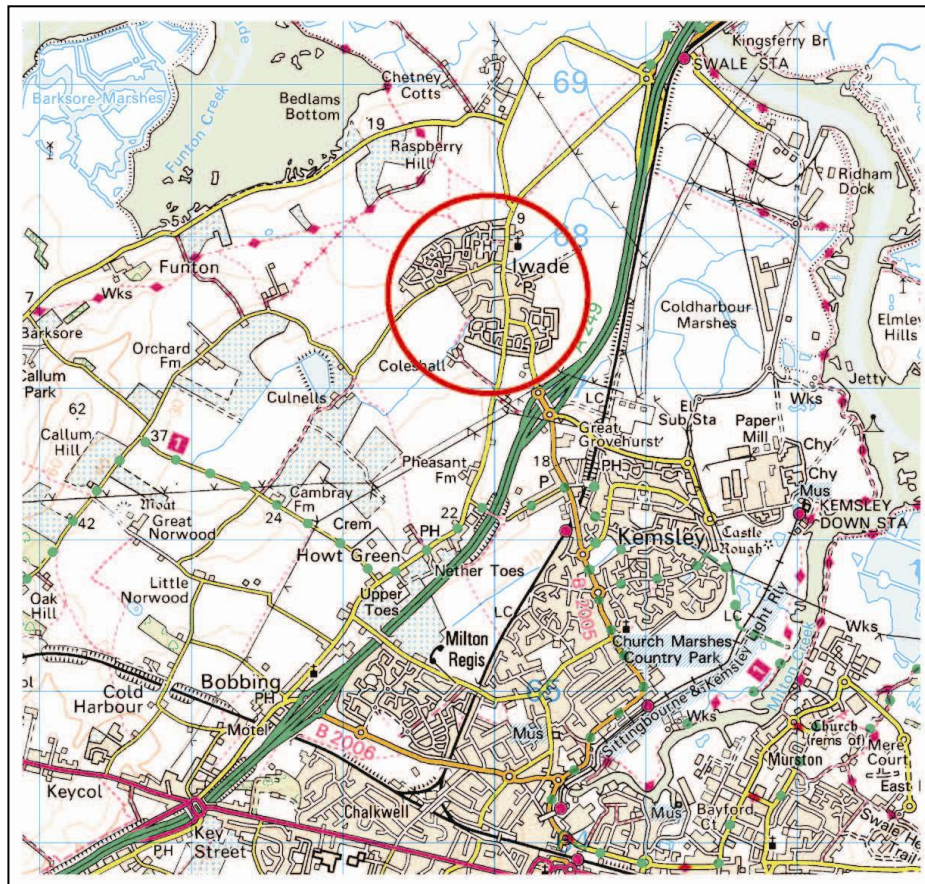


- The policy context of the proposals;
- The vision for growth at Iwade;
- A review of key urban design principles;
- Detailed guidance on the nature and form of development east of Iwade; and
- Guidance on infrastructure requirements and the delivery of the proposals.

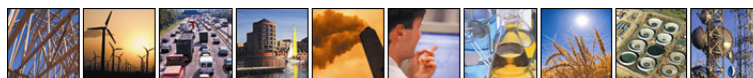
## 1.3 Iwade and its context

1.3.1 The village of Iwade is located three miles to the north west of the town of Sittingbourne in the Swale Borough of Kent. The Expansion of Iwade 2000-2005 Report (2006) estimated that in 2005 Iwade contained 950 households with a total population of 2,400 people. It is now estimated that there are around 1,125 households. The location of Iwade and its context is shown on Figure 1.1.

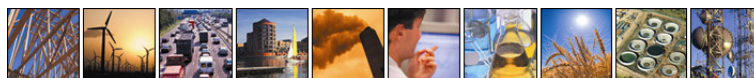
**Figure 1.1 Iwade and its context**



Source: David Lock Associates (2008)

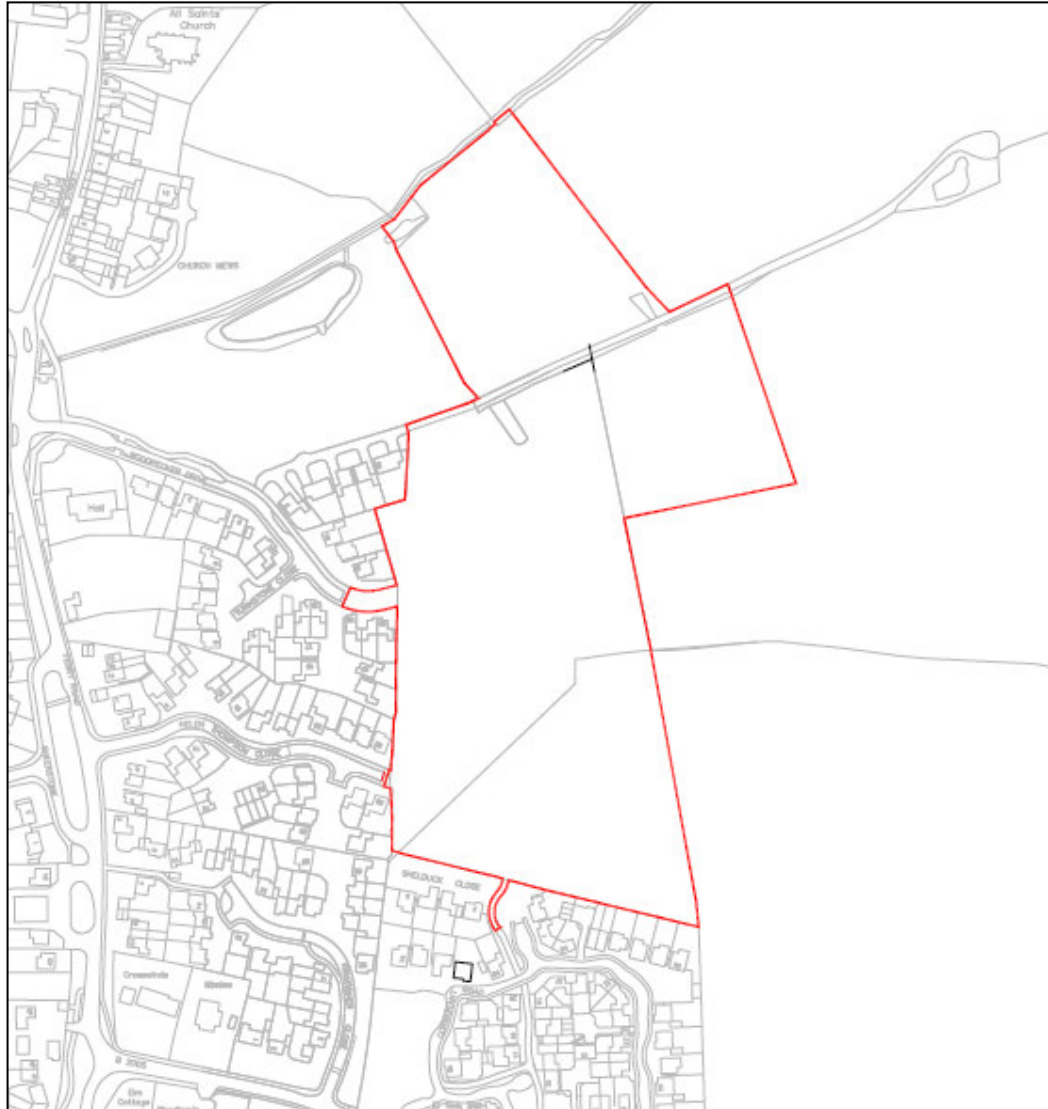


- 1.3.2 The site occupies land on the eastern edge of Iwade, to the east of Woodpecker Drive. The site is currently greenfield, comprising an area of ploughed arable farmland at the south of the site; an area of grassed former garden land in the middle of the site; and an area of former orchard in the north part of the site. The site boundary is shown on Figure 1.2.
- 1.3.3 The site is relatively flat, and contains two ponds, a small pond at the southern end of the former orchard land and a larger pond at its northern end. There is a population of great crested newts associated with the larger pond, as well as other ecological interest within the former orchard area. Following a review of the nature conservation interest of the former orchard as part of the Swale Local Plan First Review Public Inquiry, it was agreed that 0.85 hectares of the former orchard should be allocated for residential uses, provided that 0.99 hectares of compensatory habitat is provided to the north of the site. In addition, an area of 0.8 hectares will be set aside for Sustainable Drainage Systems (SuDS) works. This will also provide for additional compensatory habitat and will be publicly accessible on an informal basis and in the long term will form part of Iwade Nature Park.
- 1.3.4 The site is bounded to the east by arable agricultural land, to the north by a farm access track, agricultural land and the Village Park, and to the south and west by existing residential properties and their associated gardens.

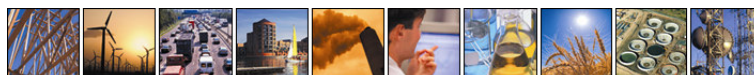




**Figure 1.2** Land East of Woodpecker Drive, Iwade



Source: Judith Ashton Associates (2008)



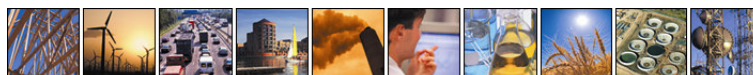
## 2. Sustainability Appraisal Process

### 2.1 Overview

- 2.1.1 As highlighted in Section 1.1, the Planning and Compulsory Purchase Act (2004) requires Swale Borough Council, as the Local Planning Authority for Swale Borough, to undertake SA of their development plan documents.
- 2.1.2 SA is a process through which the ‘sustainability’ of a plan under preparation is assessed. The SA provides a qualitative assessment of the environmental, social and economic performance of the plan against a set of sustainability objectives. For those potentially negative effects identified, measures to avoid, minimise or mitigate such effects are recommended. Similarly, opportunities for improvements in the contribution towards sustainability are identified, if appropriate. The purpose of SA is to promote sustainable development through the integration of social, environmental and economic considerations into the preparation of the plan, so that decisions can be made that accord with the objectives of sustainable development.
- 2.1.3 Under the Environmental Assessment of Plans and Programmes Regulations (2004) it is also a requirement that plans (setting out a framework for development and likely to have significant environmental effects) are subject to SEA. These regulations transpose into UK law the requirements of the EU Directive 2001/42/EC on the Assessment of Certain Plans and Programmes on the Environment, more commonly known as the SEA Directive. Article 1 of the Directive states that its objective is to “*provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development*”.
- 2.1.4 Barratt Strategic have commissioned Entec to undertake a SA incorporating the requirements of SEA<sup>3</sup> of the Updated Development Brief, to be submitted alongside the brief and planning application for the site. The purpose of this SA is to identify how the principles of sustainability have been incorporated into the planning proposals for land east of Woodpecker Drive.

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<sup>3</sup> Although the statutory requirements for carrying out SA and SEA are distinct it is possible to satisfy both through a single but integrated SA process. Such a joint approach is advocated in former Office of the Deputy Prime Minister (ODPM) Guidance: *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents* (2005). For ease the combined SA and SEA process is simply referred to as SA throughout this report.



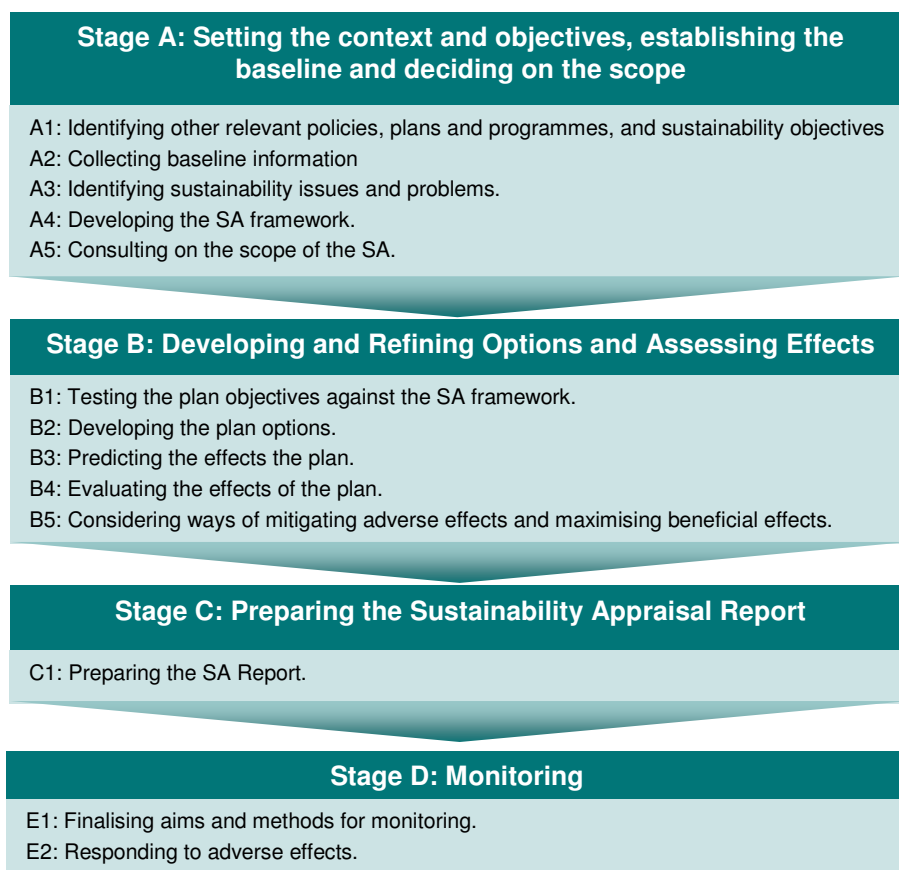
2.1.5 This appraisal describes:

- The sustainability criteria used to assess the proposals; and
- The extent to which sustainability is incorporated within the Updated Development Brief.

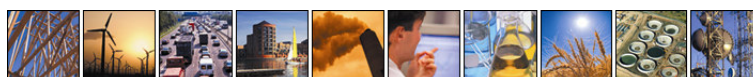
## 2.2 Approach adopted to Sustainability Appraisal

2.2.1 Our approach to undertaking SA of the Updated Development Brief incorporates the requirements of the SEA Directive and takes cognisance of guidance issued by the former ODPM<sup>4</sup> in ‘*Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*’ and ‘*A Practical Guide to the Strategic Environmental Assessment Directive*’. The stages involved in the SA process are outlined in Figure 2.1.

**Figure 2.1 SA Stages (A to E, as identified in ODPM Guidance on SA)**

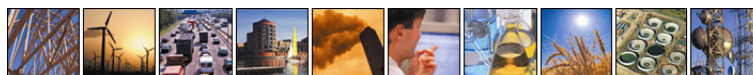


<sup>4</sup> The ODPM is now Communities and Local Government



## 2.3 Sustainability Appraisal Objectives, Baseline and Context

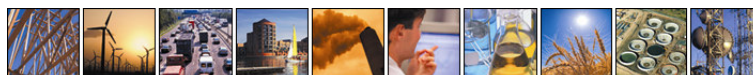
- 2.3.1 As shown in Figure 2.1, the first stage in SA involves setting the context and objectives, establishing the baseline and deciding upon the scope of the appraisal. The key output of this stage is a Scoping Report, detailing the evidence base, key sustainability issues and the SA framework. This stage is central to the assessment process and provides a way in which the sustainability performance of the proposals can be identified and described.
- 2.3.2 Swale Borough Council has already prepared a SA Scoping Report for their Core Strategy, which outlines the SA framework for use in appraising Swale's LDF documents. In developing the SA framework, a comprehensive review of plans and programmes was undertaken and baseline information relating to Swale Borough was collected and analysed, resulting in a comprehensive evidence base. As part of this process, consultation has been undertaken with the statutory consultees (Natural England, the Environment Agency and English Heritage) as required under the SEA Directive, to agree the scope of the SA.
- 2.3.3 The evidence base and key environmental and sustainability issues and problems identified in the SA Scoping Report for the Core Strategy has been used to inform the SA of the Updated Development Brief. Prior to undertaking the SA of the Updated Development Brief it was necessary to develop an understanding of the baseline conditions and key environmental and sustainability issues relating to the locality. Further baseline data collection and analysis of key issues has therefore been undertaken.
- 2.3.4 A summary of the baseline conditions associated with Iwade and the site itself is provided in Appendix A in relation to each of the SA objectives. Much of the baseline data has come from other parallel studies for Iwade and the land east of Woodpecker Drive (e.g. Iwade Phase 8 Extended Phase I Habitat Survey, Great Crested Newt Report, Transport Assessment, Flood Risk Assessment, Drainage Strategy and Utilities Report). The baseline has also been supplemented by existing information on Swale Borough and Iwade available from the Council's website, Floor Targets Interactive, NOMIS, the Environment Agency, MAGIC and other relevant organisations. A full reference list is provided in Appendix B.
- 2.3.5 A summary of the key environmental and sustainability issues and problems relating to Iwade is provided in Table 2.1. They are not presented in any order of importance.





**Table 2.1 Key Sustainability Issues**

Key Sustainability Issues
<p><b>Cultural Heritage:</b> The need to conserve and enhance cultural heritage. There are three Listed Buildings within Iwade, including the disused Grade II listed barn. Pressure for new development and regeneration requires a balance to be found between preservation of cultural heritage and delivering new development to meet future needs.</p> <p><b>Climate:</b> Climate change is a considerable global environmental threat, in particular sea level rise and changes to weather patterns. Steps are required to address the emission of greenhouse gases from a number of sectors, including transport and the domestic user. The poor public transport system across Swale Borough creates car dependency. Transport improvements, such as improved public transport links and locating new development in sustainable locations can contribute to reducing emission levels. New buildings require retro-fitting and development using sustainable construction methods to ensure that there are adaptive to climate change. Steps are required to identify and protect a green grid structure, allowing wildlife to migrate as climate changes. The sustainability agenda requires the delivery of alternative energy sources, such as renewable energy technologies.</p> <p><b>Air:</b> Traffic is likely to continue to be a major source of air pollution in Swale Borough. Increased traffic flows resulting from the new bridge linking Isle of Sheppey with the mainland and the future new northern relief road bring increased traffic flows and associated air pollution issues. The negative effects of transport and development on local air quality need to be minimised.</p> <p><b>Landscape:</b> Swale Borough contains a high quality distinctive landscape which requires protection, enhancement, extension, connectivity and permeability to maintain its locally distinctive habitats. Land east of Iwade is greenfield. The site lies adjacent to an Important Local Countryside Gap, designated under the Local Plan in order to retain the individual character and setting of settlements. Raspberry Hill, an Area of High Landscape Value, is situated around 1km to the north west of Iwade. This stretch of coastline is also designated Coastal Zone and Undeveloped Coast under Policy E13 of the Local Plan.</p> <p><b>Soil:</b> Pressure to develop on agricultural land and potential for competing uses of agricultural land due to climate change (greater agricultural production linked to self sufficiency verses need to develop in areas at low risk to flooding and on non-previously developed sites once all reserves are utilised). Agricultural land within the site is classified as Grade I (excellent), which is the best and most versatile land.</p> <p><b>Water:</b> The majority of Iwade lies outside of the tidal and fluvial flood zone, although a small strip of the Old Orchard area along the northern boundary of the site is within Flood Zone 3. Pressures on water abstraction and water availability, especially as development increases. Ensuring that new development has adequate supply and is water efficient is therefore a key challenge.</p> <p><b>Biodiversity:</b> Biodiversity in Swale Borough is threatened by climate change, inappropriate built development, pollution, changing land management practices and vandalism. Iwade is within 0.5km of the Swale Special Protection Area (SPA), Ramsar site and Site of Special Scientific Interest (SSSI) and the Swale National Nature Reserve, and within 1km of the Medway Estuary and Marshes SPA, Ramsar site and SSSI. Land to the east of Iwade supports a range of species, including Noble Chafer Beetle and great crested newt. Habitats Regulations Assessment would need to be undertaken for any development that could have an adverse effect upon the integrity of a SPA, SAC or Ramsar site.</p> <p><b>Waste:</b> Household waste arisings in Swale Borough are the third highest in the County. There is a continued need to meet and exceed recycling and waste management targets set at the County, regional and national level, and to incorporate waste storage and recycling facilities in new developments.</p> <p><b>Population:</b> Quality of life indicators such as health and crime suggest that Swale Borough is a relatively pleasant place to live, though pockets of deprivation exist. The village of Iwade is ranked relatively favourably in terms of deprivation. An increasing ageing population is likely to place additional pressure on service and health provision.</p> <p><b>Health:</b> Average male and female life expectancy in Swale Borough is below the national averages. There is a need to provide more accessible local healthcare facilities. Demands for health care and associated services are rising and are expected to continue to rise as the population increases and ages. A focus on healthy lifestyles needs to be encouraged. Fuel poverty within Swale Borough still requires reducing. Swale Borough's recreational, cultural facilities and activities and natural green and open spaces of good quality are currently limited and require development and improvement to support local quality of life.</p> <p><b>Crime and Safety:</b> Swale is a relatively safe Borough, although some instances of crime have increased in recent years, community warded and neighbourhood pride zones will contribute to reducing instances of crime and the fear of crime. Key priorities for Swale Community Safety Partnership are domestic abuse, crime and disorder in the night time economy, reducing re-offending, anti-social behaviour, working with young people, substance misuse and encouraging an active and engaged community.</p>



## Key Sustainability Issues

**Housing:** The provision of affordable housing in Swale Borough is currently below the target set in the Local Plan, the Council needs to deliver further affordable homes to meet the needs of the population both in the urban and rural areas of the Borough. The escalating cost of buying and renting homes in rural areas means that the adequate provision of affordable housing to meet local need is of particular importance. This provision includes options for renting, shared ownership and low cost home ownership, secured, where appropriate, in perpetuity for local people. The Council needs to continue the improvement programme to ensure that the decent homes standard is achieved in existing and emerging housing stock. There is a need for the provision of adaptable housing to meet the needs of the disabled and elderly population (lifetime homes). The need to raise design and sustainability standards in new residential developments has been emphasised at Thames Gateway level and as important is the need to integrate new developments with existing communities.

**Local Economy:** Traditional manufacturing and processing industries within the Borough are declining, along with a decline in the rural economy. There is under representation in the financial and business services and other knowledge based sectors, which typically have greater potential for growth.

**Employment and Skills:** There is an above average proportion of lower paid jobs with a high proportion of residents commuting to better paid jobs outside the Borough. Swale Borough has a large number of people lacking qualifications and a shortage of graduate labour employment opportunities. Investment in skills and learning is regarded as critical for long-term regeneration and the attraction of higher skilled knowledge based industries. Access to employment is a key issue, especially where there have been high levels of housing growth that have not been accompanied by new employment. This has contributed towards unsustainable levels of commuting.

**Transport and Accessibility:** Transport capacity constraints have been identified on many of Swale Borough's strategic roads. There is frequent traffic congestion on the A2 corridor, in Sittingbourne town centre, on roads leading to and including the A249 off the Isle of Sheppey, and on rural roads. The regeneration agenda cannot be delivered without significant transport improvements, including improvements to the A2 link. Connections between the rural communities, employment, services and amenities are very poor with regard to accessible public transport. There is also low use of public transport to get to work compared to the national average. There is poor supporting infrastructure for cyclists in the Borough.

2.3.6 The SA framework detailed in the Swale Borough Council SA Scoping Report for the Core Strategy (December 2008) sets out 20 SA objectives covering environmental, social and economic aspects. These SA objectives cover the topics<sup>5</sup> listed in the SEA Directive and have been agreed with the statutory consultees. To ensure that the SA of the Updated Development Brief for land east of Woodpecker Drive is consistent with the scope and level of detail of the SA conducted by Swale Borough Council for their Local Development Framework (LDF), the SA objectives developed for the Swale LDF have been used to appraise the Updated Development Brief, taking into account the local context of Iwade<sup>6</sup>.

2.3.7 The SA objectives and associated key questions / guidance used to appraise the Updated Development Brief are detailed in Table 2.2 alongside the SEA Directive Topics.

<sup>5</sup> Biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage and landscape

<sup>6</sup> Please note that for the purposes of the SA minor amendments have been made to the Swale LDF SA objectives and supporting decision making criteria to reflect the local context of Iwade.



**Table 2.2 Sustainability Appraisal Objectives**

Sustainability Appraisal Objectives	Key questions / guidance	SEA Dir. Topic
<b>Environment</b>		
1. To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage	<ul style="list-style-type: none"> <li>Are archaeological sites, historic buildings, conservation areas and other culturally important features protected?</li> <li>Does it ensure that new development is of a high quality and sympathetic to the character and local distinctiveness of the built environment?</li> </ul>	Cultural Heritage and Landscape
2. To minimise the need for energy, increase energy efficiency and to increase the use of renewable energy	<ul style="list-style-type: none"> <li>Does it seek to limit the emission of greenhouse gases?</li> <li>Does it prepare for the effects of climate change (in particular sea level rise temperature changes)?</li> <li>Does it seek to ensure that development can withstand the potential implications of climate change?</li> <li>Does it increase the energy efficiency of housing stock and all other buildings?</li> <li>Does it increase the proportion of energy generated from renewables?</li> <li>Does it identify opportunities for wildlife corridors, networks and stepping stones?</li> </ul>	Climatic factors, Biodiversity
3. To encourage sustainable construction materials and methods	<ul style="list-style-type: none"> <li>Does it encourage the use of recycled materials?</li> <li>Does it seek to meet Code for Sustainable Homes standards?</li> <li>Does it promote the use of locally sourced materials?</li> </ul>	Material Assets, Soil
4. To reduce air pollution and ensure air quality continues to improve	<ul style="list-style-type: none"> <li>Does it seek to prevent or reduce the emission of air pollutants?</li> <li>Does it contribute to reductions in air quality monitoring pollutants at monitoring locations?</li> </ul>	Air, Climatic Factors
5. To protect and enhance the valued landscape and townscape	<ul style="list-style-type: none"> <li>Does it provide for new open spaces and / or allotments?</li> <li>Does it contribute to the establishment of the green grid network?</li> <li>Does it preserve and enhance the borough and county wide landscape classifications?</li> <li>Does it contribute positively to the borough's established high quality landscape?</li> <li>Does it seek to protect local landscape quality, distinctiveness and character?</li> <li>Does it ensure high standards of design?</li> </ul>	Cultural Heritage and Landscape, Biodiversity
6. To protect and enhance soil quality and reduce contamination	<ul style="list-style-type: none"> <li>Does it reduce contaminated sites and increase remediation of redundant industrial land?</li> <li>Does it reduce or improve the quality of agricultural land?</li> <li>Does it improve the quality of the boroughs land overall?</li> <li>Does it protect an identified brownfield site with conservation value or which provides a strategic link within the green grid network?</li> <li>Does it affect high grade agricultural land?</li> <li>Does it cause soil pollution/contamination?</li> </ul>	Soil, Material Assets, Landscape

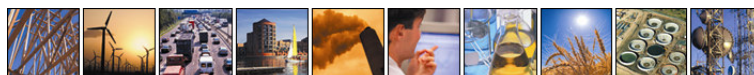


Sustainability Appraisal Objectives	Key questions / guidance	SEA Dir. Topic
7. To manage and reduce the risk of flooding	<ul style="list-style-type: none"> <li>Does it ensure that development does not increase vulnerability to flooding?</li> <li>Does it promote the use of SuDS to help alleviate flooding?</li> <li>Does it provide SuDS systems and other flood prevention systems to attract biodiversity, and to ensure that such systems are integrated into the wider green grid network?</li> </ul>	Water, Biodiversity, Climatic Factors
8. To maintain and enhance water quality (ground and surface) and make efficient use of water	<ul style="list-style-type: none"> <li>Does it improve the quality of water?</li> <li>Does it reduce the demand for water (water efficiency measures)?</li> <li>Does it conserve adequate water supply to maintain healthy populations and rich biodiversity and ensure that water bodies are enhanced to increase biodiversity and ecosystems?</li> <li>Will it affect groundwater resources?</li> <li>Will it impact on surface water quality?</li> </ul>	Water, Biodiversity, Climatic Factors
9. To conserve and enhance biodiversity and the natural environment	<ul style="list-style-type: none"> <li>Will it maintain and enhance relevant habitats and species?</li> <li>Will it protect and enhance habitat corridors and linking routes?</li> <li>Does it continue the protection of the internationally, nationally, European and regionally designated areas and propose appropriate enhancement?</li> <li>Does it conserve and enhance Biodiversity Action Plan (BAP) priority habitats?</li> <li>Does it conserve and enhance the populations of protected and / or BAP priority species?</li> <li>Does it allow for the creation of new areas of BAP priority habitats?</li> <li>Does it meet the principles of decision making on biodiversity in the good practice guide?</li> <li>Does it create opportunities to link to and create the green grid network?</li> <li>Does it allow for the permeability of new development for biodiversity?</li> <li>Does it continue the protection of the internationally, nationally, European and regionally designated areas / sites?</li> <li>Does it afford protection to trees and hedgerows of biodiversity value?</li> </ul>	Biodiversity, Flora and Fauna
10. To achieve the sustainable management of waste	<ul style="list-style-type: none"> <li>Does it reduce waste arisings?</li> <li>Does it increase the re-use of materials?</li> <li>Does it increase the rates of recycling and composting and / or recovery of energy from waste?</li> <li>Does it ensure disposal of waste material (where required) in accordance with the waste hierarchy?</li> <li>Does it ensure the provision of appropriate waste and recycling facilities?</li> </ul>	Material Assets
<b>Social and Community</b>		
11. To meet the challenges of a growing and ageing population	<ul style="list-style-type: none"> <li>Does it take account of and respect the needs of everyone?</li> </ul>	Population
12. To reduce poverty and social exclusion	<ul style="list-style-type: none"> <li>Does it assist with the regeneration of deprived areas?</li> <li>Does it ensure equality and diversity?</li> </ul>	Population, Human Health





Sustainability Appraisal Objectives	Key questions / guidance	SEA Dir. Topic
13. To improve accessibility for all to key services and facilities	<ul style="list-style-type: none"> <li>Does it improve access to key services?</li> <li>Does it improve access to recreation, amenity and community facilities?</li> </ul>	Population
14. To improve health and well-being and reduce inequalities in health	<ul style="list-style-type: none"> <li>Does it seek to prevent or minimise any potential effects upon health?</li> <li>Does it improve access to health services?</li> <li>Does it contribute to fuel poverty reductions?</li> <li>Does it improve access to recreation and open spaces?</li> <li>Are negative air quality and pollution impacts mitigated against?</li> </ul>	Human Health, Population, Air
15. To reduce crime and anti-social behaviour and the fear of these	<ul style="list-style-type: none"> <li>Does it help reduce the fear of crime?</li> <li>Does it help to reduce crime rates?</li> <li>Have designing out crime measures been incorporated into new development?</li> </ul>	Population
16. To provide affordable and decent housing adaptable to future needs of the community	<ul style="list-style-type: none"> <li>Does it deliver the appropriate mix of housing to deliver the long term regeneration schemes for the borough?</li> <li>Does it help reduce the number of people homeless or in temporary accommodation?</li> <li>Does it contribute to the provision of affordable, social and key worker housing?</li> <li>Does it reduce the number of unfit housing and those falling below the decent homes standards?</li> <li>Does it deliver adaptable housing to meet the lifelong needs of the population?</li> <li>Does it reduce the experiences of fuel poverty?</li> <li>Does it deliver housing in sustainable locations with access to employment, community and public transport hubs?</li> </ul>	Population
<b>Economic</b>		
17. To sustain economic growth and competitiveness	<ul style="list-style-type: none"> <li>Does it provide for opportunities to attract new businesses?</li> <li>Does it contribute to infrastructure improvements?</li> <li>Does it support local companies and the economy?</li> <li>Does it contribute the development of eco-tourism industry?</li> </ul>	Population
18. To ensure high and stable levels of employment in accessible locations	<ul style="list-style-type: none"> <li>Are new employment opportunities created to meet the needs of the residents?</li> <li>Are the numbers of knowledge based and higher paid jobs increased?</li> <li>Are employment locations accessible by public transport, walking and bicycle?</li> </ul>	Population
19. To raise the educational achievement levels and help people to acquire the skills needed to find and remain in employment	<ul style="list-style-type: none"> <li>Does it contribute to the development of learning and increased learning opportunities?</li> <li>Does it ensure access to education facilities?</li> </ul>	Population



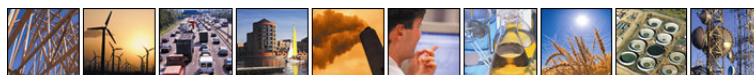
Sustainability Appraisal Objectives	Key questions / guidance	SEA Dir. Topic
20. To promote traffic reduction and encourage more sustainable alternative forms of transport	<ul style="list-style-type: none"> <li>Does it provide improvements and new routes for cyclists and pedestrians?</li> <li>Does it reduce to need to travel by car?</li> <li>Does it encourage people to use public transport, walk or cycle?</li> <li>Will the development lead to adverse impacts on the Strategic Road Network, which cannot be mitigated acceptably?</li> </ul>	Population, Air, Climatic Factors

## 2.4 Developing Indicators for Monitoring

- 2.4.1 It is a requirement of the SEA Directive to establish how the significant sustainability effects of implementing the plan will be monitored. However, as ODPM Guidance on *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents* notes ‘it is not necessary to monitor everything, or monitor an effect indefinitely. Instead monitoring needs to be focused on ‘significant sustainability effects’.
- 2.4.2 The Swale Borough Council SA Scoping Report for the Core Strategy (December 2008) identifies a number of possible indicators that could be used for monitoring the sustainability impacts of Swale Borough Council’s LDF documents, including the Updated Development Brief. This list has not been repeated in this SA Report.
- 2.4.3 The selection of a final set of indicators and development of a monitoring framework will require additional research into issues such as the future availability of data and what information is or could be collected.

## 2.5 When the SA was undertaken and by whom

- 2.5.1 A draft version of the SA Scoping Report for the Swale Borough Core Strategy was completed May 2008. Stakeholders (including the Environment Agency, Natural England, English Heritage and Council Officers) were involved in developing the SA objectives and providing comments on the Scoping Report. This was consulted upon for 5 weeks and a revised Scoping Report was issued in December 2008.
- 2.5.2 The appraisal of the Updated Development Brief was undertaken between December 2008 and April 2009 by consultants at Entec.

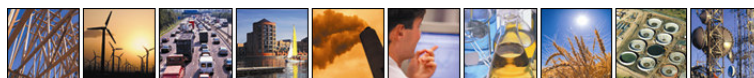


## 2.6 Difficulties and Assumptions

- 2.6.1 There were no significant technical, procedural or other difficulties encountered during the SA of the Updated Development Brief.
- 2.6.2 The assessment assumes that the proposals set out in the Updated Development Brief<sup>7</sup> and the mitigation proposed in the supporting documents will be implemented as stated. It should be noted that the assessment has been undertaken at a strategic level using the information provided, supported by data from other relevant sources (see the list of baseline information in Appendix B). As such, any findings or recommendations should not be interpreted as negating any requirement for further environmental assessment work at the project level.

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<sup>7</sup> Refreshing the Vision: An Updated Development Brief for Land East of Woodpecker Drive, Iwade (David Lock Associates, March 2009)



## 3. Assessment of Effects

### 3.1 Assessment of Alternatives

**3.1.1** It is usual within SA practice to consider the performance of the reasonable alternatives to highlight, at a high level, the contribution each alternative may have made towards the sustainability objectives. The SA can then be used to further examine the choices made and potentially identify characteristics from the alternatives that may be incorporated into a final preferred option to improve sustainability performance.

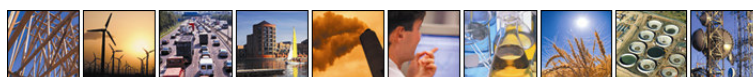
**3.1.2** As highlighted in Section 1.2, the recently adopted Swale Borough Local Plan (2008) allocates land to the east of the village of Iwade for the development of approximately 90 new homes up to 2016 (Policy H5(5) of the Local Plan). Given that the Local Plan has already been subjected to an SA it is not considered necessary to consider alternative sites for the location of new housing in Iwade. As the development of the Updated Development Brief has been iterative between stakeholders, the Council and master planners, it is considered that the appropriate alternatives to the Updated Development Brief for comparison are the ‘do-nothing’ option (whereby the site is not developed), and an alternative development option (whereby the site is brought forward for development without a development brief). A summary of these options is provided below.

- **Do-Nothing Option:** The ‘do-nothing’ option would be to maintain the land to the east of Woodpecker Drive, Iwade as it is. Under the ‘do-nothing’ option for the purposes of the SA it is assumed that all physical aspects of the land will remain as they are at present and a development brief would not be produced.
- **No Brief Option:** The ‘no brief’ option would be to allow the development of approximately 90 new homes within the land to the east of Woodpecker Drive without a development brief in place.

**3.1.3** A high level appraisal of these options has been undertaken and is presented in Table 3.1.

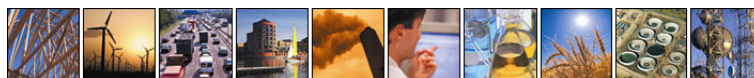
**Table 3.1 High level appraisal of the Do-Nothing and No Brief Options**

SA Objectives	Do-Nothing Option	No Brief Option
1. To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage	<ul style="list-style-type: none"> <li>• There is unlikely to be a significant change in the character and distinctiveness of the built environment.</li> <li>• There are unlikely to be any effects upon cultural heritage, although the cultural heritage assets in Iwade (e.g. the Listed Buildings) would continue to be protected.</li> </ul>	<ul style="list-style-type: none"> <li>• With no development brief, there is a possibility that best practice may not be followed. This may have a negative effect on the built environment and cultural heritage.</li> <li>• The development brief provides advice on design which may otherwise be overlooked if a development brief was not in place.</li> </ul>





SA Objectives	Do-Nothing Option	No Brief Option
2. To minimise the need for energy, increase energy efficiency and to increase the use of renewable energy	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in energy use, energy efficiency and renewable energy. Although climate change may result in an increase in temperature.</li> </ul>	<ul style="list-style-type: none"> <li>New housing will increase energy consumption in the area. Without a development brief in place, opportunities for energy efficiency and renewable energy may not be realised. Climate change impacts may also not be fully taken into account.</li> </ul>
3. To encourage sustainable construction materials and methods	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in the design and construction of buildings.</li> </ul>	<ul style="list-style-type: none"> <li>Without a development brief in place, there is a possibility that best practice may not be followed. Opportunities for sustainable design and construction may not be realised.</li> <li>The development brief promotes the use of renewable or recycled materials in both the construction process and the life of the development.</li> </ul>
4. To reduce air pollution and ensure air quality continues to improve	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in air quality; local air quality would be maintained.</li> </ul>	<ul style="list-style-type: none"> <li>There is the potential for the development of new housing to impact upon local air quality (e.g. car traffic emissions). Without a development brief in place, measures to reduce potential impacts upon local air quality may not be implemented.</li> </ul>
5. To protect and enhance the valued landscape and townscape	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change to landscape character and townscape. The landscape character and openness of the land to the east of Woodpecker Drive would be maintained.</li> </ul>	<ul style="list-style-type: none"> <li>There is the potential for the development of new housing to have an effect (both positive and / or negative) upon the landscape and townscape. The outcomes of the Landscape and Visual appraisal would help to address potential adverse effects upon the landscape and townscape. Notwithstanding this, the development brief may provide advice on design which may otherwise be overlooked if a development brief was not in place.</li> </ul>
6. To protect and enhance soil quality and reduce contamination	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change. Soil quality and good quality agricultural land would be maintained.</li> </ul>	<ul style="list-style-type: none"> <li>There is the potential for the development of new housing to impact upon soil quality. Without a development brief in place, there is the possibility that best practice may not be followed. Development of the land would result in the loss of good quality agricultural land.</li> </ul>
7. To manage and reduce the risk of flooding	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change. Any existing flood risk would remain.</li> </ul>	<ul style="list-style-type: none"> <li>There is the potential for new housing development to increase flood risk. However, it is assumed that any potential flood risk arising from the development of the site would be addressed through a Flood Risk Assessment.</li> </ul>
8. To maintain and enhance water quality (ground and surface) and make efficient use of water	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in water efficiency. Water quality would be maintained.</li> </ul>	<ul style="list-style-type: none"> <li>There is the potential for the development of new housing to impact upon water quality. Notwithstanding this, a Drainage Strategy would help to address potential adverse effects upon water quality.</li> <li>New housing will increase water consumption in the area. Without a development brief in place, opportunities for water efficiency in new housing may not be realised.</li> </ul>



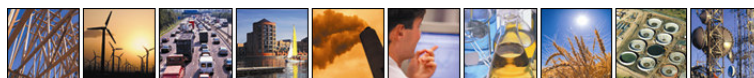
SA Objectives	Do-Nothing Option	No Brief Option
9. To conserve and enhance biodiversity and the natural environment	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change. Biodiversity associated with the site would continue to be undisturbed.</li> </ul>	<ul style="list-style-type: none"> <li>The site comprises valuable habitat and disturbance of species, including valuable habitat for great crested newt and Noble Chafer Beetle. However, it is assumed that any potential adverse effects upon biodiversity would be addressed through the submission of ecological reports and the subsequent implementation of any recommendations.</li> </ul>
10. To achieve the sustainable management of waste	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change to waste management practices.</li> </ul>	<ul style="list-style-type: none"> <li>The construction of new housing is likely to generate waste. New housing will also increase waste arisings in the area. Without a development brief in place, opportunities for waste reduction and recycling may not be realised.</li> </ul>
11. To meet the challenges of a growing and ageing population	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change.</li> </ul>	<ul style="list-style-type: none"> <li>Without a development brief in place, there is the possibility that best practice may not be followed.</li> </ul>
12. To reduce poverty and social exclusion	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in the short term. However, in the long term doing nothing could exacerbate poverty levels and social exclusion as there would be less affordable housing provision.</li> </ul>	<ul style="list-style-type: none"> <li>Without a development brief in place, there is the possibility that best practice may not be followed. Opportunities for creating a more inclusive, mixed and balanced community may not be realised.</li> </ul>
13. To improve accessibility for all to key services and facilities	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in key services or facilities provision.</li> </ul>	<ul style="list-style-type: none"> <li>Existing services and facilities provision may not be able to cater for an increase in population associated with new housing. Without a development brief in place, contributions to services and facilities provision may not be made. New housing may therefore not have adequate access to key services and facilities.</li> </ul>
14. To improve health and well-being and reduce inequalities in health	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in health and well being.</li> </ul>	<ul style="list-style-type: none"> <li>There is the potential for the development of new housing to affect health (i.e. noise and disturbance during construction). New housing may also impact upon the privacy of existing houses adjacent to the land. Without a development brief in place, best practice mitigation may not be followed.</li> </ul>
15. To reduce crime and anti-social behaviour and the fear of these	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change to crime and anti-social behaviour levels.</li> </ul>	<ul style="list-style-type: none"> <li>Without a development brief in place, opportunities for reducing the potential for crime and anti-social behaviour may not be realised.</li> </ul>
16. To provide affordable and decent housing adaptable to future needs of the community	<ul style="list-style-type: none"> <li>Doing nothing would limit housing provision in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The development of the land for housing would contribute towards housing provision in the area. However, without a development brief in place an appropriate mix of housing (in terms of size, type, tenure and affordability) may not be developed.</li> </ul>
17. To sustain economic growth and competitiveness	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in the local economy.</li> </ul>	<ul style="list-style-type: none"> <li>Developing the site without a development brief in place is unlikely to result in any significant changes to the local economy. Although opportunities for increasing the desirability of the new development may not be realised.</li> </ul>



SA Objectives	Do-Nothing Option	No Brief Option
18. To ensure high and stable levels of employment in accessible locations	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change to local employment levels.</li> </ul>	<ul style="list-style-type: none"> <li>Developing the site without a development brief in place is unlikely to result in any significant changes to employment levels.</li> </ul>
19. To raise the educational achievement levels and help people to acquire the skills needed to find and remain in employment	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change in educational attainment and access to education facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Developing the site without a development brief in place is unlikely to result in any significant changes in educational attainment and access to education facilities.</li> </ul>
20. To promote traffic reduction and encourage more sustainable alternative forms of transport	<ul style="list-style-type: none"> <li>There is unlikely to be a significant change to traffic and travel patterns.</li> </ul>	<ul style="list-style-type: none"> <li>The development of new housing is likely to increase traffic levels and potentially also congestion. However, it is assumed that any potential adverse effects would be addressed through a Transport Assessment and the subsequent implementation of any recommendations.</li> </ul>

**3.1.4** Table 3.1 highlights that, generally, the do-nothing is unlikely to have significant negative environmental or economic effects. However, not bringing the land forward for housing development would limit housing provision in Iwade. In the long term, doing nothing could also exacerbate poverty levels and social exclusion, as there would be less affordable housing provision.

**3.1.5** The development of the land for housing (no brief option) would contribute towards housing provision in the area. However, without a development brief in place an appropriate mix of housing (in terms of size, type, and tenure) may not be developed. There is the potential for the development of new housing to impact upon the environment and health, particularly biodiversity. Whilst the potential adverse effects of the development of the site could be addressed through the submission of appraisals and assessments (e.g. a Flood Risk Assessment, Ecological Appraisal, Transport Assessment etc), given the potential for adverse effects it is clear that any additional requirements and guidance provided in a development brief would be beneficial, promoting better and best practice with regard to design and construction. In this regard, producing a development brief for the land is considered to be the most appropriate option.



## 3.2 Assessing the Sustainability Performance of the Updated Development Brief

- 3.2.1** The proposals within the Updated Development Brief have been appraised against each of the SA objectives listed in Table 2.2, taking into account the baseline situation and key sustainability issues identified.
- 3.2.2** When appraising the proposals consideration has been given to the timescale (whether the effect is short term or medium / long term) and the nature of the effect (temporary or permanent, positive or negative and direct or indirect) to determine the effects. In addition, consideration has been given to cumulative and synergistic effects.
- 3.2.3** The likely significant effects are identified using a qualitative scoring system (detailed in Table 3.2), supported by a commentary and recommendations as to how the proposals may be improved. It should be noted that the scores are only intended to serve as an indication of the types of effects that may occur based on the level of information considered.

**Table 3.2 Sustainability Appraisal Scoring System**

Alignment	Description	Symbol
Major Positive Impact	The proposal contributes significantly to the achievement of the objective	++
Minor Positive Impact	The proposal contributes to the achievement of the objective but not significantly	+
Neutral	The proposal does not have any effect on the achievement of the objective	0
Minor Negative Impact	The proposal detracts from the achievement of the objective but not significantly	-
Major Negative Impact	The proposal detracts significantly from the achievement of the objective	--
Uncertain	The relationship of the proposal is uncertain or is dependant upon the way the aspect is managed. In addition, insufficient information may be available to enable an assessment to be made.	?
No relationship	There is no clear relationship between the proposal and the achievement of the objective or the relationship is negligible.	~





3.2.4 The findings of the SA of the Updated Development Brief are presented in Table A1 in Appendix A.

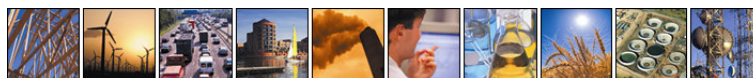
3.2.5 Overall, the Updated Development Brief is considered to contribute positively towards the majority of the SA objectives identified in this report, helping to create a safe, attractive and inclusive community at Iwade. There are a number of sustainability benefits stemming from the Updated Development Brief, in particular:

- The provision of a mix of housing types in terms of size, tenure and type, including affordable housing, which will be designed to meet Level 3 of the Code for Sustainable Homes;
- The requirement for 10% of the sites renewable energy requirements to come from renewable resources;
- The promotion of water and energy conservation, waste minimisation and the use of renewable or recycled materials both in the construction process and the life of the development;
- The retention of part of the Old Orchard area, the transplant of orchard trees that support the Noble Chafer Beetle and the creation of new terrestrial and aquatic wildlife habitats to support protected species and enhance biodiversity;
- The inclusion of a network of footpaths and cycleways linking to existing facilities in Iwade and also to existing pedestrian and cycle routes in the wider area, and contributions towards a new pedestrian / cycle link to Ridham / Kemsley, which should help to encourage people to walk and cycle instead of using the car for short journeys;
- The use of SuDS in the development to maintain natural drainage patterns and limit rates of run-off to existing greenfield rates; and
- The use of local materials, build styles and landscaping to ensure that new development is in keeping within the surrounding environment and is of a high quality.

3.2.6 The Updated Development Brief is not considered to have any adverse effects upon the SA objectives, with the exception of SA objective 6 (to protect and enhance soil quality) due to the loss of 1.15 hectares of Grade I agricultural land.

3.2.7 There were a few cases where the potential effect of the Updated Development Brief was identified as uncertain, where the effect would depend upon how the proposals are implemented. There is the potential for the inclusion of a footpath through the Old Orchard area to have an affect upon biodiversity (i.e. disturbance). Notwithstanding this, the need to maintain appropriate levels of access is acknowledged.

3.2.8 There is also the potential for the inclusion of a small area of formal play space in the Old Orchard area to have an effect upon biodiversity. However, the provision of play space in this area is subject to Natural England approval. If approval is granted by Natural England it is assumed that the proposal is acceptable in ecological terms. Taking this into account no significant effects upon biodiversity associated with the formal play space in the Old Orchard area are anticipated.

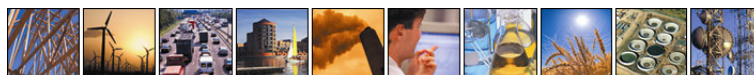


- 3.2.9 The Updated Development Brief could potentially have a beneficial effect upon SA objectives 13 (access to services / facilities) and 19 (education), depending upon whether contributions are paid towards primary and secondary education, library, youth services and adult social services. It is recommended that careful consideration is given to existing services and facilities provision in Iwade and whether they can accommodate / cater for the increase in population associated with new housing development.
- 3.2.10 As part of the SA process, measures to enhance the sustainability of the proposals have been identified. Positive measures that could be encouraged in the Updated Development Brief or incorporated into the proposals are summarised in Box 1.

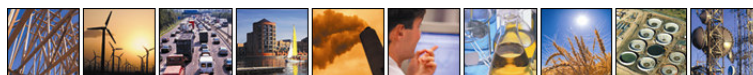
Box 1	Recommendations for Maximising Sustainability
	<ul style="list-style-type: none"> <li>• The employment of Contractors registered with the Considerate Constructors Scheme, who commit to best practice construction methods.</li> <li>• Implementation of a Local Labour in Construction Scheme, which utilises the skills of local people for construction works associated with the development.</li> <li>• The use of responsibly sourced materials for the basic building and finishing elements.</li> <li>• The provision of systems for collecting rainwater and greywater.</li> <li>• Future proofing the energy efficiency of dwellings over their whole life by limiting heat losses across the building envelope.</li> <li>• The use of energy efficient external and internal lighting.</li> <li>• The provision of a reduce energy means of drying clothes (space with post and footings or fixings capable of holding drying lines).</li> <li>• The installation of energy efficient white goods where supplied.</li> <li>• The inclusion of a Home Users Guide, which includes information on environmental features of the home and their use (e.g. recycling and energy saving tips).</li> <li>• The provision of facilities for composting household waste and communal bring facilities for key recyclables.</li> </ul>

## 3.3 Cumulative Effects Arising from Other Plans and Programmes

- 3.3.1 Many environmental problems result from the accumulation of multiple small and often indirect effects, rather than a few large and obvious ones. Annex I of the SEA Directive requires that the assessment of effects include 'cumulative' effects. Cumulative effects arise where several developments each have insignificant effects but together have a significant effect (e.g. traffic caused by several projects together leading to significant congestion); or where several individual effects of the plan (e.g. noise, dust and visual) have a combined effect.



- 3.3.2 As highlighted in Section 1.2, the Swale Borough Local Plan (2008) allocates land to the east and south west of the village of Iwade for the development of 427 further new homes up to 2016 (Policy H5(5) of the Local Plan). Barratt Strategic, acting for Ward Homes, controls the land to the east of Woodpecker Drive on the east of the village, which has the capacity to accommodate approximately 90 of these new homes. The remainder will mostly be located on land to the south west of the village (approximately 310 homes), which is being promoted by Hillreed Homes. Approximately 27 of the new homes will be located to the north of Iwade Church, to the north of the village.
- 3.3.3 Similar to the Updated Development Brief for land east of Iwade, in accordance with Policy H5(5) of the Local Plan a Revised Development Brief has been prepared for the land south west of Iwade, which has been submitted with the planning application for this land.
- 3.3.4 As part of this SA, an assessment of the potential cumulative effects of implementing the development briefs produced for each site has been undertaken, which is presented in Table C1 in Appendix C. This assessment is based on readily information available on the Hillreed Homes scheme from the UK Planning website ([www.ukplanning.com](http://www.ukplanning.com)), submitted as part of the planning application. The assessment of the Revised Development Brief for the land south west of Iwade is based on the final draft version of the *Iwade Phase 2 Development: South West Sector Revised Development Brief* (DHA, October 2008).
- 3.3.5 Table C1 highlights that, overall, the cumulative effects of implementing the briefs is positive, particularly in relation to housing provision, given the scale of the combined proposals. Only one negative cumulative effect was identified, in relation to SA objective 6 (to protect and enhance soil quality) due to the cumulative loss of Grade I agricultural land. The development briefs have been prepared with due regard to each other and to the long term proposals for Iwade and therefore collectively should help to reduce the potential adverse effects arising from the cumulative development.



## 4. Conclusions

### 4.1 Conclusions and Next Steps

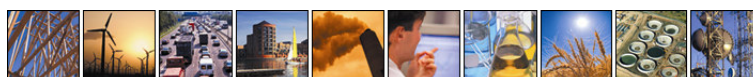
- 4.1.1 The SA of the Updated Development Brief has been carried out using the SA framework developed for the SA of Swale Borough Council's LDF (December 2008), as amended to reflect the locality of the site. The SA of the Updated Development Brief incorporates the requirements of the SEA Directive and associated regulations and closely follows the advice and guidance provided by the ODPM on the *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*. Details of how this document fulfils the requirements of the SEA Directive are outlined in Section 4.2.
- 4.1.2 This SA report has been provided to show how the principles of sustainability have been incorporated into the planning proposals for land east of Woodpecker Drive. The SA concluded that, overall, the Updated Development Brief is considered to contribute positively towards the majority of the SA objectives identified in this report, helping to create a safe, attractive and inclusive community at Iwade.
- 4.1.3 This SA will be submitted alongside the brief and planning application for the site.

### 4.2 Quality Assurance

- 4.2.1 The ODPM SA Guidance contains a Quality Assurance checklist to help ensure that the requirements of the SEA Directive are met. A completed Quality Assurance checklist for this SA Report is provided in Table 4.1.

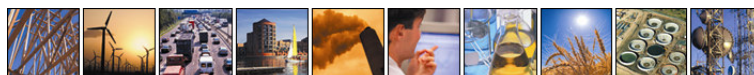
**Table 4.1 Quality Assurance Checklist**

Quality Assurance Checklist	
Objectives and Context	
<ul style="list-style-type: none"> <li>The plan's purpose and objectives are made clear.</li> </ul>	Sections 1.1 and 1.2.
<ul style="list-style-type: none"> <li>Sustainability issues, including international and EC objectives, are considered in developing objectives and targets.</li> </ul>	A comprehensive plans and programmes review was undertaken during the scoping stage of the Swale Borough LDF. The plans and programmes review and key environmental and sustainability issues and problems for Swale Borough (identified from the review of plans and the baseline information) are detailed within the Swale Borough Core Strategy SA Scoping Report (December 2008). These were used to inform the development of the SA framework adopted for this SA. A summary of the key sustainability issues relevant to Iwade are detailed in Table 2.1 in Chapter 2.
<ul style="list-style-type: none"> <li>SA objectives are clearly set out and linked to indicators and targets where appropriate.</li> </ul>	Table 2.2 in Chapter 2 contains the SA objectives and detailed criteria. Proposals for monitoring are detailed in Section 2.4.





Quality Assurance Checklist	
<ul style="list-style-type: none"> <li>Links with other related plans, programmes and policies are identified and explained.</li> </ul>	These were reviewed as part of the Swale Borough Core Strategy Scoping Report (December 2008). This has not been duplicated in this SA Report.
Scoping	
<ul style="list-style-type: none"> <li>The environmental consultation bodies are consulted in appropriate ways and at appropriate times on the content and scope of the SA Report.</li> </ul>	Consultation has been undertaken with Swale Borough Council and the environmental consultees during the preparation of the Updated Development Brief. Swale Borough Council issued the draft Swale Borough Core Strategy SA Scoping Report for 5 weeks of consultation in May 2008 and consulted a range of stakeholders, including the environmental consultation bodies.
<ul style="list-style-type: none"> <li>The appraisal focuses on significant issues.</li> </ul>	Key environmental and sustainability issues and problems for Swale Borough are detailed within the Swale Borough Core Strategy SA Scoping Report (December 2008). A summary of the key sustainability issues relevant to Iwade are detailed in Table 2.1 in Chapter 2.
<ul style="list-style-type: none"> <li>Technical, procedural and other difficulties encountered are discussed; assumptions and uncertainties are made explicit.</li> </ul>	A statement concerning difficulties encountered and assumptions made is included in Section 2.6. These are also made clear throughout the SA Report where appropriate.
<ul style="list-style-type: none"> <li>Reasons are given for eliminating issues from further consideration.</li> </ul>	Alternative options are discussed and appraised in Section 3.1.
Baseline Information	
<ul style="list-style-type: none"> <li>Relevant aspects of the current state of the environment and their likely evolution without the plan are described.</li> </ul>	Baseline information for Swale Borough, including likely future conditions, is detailed in the Swale Borough Core Strategy SA Scoping Report (December 2008). This information has been used to inform the SA of the Updated Development Brief. Additional baseline information relating to Iwade is provided in Table A1 in Appendix A in relation to each of the SA objectives.
<ul style="list-style-type: none"> <li>Characteristics of areas likely to be significantly affected are described, including areas wider than the physical boundary of the plan area where it is likely to be affected by the plan where practicable.</li> </ul>	Baseline information for Swale Borough is detailed in the Swale Borough Core Strategy SA Scoping Report (December 2008). This information has been used to inform the SA of the Updated Development Brief. Additional baseline information relating to Iwade is provided in Table A1 in Appendix A in relation to each of the SA objectives.
<ul style="list-style-type: none"> <li>Difficulties such as deficiencies in information or methods are explained.</li> </ul>	A statement concerning difficulties encountered is included in Section 2.6. These are also made clear throughout the SA Report where appropriate.
Prediction and evaluation of likely significant effects	
<ul style="list-style-type: none"> <li>Likely significant social, environmental and economic effects are identified, including those listed in the SEA Directive (biodiversity, population, human health, fauna, flora, soil, water, air, climate factors, material assets, cultural heritage and landscape), as relevant.</li> </ul>	The likely significant effects of the Updated Development Brief, including those listed in the SEA Directive, are detailed in full in Table A1 in Appendix A. A summary of likely significant effects is provided in Section 3.2.
<ul style="list-style-type: none"> <li>Both positive and negative effects are considered, and where practicable, the duration of effects (short, medium or long-term) is addressed.</li> </ul>	The appraisal methodology is detailed in Section 3.2 of this SA Report. Consideration is given to both positive and negative effects and to the duration of effects.
<ul style="list-style-type: none"> <li>Likely secondary, cumulative and synergistic effects are identified where practicable.</li> </ul>	The appraisal methodology is detailed in Section 3.2 of this SA Report and these effects are identified in the commentary, where appropriate. Consideration is given to cumulative effects in Section 3.3 and Table C1.
<ul style="list-style-type: none"> <li>Inter-relationships between effects are considered where practicable.</li> </ul>	These are identified in the commentary, where appropriate.
<ul style="list-style-type: none"> <li>Where relevant, the prediction and evaluation of effects makes use of accepted standards, regulations, and thresholds.</li> </ul>	These are identified in the commentary, where appropriate.

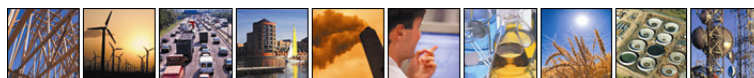


Quality Assurance Checklist	
<ul style="list-style-type: none"> <li>Methods used to evaluate the effects are described.</li> </ul>	The appraisal methodology is detailed in Section 3.2.
Mitigation measures	
<ul style="list-style-type: none"> <li>Measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the plan are indicated.</li> </ul>	These are identified in the commentary in Table A1 of Appendix A, and in the summary of the outcomes of the appraisal in Section 3.2.
<ul style="list-style-type: none"> <li>Issues to be taken into account in development consents are identified.</li> </ul>	These are identified in the commentary in Table A1 of Appendix A, and in the summary of the outcomes of the appraisal in Section 3.2.
The SA Report	
<ul style="list-style-type: none"> <li>Is clear and concise in its layout and presentation.</li> </ul>	The SA Report is clear and concise.
<ul style="list-style-type: none"> <li>Uses simple, clear language and avoids or explains technical terms. Uses maps and other illustrations where appropriate.</li> </ul>	Unnecessary technical material and jargon has been avoided in the SA Report where possible. Maps have been included where relevant. A Non Technical Summary is included at the front of the SA Report.
<ul style="list-style-type: none"> <li>Explains the methodology used. Explains who was consulted and what methods of consultation were used.</li> </ul>	The appraisal methodology is detailed in Section 3.2. Information on scoping consultation is provided in the Swale Borough Core Strategy SA Scoping Report (December 2008).
<ul style="list-style-type: none"> <li>Identifies sources of information, including expert judgement and matters of opinion.</li> </ul>	Baseline information sources are referenced throughout the Swale Borough Core Strategy SA Scoping Report (2008). A list of baseline information sources used to establish the baseline for Iwade is provided in Appendix B.
<ul style="list-style-type: none"> <li>Contains a non-technical summary</li> </ul>	A Non Technical Summary is included at the front of the SA Report.
Consultation	
<ul style="list-style-type: none"> <li>The SA is consulted on as an integral part of the plan-making process.</li> </ul>	This will be undertaken as part of the next steps.
<ul style="list-style-type: none"> <li>The consultation bodies, other consultees and the public are consulted in ways which give them an early and effective opportunity within appropriate time frames to express their opinions on the draft plan and SA Report.</li> </ul>	This will be undertaken as part of the next steps.
Decision-making and information on the decision	
<ul style="list-style-type: none"> <li>The SA Report and the opinions of those consulted are taken into account in finalising and adopting the plan.</li> </ul>	This will be undertaken as part of the next steps.
<ul style="list-style-type: none"> <li>An explanation is given of how they have been taken into account.</li> </ul>	This will be undertaken as part of the next steps.
<ul style="list-style-type: none"> <li>Reasons are given for choices in the adopted plan, in the light of other reasonable options considered.</li> </ul>	This will be undertaken as part of the next steps.



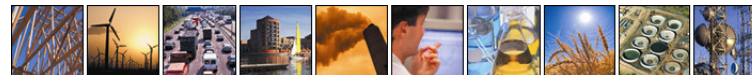
## **Appendix A**

# **Sustainability Appraisal of the Updated Development Brief**



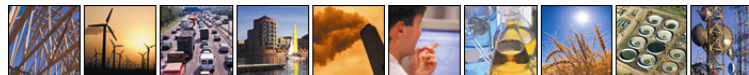
**Table A2 Sustainability Appraisal of the Updated Development Brief**

Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
	Short	Medium	Long		
1. To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage	+	+	+	<ul style="list-style-type: none"> <li>Iwade has three Listed Buildings: the Grade I listed Church of All Saints, the Grade II listed Ivy Cottage and a Grade II listed barn, all of which are situated along The Street to the north west of the site. None of these buildings are listed on the Heritage at Risk register.</li> <li>The pattern of built form within Iwade is predominantly detached houses interspersed with semi-detached. Apartments and terraced houses are found in the more recent development to the south. There is no particular dominant architectural style. The dominant materials in the area are facing brickwork, render and a small amount of timber boarding.</li> </ul>	<p>There are no cultural historic assets within or in close proximity to the site.</p> <p>A key objective of the brief is to create a strong sense of place, character and identity through ensuring development of the highest quality. The urban design principles and development components set out within the brief should help to ensure new development is in keeping with the existing built environment and is of a high quality.</p> <p>The brief states that development will not exceed 2 / 2 ½ storeys and proposes the use of pitched roofs throughout in keeping with the character established within Iwade. The detailing of development will also reflect the local vernacular.</p> <p>The landscaping strategy provides for the reinforcement and restoration of existing historic field boundaries within the site and the surrounding area.</p>
2. To minimise the need for energy, increase energy efficiency and to increase the use of renewable energy	0	+	+	<ul style="list-style-type: none"> <li>Swale produces a considerably higher level of CO<sub>2</sub> tonnes (10.2 tonnes per capita total CO<sub>2</sub> in 2005) than the south east average (8.4 tonnes in 2005).</li> <li>Climate change is a global environmental threat. The impacts of climate change are expected to be warmer, wetter winters and hotter, drier summers. Sea levels are expected to rise and, together with an increase in rainfall, lead to more frequent flooding.</li> <li>Climate change adaptation is an essential part of ensuring that communities remain desirable places to live and work and future needs are met.</li> <li>(continued)</li> </ul>	<p>The proposed development would increase traffic levels on the local road network, particularly on Woodpecker Drive and Ferry Road, increasing traffic related greenhouse gas emissions. There is also the potential for the increase in traffic levels to affect congestion. Although the Transport Assessment (TA) concludes that there will be no significant impact on the operation of local transport networks.</p> <p>Notwithstanding this, a network of footpaths and cycleways will be integrated within the street network, and pedestrians and cyclists will be given priority. Cycle parking will also be provided at the new flats and contributions will be made to a new pedestrian / cycle link to Ridham / Kemsley.</p> <p>The proposed network will link the new housing to existing services and facilities in Iwade, and also to local bus services and pedestrian and cycle routes towards Kemsley and Ridham, and to National Cycle Route 1. Access to bus services will enable residents to access train services in the area.</p> <p>These aspects contribute positively towards encouraging people to use public transport and to walk and cycle instead of using the car for short journeys, and therefore may help to reduce road transport greenhouse gas emissions.</p>





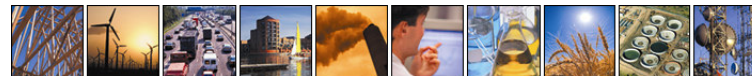
Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
	Short	Medium	Long		
2. To minimise the need for energy, increase energy efficiency and to increase the use of renewable energy	+	++	++	<ul style="list-style-type: none"> <li>The average Standard Assessment Procedure rating for properties in Swale was 48 in 2004 compared to a regional and national average of around 44, despite Swale having a more modern housing stock profile.</li> <li>The Swale Borough Council Housing Strategy 2004-2007 indicates that there are an estimated 4,600 households in fuel poverty in Swale Borough.</li> </ul>	<p>New housing development will be designed to meet Level 3 of the Code for Sustainable Homes and will also make provision for 10% of the sites renewable energy requirements to come from renewable sources. Design measures to be promoted include energy conservation both in the construction process and the life of the development.</p> <p><i>Other positive measures for reducing CO<sub>2</sub> emissions and maximising energy efficiency that could be encouraged include:</i></p> <ul style="list-style-type: none"> <li><i>Future proofing the energy efficiency of dwellings over their whole life by limiting heat losses across the building envelope.</i></li> <li><i>The use of energy efficient internal and external lighting.</i></li> <li><i>The provision of a reduced energy means of drying clothes (space with post and footings or fixings capable of holding drying lines).</i></li> <li><i>The installation of energy efficient white goods where supplied.</i></li> <li><i>The inclusion of a Home Users Guide, which includes energy saving tips.</i></li> </ul>
3. To encourage sustainable construction materials and methods	+	++	++	<ul style="list-style-type: none"> <li>A survey of housing stock condition undertaken in 2002 identified that around 8% of homes in Swale are unfit compared with 7% nationally.</li> <li>The Code for Sustainable Homes provides a measure of sustainable home building. The code includes performance standards for the environmental impact of materials and the responsible sourcing of materials (basic building elements and finishing elements).</li> <li>Social housing in Swale is currently required to meet Lifetime Homes Standards, and by 2010 all social housing is to meet the Decent Homes standard.</li> </ul>	<p>New housing development will be designed to meet Level 3 of the Code for Sustainable Homes. The development brief also promotes the use of renewable or recycled materials in both the construction process and the life of the development.</p> <p><i>Other positive measures that could be encouraged in the development brief include the use of responsibly sourced materials for the basic building elements and finishing elements.</i></p> <p><i>Contractors registered with the Considerate Constructors Scheme should be employed for the development of the site, who commit to best practice construction methods.</i></p>



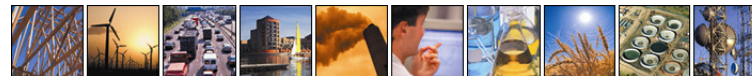
Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
	Short	Medium	Long		
4. To reduce air pollution and ensure air quality continues to improve	0	+	+	<ul style="list-style-type: none"> <li>The most recent published review of quality in Swale Borough (2006) indicated that national air quality objectives were currently being met and consequently no Air Quality Management Areas (AQMA) were declared in the borough. However, the Environmental Health Officer at Swale Borough Council has indicated that national air quality objectives for nitrogen dioxide are currently being exceeded in the centre of Newington (approximately 5km south west of Iwade). This is most likely to be due to traffic flow and the narrowing of the road at this point. The Council are therefore in the process of declaring an AQMA for Newington High Street.</li> </ul>	<p>The proposed development would increase traffic levels on the local road network, particularly on Woodpecker Drive and Ferry Road, which could result in transport related local air quality impacts. There is also the potential for the increase in traffic levels to affect congestion. Although the Transport Assessment concludes that there will be no significant impact on the operation of local transport networks.</p> <p>Notwithstanding this, a network of footpaths and cycleways will be integrated within the street network, and pedestrians and cyclists will be given priority. Cycle parking will be provided at the new flats and contributions will be made to a new pedestrian / cycle link to Ridham / Kemsley.</p> <p>The proposed network will link the new housing to existing services and facilities in Iwade, and also to existing local bus services and pedestrian and cycle routes towards Kemsley and Ridham, and National Cycle Route 1. Access to local bus services will enable residents to access train services in the surrounding area.</p> <p>These aspects contribute positively towards encouraging people to use public transport and to walk and cycle instead of using the car for short journeys, and therefore may help to reduce the impact of road transport upon local air quality.</p> <p>It is noted that an AQMA is due to be declared for Newington High Street. As noted above the Transport Assessment concludes that there will be no significant impact upon the operation of local transport networks. The AQMA is therefore not anticipated to be significantly affected.</p>



Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
	Short	Medium	Long		
5. To protect and enhance the valued landscape and townscape	0	+	+	<ul style="list-style-type: none"> <li>Lwade lies within the former Countryside Agency Joint Character Area (81) – the Greater Thames Estuary &amp; the 'Fruit Belt Character Area' in the Landscape Assessment of Kent.</li> <li>At borough level, Lwade lies within the Lwade Farmlands Character Area, characterised by arable farmlands which are gently undulating rural landscapes that have been formed from the underlying geology.</li> <li>The site falls within the Village Park character area of Lwade, defined in the original Lwade Development Brief (1999) as formalised, garden suburb set around a central formal garden.</li> <li>Raspberry Hill, an Area of High Landscape Value, is situated around 1km to the north west of Lwade. This stretch of coastline is also designated Coastal Zone and Undeveloped Coast under Policy E13 of the Local Plan.</li> <li>The site lies adjacent to an Important Local Countryside Gap, designated under the Local Plan in order to retain the individual character and setting of settlements.</li> </ul>	<p>There is the potential for the development of the site to be viewed as having an undesirable effect upon the surrounding landscape character and visual amenity (particularly by existing local residents). The development would be situated adjacent to existing housing overlooking open countryside. The site is also adjacent to an Important Local Countryside Gap.</p> <p>However, the proposed development would be seen in the context of the adjacent residential development. The key urban design principles and development components set out within the brief should help to ensure that the new development is in keeping with the existing built environment and is of a high quality.</p> <p>A key objective of the brief is to ensure there is an appropriate relationship between the proposed development and the rural countryside through the design and layout of development.</p> <p>The landscaping strategy includes for the retention and reinforcement of various existing trees and hedgerows and the Old Orchard area to the north of the site, and structural planting containing mixed native species trees and shrubs to soften views between Lwade and land to the south and east.</p> <p>Relatively lower density development will be focused towards the rural edge of the development, to mark the transition from village to countryside.</p> <p>The above aspects should help to ensure that the proposed development has no significant adverse effects upon landscape character and visual amenity. The development brief therefore contributes positively towards this objective.</p>
6. To protect and enhance soil quality and reduce contamination	-	-	-	<ul style="list-style-type: none"> <li>Swale Borough contains some of the highest quality agricultural land in the UK.</li> <li>Lwade is located within 0.5km of the North Kent Marshes Environmentally Sensitive Area.</li> <li>The site is underlain by London Clay with drift deposits of alluvium.</li> <li>Agricultural land within the site is classified as Grade I (excellent), which is the best and most versatile land.</li> </ul>	<p>The development of the site would result in the loss of approximately 1.15 hectares of Grade I agricultural land. Notwithstanding this, the loss of this Grade I agricultural land was accepted when the site was allocated for housing development. There is also other Grade 1 agricultural land within the wider area.</p>



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7. To manage and reduce the risk of flooding	0	+	+	<ul style="list-style-type: none"> <li>The majority of lwade lies outside of the tidal and fluvial flood zone, with the exception being some properties adjacent to the lwade Stream.</li> <li>Historical incidences of localised flooding have occurred along lwade Stream, believed to be the result of inadequate culvert capacity. The Environment Agency (EA) has undertaken minor works to the culverts upstream to reduce flood risk.</li> <li>The Flood Risk Assessment (FRA) for lwade Phase 8 indicates that the most significant flood risk to the site is that associated with the 1 in 200 year return period tidal flood, which would result in lwade Stream overtopping.</li> <li>A small strip of the Old Orchard area along the northern boundary of the site is within Flood Zone 3.</li> <li>The proposed residential development lies entirely within Flood Zone 1, which has a low risk of flooding.</li> <li>There is no history of flooding resulting from high groundwater.</li> </ul>	<p>The proposed development would increase the volume of surface water discharge, as identified in the FRA.</p> <p>Notwithstanding this, new housing development will be designed to meet Level 3 of the Code for Sustainable Homes, which includes a mandatory requirement to manage surface water run-off. Proposals will be accompanied by a detailed surface water drainage strategy, which provides for SuDS to limit rates of run-off to existing greenfield rates and to ensure where possible that natural drainage patterns are maintained.</p> <p>The proposed housing development is not located within the floodplain. The northern part of the Old Orchard lies within Flood Zone 3 but no development is proposed in this area. As identified in the FRA the minimum floor levels of the proposed units will also be set at appropriate levels to ensure there is no flood risk to people, property or infrastructure.</p> <p>The FRA considers the site to be suitable in flood risk terms, subject to the approval of the surface water mitigation measures identified in the surface water drainage strategy.</p> <p>Taking into consideration the above, the development brief is considered to contribute positively towards this SA objective.</p>
8. To maintain and enhance water quality (ground and surface) and make efficient use of water	0	++	++	<ul style="list-style-type: none"> <li>lwade Stream flows through the village of lwade in a northerly direction, passing beneath Ferry Road to eventually meet Ridham Marshes to north east of lwade. The stream is within 100m of the northern boundary of the site. There are two ponds within the site.</li> <li>The Swale flows 2km to the north and east of lwade and the River Medway Estuary is around 1km west.</li> <li>(continued)</li> </ul>	<p>New housing development will be designed to meet Level 3 of the Code for Sustainable Homes, which includes a mandatory requirement to reduce the consumption of potable water in the home from all sources. Design measures to be promoted include water conservation.</p> <p><i>Other positive measures that could be encouraged in the development brief include the provision of systems for collecting rainwater and greywater, which would help to reduce the amount of main potable water used for external water uses.</i></p>



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8. To maintain and enhance water quality (ground and surface) and make efficient use of water	0	0	0	<ul style="list-style-type: none"> <li>Iwade is not situated within an EA designated Groundwater Source Protection Zone and there are no groundwater abstractions within a 1km radius of the site.</li> <li>The South East Plan recognises that water resources face increasing demand arising from development. Ensuring that new development has adequate supply and is water efficient is therefore a key challenge.</li> </ul>	<p>The development brief is not considered to have any significant effects upon the water quality aspect of this objective as no specific measures for maintaining water quality are proposed.</p> <p>Notwithstanding this it should be noted that given the proximity of Iwade Stream and other drainage ditches there is the potential for the development of the site to affect water quality (.e.g. pollution incidents during construction) and these should be managed through standard best practice measures.</p>
9. To conserve and enhance biodiversity and the natural environment	+	+	++	<ul style="list-style-type: none"> <li>Iwade is within 0.5km of the Swale Special Protection Area (SPA), Ramsar site and Site of Special Scientific Interest (SSSI). The majority of the Swale SSSI (96.2%) is currently in a favourable condition, the remaining 1.54% is unfavourable recovering and 2.27% unfavourable no change. Iwade is also within 1km of the Medway Estuary and Marshes SPA, Ramsar site and SSSI. 98.8% of this SSSI is favourable, 0.7% is unfavourable declining and 0.5% has been destroyed.</li> <li>The Swale National Nature Reserve, designated for its wetland importance, lies around 0.5km east of Iwade.</li> <li>A Phase I Habitat Survey of the site, together with detailed reptile, great crested newt, bat and beetle surveys were undertaken in 2008. These concluded: <ul style="list-style-type: none"> <li>Three trees have high potential to support roosting bats and 27 trees contain features with a low to moderate potential to support roosting bats.</li> <li>The site supports small populations of common lizards, slow worms and grass snakes.</li> <li>(continued)</li> </ul> </li> </ul>	<p>The development of the site would result in the loss of some habitat that supports a number of protected species, including a meta population of great crested newts and the Noble Chafer Beetle. As identified in the various ecology reports for the Iwade 8 development, the potential effects of developing the site could be significant in the absence of an appropriate mitigation strategy, particularly in the short term during construction.</p> <p>Notwithstanding this, the brief proposes to retain part of the Old Orchard area along with a buffer area, including the pond, which supports great crested newts. New wildlife habitats will also be created in an area to the east of the site and the Village Park in the form of new aquatic and terrestrial habitats and in the long term will form part of Iwade Nature Park.</p> <p>Approximately half of all the trees that either support or have the potential to support larvae of the Noble Chafer Beetle, which is dependant upon deadwood, will be retained. The other half of the trees will be transplanted to an area adjacent to the orchard with the aim to retain as much deadwood habitat as possible. Additional plum trees will also be planted. A detailed mitigation strategy is proposed for the development and the habitat creation measures will commence in advance of development.</p> <p>Taking into consideration the above, the proposals set out in the development brief will help to protect and enhance biodiversity associated with the site, and may also help to reduce pressure on surrounding areas of ecological interest. The brief is therefore considered to contribute positively, particularly in the long term once the new habitats have become well established.</p>

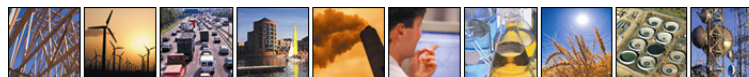




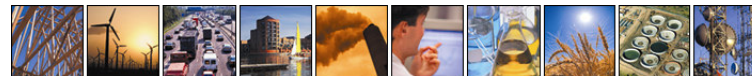
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9. To conserve and enhance biodiversity and the natural environment	0	+	+	<ul style="list-style-type: none"> <li>Six ponds in the northern and eastern fringe of Iwade were found to support great crested newts, including the Old Orchard and Village Park ponds. All six ponds are within 250m of each other.</li> <li>The old plum trees support a colony of the Noble Chafer Beetle.</li> <li>The scrub, trees and grassland have the potential to support common birds and barn owls.</li> </ul>	<p>The drainage strategy proposes that the ponds will be off-line, with either no flow or slow flows, as fast flows can cause a barrier to newts and affect their breeding. This should help to ensure a suitable environment for great crested newt and also help to prevent accidental pollution events affecting the ponds. However, as the ponds on site are prone to drying out, provision will be made for run-off from roofs to be used to help maintain a water level in all the ponds except the existing pond adjacent to the Iwade stream.</p> <p>As outlined in the drainage strategy, appropriate measures should be put in place to reduce the risk of great crested newts and other reptiles entering the drainage system.</p>
	0	?	?		<p>The brief proposes the inclusion of a footpath through the Old Orchard area. There is the potential for pedestrian movements through this area to have an effect upon biodiversity (i.e. disturbance, littering etc).</p> <p>Notwithstanding this, the brief acknowledges that the approach to promoting ease of pedestrian movement needs to be balanced with maintaining appropriate levels of access to retained and new nature conservation areas.</p>
	0	0	0		<p>Subject to agreement with Natural England, the development will provide for a small area of eco-friendly formal play space within the Old Orchard. There is the potential for a play space in this area to have an effect upon biodiversity (i.e. disturbance, littering etc).</p> <p>However, this option is subject to Natural England approval. If approval is granted by Natural England it is assumed that the proposal is acceptable in ecological terms. Taking this into account no significant effects upon biodiversity are anticipated.</p>



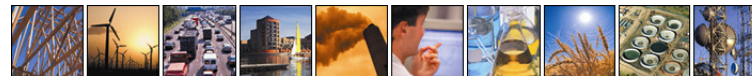
Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
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10. To achieve the sustainable management of waste	++	++	++	<ul style="list-style-type: none"> <li>Household waste arisings (per person) in Swale are the fifth highest in the County at 421.1kg. However, household waste arisings are reducing.</li> <li>Swale achieved a 26.7% recycling rate and 1.22% composting rate in 2007/8.</li> <li>In 2007/08 98.7% of residents in Swale were served by kerbside collection of at least two recyclables.</li> <li>There is one glass recycling bin in Iwade, at the Woolpack Inn. There are several bring sites located in nearby Sittingbourne.</li> </ul>	<p>New housing development will be designed to meet Level 3 of the Code for Sustainable Homes, which includes a mandatory requirement to ensure the provision of adequate internal and external storage space for recyclables, and a requirement for the reduction and management of construction related waste through the use of a Site Waste Management Plan. The brief promotes waste minimisation and the use of recycled materials in both the construction process and the life of the development.</p> <p><i>Other positive measures that could be encouraged in the development brief include the provision of facilities for composting household waste, which would help to reduce the amount of waste sent to landfill. It is assumed that existing kerbside collection of recyclables would be extended to serve the new homes.</i></p>
11. To meet the challenges of a growing and ageing population	0	+	+	<ul style="list-style-type: none"> <li>Swale Borough has a population of 127,000. Population growth is forecast to continue, with an overall increase of around 25% between 2004 &amp; 2029.</li> <li>The average age in Swale is 38 years. Nearly 20% of the population are aged 1-15 years, 16% are aged 16-29 years, 22% are aged 30-44 years, 23% are aged 45-64 years and 18% are aged 65 and over. Although the population is forecast to rise in all age groups, the greatest increase will be among older residents.</li> <li>It is estimated that there are currently 1,125 households in Iwade, an increase of 672 households since 2001. In 2005, 20-25% of Iwade's population were 15 or under, with new households having high occupancy of children.</li> </ul>	<p>A key urban design principle of the development brief is diversity – ensuring that the built form and layout of the development can accommodate a mix of housing types suitable for different households, and ensuring that buildings can be changed and adapted over time.</p>



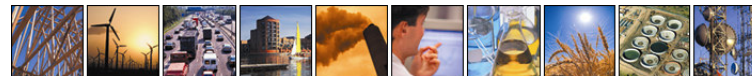
Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
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12. To reduce poverty and social exclusion	0	+	+	<ul style="list-style-type: none"> <li>In 2007, Swale ranked in the 33<sup>rd</sup> percentile in the Index of Multiple Deprivation (IMD). Overall, Swale Borough has the second highest level of deprivation in Kent.</li> <li>Iwade falls within the Swale 007A Lower Layer Super Output Area (SOA). Swale 007A ranks relatively favourably in the IMD for SOAs (65<sup>th</sup> percentile in 2007).</li> <li>Ethnically, Swale is less diverse than the country as a whole, with ethnic minorities making up less than 4% of the population in 2001.</li> <li>Iwade Village Hall is situated off Ferry Road, west of the site. The Hall is used by several community groups, including youth clubs, a nursery and the Women's Institute. The Woolpack Inn on The Street also provides a social focus.</li> </ul>	<p>The development brief proposes the provision of a mix of different housing types, including affordable homes. Within the site informal open space will also be created, which may provide a community focus. Subject to agreement with Natural England, the development may also provide for a small area of formal play space within the Old Orchard, and contributions towards enhancing formal play space elsewhere within Iwade will be provided.</p> <p>These aspects are considered to contribute towards creating a more inclusive, mixed and balanced community.</p> <p>Under the Draft Head of Terms Barratt Strategic may also contribute towards adult education, library, youth services and adult social services. A contribution may be paid towards the cost of the provision of additional primary and secondary school places in the Sittingbourne area if a lack of capacity can be demonstrated.</p>
13. To improve accessibility for all to key services and facilities	0	+	+	<ul style="list-style-type: none"> <li>Iwade is situated around 4.5km from Sittingbourne Town, which is the main population centre of Swale Borough and the focus for employment and services.</li> <li>Services and facilities in Iwade include a Village Centre, incorporating a convenience store, post office, hairdressers, estate agents, hot food take away and a pre-school nursery, located on the Street. There is also a general store on Ferry Road, west of the site and a medical centre on Monins Road.</li> <li>All of the local services and facilities are within 800m of the site. The Village Centre, Village Hall, All Saints Church, Iwade Primary School, the Village Park and the main bus stops are all within 400m of the site.</li> </ul>	<p>A network of cycleways and footpaths will link the new housing development to existing services and facilities and local bus services in Iwade. Access to local bus services will enable residents to access additional services and facilities in the surrounding area such as Sittingbourne Town. The local bus services also link to train services in the area, enabling residents to access services and facilities further afield.</p>
	0	?	?		<p>Under the Draft Head of Terms Barratt Strategic may contribute towards adult education, library, youth services and adult social services. A contribution may be paid towards the cost of the provision of additional primary and secondary school places in the Sittingbourne area if a lack of capacity can be demonstrated.</p>
	0	+	+		<p>Subject to agreement with Natural England, the development will provide for a small area of formal play space within the Old Orchard. This, along with the provision of informal open space and contributions towards enhancing formal play space elsewhere within Iwade, contributes positively towards improving access to recreation facilities.</p>



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14. To improve health and well-being and reduce inequalities in health	0	+	+	<ul style="list-style-type: none"> <li>Average male and female life expectancy in Swale Borough (76.9 and 80.4 years respectively) is below the national averages (77.3 and 81.5 years).</li> </ul>	Development within the site will not exceed 2 / 2 ½ storeys in height in keeping with the surrounding environment, which should help to ensure no loss of privacy is suffered by existing residents adjacent to the site.
	0	+	+	<ul style="list-style-type: none"> <li>Iwade falls within the Swale 007A Lower Layer SOA, which is ranked relatively favourably in terms of health deprivation and disability (60<sup>th</sup> percentile in 2007).</li> <li>A Medical Centre is located on Monins Road at the southern end of Iwade, which provides GP services, other specialist clinics and prescription pick-up service. There are no dentists in Iwade. The nearest dentist is around 3km south of the village, on High Street within the northern part of Sittingbourne Town. <i>(continued)</i></li> </ul>	<p>A network of cycleways and footpaths will be integrated within the new housing development and pedestrians and cyclists will be given priority. The proposed network will link to existing pedestrian and cycle routes towards Kemsley and Ridham and National Cycle Route 1. Cycle parking will also be provided at the new flats and contributions will be made to a new pedestrian / cycle link to Ridham / Kemsley.</p> <p>These aspects will help to encourage residents to walk and cycle – activities which benefit people's physical and mental health and well being.</p>
	0	+	+	<ul style="list-style-type: none"> <li>Recreation facilities in Iwade include the Village Park and Equipped Play Area just north of Woodpecker Drive, and the recreation ground just off School Lane. The recreation ground provides formal sports pitches, kickabout facilities and some equipped play facilities.</li> </ul>	New housing development will be designed to meet Level 3 of the Code for Sustainable Homes, which should help to reduce the potential for fuel poverty.
	0	+	+		Subject to agreement with Natural England, the development will provide for a small area of formal play space within the Old Orchard. Informal open space will also be provided for. Under the Draft Head of Terms contributions will be made towards enhancing formal play space elsewhere within Iwade. These aspects will create opportunities for recreation and relaxation, which benefits people's health and well-being.
	0	+	+		
15. To reduce crime and anti-social behaviour and the fear of these	0	+	+	<ul style="list-style-type: none"> <li>Average crime figures for Swale were slightly higher than for Kent as a whole in 2007/08, with around 90 crimes per 1,000 population.</li> <li>In the most recent British Crime Survey for Swale Borough (2006/07), 96% of residents surveyed felt fairly safe or very safe outside during the day. However, only 67% of residents surveyed felt fairly safe or very safe outside after dark.</li> <li><i>(continued)</i></li> </ul>	<p>The Secured by Design initiative, where appropriate, will be used within the proposals for the site.</p> <p>Designing buildings that clearly front onto a street, footpath or open space should help to increase the security of the development and reduce the potential for crime through passive surveillance. It should also help to reduce people's fear of crime.</p>

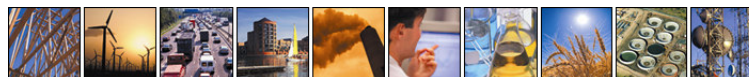


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15. To reduce crime and anti-social behaviour and the fear of these	0	+	+	<ul style="list-style-type: none"> <li>Iwade falls within the Swale 007A Lower Layer SOA, which was ranked in the 54<sup>th</sup> percentile in terms of crime deprivation in 2007.</li> <li>Key priorities for Swale Community Safety Partnership are domestic abuse, crime and disorder in the night time economy, reducing re-offending, anti-social behaviour, working with young people, substance misuse and encouraging an active and engaged community.</li> </ul>	The development brief includes management and maintenance requirements, including for the maintenance of landscaping and the public realm. Maintenance of the built environment can help to prevent crime and anti-social behaviour - reducing the potential for incidents to take place (i.e. by removing overhanging vegetation, the replacement of lighting etc) and helping to foster a sense of place and ownership, thus discouraging vandalism.
	0	?	?		The development brief proposes the inclusion of a footpath through the Old Orchard area. Careful consideration should be given to landscaping along the footpath to ensure the route is safe.
16. To provide affordable and decent housing adaptable to future needs of the community	0	++	++	<ul style="list-style-type: none"> <li>In 2004, 79% of residential properties in Swale were owner-occupied, 6% were privately rented and 15% were owned by Housing Associations.</li> <li>Average house prices for Swale in the first quarter of 2008 were £188,815, comparable with the UK average of £194,893, but significantly below that of the South East (£258,529).</li> <li>Despite recent increases in housing stock, affordability remains a key concern, due to the high house price to income ratio. The provision of affordable housing to meet local need is therefore of particular importance.</li> <li>Key housing issues identified in the Swale Housing Strategy are: increasing problems for single people due to Housing Benefit restrictions and inability to access rent deposits; demand from older people for smaller accommodation; and demand from young people, including single parents.</li> <li>(continued)</li> </ul>	<p>A key objective of the development brief is to ensure the provision of a mix of housing types in terms of size, type and tenure.</p> <p>Around 27 of the total number of dwellings (30%) built will be affordable dwellings offering a range of tenures and helping to ensure that affordable housing needs are met.</p> <p>New housing development will be designed to meet Level 3 of the Code for Sustainable Homes, which should help to ensure that new homes are decent.</p> <p>The diversity urban design principle highlights the need to ensure that buildings can be changed and adapted over time.</p>

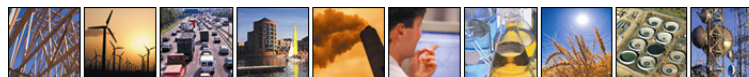




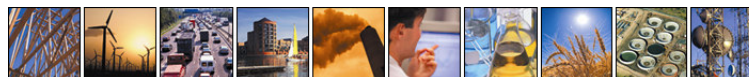
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16. To provide affordable and decent housing adaptable to future needs of the community				<ul style="list-style-type: none"> <li>Iwade contains a mix of house types and tenures. At the time of the 1999 Iwade Development Brief around 30% of the housing was affordable housing. Earlier phases of development to the west of the site are characterised by detached housing. More recent housing to the south of the site is at a higher density.</li> <li>The need to raise design and sustainability standards in new residential developments has been emphasised at Thames Gateway level and as important is the need to integrate new developments with existing communities.</li> </ul>	See previous.
17. To sustain economic growth and competitiveness	0	+	+	<ul style="list-style-type: none"> <li>Swale Borough is one of the poorest performing boroughs in Kent and the South East in terms of the economy and is still undergoing transition. In 2007, the economic inactivity rate in Swale was 22% compared to 18% in the South East and a UK average of 21%.</li> <li>Notwithstanding this, Swale has seen substantial growth, with high levels of productivity and business survival. In 2006 business registrations (% of total stock) in Swale was 11.3% compared to 9.4% nationally.</li> <li>Poor learning and skills performance is currently hampering the ability of the borough to attract skilled and higher valued employment.</li> </ul>	<p>The key urban design principles and development components set out within the brief should help to ensure that new development is of a high quality and contributes positively towards the growth and development of Iwade.</p> <p><i>Positive measures that could be encouraged in the development brief include the implementation of a Local Labour in Construction Scheme, which utilises the skills of local people for construction works associated with the development.</i></p>



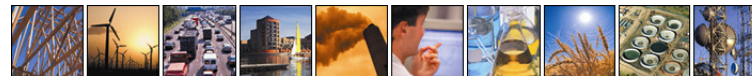
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18. To ensure high and stable levels of employment in accessible locations	0	0	0	<ul style="list-style-type: none"> <li>Iwade falls within the Swale 007A Lower Layer SOA, which is ranked favourably in terms of employment deprivation (70<sup>th</sup> percentile in 2007).</li> <li>There is limited employment in Iwade at present. Strategic scale employment opportunities are coming forward at Ridham / Kemsley to the east of the A249, including a Morrison's distribution centre which could provide up to 1,000 local jobs.</li> <li>The adopted Local Plan makes provision for 3,000 sq/m of employment floorspace to come forward as part of development to the south west of Iwade.</li> <li>At each of Swale Borough's main urban areas there have been high levels of housing growth that have not been accompanied by new employment. This has contributed towards unsustainable levels of commuting.</li> </ul>	<p>The development brief is not considered to have any significant effects upon this SA objective.</p> <p><i>Positive measures that could be encouraged in the development brief include the implementation of a Local Labour in Construction Scheme, which utilises the skills of local people for construction works associated with the development.</i></p>



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19. To raise the educational achievement levels and help people to acquire the skills needed to find and remain in employment	0	?	?	<ul style="list-style-type: none"> <li>Levels of skills and qualifications in Swale Borough fall well below the national average. In 2007, over 19% of working age people within Swale had no qualifications, compared with less than 10% across the south east.</li> <li>The level of poor skills is a cause for concern, as there is a higher proportion of employment in knowledge-intensive occupations in the South East. Poor qualification levels will act as a limit on the ability of local people to access these new employment opportunities.</li> <li>Iwade falls within the Swale 007A Lower Layer SOA, which falls within the 33<sup>rd</sup> percentile in terms of education deprivation.</li> <li>There is one primary school in Iwade – Iwade Community Primary School, located on School Lane around 400m west of the site. The school was expanded in 2004 to two forms of entry. This is to provide adequate capacity for the proposed 2<sup>nd</sup> phase of development in Iwade.</li> <li>The nearest secondary school is in neighbouring Sittingbourne Town.</li> </ul>	<p>The Swale Borough Local Plan highlights the need for further Secondary and Further Education provision in Sittingbourne.</p> <p>Under the Draft Head of Terms A contribution may be paid by Barratt Strategic towards the cost of the provision of additional primary and secondary school places in the Sittingbourne area if a lack of capacity can be demonstrated. Contributions may also be made towards adult education, library, youth services and adult social services.</p>

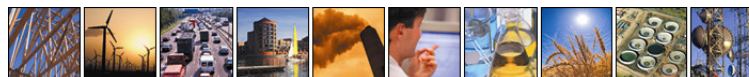


Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
	Short	Medium	Long		
20. To promote traffic reduction and encourage more sustainable alternative forms of transport	0	+	+	<ul style="list-style-type: none"> <li>Highway access to Iwade is predominantly via Sheppey Way to the north and south, and from Grovehurst Road to the east. Grovehurst Road provides a direct link onto the A249 (T), providing linkages to the Isle of Sheppey, Sittingbourne, Kemsley and Maidstone.</li> <li>The Swale Borough Local Plan highlights that there is traffic congestion on the A2 corridor, in Sittingbourne town centre, on roads leading to and including the A249 off the Isle of Sheppey, and on rural roads.</li> <li>The closest streets to the site are Helen Thompson Close and Woodpecker Drive. These streets serve earlier phases of development and were designed with the intention of providing access to future development. Both streets connect to Ferry Road, the principal route through the village.</li> <li>Iwade is within 2.3km of Kemsley and Swale Railway Stations on the Sittingbourne-Sheerness rail line. Wider rail links to other destinations are available from Sittingbourne, including Medway Towns and London.</li> <li>The main bus stops in Iwade are opposite the Village Centre. Bus services link Iwade to Sittingbourne and the railway stations. The most frequent services provide hourly links during weekdays to Sheerness, Sittingbourne and Maidstone, with a reduced service on Saturdays and no Sunday service. Local bus services are supplemented by coach services to Central London.</li> </ul> <p><i>(continued)</i></p>	<p>The proposed development would increase traffic levels on the local road network, particularly on Woodpecker Drive and Ferry Road. There is also the potential for the increase in traffic levels to affect congestion. Although the Transport Assessment concludes that there will be no significant impact on the operation of local transport networks.</p> <p>Notwithstanding this, a network of footpaths and cycleways will be integrated within the street network, including a footpath linking the development to the Village Park, and pedestrians and cyclists will be given priority. Cycle parking will be provided at the new flats.</p> <p>The proposed network will link the new housing to existing services and facilities in Iwade and also to existing local bus services and pedestrian and cycle routes towards Kemsley and Ridham, and National Cycle Route 1. Access to local bus services will enable residents to access train services in the surrounding area.</p> <p>These aspects contribute positively towards encouraging people to use public transport and to walk and cycle instead of using the car for short journeys. The development brief is therefore considered to contribute positively towards this SA objective.</p> <p><i>Other positive aspects that could be encouraged include the provision of the necessary space and services to enable residents to work from home, which would reduce the need to commute to work.</i></p> <p>The use of traffic calming measures should help to control vehicle speeds and thus create a safer environment for pedestrians and cyclists. Notwithstanding this, careful consideration should be given to the potential effect of traffic calming upon congestion. There is the potential for traffic calming measures to act as pinchpoints and result in standing vehicles.</p>
	0	+	+		



Sustainability Appraisal Objectives	Timescale			Baseline	Commentary and Recommendations (including secondary, indirect and synergistic effects)
	Short	Medium	Long		
20. To promote traffic reduction and encourage more sustainable alternative forms of transport	0	+	+	<ul style="list-style-type: none"> <li>National Cycle Route 1 passes through the centre of the village linking up onto the Isle of Sheppey. This route connects to the Saxon Shore Way less than 1km to the west of the village. The main part of the Garden of England Route is just to the south of Iwade.</li> <li>Shared footway/cycleway facilities have been provided through the Phase 5 development linking to shared footway/cycleway on Grovehurst Road and existing routes towards Kemsley and Ridham.</li> <li>At the Village Centre there are 6 cycle stands which provide secure cycle parking facilities.</li> </ul>	See previous.

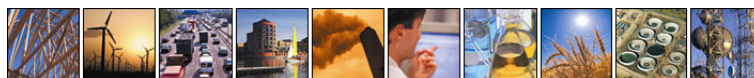
KEY	--	Move away significantly	-	Move away marginally	+	Move towards marginally	++	Move towards significantly	0	Neutral	?	Uncertain	X	No Relationship
TIMESCALES	Short Term: 2010 -2014					Medium Term: 2014 - 2021				Long Term: 2021 - beyond				





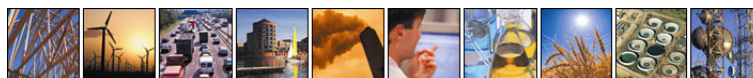
## Appendix B

### Baseline Information Sources

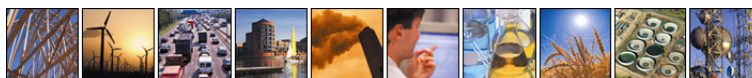


The baseline detailed in Table A1 of Appendix A has been established with reference to:

- David Lock Associates (2008) Refreshing the Vision: An Updated Development Brief for Land East of Woodpecker Drive, Iwade.
- Keystone Environmental (2008) Iwade 8, Kent – Draft Extended Phase I Habitat Survey Report.
- Keystone Environmental (2008) Iwade 8, Kent – Draft Mitigation Strategy.
- Keystone Environmental (2008) Iwade 8, Kent – Great Crested Newt Report.
- Keystone Environmental (2008) Iwade 8, Kent – Noble Chafer Survey Report.
- Keystone Environmental (2008) Iwade 8, Kent – Preliminary Bat Survey of Trees.
- Keystone Environmental (2008) Iwade 8, Kent – Reptile Report.
- Lloydbore Landscape and Ecology (2008) Landscape and Visual Appraisal, Land East of Iwade.
- Swale Borough Council (2008) ‘Ambitions for Swale’ – Draft Sustainable Community Strategy for Swale.
- Swale Borough Council (2004) Swale Borough Housing Strategy 2004-2007.
- Scott Wilson (2008) Swale Borough Council Local Development Framework Sustainability Appraisal Scoping Report for the Core Strategy – Consultation Draft.
- Swale Borough Council (2008) Swale Borough Local Plan - Adopted February 2008.
- Swale Community Safety Partnership (2008) Swale Community Safety Plan 2008-11 – Making Swale a Safer Place.
- Swale Local Strategic Partnership (2006) Priority Swale – Swale’s Sustainable Communities Plan to 2016 – Final Document.
- WSP (2008) Iwade - Phase 8 Drainage Strategy.
- WSP (2008) Iwade, Phase 8 PPS25 Flood Risk Assessment.
- WSP (2008) Iwade, Phase 8 Utilities Report.
- WSP (2008) Proposed Residential Development, Iwade 8, Transport Assessment.
- Audit Commission Area Profiles ([www.areaprofiles.audit-commission.gov.uk/](http://www.areaprofiles.audit-commission.gov.uk/)).
- Communities and Local Government Floor Targets Interactive ([www.fti.communities.gov.uk](http://www.fti.communities.gov.uk)).
- English Heritage’s online Heritage at Risk Register ([www.english-heritage.gov.uk](http://www.english-heritage.gov.uk)).

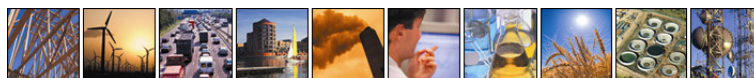


- Environment Agency website ([www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)).
- Google online maps (<http://maps.google.co.uk>).
- Multi-Agency Geographic Information for the Countryside ([www.magic.gov.uk](http://www.magic.gov.uk)).
- Natural England website ([www.naturalengland.gov.uk](http://www.naturalengland.gov.uk)).
- Neighbourhood Statistics ([www.neighbourhood.statistics.gov.uk](http://www.neighbourhood.statistics.gov.uk)).
- NOMIS Official Labour Market Statistics ([www.nomisweb.co.uk](http://www.nomisweb.co.uk)).
- Swale Borough Council website ([www.swale.gov.uk](http://www.swale.gov.uk)).
- UK National Air Quality Archive ([www.airquality.co.uk](http://www.airquality.co.uk)).



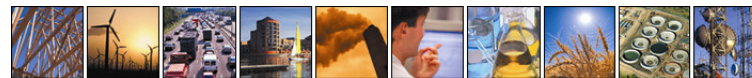
## **Appendix C**

### **Cumulative Effects Arising from Other Plans and Programmes**



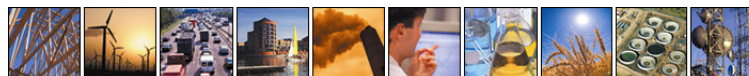
**Table C1 Assessment of the Cumulative Effects of the Barratt Strategic and Hillreed Homes Development Briefs**

SA Objectives	Updated Development Brief for land east of Woodpecker Drive (Barratt Strategic)	Revised Development Brief for Iwade Phase 2 development: south west sector (Hillreed homes)	Cumulative effect of the Development Briefs	Commentary on Cumulative Effects (including secondary and synergistic effects)
1. To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage	+	+	+	<p>The development of land to the east and south of Iwade has the potential to impact upon the character and local distinctiveness of the existing built environment, the cumulative effect of which would be greater given the scale of the combined development.</p> <p>Notwithstanding this, design principles and development components set out within both briefs should help to ensure that new development on land to the east and south west is in keeping with the existing built environment and is of a high quality. The cumulative effect of the briefs is therefore considered to be positive.</p> <p>It is noted that there is archaeological potential within the Hillreed Homes site. However, the Revised Development Brief for Iwade Phase 2 indicates that development at the site will require mitigation measures before implementation of groundworks.</p>
2. To minimise the need for energy, increase energy efficiency and to increase the use of renewable energy	+	+	+	<p>The development of land to the east and south of Iwade would increase traffic levels and could potentially affect congestion on the local road network, the cumulative effect of which could be greater given the scale of the combined development. Notwithstanding this, both development briefs propose a number of measures to encourage use of more sustainable modes of transport.</p> <p>The developments will increase energy usage. However, both development briefs require new housing to meet Code for Sustainable Homes Level 3, which should ensure that new homes developed are energy efficient. The Updated Development Brief for land east of Woodpecker Drive will also make provision for 10% of the sites energy requirements to come from renewable sources.</p> <p>Overall, the cumulative effect of the briefs is therefore considered to be positive.</p>
3. To encourage sustainable construction materials and methods	++	++	++	<p>Both development briefs require new housing to meet Code for Sustainable Homes Level 3 and promote sustainable design and construction methods. The cumulative effect of the briefs is therefore considered to be positive.</p>

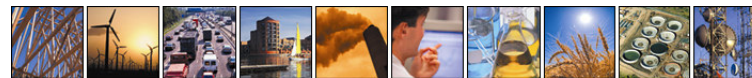




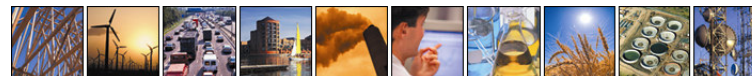
SA Objectives	Updated Development Brief for land east of Woodpecker Drive (Barratt Strategic)	Revised Development Brief for Iwade Phase 2 development: south west sector (Hillreed homes)	Cumulative effect of the Development Briefs	Commentary on Cumulative Effects (including secondary and synergistic effects)
4. To reduce air pollution and ensure air quality continues to improve	+	+	+	The development of land to the east and south of Iwade would increase traffic levels and could potentially affect congestion on the local road network, which could impact upon local air quality, the cumulative effect of which could be greater given the scale of the combined development. However, both development briefs propose a number of measures to encourage use of more sustainable modes of transport. The cumulative effect of the briefs is therefore considered to be positive.
5. To protect and enhance the valued landscape and townscape	+	+	+	The development of land to the east and south west of Iwade has the potential to impact upon the character of the townscape and landscape and upon visual amenity, the cumulative effect of which would be greater given the scale of the combined development. However, design principles and landscape strategies set out within both briefs should help to ensure that new development to the east and south west of Iwade should contribute positively towards protecting existing character. The cumulative effect of the briefs is therefore considered to be positive.
6. To protect and enhance soil quality and reduce contamination	-	-	-	The development of land east and south west of Iwade would result in the loss of Grade I agricultural land, the cumulative effect of which would be greater given the scale of the combined development. Notwithstanding this, the loss of this Grade I agricultural land was accepted when the land was allocated for development. There is also other Grade 1 agricultural land within the wider area.
7. To manage and reduce the risk of flooding	+	+	+	The development of land to the east and south west of Iwade has the potential to increase flood risk, the cumulative effect of which could be greater given the scale of the combined development. However, both development briefs require the implementation of measures to ensure that flood risk is not increased, including the inclusion of SuDS. Cumulatively, the measures proposed should help to reduce existing flood risk associated with Iwade Stream.



SA Objectives	Updated Development Brief for land east of Woodpecker Drive (Barratt Strategic)	Revised Development Brief for Iwade Phase 2 development: south west sector (Hillreed homes)	Cumulative effect of the Development Briefs	Commentary on Cumulative Effects (including secondary and synergistic effects)
8. To maintain and enhance water quality (ground and surface) and make efficient use of water	++	++	++	<p>The development of land to the east and south of Iwade will increase water consumption / usage in the area, the cumulative effect of which would be greater given the scale of the combined development.</p> <p>However, both development briefs require new housing to meet Code for Sustainable Homes Level 3, which includes a mandatory requirement to reduce the consumption of potable water in the home from all sources. The cumulative effect of the briefs upon water use is therefore considered to be positive.</p> <p>The development briefs are not considered to have any significant effects upon the water quality aspect of this objective as no specific measures for maintaining water quality are proposed. Notwithstanding this, it should be noted that the development of land to the east and south of Iwade has the potential to affect water quality, the cumulative effect of which could be greater given the scale of the combined development and the proximity of both areas to Iwade Stream.</p>
9. To conserve and enhance biodiversity and the natural environment	+	+	+	<p>The development of land to the east of south of Iwade could impact upon biodiversity, the cumulative effect of which could be greater given the scale of the combined development.</p> <p>However, it is noted that land to the south west of Iwade is unlikely to support protected species. Land east of Iwade supports a number of protected and notable species; however mitigation is proposed to ensure no significant adverse effect. Both development briefs propose measures to enhance biodiversity. The cumulative effect of the briefs upon biodiversity is therefore considered to be positive.</p>
10. To achieve the sustainable management of waste	++	++	++	<p>The development of land to the east and south of Iwade will increase waste arisings in the area, the cumulative effect of which would be greater given the scale of the combined development.</p> <p>However, both development briefs require new housing to meet Code for Sustainable Homes Level 3, which includes a mandatory requirement to provide storage for recyclables and for the reduction and management of construction related waste. The Revised Development Brief for land south west of Iwade also proposes the provision of recycling facilities. The cumulative effect of the briefs is therefore considered to be positive.</p>
11. To meet the challenges of a growing and ageing population	+	+	+	<p>Both development briefs propose the provision of a mix of housing types suitable for different households. The cumulative effect of the briefs is therefore considered to be positive.</p>



SA Objectives	Updated Development Brief for land east of Woodpecker Drive (Barratt Strategic)	Revised Development Brief for Iwade Phase 2 development: south west sector (Hillreed homes)	Cumulative effect of the Development Briefs	Commentary on Cumulative Effects (including secondary and synergistic effects)
12. To reduce poverty and social exclusion	+	+	+	Both development briefs propose the provision of a mix of housing types suitable for different households, along with open space and play space, which may provide a community focus. These aspects are considered to contribute positively towards creating a more inclusive, mixed and balanced community. The cumulative effect of the briefs is therefore considered to be positive.
13. To improve accessibility for all to key services and facilities	+	+	+	Both development briefs indicate that contributions will be paid towards school, adult education, library, youth service and adult social services. Both therefore contribute positively towards services / facilities provision, the cumulative effect of which will also be positive.
14. To improve health and well-being and reduce inequalities in health	+	+	+	Both development briefs propose a number of measures that contribute positively towards people's health and well being (e.g. the requirement for new housing to meet Code for Sustainable Homes Level 3, the provision of open space and play space and the inclusion of footpaths and cycleways). The cumulative of the briefs is therefore considered to be positive.
15. To reduce crime and anti-social behaviour and the fear of these	+	+	+	The design principles and development components set out within both briefs should help to reduce the potential for crime. Both therefore contribute positively towards this objective, the cumulative effect of which will also be positive.
16. To provide affordable and decent housing adaptable to future needs of the community	++	++	++	Both development briefs propose the provision of a mix of housing types in terms of size, type and tenure and new housing will be designed to meet Code for Sustainable Homes Level 3, which should help to ensure new homes are decent. These aspects contribute significantly towards housing provision, the cumulative effect of which will also be significant.
17. To sustain economic growth and competitiveness	+	+	+	The design principles and development components set out within both briefs should help to ensure that new development is of a high quality and contributes positively towards the growth and development of Iwade. The Revised Development Brief for land south west of Iwade includes for the provision of new employment, which should contribute positively to the local economy.



SA Objectives	Updated Development Brief for land east of Woodpecker Drive (Barratt Strategic)	Revised Development Brief for Iwade Phase 2 development: south west sector (Hillreed homes)	Cumulative effect of the Development Briefs	Commentary on Cumulative Effects (including secondary and synergistic effects)
18. To ensure high and stable levels of employment in accessible locations	0	+	+	The Updated Development Brief for land east of Iwade is not considered to have any significant effects upon employment as no new employment is proposed. Notwithstanding this, the Revised Development Brief for land south west of Iwade includes for the provision of new employment (3,000 sq/m) within the site, which will create new employment opportunities. The cumulative effect of the briefs is therefore considered to be positive.
19. To raise the educational achievement levels and help people to acquire the skills needed to find and remain in employment	?	+	+	The Swale Borough Local Plan highlights the need for further Secondary and Further Education provision in Sittingbourne. The Revised Development Brief for land south west of Iwade indicates that contributions will be required towards primary and adult education. The Updated Development Brief for land east of Iwade indicates that a contribution may be paid towards the cost of the provision of additional primary and secondary school places in the Sittingbourne area as part of the proposals if a lack of capacity can be demonstrated. The cumulative effect of the briefs is therefore considered to be positive.
20. To promote traffic reduction and encourage more sustainable alternative forms of transport	+	+	+	The development of land to the east and south of Iwade would increase traffic levels and could potentially affect congestion on the local road network, the cumulative effect of which could be greater given the scale of the combined development.  However, both development briefs propose a number of measures to encourage use of more sustainable modes of transport. The cumulative effect of the briefs is therefore considered to be positive.

