



# J E S K Y N S

**PROPOSED COMMUNITY GREENSPACE  
Environmental Statement – Volume Four**

**Non technical summary**

produced for the  
**Forestry Commission East Anglia Forest District**

by  
**The Landscape Partnership**  
March 2006



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## 1.0 Introduction

1.01 In December 2005 The Landscape Partnership was appointed by the Forestry Commission to prepare an environmental impact assessment for a proposed community greenspace at Jeskyns Farm, Cobham near Gravesend in Kent.

1.02 This document provides a non-technical summary of the completed environmental impact assessment (EIA). Section two describes the site as existing and section three describes the Forestry Commissions proposals for the site. Section four briefly provides a policy context for the project and section five summarises each of the key impact assessments and their results.

### 1.1 Approach and purpose of the environmental statement

#### *What is an Environmental Impact Assessment (EIA)?*

1.1.1 In accordance with current guidelines, the EIA is an objective assessment of the likely positive and negative impacts of the proposed Jeskyns Community Greenspace project. It has been undertaken by a team of independent consultants and provides an unbiased assessment of the scheme.

#### *Why complete an Environmental Impact Assessment?*

1.1.2 The purpose of an EIA is to ensure that the potential impacts of the project are fully understood before commencing the project and to maximise the potential positive impacts of the scheme.

#### *The scope of the Environmental Impact Assessment*

1.1.3 Before starting the EIA a 'scoping exercise' was undertaken to identify the key issues that should be covered within the EIA. A separate report was produced which provides further details on this process (Jeskyns Proposed Community Greenspace, Environmental Impact Assessment, Phase one report – summary of scoping, The Landscape Partnership, February 2006)



## 1.2 Background to the Jeskyns project

- 1.2.1 The Forestry Commission (FC) is the government department responsible for forestry in Britain. Its mission is to protect and expand Britain's forests and woodlands and increase their value to society and the environment.
- 1.2.2 In 2005, the Office of the Deputy Prime Minister asked Forestry Commission England (FCE) to explore opportunities to create community woodlands to assist in the Thames Gateway programme. As a result, Jeskyns Farm comprising 147 hectares of land south of the A2 and Channel Tunnel Rail link and to the west of Cobham Village, Gravesend was acquired. The site location and context is illustrated on figure 1 and existing site features are shown on figure 2.
- 1.2.3 The management of the site and the development of proposals is being carried out by the Thames Chase Team of the FC which is part of the East Anglia Forest District based at Thetford hereafter referred to as the 'Applicant'.
- 1.2.4 The assessment of the proposals (in respect of the Environmental Impact Assessment Forestry Regulations) is being undertaken by South East England Conservancy staff of the Forestry Commission acting on behalf of the Forestry Commissioners (hereafter referred to as the 'Regulator') and supported by the FC's independent Regional Advisory Committee.

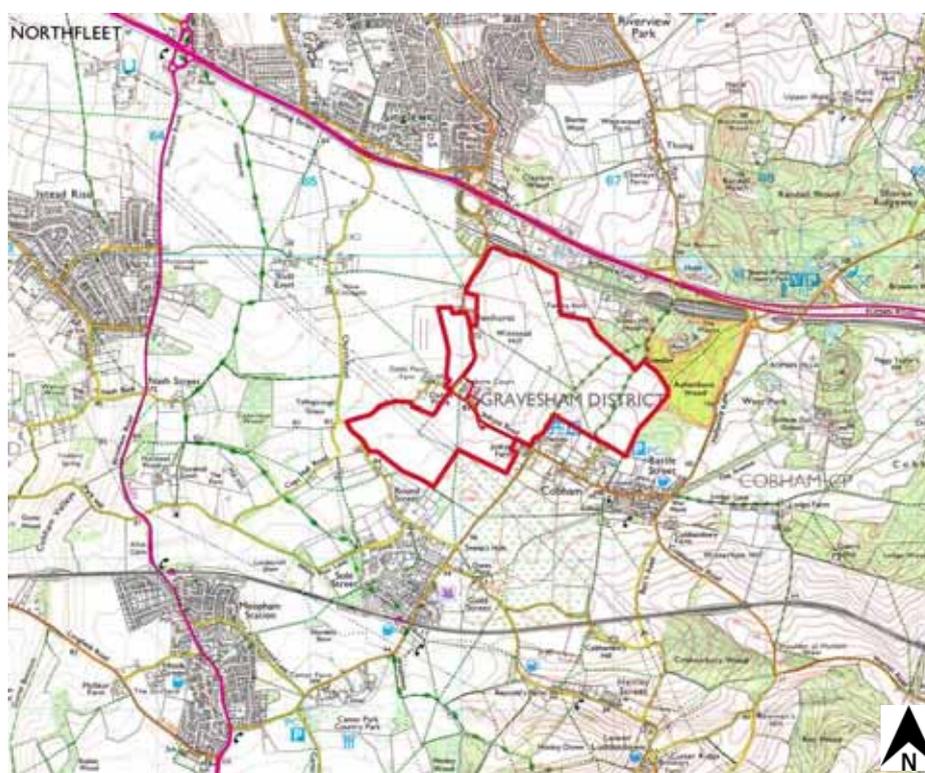


Figure 1 / TLP01: Site context plan  
1:50,000

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## 1.3 The consultant team

1.3.1 The EIA was co-ordinated by The Landscape Partnership using a team of independent specialist consultants to provide detailed assessments of the issues considered to be of potentially high significance (as identified in the scoping exercise). These are impacts upon:

- Population
- Traffic
- Flora and Fauna
- Soils
- Material Assets Including Architectural and Archaeological Heritage
- Landscape and Visual Environment.

1.3.2 During the scoping exercise, the following factors were assessed to be of potential low significance:

- Water
- Air
- Climatic Factors

These factors have been broadly considered within this assessment but specialist consultants were not employed.

1.3.3 The team of assessors comprised:

**The Landscape Partnership** – co-ordinators of the ES and providing specialist input on ecology and landscape and visual matters, detailed input on population impacts and general input on air, water and climate impacts.

**Odyssey Consulting Engineers** – Traffic and highways consultants

**Gifford** – Archaeological consultants

**Land Research Associates** – Soils and agriculture consultants



## 2.0 The existing site

2.0.1 The site lies between the North Kent Downs and the River Thames upon land previously used for agriculture. The following section provides a breakdown of the site description. Figure 2 represents key existing site features.

### 2.1 *Topography*

2.1.1 The site is located within a gently undulating landscape that becomes increasingly hilly to the south. High and low points within the site have been represented on figure 3.

### 2.2 *Geology*

2.2.1 The underlying solid geology predominantly comprises chalk bedrock however there are small outcrops of clay and limestone that stretch from Winstead Hill north to slightly beyond the A2. The highest point of Winstead Hill is clay bedrock. A similar composition is found to the north-east of the site at Ashenbank Wood and Shorne Wood.

### 2.3 *Land use context*

2.3.1 The site has historically been used for agriculture and orchards with some woodland cover. Hops have been grown within the site over a possible period of 175 years however there were none evident in 1961. In 1975, the last orchards were removed and the practice of quarrying occurred briefly upon the site. Court Wood was cleared between 1975 and the late 20<sup>th</sup> century.

### 2.4 *Statutory designations*

2.4.1 The North Kent Downs AONB lies to the south and east of the site with approximately 26.8ha lying within and forming the boundary of it. Ashenbank Wood (to the east of the site) is designated as SSSI and a sector of the south-west of the woodland is ancient woodland. The site is part of London's Metropolitan Greenbelt and forms part of a designated Special Landscape Area.

### 2.5 *Surrounding settlements*

2.5.1 The site is surrounded by four settlements that range in size from hamlets (such as Dabbs Place and Henhurst) to a linear settlement (such as Round Street) and a village (such as Cobham). Larger villages lie further a field; Shorne to the north-west, Sole Street and Meopham to the south-west and Istead Rise to the west. Rochester is located approximately 5km to the east of Jeskyns and Gravesend is approximately 3km to the north.

### 2.6 *Soils*

2.6.1 The site comprises approximately 16% grade 1 agricultural soil. The remainder of the site is grade 2 with a small proportion of grade 3b.

## 2.7 Hydrology

2.7.1 The site is predominantly dry with no natural water bodies, rivers or streams within or adjacent to the site. There are a number of damp areas on the site that correspond with lower lying areas.

## 2.8 Flora and fauna

2.8.1 The site comprises open arable land with few features other than some mature hedgerows (eg along Scotland Lane) and occasional solitary mature trees. The site supports seed eating birds, the Pipestrelle Bat, Badgers, Brown Hares and various Common reptiles.

2.8.2 To the northeast of the site are the mature, deciduous woodlands of Claylane Wood, Ashenbank Wood, Shorne Wood and Great Wood. To the east and the south of the site are fields of commercial orchards.

## 2.9 Landscape

2.9.1 The site falls within a landscape with a strong agricultural character. Large arable fields (typically without hedgerows) form a large scale landscape with few features and long distance views over the surrounding area. Mature woodlands on higher ground (such as Shorne Wood, Ashenbank Wood and Hartley Wood) punctuate the landscape and provide prominent features on the horizon.



Significant Landscape Vegetation		Site Boundary	
	Hollybush Corner		Site Boundary
	Single Oak tree		Pylons
	Two single trees		Pit
	Scotland Lane		Winstead Hill
			Byway open to all traffic
			Footpath

Figure 2 / TLP07: Existing site features  
NTS: Source - Getmapping

## 3.0 The proposed scheme

	<b>Purpose</b>
3.0.1	To provide community green space for the new and existing communities of the Thames Gateway
	<b>Objectives</b>
3.0.2	To create accessible, open green space that is enjoyable to use as a community resource and enhances levels of biodiversity within the site and adjacent areas
	<b>Key themes</b>
	<ul style="list-style-type: none"> <li>• Access and recreation</li> <li>• Wildlife and biodiversity</li> <li>• Community engagement and education</li> <li>• Landscape and heritage</li> </ul>

### 3.1 Design plan

3.1.1 The proposed design plan for the project is illustrated on Figure3 And further details are provided below.

### 3.2 Alternative options

3.2.1 Alternative options for the site were considered which included a higher proportion of woodland. However these options were not pursued as it was felt that they reduced the openness of the site, would obstruct views out of the site and would provide an insufficient variety of opportunities for recreation. This decision was based on the information gathered during the site surveys and during the consultation exercises.



# 3.0 The proposed scheme

Figure 3 / FC-02 Artists Illustration of proposals NTS

### 3.3 Key Areas

The site is divided into five key areas which are:

**Jeskyns Wood** – a substantial broadleaf wooded area designed for recreation and access that will enhance and extend the woodland habitat along the A2 transport corridor. The majority of the recreational facilities (car park, circular trails and furniture) will be located in this part of the site

**Jeskyns Glades** - an open area of wildflower meadows with occasional pockets of planting and some areas reserved for natural woodland encroachment around the margin

**Jeskyns Meadows** – an area of grazed meadows which protects archaeological interests, retains open space around Cobham and allows open views across the site.

**Jeskyns Orchards** – informal blocks of traditional orchard planting for amenity use interspersed with wildflower meadows with paths passing through

**Jeskyns Grove** – an open area with informal woodland and orchard planting giving structure to a wildflower meadow landscape.

### 3.4 Key elements

Descriptions of elements within the scheme are provided below:

#### 3.4.1 *Access and parking*

An approximately fifty space car park (open from dawn to dusk) is proposed in the north west corner of the site adjacent to the public road.

3.4.1.1 Overflow facilities would also be provided.

3.4.1.2 Six new access points to the site are proposed and are illustrated on the design plan

#### 3.4.2 *Pathways*

All existing pathways and public rights of way have been retained. Four additional types of routes have been proposed with the purpose of providing access for different user groups which are:

- All-ability trails and surfaces:
- Cross-country path:
- Grass rides
- Access for maintenance

#### 3.4.3 *Furniture and signage*

Perches, bench perches, benches and picnic tables will be located throughout the site with a greater concentration in the north-west of the site nearby the car park. Three benches will be designed with the community as art projects and will be placed in key locations. There will be no lighting on the site.

### **3.4.4 Planting**

The landscape within the site is to include eight categories of proposed planting:

- Orchards (apple, plum, cherry, walnut and hazelnut)
- Broadleaf, deciduous woodlands (oak, ash and sweet chestnut)
- Shrubs (hawthorn, dog rose, blackthorn, wild cherry and holly)
- Wildflower meadows
- Grass mixes
- Coppices (sweet chestnut and hazel)
- Hedgerows (predominantly hawthorn and blackthorn)
- Pond planting

### **3.4.5 Implementation works**

The proposed programme for implementation is:

Hardworks (paths, car park, signs etc) - Summer 2006  
Seeding – Autumn 2006  
Planting – Autumn 2006/Winter 2007  
Project completion by end March 2007

- 3.4.5.1 Under normal circumstances, implementation operations are likely to take place from dawn until dusk between Monday and Friday. Under exceptional circumstances, additional work may be required outside these hours.
- 3.4.5.2 A temporary site access off Henhurst Road is proposed between Henhurst cottages and the A2 junction. Storage of site materials will also be predominantly in this area.
- 3.4.5.3 Ground preparation works will be kept to a minimum but where soil plough plans exist, it is proposed that this is broken to a depth of 40cm to break the plough plan. There is no contaminated land on site and all soil will be kept on site.

## 4.0 Policy context

### 4.1 National level policy

4.1.1 By creating a major new area of publicly accessible open space with woodland, providing improved accessibility to the countryside for local communities and providing protection of the countryside, the Jeskyns project supports many of the objectives identified in national policy documents including:

- Securing the future: *The UK Government Sustainable Development Strategy, HM-Gov, 2005.*
- Planning Policy Statement 7: *Sustainable Development in Rural Areas, ODPM, 2005*
- England Forestry Strategy: *A new focus for England's Woodlands, HM Government, 1998.*

### 4.2 Regional level policy

4.2.1 The Jeskyns project supports many of the objectives for green space provision, future sustainable development and improvements to biodiversity which are contained within current regional planning and forestry policy documents including:

- Creating sustainable communities – *Greening the Gateway, ODPM, 2004.*
- Kent Thameside Green Grid – Creating a Greener Place, Kent Thameside, 2002
- The Draft Southeast Plan (Part 1, Core Regional Policies), SEERA, 2005
- *Seeing the Wood for the Trees: A forestry and woodlands framework for South East England*

### 4.3 Local level policy

4.3.1 The key local policy documents affecting the site for the proposed community greenspace are:

- Gravesham Local Plan (Second Review, 2000), and
- Kent Structure Plan (1996)

4.3.2 The proposed community greenspace complies with and supports policies in these documents relating to: the green belt, leisure and tourism, access to the countryside, protection of the AONB and biodiversity.

## 5.0 Impact assessment

- 5.0.1 The impact assessment makes an evaluation of the existing situation (or baseline) and then assesses how the proposed scheme would affect each factor. The full ES explains how each judgement is made by weighing up the amount of change that would be experienced and the significance of this. Impacts were identified as positive, neutral or negative. Where the impact is deemed to be largely down to subjective opinion, or has both positive and negative aspects, then the impact has been classed as neutral. If there is no significant impact, this is stated.
- 5.0.2 This section summarises the assessments, and details the key impacts and mitigation measures that were identified. Detailed assessments of all the key impacts and proposed mitigation measures are provided in the full ES.



## 5.1 Impacts on population

<b><i>Introduction and key issues</i></b>
<p>An assessment of the impact of the proposed scheme on the local population was undertaken by The Landscape Partnership and included consideration of the following key issues:</p> <ul style="list-style-type: none"> <li>• impact on the character of local settlements</li> <li>• impact on security and amenity of properties adjacent or in close proximity to the site</li> <li>• impact on the health and fitness of the local population</li> <li>• impact on accessibility to the countryside</li> <li>• impact on local facilities</li> </ul>
<b><i>The existing situation</i></b>
<p><b><i>Existing settlements</i></b></p> <p>The key populations likely to be affected by the Jeskyns project are those within a 20minute drive time (or 9.5 miles) of the site. The resident population within a radius of 9.5 miles from the site is approximately 441,000 and includes the following settlements:</p> <p><b>Urban areas:</b> Gravesend, Northfleet, Dartford, Rochester and Chatham  <b>Rural areas:</b> Cobham, Sole Street, Round Street, Shorne, Meopham, Istead Rise, Hartley and a large number of small villages further a field from the site</p> <p><b><i>Future settlements</i></b></p> <p>The population within the catchment area of Jeskyns is expected to increase significantly over the next 20-30 years due to a major programme of house-building within the Thames Gateway and proposed improvements to the A2 and M2 which will make the site accessible to a wider area. An additional population of over 100,000 people is expected within the catchment area of Jeskyns as a result of planned development in Kent Thameside and the Medway towns.</p>
<b><i>Key impacts</i></b>
<p><b><i>Implementation phase (year 0)</i></b></p> <ul style="list-style-type: none"> <li>• No significant impacts were identified for most of the settlements during the implementation phase.</li> <li>• A negative impact on views is likely to be experienced by properties in Henhurst and along Jeskyns Road.</li> <li>• There would be a neutral impact upon the overall setting and character of the local settlements during this stage.</li> <li>• No significant impacts on traffic flows or safety are predicted for any of the local settlements other than possible short term negative impacts in Henhurst during the implementation period.</li> </ul> <p><b><i>Establishment phase (years 0 to 40)</i></b></p> <ul style="list-style-type: none"> <li>• Mostly a positive effect upon settlements during the early establishment phase due to improved provision for recreation and access to the countryside.</li> </ul>

## ***Key impacts (continued)***

- Some neutral impacts are expected in terms of landscape setting and character, views and security.

### ***Site at maturity (years 40+)***

- Generally positive impact on the local population associated with the provision of a substantial new area of publicly accessible open space, improved access to the countryside, views that are made up of additional landscape features and greater ecological interest of the site.
- Indirect positive impacts associated with improved health and fitness and improved mental health through contact with nature could also be significant
- Some neutral impacts arising from changes to the character of the setting of settlements and changes to some views
- Neutral impacts on security due to combined effect of increased visitor numbers providing informal surveillance but also possible increased security risk to properties adjacent to the site.

## ***Mitigation***

### ***Key existing mitigation measures within the scheme***

- **Character and setting** - Retention of large open areas (Jeskyns Meadows and Jeskyns Glades) to allow a sense of openness to be maintained.
- **Transport** - The siting of the car park to the north of Henhurst to discourage extra traffic through rural settlements.
- **Education** - The provision of features such as ponds with boardwalks suitable for educational use by the local primary school.
- **Views** - Retention of some long distance views
- **Recreation and Access** - Provision of a range of pathway types to encourage a broader use of the site for informal recreation
- **Security** - Proposed physical barriers to prevent motorbikes and cars entering the site and on site warden based at Shorne Wood undertaking regular site patrols
- **Ecology** - New planting to create new habitats and enhance existing habitats

### ***Additional mitigation measures***

- **Character and setting** - Detailed design of planting blocks to reflect the historic landscape patterns of the site.
- **Transport** - Develop links with local bus routes to encourage sustainable transport from urban areas.
- **Education** - The introduction of an events programme to provide increased opportunities for education.
- **Other** - Strive to attain Green Flag quality status once the park is established

## 5.2 Impacts on Traffic and Highways

<b><i>Introduction and key issues</i></b>
<p>An assessment of the impact on the local highway network of the traffic generated by the proposed scheme was undertaken by Odyssey Consulting Engineers and gave consideration of the following key issues:</p> <ul style="list-style-type: none"> <li>• Impact of the formation of the new access point on Henhurst Road;</li> <li>• Impact of the traffic generated, by the development, on the local highway network;</li> <li>• Impact of traffic generated during the construction;</li> <li>• Impact of pedestrian, cycle and equestrian trips to/from the site;</li> <li>• Impact of car parking associated with the proposed community greenspace.</li> </ul>
<b><i>The existing situation</i></b>
<p><b><i>Local Highway Network</i></b></p> <p>The main section of existing agricultural land that is proposed to be redeveloped as Jeskyns Farm Community Greenspace, fronts onto Henhurst Road and Jeskyns Road. The existing agricultural land takes access from Jeskyns Road, adjacent to Jeskyns Meadow. The highway network in the immediate proximity of the site is rural in nature and single carriageway although the strategic highway network is accessed at the dual carriageway of the A2, approximately 250 metres to the north of the site</p> <p><b><i>Existing Traffic Flows</i></b></p> <p>The local highway network is lightly trafficked due to the rural nature of carriageways and the range of preferable alternatives for through traffic.</p> <p><b><i>A2 Improvements</i></b></p> <p>Improvements to the A2 will mean restricted access to general traffic movement. The realignment scheme will result in the existing route being modified into a substantial pedestrian, cycle and equestrian corridor. This will provide a key strategic link in the green grid network and will help connect Jeskyns to the new and existing Thames Gateway Communities.</p>
<b><i>Key impacts</i></b>
<p>The proposed Jeskyns visitors car park would take access from the northern section of Henhurst Road allowing a significant proportion of traffic to travel to the site via major routes and hence from/to origins/destinations in the wider catchment area. During construction, the same access will be utilised and through the use of a routing agreement (allowing temporary access), all additional HGV traffic will originate from the A2 via the Marling Cross Interchange. Although this will have a temporary negative impact to the A2 and the north of Henhurst Road, other routes, further south of the A2 will not be affected during implementation.</p> <p>Post implementation, the peak hour traffic generated by the redevelopment through sensitive areas will be minimal, eliminating the need for further mitigation measures.</p>

**Key impacts (continued)**

**Implementation phase (year 0)**

- No significant impact to Valley Drive, Hever Court Road and Cobham Village
- Negative impact of low-moderate significance upon Henhurst and the A2.

**Establishment phase and Site at maturity (years 0 to 40 and years 40+)**

- Small amount of additional traffic using the highway network.
- Traffic to and from the site could be safely accommodated at the new site access and there would be no resultant capacity problems arising during peak periods on the surrounding roads.
- No perceptible increases in traffic noise and pollution or worsening of environmental conditions in local areas.

**Mitigation**

No mitigation measures are required as the traffic assessment has shown that the existing highways could accommodate the predicted increase in flows.



## 5.3 Impacts on flora and fauna

<b><i>Introduction and key issues</i></b>
<p>The Landscape Partnership has undertaken the assessment of the impact of the proposed scheme upon biodiversity</p> <p>The assessment looks at the impact of the proposed scheme upon habitats, flora and fauna. The purpose of the assessment in this chapter is to ensure that the Project is executed within the framework of best practice, wildlife law and planning guidance, and to ensure that the effects of the Project upon ecology and nature conservation are identified and measures developed to minimise any negative impacts. Suggestions are made on the basis of maximising the benefit.</p>
<b><i>The existing situation</i></b>
<p><b><i>Vegetation</i></b></p> <p>The site includes a series of arable fields, most of which have either been ploughed or support cereal stubble and weeds. The eastern most field has previously been sown with a wildflower seed mix. The southwestern most field is laid down to grass. The fields are partially hedged and partially fenced. A number of the hedgerows are of considerable antiquity and are species rich. There are several mature trees on the site.</p> <p><b><i>Animals and birds</i></b></p> <p>The site is of value to wintering flocks of seed-eating birds and supports farmland and woodland edge bird species during the summer months, a number of which breed on the site. One species of bat, 55kHz pipistrelle has been recorded from the site. Brown Hare has been recorded from the site. The site is known to support badger and is also considered to have the potential to support dormouse. The site is thought to support common species of reptile.</p> <p><b><i>Designated sites</i></b></p> <p>A number of important sites and habitats are present within close proximity to the Project: several woodland Sites of Special Scientific Interest (SSSI) are present in the area, and one of these, Shorne and Ashenbank Woods SSSI abuts the northeastern and eastern site boundary. Part of this woodland is an Ancient Semi Natural Woodland (ASNW) site and is considered to be Lowland Mixed Deciduous Woodland Biodiversity Action Plan (BAP) habitat. The SSSI is of value for the woodland habitat and associated rare invertebrates and fungi. The woodland also supports dormouse and badger.</p>

Key impacts
<p><b>Implementation phase (year 0)</b></p> <ul style="list-style-type: none"> <li>• 'Neutral' impact on the species and habitats present on the site</li> </ul> <p><b>Establishment phase (years 0 to 40)</b></p> <ul style="list-style-type: none"> <li>• Overall, 'Major Beneficial' impact on biodiversity</li> </ul> <p><b>Site at maturity (years 40+)</b></p> <ul style="list-style-type: none"> <li>• Overall, 'Major Beneficial' impact on biodiversity</li> <li>• Increased habitat diversity</li> <li>• Increased species diversity</li> <li>• Potential to contribute to Habitat Action Plan (HAP) targets for Species Rich Hedgerow and Lowland Beech and Yew Woodland</li> <li>• Negative impacts on populations of Brown Hare and corn bunting</li> </ul>
Mitigation
<p>The key mitigation measures that would be applied to manage the ecological impacts of the Project are summarised below and further detailed mitigation measures are included within the environmental statement.</p> <ul style="list-style-type: none"> <li>• A <b>badger survey</b> would be carried out immediately in advance of the site establishment phase in order to safeguard any setts prior to work at the site commencing.</li> <li>• A <b>site management plan</b> will be produced for the site in accordance with best practice (such as the Green Flag award) in due course.</li> <li>• A <b>minimum 10m offset</b> would be maintained between new paths and extant/proposed hedgerows and the woodland margin.</li> <li>• A localised <b>reptile survey, capture and relocation</b> operation would be carried out ahead of any site clearance to exclude any reptiles from habitats affected by the scheme.</li> <li>• All new footpaths would be at least 30m distant from any minor/subsidiary badger sett and 50m distant from a main badger sett.</li> <li>• Detailed site design would look at opportunities for creation of good <b>habitat for Brown Hares</b> eg areas of grassland where public access is not encouraged (i.e. not crossed by footpaths) would be designed into the Project.</li> <li>• <b>Dogs</b> would be <b>kept under control</b> at all times.</li> <li>• <b>Dormouse nesting tubes</b> would be installed in suitable locations around the site and monitored.</li> <li>• Paths/tracks would be routed at least 50m away from the woodland margin In order to ensure the <b>protection of the dormouse population</b> in the adjacent wood.</li> <li>• All planting and seeding stock would be locally- native where possible / appropriate (excluding the orchard planting)</li> </ul>

### 5.3 Impacts on soil

<b><i>Introduction and key issues</i></b>
<p>An assessment of the impact of the proposed scheme on the soils and land use of the site and the surrounding areas was undertaken by Land Research Associates, specialist soil and agricultural consultants. The key issues considered were:</p> <ul style="list-style-type: none"> <li>• impact of the loss of best and most versatile agricultural land, particularly grade 1 agricultural land</li> <li>• impact of the scheme on agricultural activities in the local area</li> <li>• potential to restore the site to productive agriculture in the future</li> <li>• impact of the proposed change in use on soil function and quality</li> </ul>
<b><i>The existing situation</i></b>
<p>The land has been in agricultural use for many decades, the better soils being used for hops and orchards until about 40 years ago, and a map of 1869 shows similar fields to the current ones. For 12 years, up until the 2005 harvest, the land was contract-farmed as part of an arable farming operation mainly growing wheat and oilseed rape.</p> <p>The <i>Provisional 1:250,000 Series Agricultural Land Classification: South Eastern Region</i> map, shows the whole of Jeskyns farm as grade 1, within an area of mixed grade 1 and grade 2 land extending south-west from Rochester as far as Meopham. However, that map was based on survey work in the 1970s using an early classification system. The detailed survey of agricultural land quality undertaken as part of the EIA shows that nearly all of the land is within the 'best and most versatile category' (grades 1 to 3a) but the majority of the land is grade 2 with only 16% of the land in grade 1. The site includes a small area of sub-grade 3b land on an area of very gravelly soils that are very drought-prone.</p> <p>Four principal soil types were identified, freely-draining deep silty soils, fine sandy soils, loamy mottled soils with slowly permeable subsoils, and gravelly soils. Most fields had a fairly high content of plant nutrients, as a result of their use for arable agriculture. There are also ancillary land types such as shallow chalk pits and land disturbed by the works for the Channel Tunnel Rail Link. There were cultivation pans (compacted subsoil immediately below the plough layer) in some of the fields that could restrict root growth and drainage of rainfall. Soil erosion during heavy rainfall has occurred periodically on the slopes immediately north of the Jeskyns Farm buildings.</p>
<b><i>Key impacts</i></b>
<ul style="list-style-type: none"> <li>• Predominantly positive impact upon soils due to improved soil structure, drainage and content of organic matter</li> <li>• Minor negative impacts associated with creation of ponds, car park, access road and paths resulting in localised removal of topsoil and sealing of surface preventing movement of water through the soil.</li> <li>• Agricultural potential of the best and most versatile land would be retained.</li> </ul>

### ***Mitigation***

- maximising the use of porous surfaces within car parks and trails,
- preserving any displaced topsoil resources in low earth mounds or by spreading them thinly on adjacent ground, and
- minimising topsoil stripping.



## 5.5 Impacts on water

<b><i>Introduction and key issues</i></b>
<p>A brief assessment of the impact of the proposed scheme on water was undertaken by The Landscape Partnership and considered the potential effect of the proposed scheme on water including quality, hydrology and groundwater recharge.</p>
<b><i>The existing situation</i></b>
<p>The site is located midway between The Thames Estuary at Gravesend (approximately 5km away to the north) and the Medway River immediately south of Rochester (approximately 6.5km away to the south). There is an absence of surface water features in the local area due to the presence of free-draining soils. The closest surface water bodies are a series of small ponds in Shorne Wood to the north and in the estate parkland of Cobham Hall.</p> <p>Data on the water quality of the aquifer has not been analysed. However, it is possible that the historical arable use of the site could have resulted in some fertilisers and pesticides leaching into the groundwater and causing low levels of pollution.</p> <p>The water table level is not known. However, it is believed to be below 1.5m as it was not encountered during the sample trial pits undertaken for the soil survey. The soils on the site are generally free draining with poor water retention although the practice of regular deep ploughing has resulted in the formation of a plough plan over much of the site which has resulted in poor drainage in some places.</p>
<b><i>Key impacts</i></b>
<ul style="list-style-type: none"> <li>• Minor positive impact on water quality due to no use of fertilisers and very low usage of herbicides</li> <li>• Slight increase in volume of water draining freely into the groundwater system has a slight positive impact.</li> </ul>
<b><i>Mitigation</i></b>
<p>Mitigation measures to further improve the positive impacts of the proposed scheme on water are:</p> <ul style="list-style-type: none"> <li>• Use of herbicides should be minimised during the project implementation phase and long term management of the site, and pesticide and fertiliser use eliminated within the management plan and</li> <li>• Soil cultivation prior to planting should be undertaken to break up compacted areas and improve site drainage</li> </ul>

## 5.6 Impacts on air

<b><i>Introduction and key issues</i></b>
A brief assessment of the impact of the proposed scheme on air was undertaken by The Landscape Partnership and considered the potential effect of the proposed scheme on air quality.
<b><i>The existing situation</i></b>
<p>According to the Kent and Medway Air Quality Partnership, current pollution levels in the Region are low and the air quality across the whole of Kent is considered to be generally good.</p> <p>However, the region includes pockets of poorer air quality. In particular, the Air Quality Assessment of the Borough of Gravesham indicated that levels of Nitrogen Dioxide are high along the A2 corridor and require improvement.</p>
<b><i>Key impacts</i></b>
<ul style="list-style-type: none"> <li>• Slight increase in vehicle emissions</li> <li>• Slight positive impact on air quality by new woodland filtering pollutants from the A2 corridor.</li> </ul>
<b><i>Mitigation</i></b>
<p>Mitigation measures to further minimise impacts of the proposed scheme on air quality are:</p> <ul style="list-style-type: none"> <li>• Access to the site by foot, cycle, rail and bus should be promoted to reduce the number of vehicles travelling to and from the site.</li> </ul>



## 5.7 Impacts on climatic factors

<b><i>Introduction and key issues</i></b>
A brief assessment of the impact of the proposed scheme on local and global climate was undertaken by The Landscape Partnership.
<b><i>The existing situation</i></b>
<p>Weather records for the site itself are not available. For the purposes of the assessment, weather data from the national Meteorological Office for the south-east and central southern region was used.</p> <p>In 2005, the South-east experienced less rainfall, higher mean temperatures and more sunlight hours than the rest of the UK. The predominant wind direction was west-south-west.</p> <p>Predictions for the future focus on climate change with expectations of:</p> <ul style="list-style-type: none"><li>• Warmer summers by 2-6°</li><li>• 20-60% less rainfall</li><li>• 40-100 extra days of plant growth per year (currently approximately 250 pa)</li><li>• Faster wind speeds</li></ul>
<b><i>Key impacts</i></b>
<ul style="list-style-type: none"><li>• Minor changes to site micro-climate.</li><li>• Minor positive contribution to reducing carbon emissions which could make a minor contribution to the current national and international measures to reduce global warming.</li></ul>
<b><i>Mitigation</i></b>
No mitigation measures are required.



## 5.8 Impacts on material assets including the architectural and archaeological heritage

### *Introduction and key issues*

An assessment of the impact of the proposed scheme on the architectural and archaeological heritage of the site was undertaken by Archaeologists from Gifford, a multi-disciplinary consultancy with extensive expertise in producing Environmental Statements and Impact Assessments. The key issues that were assessed fall into the following three categories:-

- Known buried or upstanding archaeological remains, or locations where archaeological artefacts have been found
- Potential buried archaeological remains, identified from aerial photographs of the site.
- Monuments which are legally protected, either as Listed Buildings or Scheduled Monuments, or other designations such as Conservation Areas or Historic Parks and Gardens.

### *The existing situation*

Twenty known Cultural Heritage sites were identified in the study area (within 1.5km of the centre of the site). However, only five of these are located on the site itself. These sites are listed in the table below, together with details of any statutory designations.

All twenty sites are listed on the table overleaf



Site No.	Site Name	Statutory Designation	Site Period	Within Scheme Area?
1	St Thomas's Well	-	Medieval	No
2	Site of Stone Circle/Cromlech	-	Neolithic	No
3	Cobham College	Grade I Listed Building	Medieval	No
4	Cremation Burial	-	Unknown	No
5	St Mary Magdalane Church	Grade I Listed Building	Medieval	No
6	The Mount (Bowl Barrow)	Scheduled Monument	Bronze Age	No
7	Owletts	Grade II* Listed Building	Post Medieval	No
8	Meadow House	Grade II* Listed Building	Post Medieval	No
9	Remains of Cobham Windmill	-	Post Medieval	No
10	Findspot of Bronze Harness Pendant	-	Post Medieval	Yes
11	Findspot of 13th Century Lead Seal Die	-	Medieval	Yes
12	Watling Street Roman Road	-	Romano-British	No
13	WW2 HAA Aircraft Battery	Scheduled Monument	Modern	No
14	Polygonal Enclosed Settlement	-	Possibly Iron Age	No
15	WW2 RAF Camps	-	Modern	No
16	Iron Age/Romano-British Activity	-	Iron Age/Romano-British	No
17	Jeskyns Court	Grade II Listed Building	Post Medieval	Yes
18	Rectilinear Crop Mark	-	Possibly Romano-British	Yes
19	Linear and pit-like crop marks	-	Unknown	Yes
20	Cobham Village	Conservation Area	Medieval-Modern	No

There is the potential for other archaeological remains to exist within the area of the scheme, however as these are buried it is not possible to assess where they are, how important they might be or what impacts the scheme may have upon them. Further work- archaeological evaluation – would need to be carried out to enable this assessment to be made.

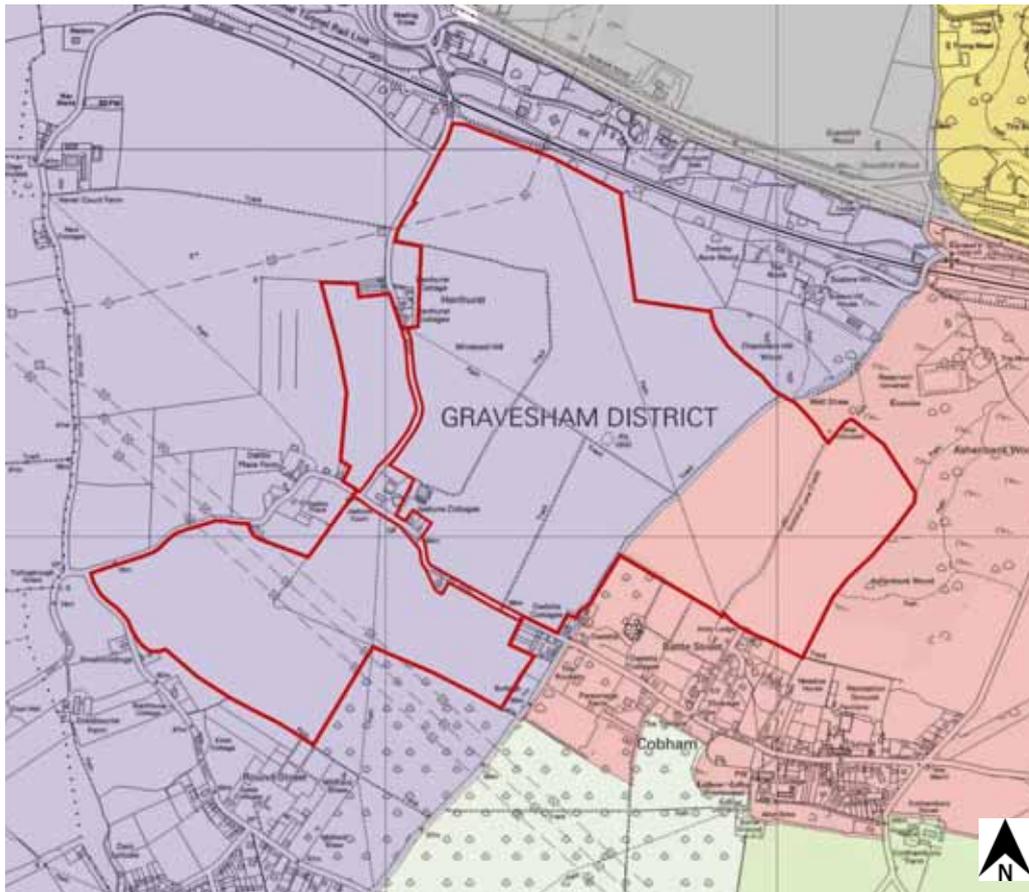
<i><b>Key impacts</b></i>
<ul style="list-style-type: none"> <li>• The impact of the scheme on all the known cultural heritage sites would be negligible</li> <li>• Minor positive impact in taking the site out of agriculture due to possible risk of further loss or damage to archaeological remains as a result of continued practice of deep ploughing</li> </ul>
<i><b>Mitigation</b></i>
<p>In order to design appropriate mitigation measures for the scheme, it will be necessary carry out archaeological evaluation to determine the nature of any buried archaeological remains existing on the site. The scope of these investigations would be agreed with the Forestry Commission and Kent County Council's archaeological advisor, however it is likely to fall into three main categories:-</p> <ul style="list-style-type: none"> <li>• <b>Fieldwalking.</b> This would involve collecting archaeological artefacts from the surface of the fields. If many artefacts are found in the same area, this can indicate that archaeological remains are buried nearby.</li> <li>• <b>Geophysical Survey.</b> This technique detects small magnetic changes in the soil, and can be used to identify buried archaeological remains. This could be used in areas where buried remains are suspected to exist.</li> <li>• <b>Trial Trenches.</b> Trial trenches are small scale archaeological excavations, which are designed to investigate how old an archaeological site is, how large an area it covers, and whether it has been damaged by modern activities such as ploughing. This technique could be used to investigate remains that have been detected by geophysical survey.</li> </ul> <p>If the archaeological evaluations discover buried archaeological remains, measures will be put in place to mitigate potential impacts upon them such as changing the location of the open spaces within the site.</p>

## 5.9 Impacts on landscape and visual environment

<b><i>Introduction and key issues</i></b>
<p>An assessment of the impact of the proposed scheme on the landscape and visual environment was undertaken by a chartered landscape architect from The Landscape Partnership. The key issues that the assessment considered were the impacts on:</p> <ul style="list-style-type: none"> <li>• The character and quality of the landscape of the site and surrounding area, and</li> <li>• The character and quality of views to and from the site.</li> </ul>
<b><i>The existing situation</i></b>
<p><b><i>Landscape Features</i></b> The principal landscape features around the site are identified on Figure 2.</p> <p><b><i>Landscape Designations</i></b> The key landscape designations within the area of the proposed project are:</p> <ul style="list-style-type: none"> <li>• Kent Downs Area of Outstanding Natural Beauty (AONB),</li> <li>• North Downs Special Landscape Area (SLA),</li> <li>• Metropolitan Green Belt (MGB) and the</li> <li>• Ashenbank Wood Site of Special Scientific Interest (SSSI).</li> </ul> <p><b><i>Landscape Character</i></b> Five different areas of landscape character were identified within the area covered by the site and surrounding area. These are illustrated on Figure 3 overleaf.</p> <p><b><i>Views</i></b> Key views to and from the site are illustrated in Figure 4 on page 15</p>



# Impact assessment: 5.9 Landscape and visual

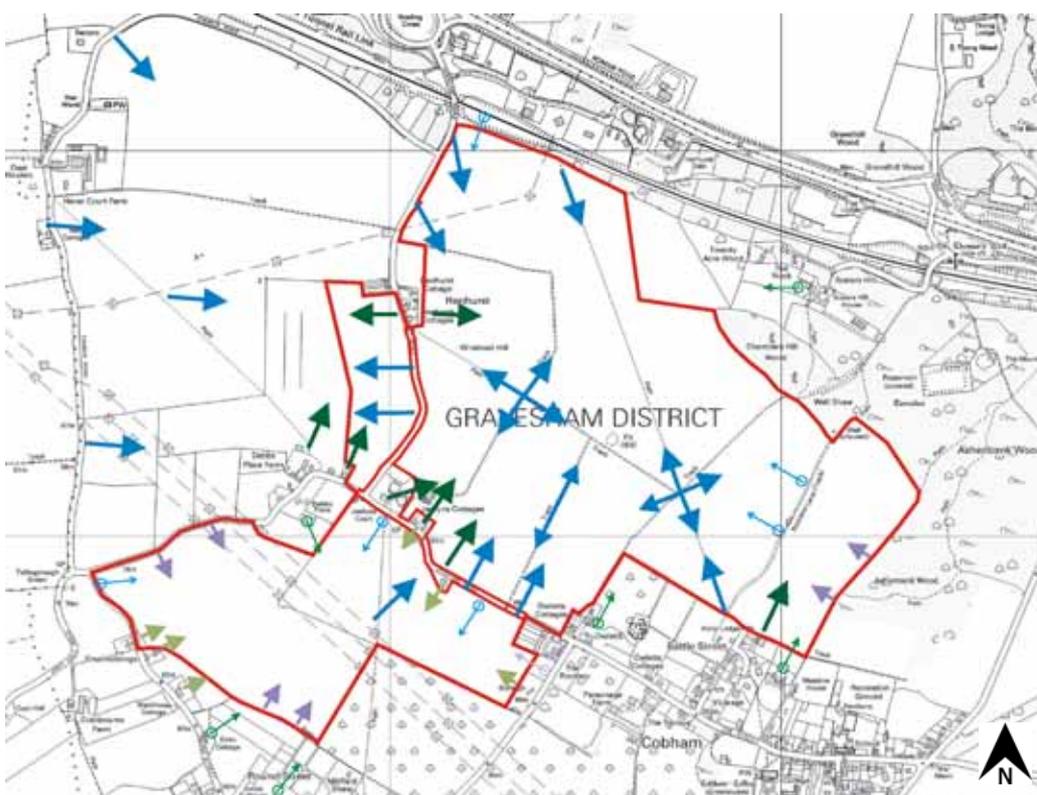


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Figure 3 / TLP 03: Kent Landscape Character Assessment NTS: data source – Kent Landscape Information Service (2004)

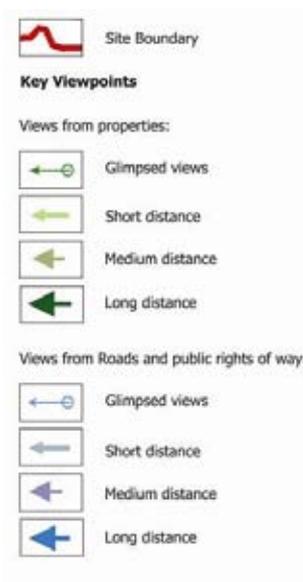


# Impact assessment: 5.9 Landscape and visual



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Figure 4 / TLP 05: Visual analysis (local area) NTS



## **Key impacts**

### ***Implementation phase (year 0)***

#### **Landscape Assessment**

- No significant impact on the landscape character of areas adjacent to the site.
- Neutral impact upon the character areas that the site falls within (there are some positive and some negative impacts)

#### **Visual Assessment**

- Majority of views would experience neutral or negative impacts

### ***Establishment phase (years 0 to 40)***

#### **Landscape Assessment**

- No significant impact upon character areas adjacent to the site.
- Neutral impact upon the character areas that the site falls within (there are some positive and some negative impacts)

#### **Visual Assessment**

- Majority of impacts to views have been assessed as neutral (there are some positive and some negative impacts on views).
- A few views would experience no significant impact

### ***Site at maturity (years 40+)***

#### **Landscape Assessment**

- No significant impact upon character areas adjacent to the site.
- Neutral impact upon the character areas that the site falls within (there are some positive and some negative impacts)
- Proposals would contribute to many of the long term landscape objectives for the local landscape character areas and the AONB.

#### **Visual Assessment**

- Predominantly neutral impact upon views towards and within the site neutral (there are some positive and some negative impacts on views).
- Positive impacts on some views to the south of the site

## Mitigation

Mitigation measures currently incorporated within the scheme include:

- Creation of Jeskyns Meadows as a central open area and Jeskyns Glades as a predominantly open area to retain a sense of openness within the site
- Creation of an open area between Winstead Hill and Henhurst Road to allow long distance views to the west and south
- Careful location of the car park within the natural dip of the land reduces visibility of the car park in the wider landscape.
- Use of a mix of land uses (Woodland, orchard and grassland appropriate to the character of the local area)
- Location of blocks of woodland planting away from private properties to allow properties to retain views across the site.
- Location of Jeskyns Wood on higher ground to form a continual landscape feature with Ashenbank and Shorne Woods
- Minimal infrastructure and no buildings so site retains a rural character.

Additional mitigation measures that would further improve the landscape and visual impacts of the scheme are:

- Creating a wider grass ride through Jeskyns Wood to allow enjoyment of the long distance views to the north.
- Developing bespoke designs for site furniture including gates, stiles etc to reflect the local vernacular.

