

The Greensand Country Landscape Partnership

SECRETS OF THE SANDS

# LANDSCAPE CHARACTER ASSESSMENT

February 2016

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- Drawing 4: Cultural Heritage Designations
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- Drawing 6: Ancient Woodland
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# EXECUTIVE SUMMARY

This landscape character assessment for the Secrets of the Sands (SotS) Landscape Partnership was carried out during 2015. It covers an area which stretches from the outskirts of Milton Keynes and Leighton Buzzard in the west to Gamlingay in the east and includes the larger settlements of Ampthill, Flitwick, Sandy and Gamlingay, and comprises an elevated Greensand Ridge and three river valleys - the Ouzel, Flit and Ivel.

For the purpose of this assessment and the Landscape Partnership work the project area is known collectively as Greensand Country.

The purpose of the Landscape Character Assessment is to provide an understanding of the variety of landscape within the area and to record what is special and distinctive in order to inform and provide a framework for future Partnership work. It also considers landscape change and landscape management and thus will inform wider land management and decision making for planners and land managers in the longer term.

The assessment subdivides the Landscape Partnership Area into landscapes which have a distinct and recognisable character, called Landscape Character Areas (LCAs). The assessment describes these landscapes, which are locally distinctive and recognisable to both resident and visitor alike, revealing aspects which can be celebrated, conserved and enhanced through the Landscape Partnership initiatives.

This assessment also describes the different types of landscape which are generic and occur repeatedly throughout the area e.g. valley meadowlands which occur in all three river valleys. Understanding the types of landscape which occur helps to explain the variety of landscapes which may be experienced and the rapid transitions from sandy heath landscapes to heavier clay farmland.

Finally, this study takes a look at how an understanding of the different character areas and types can help shape and direct initiatives to be taken forward by the Partnership. It is anticipated that the landscape character assessment forms a framework for the development of special initiatives within the Project Area which celebrate the distinctiveness of the individual landscapes identified and the processes which have shaped them.

# 1.0 INTRODUCTION

## 1.1 APPOINTMENT/BACKGROUND

- 1.1.1 Alison Farmer Associates was appointed by the Secrets of the Sands (SotS) Landscape Partnership in June 2015 to undertake a landscape character assessment of the Partnership project area, which broadly comprises the Bedfordshire Greensand Ridge National Character Area<sup>1</sup> and is referred to throughout this document as Greensand Country or Project Area.
- 1.1.2 The landscape assessment was carried out as part of a recently awarded Stage 1 pass from the Heritage Lottery Fund (HLF). A Stage 2 submission will be made to HLF in 2016, and if successful, the project initiatives will be implemented over a subsequent four year period.
- 1.1.3 The SotS Landscape Partnership aims to inspire and engage people with Greensand Country, enabling them to play an active and informed role in shaping the future of this distinctive landscape. The programme focuses on the past, the present and the future to improve understanding and appreciation of the area, capturing stories about the changing landscape. The preparation of a Landscape Character Assessment for the area is directly relevant to these aims and provides a context for SotS which can be used to help develop and deliver initiatives as part of the Landscape Partnership outcomes.
- 1.1.4 This report sets out how the Landscape Character Assessment has been prepared, explains what past actions and events have helped shape the landscape we see today and goes on to provide detailed descriptions of unique Landscape Character Areas<sup>2</sup>(LCA) and Landscape Character Types<sup>3</sup> (LCT). These descriptions celebrate the special qualities of the landscape and the changes shaping it, and explore how we might best manage change into the future. The Landscape Character Area descriptions are written in an accessible narrative style to assist in building understanding and connection to Greensand Country, whereas the Landscape Character Type descriptions are more technical in nature and aimed at providing detailed information to guide conservation work outwith the SotS initiative. On this basis the more technical types descriptions can be found within appendix 1 of this report.

<sup>1</sup> National Character Areas are defined by Natural England and divide England into 159 distinct areas as a result of a unique combination of landscape, biodiversity, geodiversity, history and culture and economic activity.

<sup>2</sup> Landscape Character Areas occur in specific locations and are unique. They help to celebrate what is special about a place.

<sup>3</sup> Landscape Character Types (LCTs) are distinct types of landscape that are relatively homogenous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but where ever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern.

## 1.2 THE BRIEF AND SCOPE OF WORK

- 1.2.1 The aim of the project was to provide the SotS Landscape Partnership with a detailed understanding of the landscape. The initial Project Area was defined by a landscape professional with many years experience working in the area and followed the greensand ridge topography<sup>4</sup>. As such it was similar to the Bedfordshire Greensand Ridge National Character Area (Drawing 1).
- 1.2.2 During the course of the project this initial Project Area was reviewed in accordance with the brief and small areas (where there was a continuation of the Greensand Country landscape) were also included (bearing in mind HLF requirements on extent). The extent of the final Project Area in relation to administrative boundaries can be seen on Drawing 2. All references throughout this report to the Project Area refer to the extent shown on Drawing 2.
- 1.2.3 The brief required a comprehensive understanding of landscape character across the Greensand Country bringing together assessments in different administrative areas. It also required a more detailed assessment at 1:10,000 scale of seven Zones (appendix 2) which included urban fringe areas, the Flit and Ouzel Valleys and the setting to the scarp to the north. During the assessment and write up stage of the project it was agreed, with the client team, that the findings of this more detailed assessment would be used to inform the written descriptions and boundaries of the character assessment rather than preparing separate text for Zones. This was considered to be a much more useful output for the study, both in terms of the Partnership work, and also the legacy of the document into the future.
- 1.2.4 The overall scope of work included four broad stages – firstly a familiarisation stage including a site visit and gathering background data from the client team; secondly a desk study stage where digital data and background documents were reviewed and Landscape Character Types and Landscape Character Areas defined in draft; thirdly site assessment where the draft character types/areas were verified in the field and public consultation undertaken as part of a Secret of the Sands Landscape Partnership Workshop (held on the 22 October 2015); fourthly a write-up phase where the written descriptions for landscape types and landscape areas were developed.
- 1.2.5 Key sources of information used during the course of this study have included:

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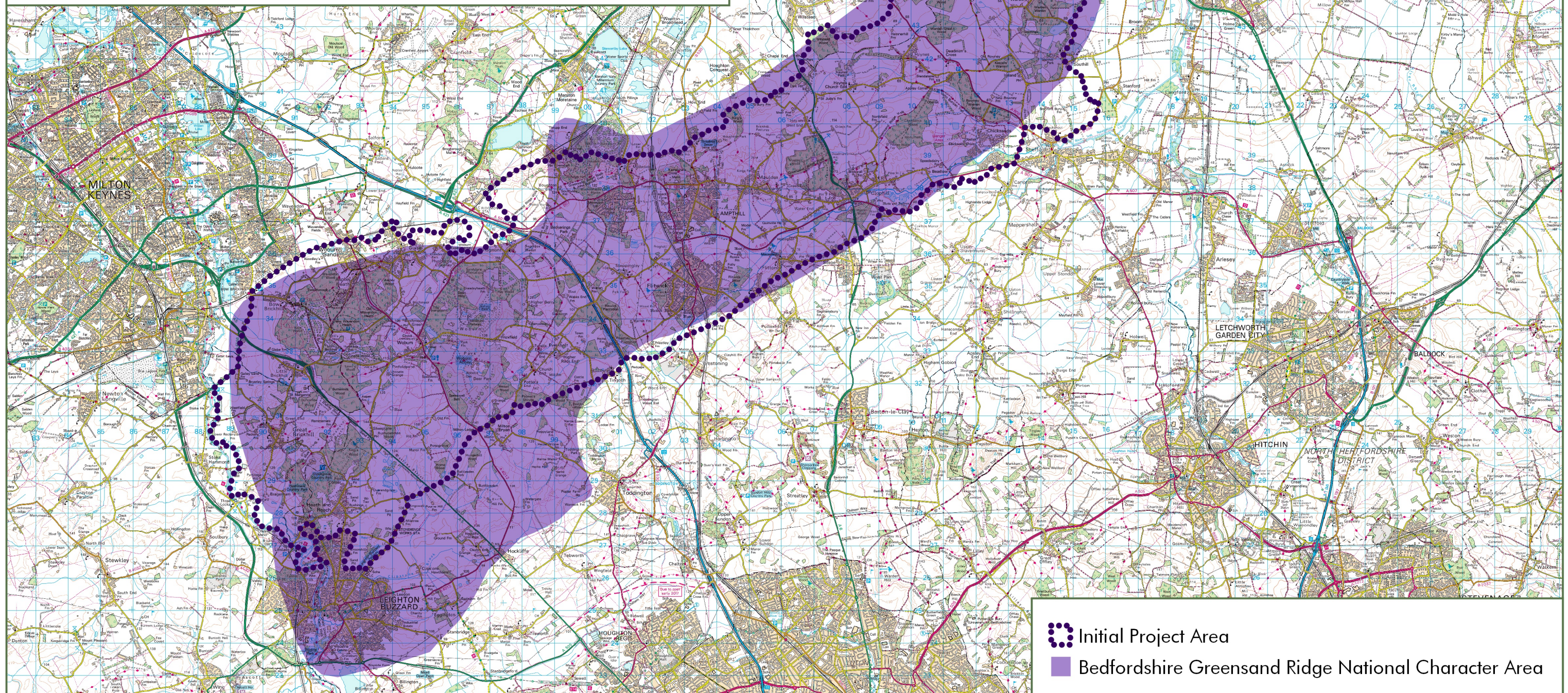
<sup>4</sup> The extent of the area defined needed to be within Heritage Lottery requirements i.e. less than 200 square km.



# The Secrets of the Sands: The Greensand Country Partnership Landscape Character Assessment - January 2016 Drawing 1: Initial Project Area and Bedfordshire Greensand Ridge NCA



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# The Secrets of the Sands: The Greensand Country Partnership

Landscape Character Assessment - January 2016  
Drawing 2: Final Project Area and  
Administrative Areas

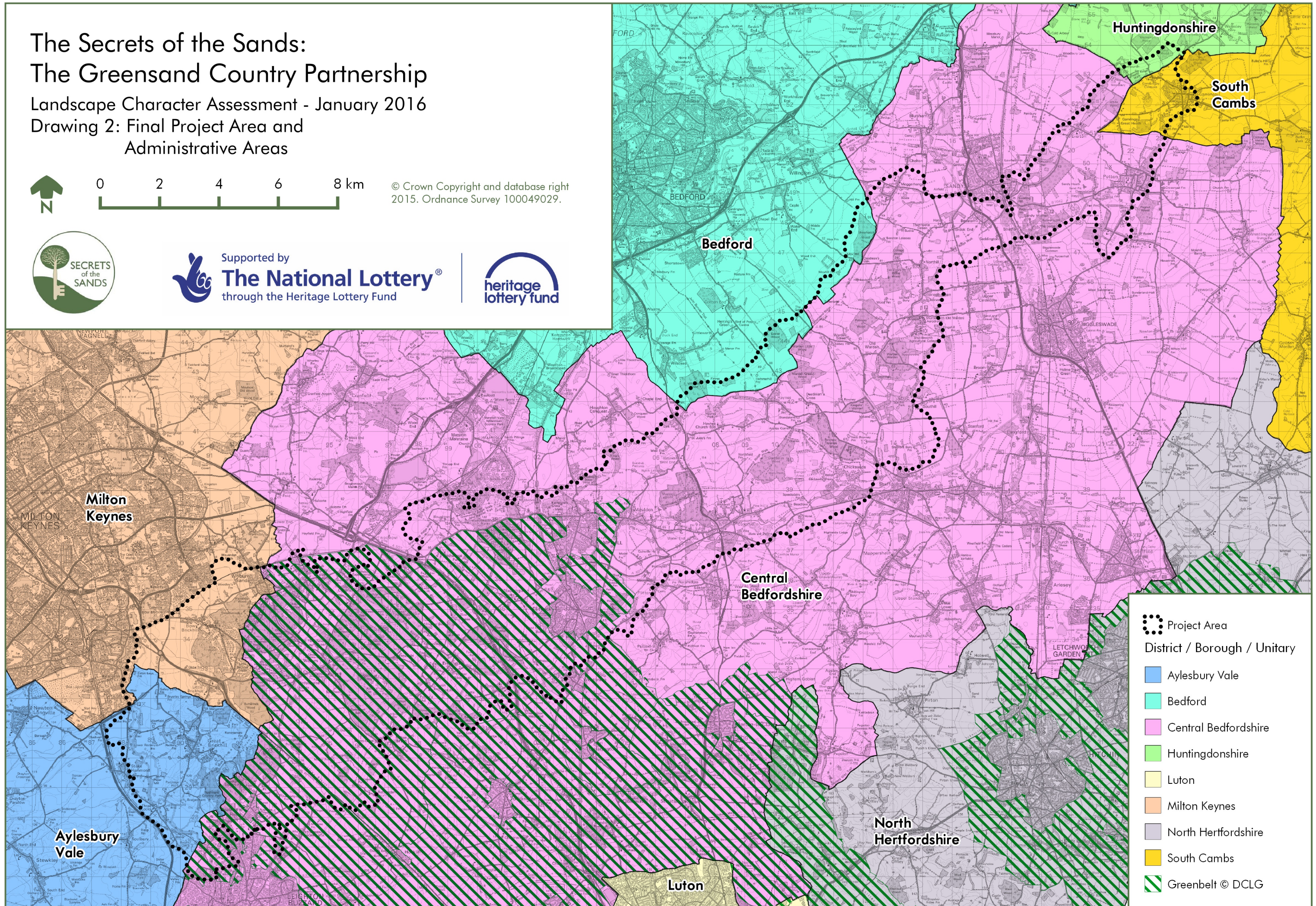


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- Project Area
- District / Borough / Unitary**
- Aylesbury Vale
- Bedford
- Central Bedfordshire
- Huntingdonshire
- Luton
- Milton Keynes
- North Hertfordshire
- South Cambs
- Greenbelt © DCLG



- GIS datasets supplied by all relevant local authorities;
- National Character Area 90: Bedfordshire Greensand Ridge;
- East of England Regional Typology;
- Central Bedfordshire Landscape Character Assessment (updated 2014);
- Aylesbury Vale Landscape Character Assessment (2008);
- Milton Keynes Landscape Character Assessment (March 2007);
- Huntingdonshire District Landscape and Townscape Assessment (June 2007);
- Cambridgeshire Landscape Guidelines (1993);
- Green Infrastructure Plans for Counties, Districts, Unitary Authorities and Parishes;
- Conservation Area Appraisals;
- The Building Stone of Bedfordshire, Dr Jill Eyres and the Bedfordshire and Luton RIGS Group;
- The Greensand Ridge Nature Improvement Area: Ecological Evidence Base (April 2014);
- The Buckinghamshire Landscape, Michael Reed (1979);
- The Bedfordshire and Huntingdonshire Landscape, Peter Bigmore (1979);
- Brickmaking, A History and Gazetteer, Alan Cox (1979).

1.2.6 A draft character area map (based on the Central Bedfordshire Character Assessment) was used as part of a questionnaire to elicit how people felt about the special qualities of the Greensand Ridge and what they valued. In addition more refined character areas and types were presented and used at a workshop on the 22 October 2015 to take advantage of the local knowledge and expertise of delegates. Over 125 people responded to the questionnaire and approximately 60 attended the workshop providing significant feedback and information which has been incorporated into this report.

### 1.3 APPROACH TO STUDY

1.3.1 This assessment is based on national guidance as set out in the publication Landscape Character Assessment, Guidance for England and Scotland, 2002, Countryside Agency/Scottish Natural Heritage and in the more recent publication by Natural England titled An Approach to Landscape Character Assessment, October 2014.

- 1.3.2 Landscape character is the distinct, recognisable and consistent pattern of elements that makes one landscape different from another. Variations in geology, soils, landform, land use, vegetation, field boundaries, settlement patterns and building styles all help give rise to different landscapes such that differences are the product of both natural and human influences.
- 1.3.3 Within the study area there is landscape diversity, including the upland sandy soils on the Greensand rocks in the west and east; the smooth rounded and rolling plateau landscape where the Greensand is overlain with glacial clays, and the river valleys with alluvial deposits and distinctive settlement pattern. The varied rocks, landforms and soils have influenced both the natural flora and fauna and the way the landscape has been populated, managed and used by people over the centuries.
- 1.3.4 Landscape character assessment involves mapping, classifying and describing these variations in landscape character. It also involves making judgements about the character and condition of the landscape, and analysing forces for change, to help us make informed decisions about how we should manage change in the future. In classifying the landscape two types of unit may be identified:
- 1.3.5 *Landscape character types* are landscapes with broadly similar combinations of geology, landform, vegetation, land use, field and settlement patterns. They repeat across a landscape so that landscapes belonging to a particular type – for example ‘Valley Meadowlands’ – may be found in many different places.
- 1.3.6 *Landscape character areas* are unique areas that occur in only one place and are therefore geographically specific. They have their own individual character and identity. For example, the Flit Valley and Ouzel Valley are each unique.
- 1.3.7 Landscape character types and areas nest within each other. For example within a single character area there may be a number of landscape types i.e. within the Flit Valley there are Valley Meadowlands and Settled Valley Farmland types.

## 1.4 EXISTING LANDSCAPE CLASSIFICATIONS

- 1.4.1 The existing landscape character assessments, all of which are listed in section 1.2.5 above, have been reviewed and relied upon during this study. Collectively they provide an understanding of the landscape within the Greensand Country. However they have been undertaken at different times and for different purposes and, whilst there is a high degree of correlation



between them, there are inevitably some inconsistencies across administrative boundaries.

- 1.4.2 During the course of this project work it became apparent, through the work of Audience Development consultants, that in general people found it hard to relate to the Greensand Ridge as an area and that the area lacked a unique identity. In addition, the sub-division of the Greensand Ridge into three character areas within the Central Bedfordshire character assessment were not easy for the lay person to grasp. Following discussion with the client team it was concluded that this character assessment needed to describe the Greensand Country as comprising a single elevated area of Greensand Ridge as well as adjoining river valleys.
- 1.4.3 Furthermore, responses to an initial questionnaire, which was issued at the start of the project (Appendix 3), highlighted that people valued the rapid changes in relief, slope and vegetation and the resulting landscape character experienced within short distances. It was concluded that defining landscape character types would help explain these rapid changes in character. Landscape character types were therefore developed utilising the East of England regional typology data as a starting point.
- 1.4.4 Overall, the net effect has been the preparation of a character assessment for Greensand Country which firstly takes a broader view of the Greensand Ridge than the Central Bedfordshire assessment (i.e. considers the Greensand Ridge as a whole not as three separate character areas) and secondly provides greater detail on the variety of landscape types which extend across the area. It is anticipated therefore that this character assessment complements what already exists and is a valuable framework for Partnership initiatives but is also of wider relevance, in land management and decision making.

## 1.5 FORMAT OF THE REPORT

- 1.5.1 This report is divided into three sections and appendices as follows:
  - Section 2 sets the scene for the whole of the Project Area, considering how it has been shaped and looking specifically at its natural influences, cultural evolution and nature conservation value;
  - Section 3 provides detailed descriptions of the four Landscape Character Areas which make up the Project Area;
  - Section 4 offers a perspective on broad themes and initiatives which may be taken forward as part of the SotS Partnership;

- 1.5.2 The appendices provide detailed landscape character type descriptions, a map of landscape zones as set out in the brief and the results of the consultation questionnaire.

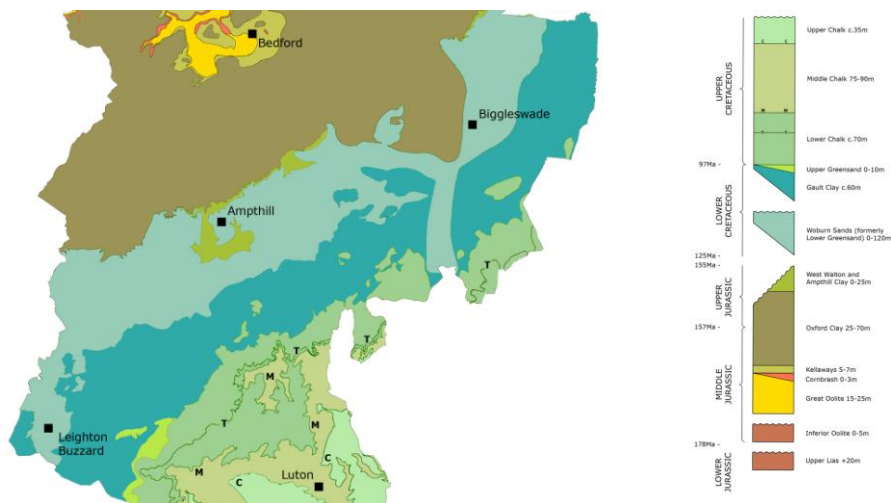
## 2.0 THE GREENSAND COUNTRY

### 2.1 INTRODUCTION

2.1.1 The Greensand Country seen today is the product of millions of years of evolution from its underlying geology through at least two thousand years of settlement and use of the land right up to the present day. This section describes the story of the Greensand Country landscape, and how a range of features from the past are still visible today.

### 2.2 GEOLOGY, LANDFORM AND SOILS

2.2.1 In the Cretaceous period (approximately 100 million years ago), the area now occupied by the Greensand Country was dominated by tropical shallow seas. Sediments of sandy minerals were deposited as silt, sand and gravel, which eventually became compressed into the Greensand rocks, known by geologists as the 'Woburn Sands Formation'. Some deposits are rich in marine fossils such as brachiopods, whilst others contain deposits of Fuller's Earth (found at Woburn Sands and Clophill), which was produced when volcanic ash from erupting volcanoes settled in the shallow Cretaceous seas. Elsewhere there are pure 'silver sand' deposits within the Greensand which have been quarried especially around Heath and Reach, and are important for glass-making.

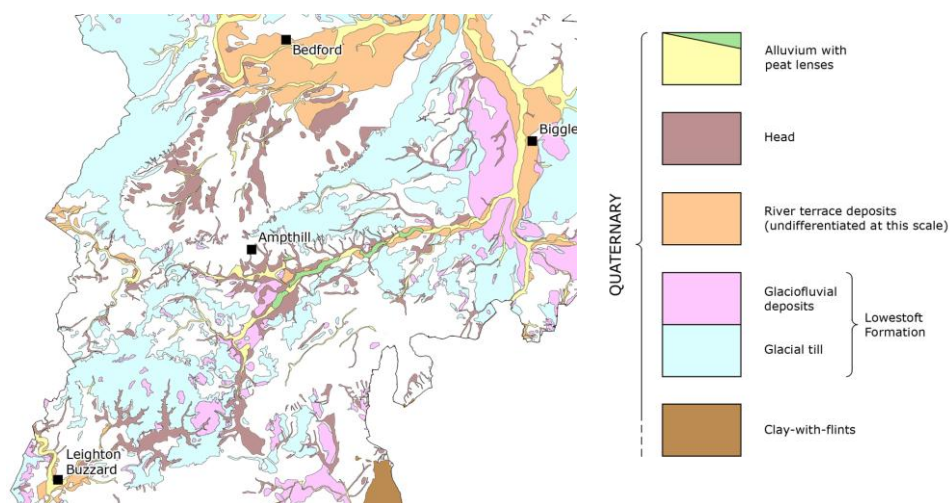


Solid Geology: Extract from BGS. DigMapGB - 50. British Geological Survey Copyright NERC. All right reserved.

2.2.2 Tilting of these rock layers during the formation of the Alps, has produced the landform which exists today. The Greensand is a more resistant rock and so was not eroded as much as the softer clays which surround it. This has left a ridge as a prominent feature in the landscape. The ridge has a particularly

striking steep scarp along its northern and western edges, where it borders Marston Vale and the river valleys of the Ouzel and Ivel. At its highest point between Aspley Heath and Bow Brickhill it is 171m AOD, while the dip slope is gently undulating.

- 2.2.3 During the Quaternary Period (approximately 3 million years ago) the environment was dominated by ice-age advances and retreats and arctic like conditions. Fine grained glacial deposits known as Boulder Clay were deposited over parts of the Greensand when the area was covered by an ice sheet from the north. The area was not covered by ice sheets of later glaciations but was affected by the fluctuating interglacial (temperate) and glacial (tundra-like) climate, the latter leading to accelerated glacial erosion by melting ice.



Drift Geology : Extract from BGS. DigMapGB - 50. British Geological Survey Copyright NERC. All right reserved.

- 2.2.4 Following the warming of the climate alluvial sand and gravel were deposited in the Ouzel, Flit and Ivel valleys and peat deposits have subsequently been laid down in the Flit Valley. In places these sand and gravel deposits have been subject to extraction e.g. Flit Valley near Clophill and Ivel Valley.
- 2.2.5 The geology of the Greensand Ridge gives rise to acidic, nutrient poor and free draining soils which have a low fertility compared to the surrounding clay vales and were often used for purposes other than farmland, for example parkland, woodland and heath. In contrast the glacial clays which cover parts of the Ridge result in relatively fertile soils and these areas generally contain a higher proportion of farmland and farmed estates.
- 2.2.6 The porous nature of Woburn Sands, a major constituent of the Lower Greensand Group, makes it an important aquifer within Bedfordshire supplying potable water and water for agriculture and industry. Changes in



# The Secrets of the Sands: The Greensand Country Partnership

Landscape Character Assessment - January 2016  
Drawing 3: Topography

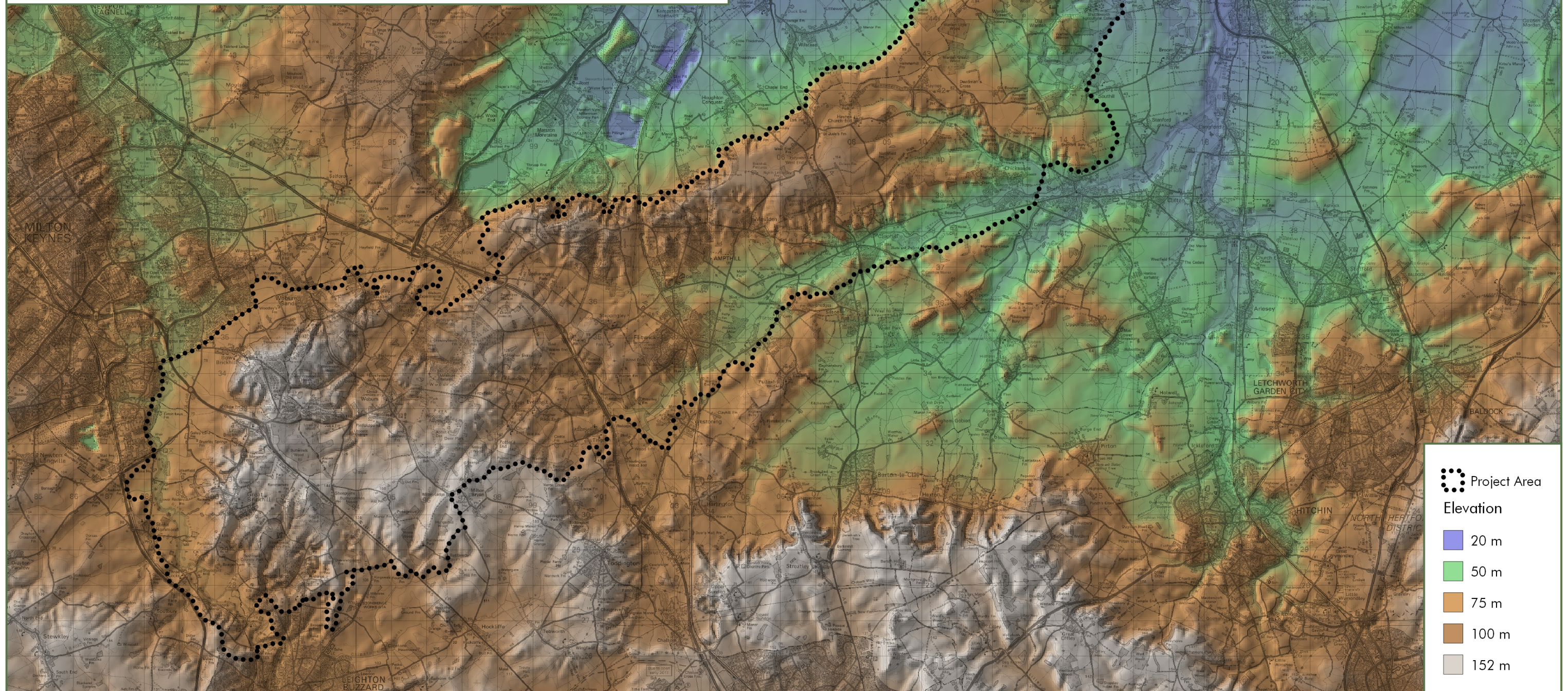


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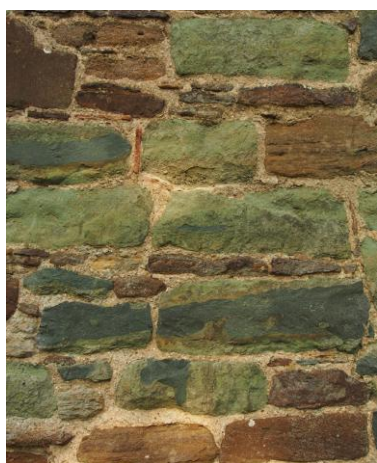
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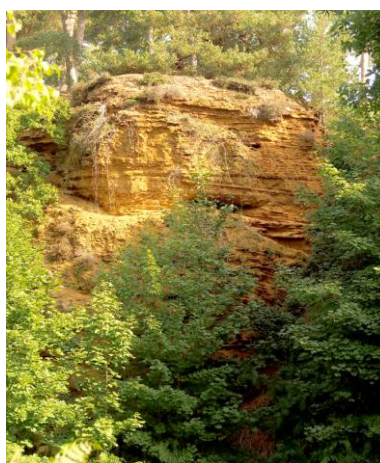


the geology where the sandstone meets the adjoining clay results in occasional naturally occurring springs e.g. Boiling Pot at Lidlington.

- 2.2.7 Rivers cut through the Greensand, with the deepest valleys formed by the Ouzel (at the western end of the ridge) the Ivel (near Sandy) and the Flit (which flows into the Ivel). Over the past two million years, the rivers have deposited sand and gravel along the channels, and on river terraces. These deposits form fertile and easy to work soils.
- 2.2.8 The Greensand bedrock has been used historically as a local building stone. There are a number of historic and active quarries within the Greensand. Quarrying is for sand as well as local stone. Although it is called Greensand, it is generally golden-brown in colour. The 'greenest' greensand may be seen in the tower of Husborne Crawley church, the green colour being attributed to a high concentration of iron-potassium silicate called glauconite. Usually the greensand has a more rusty ochre-brown colours as a result of its iron content. Many of the local churches are built of Greensand, and it can also be seen in walls, bridges and other structures. However, it was rarely used for domestic buildings once brick was readily available from the 18<sup>th</sup> Century onwards.



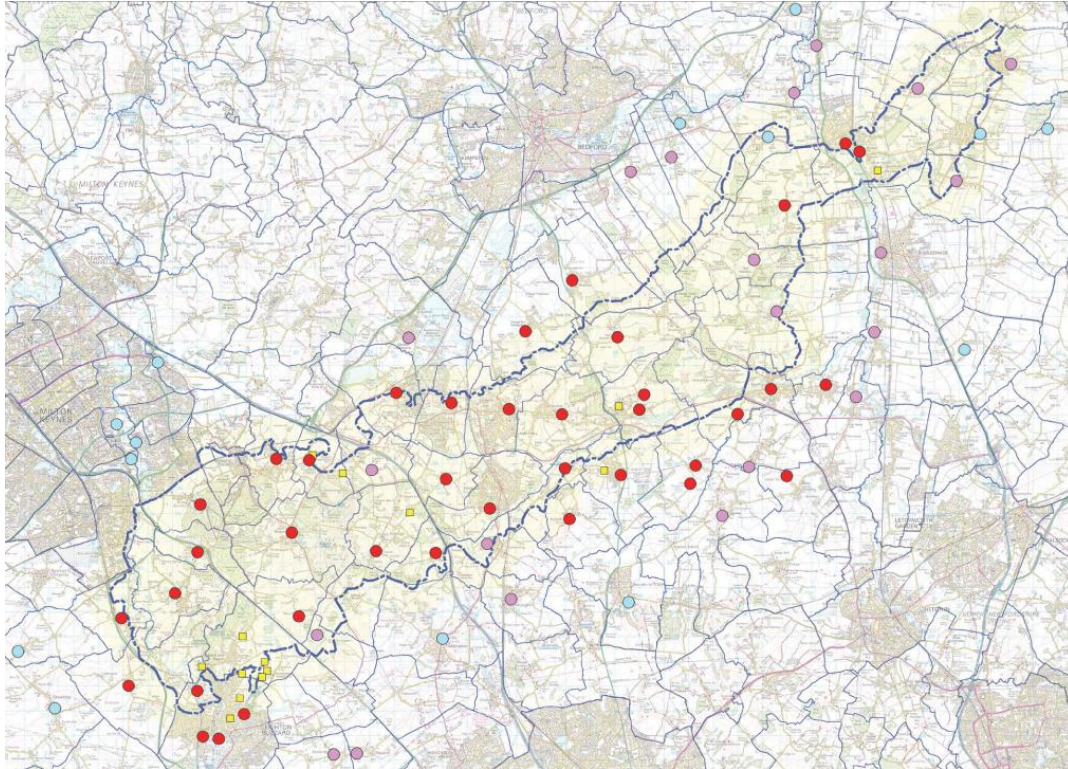
Green hue of sandstone used in Husborne Crawley church tower



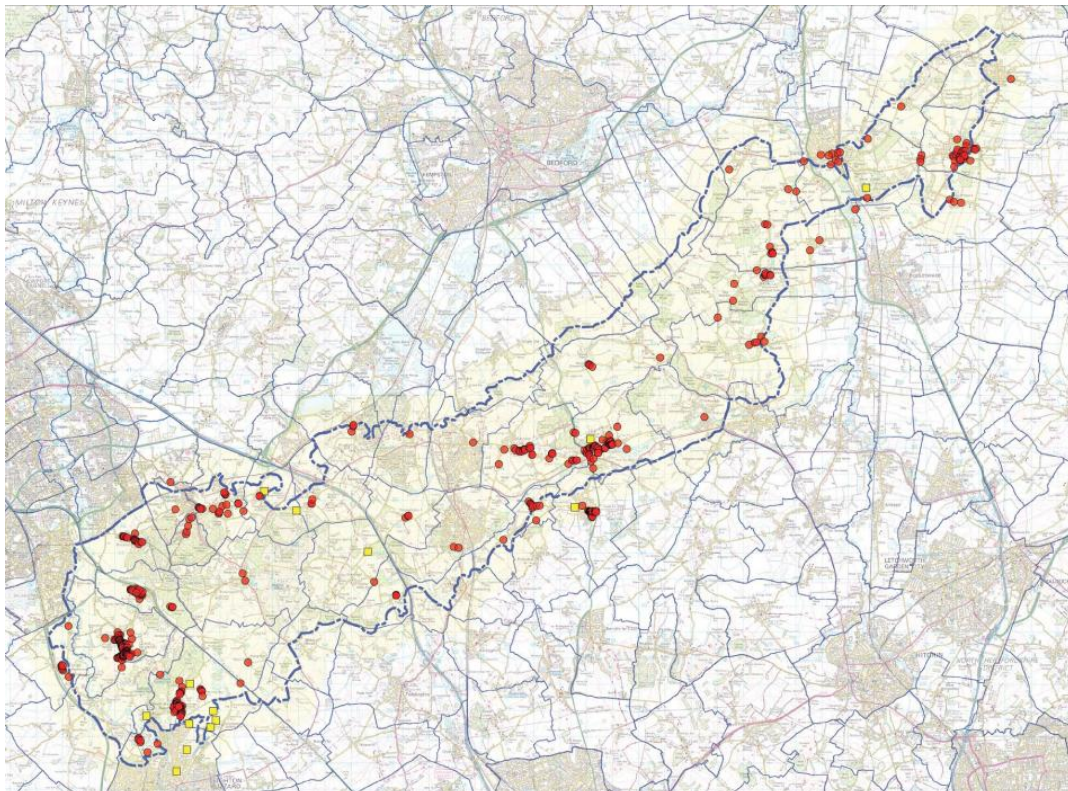
Quarry face at Sandy

- 2.2.9 The distribution of built sandstone structures across the Project Area is not uniform. Notable concentration of sandstone structures occur in the Brickhills area to the southwest and also around Clophill and Potton. Of all minor sandstone structures, 92 percent are boundary walls. 85 percent of these minor sandstone structures occur within Conservation Areas and the majority occur within Great Brickhill Parish. Where structures group together they make a strong contribution to local landscape character. However this contribution is not uniform across the area and focuses in the areas of Great Brickhill, Clophill and Potton.





Extract from the Sandstone Audit showing distribution of sandstone churches across and beyond the study area



Extract from the Sandstone Audit showing distribution of sandstone structures (excluding churches and dwellings) and illustrating the concentration of structures around the Brickhills, Clophill and Potton.



## 2.3 THE CULTURAL LANDSCAPE AND HISTORIC EVOLUTION

### Introduction

- 2.3.1 The patterns seen in today's landscape have evolved over thousands of years from the prehistoric period to the present day. In today's landscape the medieval and later periods are most visually evident but features of greater antiquity are also possible to discern.

### The Prehistoric Period

- 2.3.2 The fertile river valleys adjacent to the Greensand Ridge contain the earliest evidence for human habitation, including flint flakes and tools. A prehistoric ring ditch has also been recorded near Millbrook. Pollen analysis from Flitwick Moor shows a decrease in lime pollen, and an increase in cereal, grasses and weeds from 1500BC onwards, suggesting clearance of woodland and planting of crops during this time. Iron Age hillforts occur in prominent locations overlooking the Ivel valley at Sandy, and overlooking Marston Vale at Danesborough near Aspley Heath. It is also likely that a number of the routeways which cross or follow the Greensand Ridge have their origins in the prehistoric period, often because the lighter soils were easier to traverse than the heavier clays. Nevertheless, the long distance route named the Greensand Ridge Walk is in fact a modern recreation route and not one based on antiquity.



Ramparts of hillfort at Sandy



View across the Ivel Valley from Sandy Hillfort

### The Roman and Saxon Periods

- 2.3.3 The Roman Period saw the construction of roads through the Greensand Ridge including a route which broadly followed the route of the present A1, and Watling Street (now the A5). The route of the Roman Road along the Ivel Valley has been altered over the years, but clues to its original line can be found in place names (e.g. Stratford: street-ford). A small Roman town developed on the road junction at Sandy, and another Roman settlement is known in the Flit Valley near Ruxox Farm. Part of a Roman road was excavated at Sandy, and there is a concentration of Roman finds on the alluvial terrace to the west of the Ivel, and around Caldecote, which also has



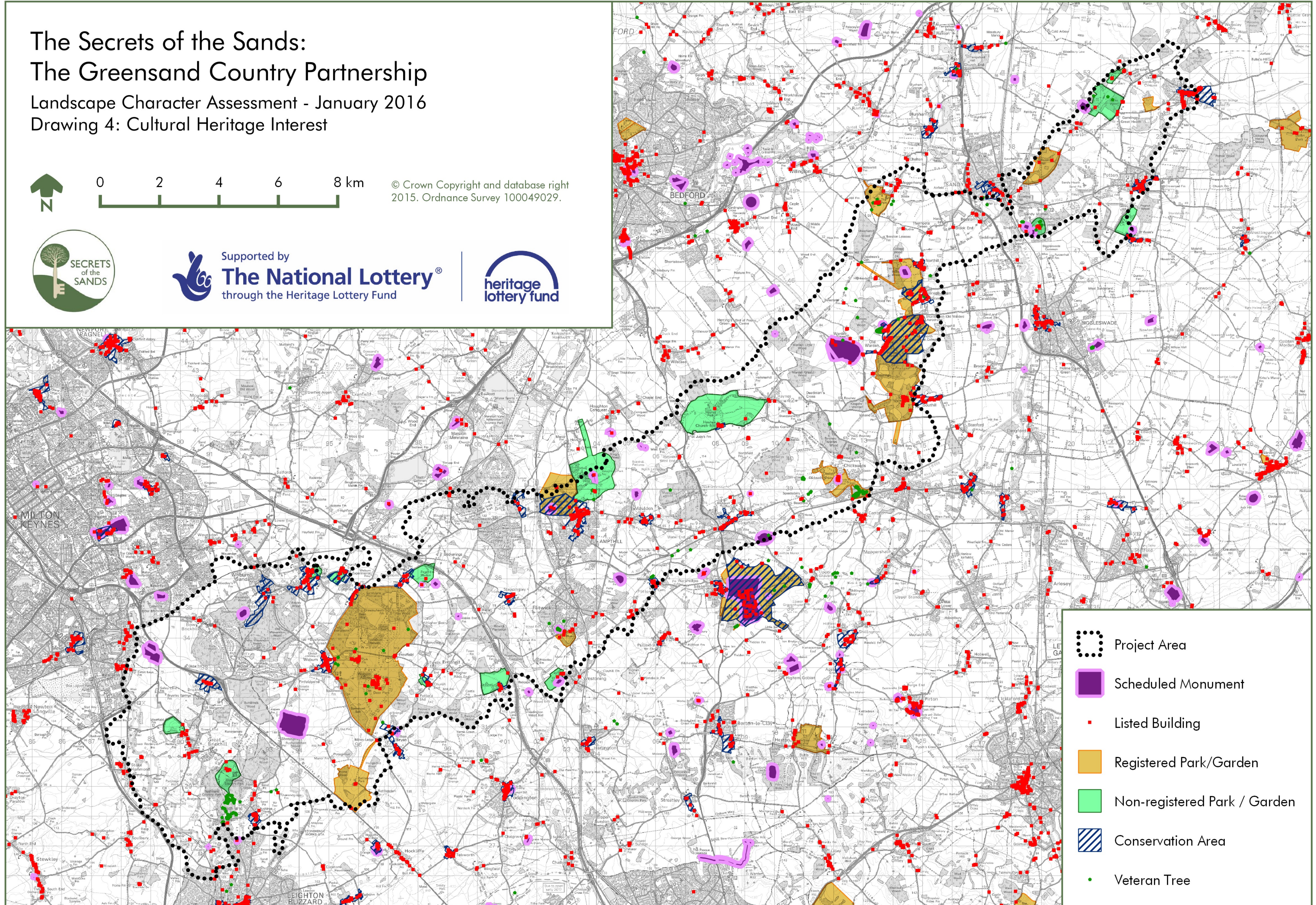
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Landscape Character Assessment - January 2016  
Drawing 4: Cultural Heritage Interest



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possible traces of Roman field pattern. A wider pattern of small farming settlements and villas (for example Shefford) also developed during this period, indicating agricultural based communities.

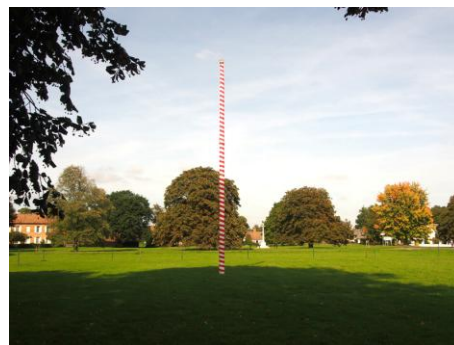
- 2.3.4 Relatively little is known about the Greensand Country in the post-Roman period, although there are some clues in place names. At the western end of the Greensand Country, the placename 'Brickhill' is thought to have its origins in the early British word *brik* (similar in origin to the Welsh *brig* or 'summit'). There is also archaeological evidence for a possible Anglo-Saxon settlement excavated near Amptill Castle.

### **The Medieval Period**

- 2.3.5 Following the Norman Conquest in 1066, the new Norman barons were given land, and constructed castles from which to control their lands. A good example of a Norman Motte and Bailey castle survives at Cainhoe. It was the seat of the powerful D'Albini family for approximately three hundred years, and adjacent to it are the earthworks of the associated medieval village.
- 2.3.6 The Domesday Survey of 1086 shows that many of today's villages were already established by the late 11<sup>th</sup> Century. It paints a picture of a relatively wooded landscape between Woburn, Flitwick and Clophill which supported many pigs, grazing in woodland and in open clearings. This is borne out by the concentration of place names suggesting woodland origins towards the western end of the Greensand Ridge. 'Ley' comes from the Old English *leah* 'woodland clearing' (e.g. Steppingley, Crawley and Aspley). However, around Old Warden, and on the river gravels of the Ivel Valley, the Domesday survey suggests a well-cultivated landscape.



Sunken lane above Bow Brickhill



Ickworth Green

- 2.3.7 It is likely that as the villages were established by Domesday, so were many of the minor roads (often sunken through centuries of use) which connect them. The medieval villages of the Greensand Country take many different forms. Some are nucleated (e.g. Great Brickhill); some are centred around a green (e.g. Ickworth); some are linear, often up the scarp (e.g. Bow Brickhill) and some have multiple clusters of small hamlets or 'ends' which have developed in association with different common lands or cleared areas (e.g. Eversholt).
- 2.3.8 Each village would have had its fields, usually divided into strips which were allocated to families in the village. It would also have had access to less fertile land (often areas of heath or waste) which the villagers would have used for grazing animals, gathering wood and peat for fuel, and gathering bracken for animal bedding. Most villages would also have had a church, (often constructed of stone, and therefore surviving to the present day) and a manor house. Other surviving medieval features in the Greensand Ridge landscape include woodbanks (marking woodland boundaries and preventing animals escaping or entering the wood), fishponds, farms and houses (either built of stone, or timber framed). Occasionally it is also possible to see the irregular shaped fields which resulted from the clearance of woodland or heath (known as 'assarts'), remnants of ridge and furrow (although very little of it survives) and to locate the sites of former moated farmhouses/manors mainly on the heavier glacial clay soils or river valleys.



Wood bank, Kings Wood



Northill Medieval fish pond

- 2.3.9 Hunting for deer was a popular pastime amongst the medieval gentry, and the sandy soils of the Greensand Ridge were ideal for this purpose. Deer were enclosed by a wood and timber stockade (known as a park pale) and their distribution on the Greensand Ridge can be seen in early maps by

Speed (1610) and Saxton (c.1637) with a concentration around Ampthill. When it was time for the hunt, the deer would be driven through a narrow valley or clearing, where the huntsmen would be waiting with bows and arrows. Some of these parks were developed into the large estates of the post-medieval period. The landscape which resulted and was ideal for this system of managed hunting required both open land and wooded areas. These later areas became the parkland which is so much a feature of the Greensand ridge. Such areas can be identified through place names (for example 'Park Farm' and 'Park Wood'). Some of the hunting parks were very significant, for example Ampthill Castle was one of Henry VIII's favourite hunting parks.



Everton Church



Timber-framed buildings at Witt's End

- 2.3.10 Warrening (the keeping of rabbits) was a key influence on the medieval landscape of the Greensand Ridge, and again can be seen in surviving place names (e.g. Sandy Warren and Rowney Warren). The rabbit was introduced after the Norman Conquest, and the keeping of rabbits (licensed by the king) was limited to the owners of manors. The sandy soils of the Greensand Ridge were ideal for rabbit warrens, and many were established in the area.
- 2.3.11 The church was a major landowner in medieval England, and was often gifted land. Because the Greensand Ridge was relatively poor farmland, it contained a number of monastic estates including Old Warden Monastery, Chicksands Priory and Woburn Abbey. Records from the foundation of Old Warden monastery (1135) note the grants of woodland to be cleared, and assarts which had already been cleared, on the Greensand. Similarly Chicksands Priory was also established on marginal land containing extensive woodland. In 1323, timber from Chicksands was transported by river to Ely to help rebuild the tower of Ely Cathedral.
- 2.3.12 In the 14<sup>th</sup> Century the population of the Greensand Ridge began to decline. This was probably due to a series of poor harvests (possibly the result of soil exhaustion and climatic change) combined with the effects of the Black Death. The worst affected settlements were generally on higher ground, for

example at Potton '*the land is sandy there in a dry year and of little value*' and at Ridgmont the soil was '*sandy for the greater part and produced nothing except rye.*'<sup>5</sup> This change in fortunes made way for large scale sheep farming over the next century and a half.

### The Post-medieval Period

- 2.3.13 Following the dissolution of the monasteries at around 1538, the monastic estates were distributed amongst those who were in the king's favour. At Old Warden, John Gostwick built a new house which incorporated the former Abbot's lodging into the gatehouse (the only part to survive above ground). In the 16<sup>th</sup> Century, Richard Osborne (a successful London grocer) acquired the monastic site at Chicksands, where he built a country house. Similarly the Dukes of Bedford constructed a new mansion on the site of Woburn Abbey.
- 2.3.14 Other new houses were constructed on non-monastic sites. For example, Houghton House was built for the Countess of Pembroke, on the northern edge of the Greensand scarp and with long views across Marston Vale. Today the imposing brick house is a ruin, in the care of English Heritage.



Old Warden Abbey



Woburn estate wall from road

- 2.3.15 Estates containing country houses and associated parks continued to be developed along the Greensand Ridge, particularly in the least fertile areas, and remain a key part of the landscape today. Some were created or extended by local families, whilst others belonged to families new to the area but who wished to take advantage of the Greensand Ridge's landscape, views and proximity to London. The estates varied considerably in their size and in the extent of their parkland, but most contain similar features, including grazed grassland with parkland trees planted either in avenues or in a 'naturalistic' style. Trees and other features such as lakes, woodland and follies help to create vistas across the park and a sense of ownership up to the horizon. Capability Brown designed the landscape park at Amptill,

<sup>5</sup> The Bedfordshire and Huntingdonshire Landscape, Peter Bigmore, 1979, page 119.



utilising the existing great oaks from Henry VIII's hunting forest. Humphrey Repton landscaped the grounds of Woburn Abbey, following its rebuilding by the 4<sup>th</sup> Duke of Bedford in 1747, and surrounded the park with a great brick-built estate wall.

- 2.3.16 Many of these estate expansions required the moving and re-siting of villages, and the diverting of roads. For example, Potsgrove became a dead end following the enlargement of Battlesden Park, and expansion of Woburn Abbey Park subsumed the fields and half the houses of Husborne Crawley.
- 2.3.17 Surrounding the parks, often on the more fertile ground, were extensive areas of farmland owned by estates. They often contain regular-shaped fields, blocks of woodland and plantation, game coverts, and estate cottages for farm workers. The Duke of Bedford substantially reorganised the landscape on his estates in order to introduce new and improved farming techniques which were pioneered during the 'agricultural revolution' in the mid-19<sup>th</sup> Century. He particularly liked rectangular fields which were the optimal shape for a steam-powered plough. He also built new and improved 'model farms' which have a distinctive E-shaped ground plan.



Woburn and Church



Duke of Bedford Model Farm

- 2.3.18 During the post medieval period the brick making industry began to develop and expand and the use of brick by the wealthy classes for their country houses became more frequent. By the middle to the 18<sup>th</sup> century most parishes had at least one kiln in operation. These kilns were located within and adjacent to areas of boulder clay or Oxford Clay deposits with a high concentration in the Ampthill area.
- 2.3.19 During the 18<sup>th</sup> and 19<sup>th</sup> Centuries, estate villages were developed, containing distinctive styles of architecture which are characteristic of the Greensand Ridge. The Duke of Bedford Estate buildings are generally built of brick, and although they have gables and lattice windows, they are relatively utilitarian in appearance. In contrast, the cottages of the Southill Park and Old Warden estates are built in an elaborate 'English Garden' style,

with thatched roofs, dormer windows, painted render walls and timber porches. The use of brick in the development and expansion of the towns such as Woburn (which grew due to its location on the stagecoach route) and Ampthill is also testimony to the growth of the brick making industry in the area. Both towns exhibit a valued and intact collection of Georgian buildings within their high streets.



Duke of Bedford Estate Cottages



Southill or Old Warden Estate Cottages

- 2.3.20 Another change which fundamentally shaped the landscape of the Greensand Country was the process of parliamentary enclosure, when Acts of Parliament divided fields and common land. The open medieval fields and commons were replaced with regularly-shaped fields, with straight boundaries marked by hawthorn hedges with isolated larger trees known as 'standards', and straight roads often with wide verges running between them. Isolated farmhouses were constructed in the new fields so that farmers could live on their own land.
- 2.3.21 The late 19<sup>th</sup> Century, up to the Second World War, saw a depressed agricultural economy, with an associated decline in agricultural outputs and a reduction in the extent of land being cultivated. This resulted in an increase in the amount of pasture grazed by sheep. However, since the second half of the 20<sup>th</sup> Century, a period of agricultural intensification has reversed this process, resulting in a number of negative influences on the landscape and biodiversity, including loss of hedgerows, damage to buried archaeology by ploughing, and a reduction in habitats for farmland birds, insects and mammals. However, recent policy changes have begun to slowly reverse this process with farms encouraged by stewardship grants to plant in field corners, and leave headland strips as well as undertaking a range of other conservation activity.
- 2.3.22 Market gardening developed at a very early date at Sandy (there are records of gardening carrots and radishes from 1610). Horticulture and market

gardening, based on the light and fertile soils of the Ivel valley and also along the Flit, developed in the later 19<sup>th</sup> century and remained a major element of the landscape until the late 20<sup>th</sup> century. The industry thrived due to the fertile soils and good communications to London (initially by road and later by rail). Dairy farming was an important component of farming on the dip slopes and river valley pastures into the early 20<sup>th</sup> century.

- 2.3.23 An unusual feature developed around Aspley Guise in the mid-19<sup>th</sup> Century, when it was noticed that the area had the most constant air temperatures in the country. A number of 'sanitoria' or hospitals developed where people could go to 'take the air'. Some of these Victorian villas survive today around Aspley Guise and Aspley Heath.



Enclosure field landscapes near Potsgrove



19<sup>th</sup> Century sanatorium, Aspley Heath

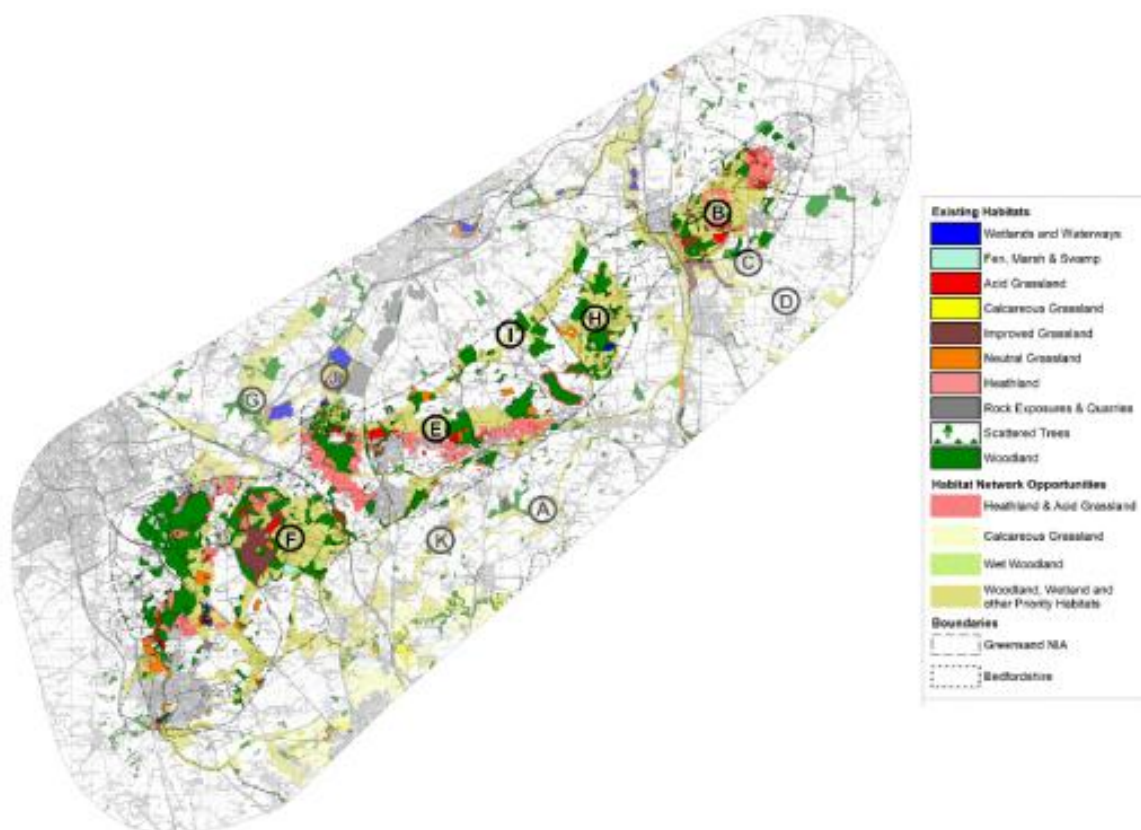
- 2.3.24 Transport within the Greensand Country gradually improved, and connections with the surrounding areas were enhanced. The Great North Road was turnpiked in 1662, and other local road improvements and turnpikes followed. The Grand Junction Canal through the Ouzel valley (at the western end of the Greensand Ridge) was started in 1793. In the mid-19<sup>th</sup> Century, two railways to London were constructed through the Greensand Ridge. Both run north-south, the now *East Coast Main Line* through the Ivel Valley, with a station at Sandy, and the now *Midland Mainline* (in a tunnel) through the Greensand Ridge south of Bedford, with a station at Flitwick. A branch line (closed in the 1960s) ran from Sandy to Pottton and on to Cambridge.
- 2.3.25 In the 20<sup>th</sup> century Greensand Country became a significant area in terms of military use in the 1<sup>st</sup> and 2<sup>nd</sup> World Wars. Ampthill was used as a military training ground with many social history accounts of soldiers departing for the front line from Ampthill station knowing that they were likely never to return.
- 2.3.26 Chicksands Priory parkland was used and is still currently used for military purposes. In other places such as Potsgrove and Milton Bryan the area was significant for its contribution to black propaganda.



## 2.4 NATURE CONSERVATION AND VEGETATION

### Introduction

- 2.4.1 The nature conservation interest and vegetation patterns seen in the landscape today are borne out of the geology and soils as well as historic land uses which have affected the area over the centuries. In April 2014 an assessment of the ecological evidence base for the Greensand Ridge Nature Improvement Area<sup>6</sup> was undertaken. This study identified the ecological resource through the presentation of a series of maps illustrating various aspects of the Ridge's biodiversity. A key theme in the assessment was the noted fragmentation of existing habitats and the need to look at enhancing and creating ecological networks, as illustrated on the map below. The following section provides a brief summary of the main habitats found within the Greensand Country.



Map showing existing habitats and potential to rebuild a biodiversity network across the Greensand Ridge Nature Improvement Area, taken from The Greensand Ridge Nature Improvement Area: The Ecological Evidence Base, April 2014.

<sup>6</sup> A Nature Improvement Area is a large discrete area where the opportunities and benefits for biodiversity are greatest and operated by local partnerships with a shared vision for the natural environment.

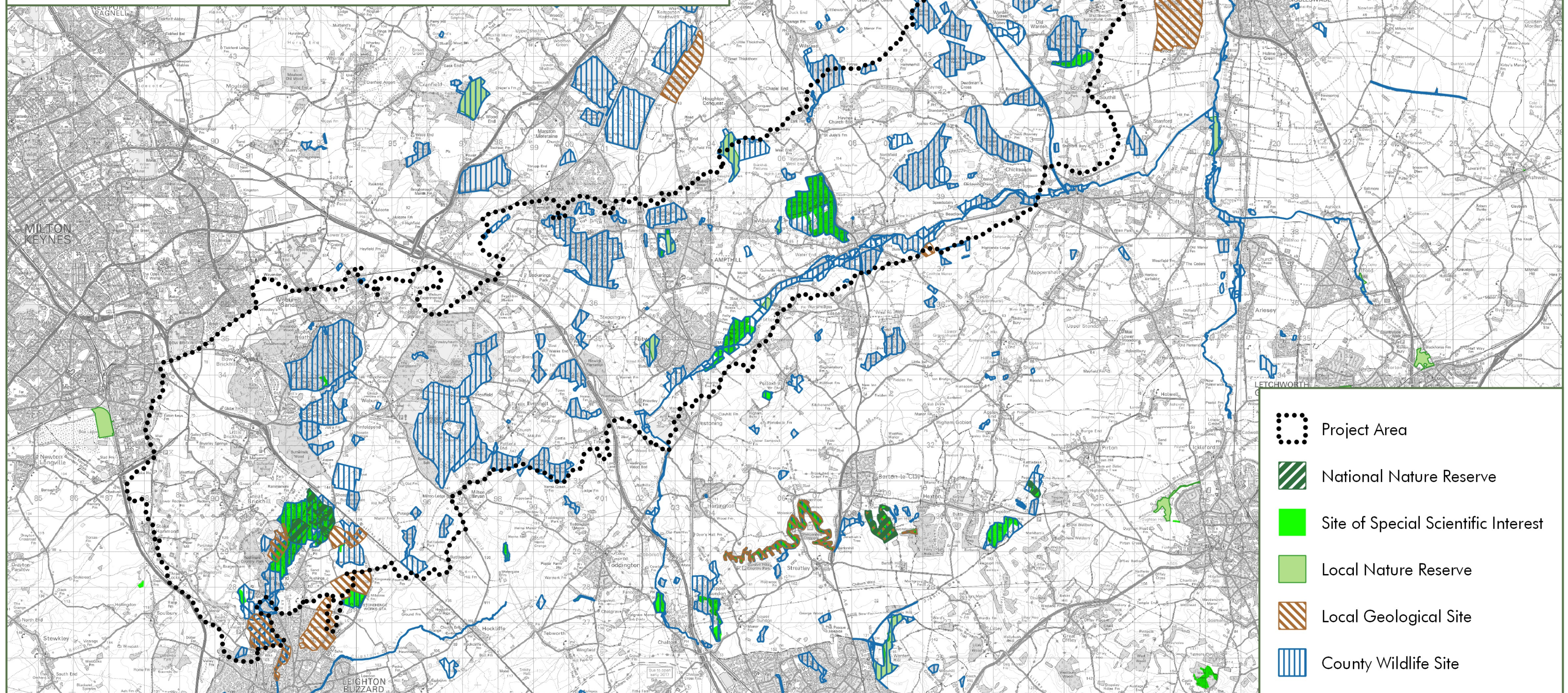


# The Secrets of the Sands: The Greensand Country Partnership Landscape Character Assessment - January 2016 Drawing 5: Natural Heritage Interest



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### **Woodlands and Trees**

- 2.4.2 Substantial blocks of ancient woodland and coniferous plantations are found in the Greensand Country. The north-west facing scarp slope has a number of ancient semi-natural woodlands on patches of clay soils, producing a distinct woodland skyline, whereas the coniferous plantations are found to correlate with the poorer sandy soils and steeper slopes often in areas of former heath.
- 2.4.3 Ancient semi-natural woodlands are predominately pedunculate oak (*Quercus robur*) and ash (*Fraxinus excelsior*) with an understory of field maple (*Acer campestre*), hazel (*Corylus avellana*) and dogwood (*Cornus sanguinea*). On sandy acidic soils, woods are characterised by sessile oak (*Quercus petraea*) and birch (*Betula pendula*) with an understory of holly (*Ilex aquifolium*) and rowan (*Sorbus acucuparia*), bracken and bluebells. Scots pine (*Pinus sylvestris*) is also characteristic of the sandy soils and makes a significant contribution to local distinctiveness and sense of place whereas more recent plantation woodland includes conifers or sweet chestnut (*Castanea sativa*).
- 2.4.4 Amongst some woodlands there are notable populations of lily-of-the-valley, scaly male ferns and wild service trees. Woodlands also support important fauna for example Maulden Wood is a dormouse re-introduction site which is regularly monitored, and in some of the ancient woods populations of purple emperor and silver-washed fritillary butterflies can be found. The rich habitats and woodlands along the Greensand Ridge are also important for a wide range of bats species and badgers.
- 2.4.5 The historic parklands which are characteristic of the Ridge still contain many veteran trees<sup>7</sup> in areas of extant or former wood pasture, along with expanses of semi-improved neutral and acidic grasslands. Veteran trees provide valued habitats supporting important populations of beetles and bats.

### **Lowland Heathland and Acid Grassland**

- 2.4.6 Historically, the Greensand Country would have had extensive areas of heathland and acid grassland.
- 2.4.7 Agricultural advances in the 18<sup>th</sup> and 19<sup>th</sup> centuries meant that the extensive grazing of open heaths ceased to be a key element of the local farming economy. With developments in fertiliser application and irrigation, many of

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<sup>7</sup> The term veteran tree is not precisely defined, as various criteria may determine the veteran status of an individual tree when compared to others. For example, a tree may be regarded as a veteran due to great age; great age relative to others of the same species, existing in an ancient stage of life or due to its biological, aesthetic or cultural interest. The species, relative ages, management practice, aesthetic, cultural and biological importance should all be taken into account when surveying or assessing potential veteran trees



# The Secrets of the Sands: The Greensand Country Partnership Landscape Character Assessment - January 2016 Drawing 6: Ancient Woodland

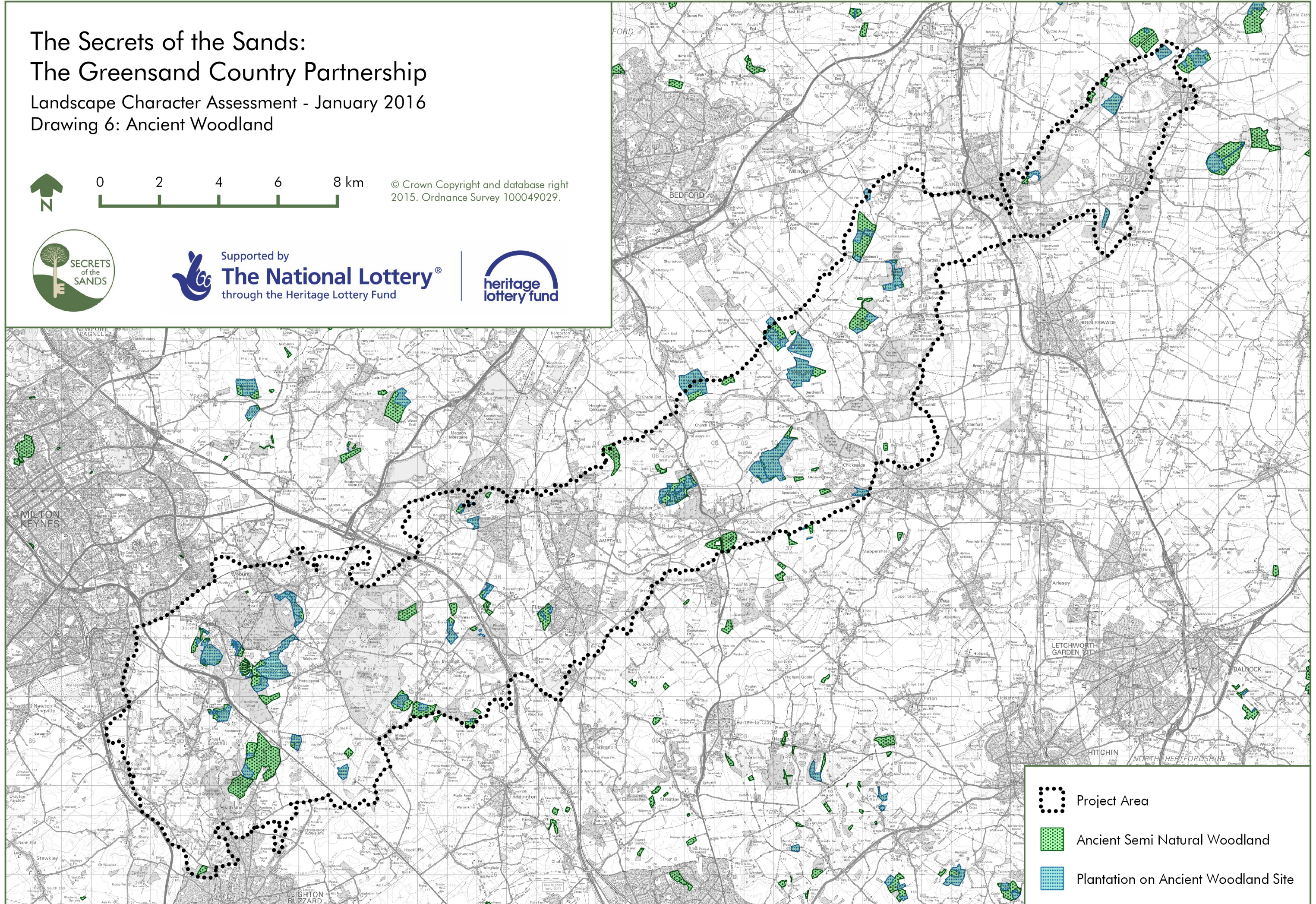





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Supported by  
**The National Lottery**<sup>®</sup>  
through the Heritage Lottery Fund



-  Project Area
-  Ancient Semi Natural Woodland
-  Plantation on Ancient Woodland Site



the areas of light sandy soil became productive arable land. Other areas in the 19<sup>th</sup> century were extensively planted with conifers often by the Bedford and Southill Estates including Millbrook Warren, Coopers Hill, Maulden Wood, Wavendon, Aspley, Rowney, and Sandy Warrens.

- 2.4.8 Today, only fragments of heathlands now remain at sites such as Cooper's Hill SSSI and Rammamere Heath SSSI. In recent years some of the conifer plantations are now reaching maturity, and where under active conservation management (such as at the RSPB reserve at Sandy Lodge) heathland habitat is being restored.
- 2.4.9 On the heathland and acid grasslands common dodder (*Cuscuta*), bilberry (*Vaccinium myrtillus*), sheep's bit (*Jasione montana*) and spring vetch (*Lathyrus vernus*) are notable plants. Populations of orchids such as birds nest orchid (*Neottia nidus-avis*) as well as broad leaved helleborine can be found in the woodlands.
- 2.4.10 Reptiles including adders, slow worms and common lizards and amphibians can be found such as natterjacks at the Lodge. Invertebrates associated with sand and heath include sand wasps and digger wasps and areas of bare earth are particularly important for the Green Tiger beetle while butterflies include the purple emperor.

### **Wetland**

- 2.4.11 The acid waters from the Woburn Sands Greensand aquifer support wetter woodlands along the base of the dip slope, along with acid mires on the higher ground such as at Waverdon Heath and Rushmere Country Park. Along river valley floors there are wet pastures/meadows and where there are naturally occurring springs they too often support acid mire and wet woodland. A site of particular importance is the Flitwick Moor Site of Special Scientific Interest in the Flit Valley. This is a remnant of a nutrient rich valley mire and the largest area of wetland in Bedfordshire. It comprises a complex matrix of habitats including wet woodland and fen and, where acidic springs occur along with, patches of acidic marsh.
- 2.4.12 More generally many wetland sites contain marsh fern (*Thelypteris palustris*), marsh violet (*Viola palustris*) and star sedge (*Carex echinata*). Along the Flit Valley species of *Sphagnum* moss can be found along with important populations of lower plants and fungi. The rivers have many beautiful native black poplar trees and the increasing numbers of otters have captured public imagination. Nevertheless the small numbers of water vole, which is hanging on in places such as near Sandy, requires concerted conservation effort to improve suitable habitat and limit further decline. Water shrew are very

occasionally recorded although this may be a reflection of lack of recording in general.

## 2.5 CHANGING MANAGEMENT

- 2.5.1 Lack of, or inappropriate management of sites with wildlife interest has led to a decline in the quality of some habitats and the loss of others altogether. It has also led to fragmentation and isolation of sites as noted above. Even sites which are managed for biodiversity have come under pressure as they are required to provide a diverse range of functions. In particular, informal recreation of some of the sites has resulted in conflicts of interest developing.
- 2.5.2 Many of the wetlands and watercourses are fed by the Greensand aquifer. Over-abstraction of this is one of the greatest threats to these areas as it would result in lower base flows in the rivers and drier wetland sites. In addition to this, many of the watercourses also have high nutrient levels which can cause significant damage to some of the sensitive wetland sites during and after flood events.
- 2.5.3 There has been an increase (followed by a more recent decline) in market gardening on the Greensand Country. This included provision of smallholding plots, such as those created by the Duke of Bedford near Ampthill, and by the Land Settlement Association near Pottton, and Wyboston (just outside the Project Area boundary). Within the Ivel valley the remains of the once extensive glasshouses can be seen and within the Flit valley the proliferation of garden centres is apparent along the A507.
- 2.5.4 Changes in land ownership and management have affected country estates. Some are no longer in private ownership whilst others have diversified into recreation and visitor attractions (e.g. Woburn Abbey Safari Park and Rushmere Country Park), with some plantations are being opened up for recreational activities, such as Go Ape, golf courses, Chicksands Bike Park and Center Parcs holiday village. The associated mansion houses have a variety of uses, including conference centres, schools/ colleges and offices, although many are still private residences. In recent decades there has been a gradual decline of parkland and parkland features with the loss of grazed pasture to arable, lack of tree planting and woodland management and decline of features such as park railings. Research into parklands in Bedfordshire has revealed that there has been a significant reduction in the physical extent of parkland and that a decline of parkland features is also a loss to landscape character and local distinctiveness.



Shuttleworth Agricultural College



Recreational land use e.g. Chicksands Bike Park

- 2.5.5 Elsewhere changes in land ownership and tenure has resulted in the proliferation of smallholders particularly in urban fringe areas with an increase in land used for grazing of lamas or equine use and recreation of all types. With this type of land use often comes a range of features such as electric fencing, subdivision of fields, temporary shelters and jumps all of which can add visual clutter.
- 2.5.6 Quarrying of the Greensand sands, the digging of peat, the extraction of sand and gravel and the removal of Fuller's Earth resulting in flooded pits has, both historically and more recently, dramatically changed the landscape but also provided many opportunities for restoration. Sandy Heath Quarry, where a large area of heathland is being created, is one example. Other sites, however have not been restored with nature conservation or landscape character in mind and as a result there has been a loss of the traditional landscape and the creation of new landscapes of quarry lakes and wetlands, pits and steep slopes.
- 2.5.7 The proximity of the area to major communications routes has led to the expansion of some settlements and towns. Larger settlements within Greensand Country include Woburn and Ampthill both of which boast Georgian architecture. More recent development has occurred at Flitwick and beyond the Greensand Country area at Milton Keynes, Leighton Buzzard and Sandy. The larger settlements within the Greensand Country have expanded significantly in recent years, and this process is continuing. Linear development also occurs along main roads, particularly in the centre and east of the area. In the wider countryside there is a trend for infill development in villages and the conversion of farm buildings to residential or small business units.

## 3.0 PERCEPTIONS

### 3.1 CULTURAL AND ARTISTIC ASSOCIATIONS

- 3.1.1 The most well-known literary references to the Greensand Country occur in John Bunyan's *Pilgrim's Progress*, published in 1678. John Bunyan was a non-conformist preacher, and wrote *Pilgrim's Progress* whilst imprisoned in Bedford. His father had been a travelling tinker in the area, and Bunyan would have known the landscapes and lanes from his childhood. The pilgrim's name is Christian, and the story is an allegory for the Christian life, but described as a dream. The landscapes of Central Bedfordshire inspired the setting for Christian's journey from the City of Destruction to the Celestial city. Several sites within the Greensand Country are thought to appear in the story. For example, The *Hill of Difficulty* is the Greensand scarp towards Ampthill; *The House Beautiful* is Houghton House (newly-built in Bunyan's day) and *The Valley of the Shadow of Death* is Millbrook Gorge.
- 3.1.2 In the 1970s, local painter Edward Callam painted the 'Celestial County' series of paintings, inspired by the locations in *Pilgrim's Progress*.
- 3.1.3 The Hill of Difficulty:

*"I beheld then, that they all went on till they came to the foot of the Hill Difficulty, at the bottom of which was a spring. Christian went now to the Spring, and drank thereof to refresh himself, and then began up the hill, saying,*

*The hill, though high, I covet to ascend,  
The difficulty will not me offend.  
For I perceive the way of life lies here;  
Come, pluck up, heart, let's neither faint nor fear.  
Better, tho' difficult, the right way to go,  
Than wrong, though easy, where the end is woe.*

*The other two came also to the foot of the hill; but when they saw that the hill was steep and high, and that there were other ways to go...they were resolved to go these ways...So the one took the way which is called Danger, which did lead him into a great wood, and the other took him directly up the way to Destruction, which led him into a wide field, full of dark mountains, where he stumbled and fell, and rose no more."*





The Hill of Difficulty, Greensand Ridge, Bedfordshire, Running from How End up to Ampthill (from the 'Celestial County' Series) Edward Callam, c.1972  
Image courtesy of Luton Culture



The House Beautiful, Houghton House, Bedfordshire (from the 'Celestial County' Series) Edward Callam, c.1972  
Image courtesy of Luton Culture

#### 3.1.4 The House Beautiful:

*“Then he went on, but whilst he was bewailing...he lift up his eyes, and behold there was a very stately palace before him, the name of which was Beautiful and it stood on the high-way side. So I saw in my dream, that he made haste and went forward, that he might get lodging there.”*

#### 3.1.5 The Valley of the Shadow of Death

*“Now at the end of this valley was another, called the Valley of the Shadow of Death, and Christian must needs go through it, because the way to the Celestial City lies through the midst of it... we also saw here the hobgoblins, satyrs and dragons of the pit... The pathway here was exceeding narrow, and therefore good Christian was the more put to it; for when he sought in the dark to shun the ditch on the one hand, he was ready to tip over into the mire on the other; also when he sought to escape the mire, without great carefulness, he would be ready to fall into the ditch, thus he went on... The pathway was here so dark, that oft-times when he lift his foot to go forward, he knew not where, nor upon what he should set it next.”*



The Valley of the Shadow,' Millbrook Gorge,  
Bedfordshire (from the 'Celestial County' Series)  
Edward Callam, c.1972

Image courtesy of Luton Culture

Note chimneys and ponds of Marston Vale brickworks in the distance.

- 3.1.6 Millbrook also has a literary connection with the poet, Milton, who reputedly planted the Mulberry tree in the rectory garden.
- 3.1.7 All of the Celestial County images are in the Luton Culture Collection at Wardown Park Museum, Luton.
- 3.1.8 In terms of other literary connections, the town of Ampthill is mentioned in Shakespeare's Henry VIII (Act IV, scene 1) which describes how Catherine of Aragon was kept at Ampthill Castle for three years, whilst a special court decided whether or not to allow King Henry VIII to divorce her.
- 3.1.9 The Greensand Country has also been inspirational for a number of artists, particularly in the 20<sup>th</sup> century, who have experimented with different styles of painting to capture its distinctive landscape character, patterns, colours, textures and features. These paintings reinforced the public view that this landscape is attractive, special and worth conserving.
- 3.1.10 Wynford Dewhurst (1864-1941) was a keen British exponent of the impressionistic style, and wrote several books on the subject. His painting of Heath Pond captures the light through the trees, the colours and softness of the wooded landscape.





*Heath Pond, Leighton Buzzard* by Wynford Dewhurst (1864-1941)

- 3.1.11 John Watson's 1968 oil painting entitled 'Path through the Woods, Bow Brickhill, Buckinghamshire' captures the texture and patterns of the dense woodland which covers much of this part of the Greensand Country.



*Path through the Woods, Bow Brickhill, Buckinghamshire* by John Watson (1968)

From the collection of Buckinghamshire County Museum, Reproduced with permission

- 3.1.12 Bow Brickhill was also the subject of a painting in 1941, when it was painted in watercolour by Stanley Roy Badmin as part of the 'Recording Britain' project. The project was part of the war effort and aimed to capture scenes of Britain to remind people what they were fighting for, and also to act as a pictorial record at a time of great change. The full collection of *Recording Britain* paintings are held at the Victoria and Albert Museum. The picture of Bow Brickhill shows the main street in the foreground, with the wooded Greensand Ridge above. The church tower is on the horizon between the trees, and there are glimpses of the steep lane leading up to the church.



Bow Brickhill, Bletchley, Buckinghamshire by Stanley Roy Badmin, 1940. © Victoria and Albert Museum, London, reproduced with permission.

### 3.1.13 Henry Munday wrote of the view from Bow Brickhill c. 1840-44

*“the view is magnificent beyond words; reaching for miles. The village stands partly on the hillside and partly on the flat beyond. The country further on as far as the eye can reach is divided into squares (fields) enclosed with hawthorn and blackthorn hedges with large trees; oak, elm, ash or willow here and there at intervals”*

- 3.1.14 Another notable local artist was Henry John Stannard RBA FRSA (1870-1951). Stannard was born in Bedford into a family of artists. His paintings include watercolours depicting rural scenes, and were often inspired by the Bedfordshire landscape, including the Greensand Country.

## 3.2 STATEMENT OF SIGNIFICANCE

- 3.2.1 This statement of significance has been developed based on feedback from a questionnaire (see paragraph 3.3.1 below and appendix 3), consultation workshop, and knowledge of the area. The Statement of Significance is a statement of the tangible and intangible special qualities of a place, providing a framework for conservation and management and is grounded in history, science and fact.

*Geology, topography and unique historic development endows the Greensand Country with a distinctive character that distinguishes it from other regional landscapes.*



*The underlying sandstone geology gives rise to significant areas of acid soils and historically marginal land supporting heath/acid grassland and plantation forestry together with a history of past and current sand extraction. Where the Greensand is overlain with clays left from glaciers during the ice age, arable land, parklands and ancient woodland dominate giving rise to a perception of 'private' land. The intricate interplay of sandy and clay soils together with abrupt changes in elevation and aspect gives rise to subtle, rapid and complex changes in landscape character and a variety of semi-natural habitats. Priority habitats include broadleaved and wet woodland, lowland dry acid grassland, lowland meadows, lowland heath, and floodplain grazing marshes. The area contains 11 Sites of Special Scientific Interest, a National Nature Reserve, numerous local wildlife sites and 7 Local Geological Sites. Many of these are woodlands and contribute to a timeless tranquillity over much of the area, despite it being traversed by major transport infrastructure.*

*The high concentration of woodland encloses views inwardly but the ridge like qualities of the area also offer contrasting memorable long distance views from its margins outwards across the brickfields of Marston Vale, and south to the Chilterns Chalk Escarpment. Within the Ridge landscape the presence of steep slopes and short deeply cut valleys enhances the landscape experience.*

*The Greensand Country contains an abundance of historic buildings including 25 sandstone churches, 24 conservation areas (covering many of the distinctive brick built villages and Georgian market towns), 36 scheduled monuments, 11 Registered Parks and Gardens (often designed by Repton and Brown including Woburn Abbey and Ampthill Park), and many non-registered parkland landscapes forming the highest extent of parkland in any National Character Area in England. Collectively these historic sites in association with historical land use patterns gives the area a great time depth and archaeological potential.*

*Part of the area around Ampthill is associated with John Bunyan who wrote *Pilgrim's Progress* and used Houghton House as inspiration for 'House Beautiful' and artists such as John Watson and Edward Callum. Historically Catherine of Aragon is associated with Ampthill Castle/Park. The Greensand Ridge walk and cycle route, a network of public rights of way, country parks and nature reserves ensure that the Greensand Country is relatively accessible and highly valued as a place to live and visit.*

### 3.3 SPIRIT OF PLACE

- 3.3.1 A 'Spirit of Place' consultation was carried out as part of this project consisting of a simple free-answer questionnaire and an app entitled 'Rate My View' which enables people to take a photo of their favourite view and upload it to a website together with a summary description. Together these two sources of information have enabled a statement of the 'Spirit of Place' to be written<sup>8</sup>. The Spirit of Place statement aims to express what is unique, distinctive and cherished about a particular place; unlike the Statement of Significance it is grounded in perception, experience and memory, and expressed in non-technical language.

*Greensand Country is experienced as an area of relative peace, quiet, solitude and well-being: it is valued by walkers, cyclists, horse riders and naturalists. People feel able to connect to nature, the secluded pockets of 'heath' landscape and woodland being particularly valued as distinctive from the wider landscape many experience. Many enjoy the timeless quality of the Country, pervading sense of history and wide variety of experiences, citing the mosaic of farmland, woods, parkland habitats and historic market towns. Other features include landmark sandstone churches, historic brick built settlement, extensive historic parkland, ancient trees and both plantation and broadleaved woodlands. In contrast the presence of the arable fields is a reminder that the Ridge is a working environment for many. Favourite views are often from elevated positions across river valleys or the Marston Vale. Collectively Greensand Country offers a chance to slow down and to escape perceived change; a chance to breathe and to be uplifted.*

<sup>8</sup> A full analysis of the results of the questionnaire can be found in appendix 3



## 4.0 LANDSCAPE CHARACTER AREAS

### 4.1 INTRODUCTION

- 4.1.1 This assessment has defined **four** Landscape Character Areas<sup>9</sup> within the Greensand Country and these are illustrated on Drawing 7. These areas are unique and geographically specific due to a combination of special landscape characteristics and features. They include the Greensand Ridge as a single area of distinctive character and the three river valleys of the Ouzel, Flit and Ivel. The Greensand Foothills which flank the scarp are also described and form, along with the river valleys, an important setting and context to the Greensand Country.
- 4.1.2 In the four Landscape Character Area descriptions below each is described in terms of its location, what makes it special, notable highlights and features of particular value and then a description of what is changing and how we might manage that change. In the descriptions the inseparable nature of natural heritage, cultural heritage and the present day landscape as well as the relationship between the ridge and its wider landscape setting is expressed. As such it is hoped that these descriptions assist and enable communities to interpret the past, be inspired by the present environment and to imagine the character of the area into the future.

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<sup>9</sup> A fifth character area, Bedford Clay Plain, falls within the defined study area as illustrated on drawing 7 between the Ouzel Valley and the M1. This landscape forms land at the foot of the escarpment and continues all the way along the northern scarp and extends northwards towards Bedford. As only a small part of this character area falls within the Study Area it has not been described but details of this area can be found in the Mid Bedfordshire Landscape Character Assessment.



# The Secrets of the Sands: The Greensand Country Partnership

## Landscape Character Assessment - January 2016

### Drawing 7: Landscape Character Areas

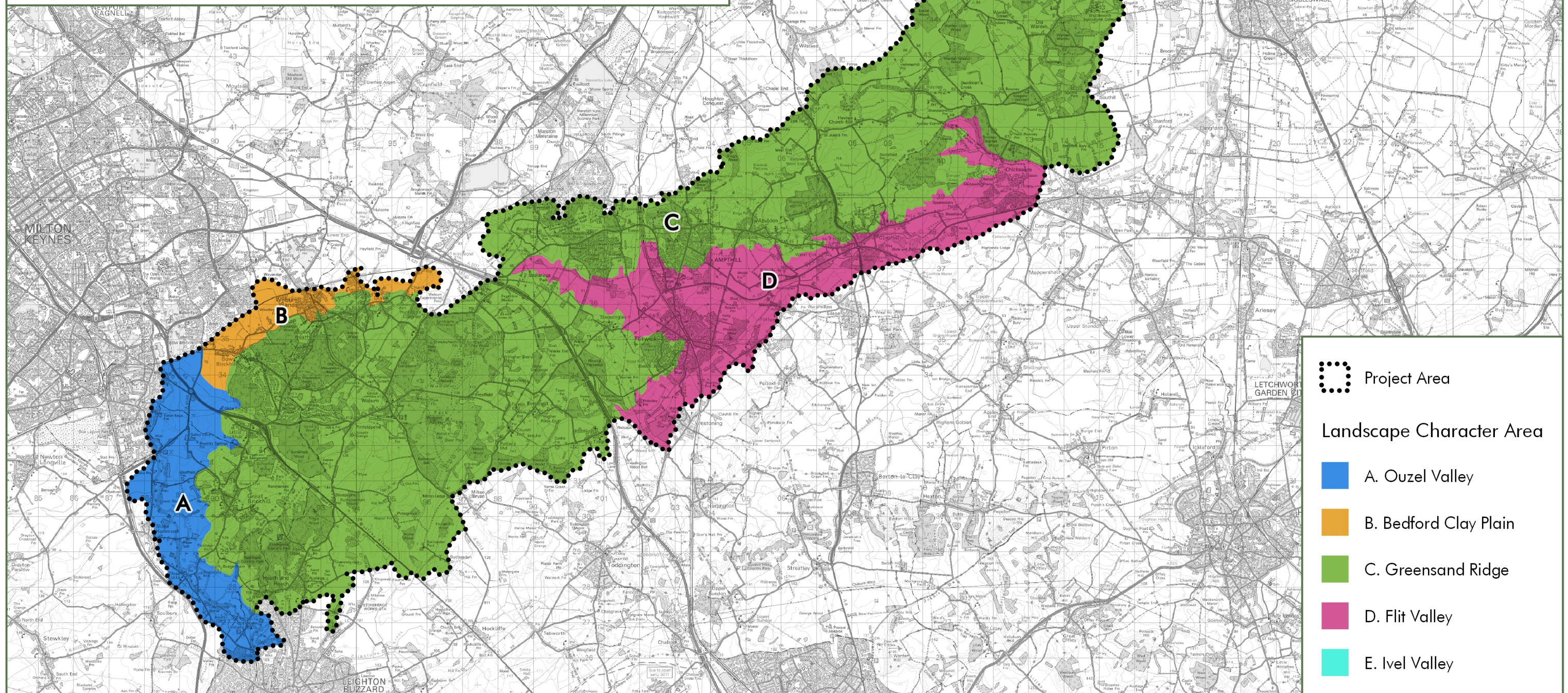


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## 4.2 GREENSAND RIDGE

### **Location and Extent**

- 4.2.1 The Greensand Ridge forms an area of elevated land which stretches in a southwest - northeast orientation between Leighton Buzzard and Milton Keynes in the west to Gamlingay in the East. It forms the core landscape of the Greensand Country.
- 4.2.2 To the north the Ridge is flanked by gentle foothills which stretch out to form the Bedford Clay Plain while to the south the edge of the Ridge is less distinct and it extends subtly into an area of clay hills before reaching the Chilterns chalk escarpment.
- 4.2.3 The Greensand Ridge contains the following landscape types –Scarp and Slopes, Sandstone Hills, Lowland Sandy Farmland, Glacial Plateau Estates and Estate Claylands.
- 4.2.4 The western part of the ridge is Greenbelt.

### **What makes The Greensand Ridge special?**

#### *Interplay of Sand and Clay*

- 4.2.5 The geology in this character area comprises the Lower Greensand geological formation known locally as Woburn Sands, resulting in well drained sandy soils over much of the area. In places the Lower Greensand is overlain with glacial deposits of boulder clay such that the soils become loamier and more fertile. These distinctive geological influences have resulted in differing land uses and historical evolution. In simple terms the typical patterns which can be perceived in the landscape today include the patches of heath, acid grassland, broadleaved and conifer plantations in the sandy areas and the contrasting predominance of estate farmland, parkland and ancient woodland in the clay areas. This combination of differing land uses and the often rapid change from sand to clay soils has given rise to visual variety and complexity which is characteristic of the Greensand Ridge.
- 4.2.6 This pattern is also reflected in the distribution of historic quarry sites and brick pits. The sandstone geology has been quarried locally and used as a building stone over the centuries particularly in the construction of churches and boundary walls. There are remnants of



past stone and sand quarries within the sandstone areas e.g. to the east of Sandy. Elsewhere on the clay, brick pits for the brickmaking industry are evident either in place names and or as incidental hollows within the clay areas, particularly around Ampthill.

#### *Topography and Drainage*

- 4.2.7 The uplifting of the Lower Greensand bedrock has resulted in a distinctive and steeply sloping scarp face to the north and western edges of the Ridge which rise from 70m AOD in the Ouzel Valley to 171m AOD above Bow Brickhill. This is the highest point on the ridge and one of the steepest sections of scarp. As such the northern and western extents of the Ridge create a distinctive skyline from surrounding areas. Beyond these steep edges the Ridge forms a more subtle undulating plateau which slopes gently southwards.
- 4.2.8 Where river valleys or stream valleys cut through the Ridge, smaller scarps or steep slopes also occur, creating topographic complexity and intimate landscapes, which are more difficult to farm and are either wooded or pasture. These small valleys can offer short range views whereas the slopes along the scarp or dip slope can offer contrasting wide panoramic views.



Heathland habitat - strong colours and texture



Parkland landscapes are characteristic

#### *Heathlands & Acid Grassland*

- 4.2.9 Over much of the Ridge the soils are well drained and sandy with high iron content. As noted above the underlying sandy soils have given rise to areas of heath and, more extensively, acid grassland. This latter habitat type is valued for its openness and occasional 'empty' horizons, but also because it occurs as part of a mosaic of habitats alongside heath and woodland e.g. Maulden Heath and the Lodge. In areas of broadleaved woodland and along lane verges, vegetation can include regenerating silver birch, bilberry, bracken and sometimes gorse revealing the acidic qualities of the sandy soil and contributing

to landscape character adding colour and texture. There are also notable Scots pine plantations, now reaching maturity often on areas of former heathland. This is particularly evident in the western and eastern parts of this character area. The marginal nature of this landscape and poor quality of the soil and often steep slopes has also meant that much of it has remained wooded. Place names reflect the underlying geology including the use of heath in place names e.g. Sandy Heath, Potton Heath, Gamlingay Great Heath. Populations of adders can be found at Rammamere and Rowney Warren and have been introduced at Maulden. As noted above there are important invertebrates associated with the sands and the heath such as sand wasps, digger wasps and Green Tiger beetle.

#### *Historic Parkland Landscapes*

- 4.2.10 Estates and parkland are a key characteristic of this landscape. The largest of the parklands is Woburn which is closely associated with the planned market town of the same name. The presence of Woburn Abbey has dominated the development of the landscape since the middle ages, both as a religious house and as the centre of a large post-dissolution estate. Today much of the western part of this character area is owned by the Bedford Estates. Other sizable parklands include Ampthill and the contiguous parks of Ickwell, Old Warden and Southill which exert a strong parkland character on the wider landscape. There are also numerous smaller parks including Battlesden, Ridgmont, Woodbury and Flitwick Manor to name a few. Collectively the parklands contain notable veteran trees (including avenues and perimeter planting) and areas of semi-improved and unimproved neutral and acid grassland. Other parkland features such as park railings, red brick walls and gateposts and/or gatehouses contribute to the 'estate' character of the area as a whole. Parklands often formed part of wider estates particularly across areas of heavier clay soils on the main part of the Greensand Ridge. Here there are significant areas of ancient woodland, some with medieval woodbanks e.g. King's Wood near Ampthill.

#### *Settlement and Built Structures*

- 4.2.11 This landscape supports a distinctive pattern of nucleated ridge top/edge villages including Great Brickhill, Little Brickhill, Bow Brickhill, Aspley Guise, Husborne Crawley, Ridgmont, Milton Bryan and Tingrith. Many of the villages have sandstone churches which act as local landmarks from the surrounding area, while the use of sandstone as a building material concentrates in the far east, central



and western parts of the ridge around Potton, Clophill and Great Brickhill.

- 4.2.12 There are a number of 'End' settlements along the dip slope of the ridge and associated with small irregular fields. This pattern of settlement and enclosure dates to the medieval and post-medieval period, and reflects informal clearance of land from woodland or common. It tends to occur in areas which were not subject to later Parliamentary enclosure or reorganisation of fields by landowners.
- 4.2.13 These small villages have a consistent unified architectural style including the use of red brick, clay tiles and white render that contributes to the strong rural character. They contrast strongly with the more modern development which lies in adjacent areas.
- 4.2.14 Church ruins associated with deserted medieval villages occur at Ridgmont and north of Clophill.

#### **Features of Particular Value**

- Distinctive north facing scarp landform, iconic of the Greensand Ridge, with areas of pasture and woodland on the steep slopes.
- Fine panoramic views off the Ridge and dip slope.
- Short range views within the folds of the tributary valleys creating intimate landscapes.
- Extensive woodland (ancient/secondary and conifer plantations) and mature veteran trees provide structure and enclosure and unify this landscape.
- King's Wood, Heath and Reach is the largest remaining ancient woodland in Bedfordshire and a National Nature Reserve, while Maulden Wood, Chicksands Wood and King's Wood, Ampthill are of notable ecological, cultural and historic value.
- Copper's Hill SSSI and Rammanmere are the largest areas of heathland in Greensand Country.
- Woburn Abbey is a Grade 1 Registered Park and Garden, Southill Park and Old Warren Park are Grade II\* and Moggerhanger, Ickwell, Ampthill, Chicksands, Flitwick Manor and Battlesden Park are Grade II.
- High concentration of scheduled sites including moated sites, Warden Abbey – a monastic site with evidence of Cistercian water engineering; Ampthill Castle and Houghton House; various moated sites namely Malting Spinney, Wake's End, Milton Bryan and 'The

Holt' (moated site with associated field system) and Danesborough Camp (Iron Age Hillfort).

- Many conservation areas including Great Brickhill, Woburn, Ampthill, Northill and Old Warden and Gamlingay.
  - Important areas of archaeology and earthworks are often preserved within woodland areas including boundary banks and field systems e.g. King's Wood, Ampthill.
  - Nationally important ridge and furrow survives at Potsgrove.
  - A Country Park exists at Rushmere (incorporating much of the historic Stockgrove Park).
  - The Greensand Ridge Walk, John Bunyan Trail and Milton Keynes Boundary Walk provide recreational access to this landscape.
- High degree of tranquillity and a rural character despite the close proximity to major conurbations and road infrastructure.

#### **What is Changing in this area?**

- Loss of unity and sense of place due to growth pressures at Leighton Buzzard and Milton Keynes as well as Ampthill and Flitwick, including new development, new infrastructure and recreational pressures.
- Loss of tranquillity and noise intrusion from past development of major infrastructure through this landscape or at its margins.
- High visual sensitivity of scarp face as it acts as a backdrop to adjacent landscapes. Insensitively located development which breaks the skyline and woodland felling can alter the wooded profile of the scarp.
- Pressure for development at the foot of the scarp can affect the visual amenity of key panoramic views from the scarp face.

#### **Strategic Priorities for this Area**

- 4.2.18 The overall strategy is to conserve and enhance the landscape and in particular the ancient woodland, estate parkland, pasture and heath/acid grassland, creating ecological networks at a landscape scale.
- 4.2.19 Enhancing people's appreciation of the identity of the Greensand Country through the creation of stronger 'gateways', key viewpoints, and links between the church landmarks is also a key priority.



### 4.3 OUZEL VALLEY

- 4.3.1 The Ouzel Valley flanks the western edge of the Greensand Country and runs in a north south direction, extending beyond the Project Area. The scarp of the Greensand Ridge sits above the valley on its eastern side, the steep wooded slopes defining the valley especially in the area around Leighton Buzzard.
- 4.3.2 The river valley comprises settled valley sides and a valley floor which is predominately traditional meadow/pasture but in places supports arable agriculture or has been developed. It also contains the Grand Union Canal, which contributes to its character. Overall the valley has an enclosed intimate character.

#### **What makes the Ouzel Valley special?**

##### *Views and Wooded Scarp Setting*

- 4.3.3 The steep wooded scarp of the Greensand Ridge forms a setting to the Ouzel valley forming a backdrop and skyline feature in views even from within urban areas of Milton Keynes. As such the valley borrows character and sense of place from the wooded slopes. Furthermore, it is often from within these lower lying valley landscapes that the scale and wooded character of the scarp can most readily be appreciated.



Ouzel Valley as seen from the scarp



Ouzel Valley Grand Union Canal with wooded scarp

##### *The River Valley Pastures and Vegetation*

- 4.3.4 Typical tree species associated with the valley floor include alder, pollarded willow and black poplar reflecting the wetter conditions found here in contrast to the free draining valley sides and wider Greensand Country to the east.

- 4.3.5 On the valley floor and lower slopes, riverside farmland comprising small fields under pasture with arable in places, defined by hedges or ditches is common.

*Communications*

- 4.3.6 The Grand Union Canal, opened in 1805, flows alongside the Ouzel. It is the longest canal in England, serving as a trunk route between London and Birmingham until the rail network outcompeted it.
- 4.3.7 The Canal is associated with humpbacked canal bridges where there are road crossings and has a strong unity of character. Modern marinas have added to the attractiveness.
- 4.3.8 The Ouzel and presence of Grand Union Canal make this valley an important recreational route for walkers and cyclists. Walking routes include The Greensand Ridge Walk, Two Ridges Link and the Grand Union Canal Walk. From this area there are exceptional views of the western end of the Greensand Ridge which forms the backdrop to the valley.

**Features of Particular Value**

- Natural meandering course of the River Ouzel.
- The wooded scarp face and valley sides form a visual backdrop to the valley.
- Significant biodiversity interest derived from areas of open water, marshy grassland and wet woodland habitats.
- Nares Gladley Marsh SSSI and County Wildlife Site (CWS) supporting marshy grassland, wet flushes and unimproved acid grassland.
- County Wildlife Site at Linslade Wood
- Ouzel Valley Local Geological Site at Leighton Linslade
- Concentrations of the rare black poplar.
- Two scheduled monuments one at Sandhole Bridge over the canal and the second the site of the Roman town of Magiovinium and Roman Fort located overlooking the river.
- Listed structures associated with the Grand Union Canal including bridges, pumping stations, cottages and locks.

**What is Changing in this area?**

- Poor management of hedgerows resulting in loss and gappy character.



- Increased pressure for recreation due to continued growth of settlements such as Milton Keynes - evidence of stables/horse riding, golf course and parking for angling groups along the canal.
- Infrastructure development (A505 and A4146) which impact visually and audibly on the tranquillity of the river valley.
- Urbanisation of landscape due to development associated with road junctions e.g. junction of A5 and A4146 including signage, buildings and lighting.

**Strategic Priorities for this Area**

- 4.3.9 The overall strategy is to conserve and enhance the landscape and in particular the wet woodland, valley floor pastures, small scale enclosure pattern, and views to the wooded Greensand scarp.
- 4.3.10 Utilisation of valley to enhance appreciation of distinctive Greensand scarp and provide gateways and improved access to the wider Greensand Country. Creation of viewpoints to the Greensand Ridge and from the Greensand Ridge into the Ouzel Valley.

## 4.4 FLIT VALLEY

### Location and Extent

- 4.4.1 The Flit Valley lies along the southern edge of the Greensand Country separating it from the clay hills and chalk landscape of the Chilterns to the south. Its upper reaches can be found to the north and south of Steppingley in shallow valleys around Fancott Woods and meadows and the river flows eastwards towards Shefford. The river Flit is a tributary to the Ivel.

### What makes The Flit Valley special?

#### *Wetland Habitats*

- 4.4.2 Moors and wet woodlands form a repetitive pattern along the valley floor. Here willow pollards, native black poplars, scrub and wetland vegetation are common along with habitats including fen, acid mire, reed beds and marshy grassland. In places localised acid springs well up from the underlying Greensand creating small areas of bog mosses.
- 4.4.3 The waterlogged conditions on the valley floor have enabled the build up of peat over many centuries such that there is a history of peat cutting within the valley. The former peat diggings are now valued for their archaeological deposits and for their wildlife conservation e.g. Flitton County Wildlife Site.

#### *Historic Sites and Landscapes*

- 4.4.4 There is a wealth of historic sites along the Flit Valley including historic moated sites. On the valley floor near Flitwick was once the extensive Roman settlement of Ruxox, while Cainhoe Castle is the earthworks of a Norman motte and bailey castle whose earthworks are readily perceived from the valley floor. The De Grey family of Wrest Park constructed a Mausoleum at Flitton Church which is now a Scheduled Monument. Other non-designated historic sites include mill buildings (Flitwick Mill is a particularly good example) and historic cottages.
- 4.4.5 During the medieval period land adjacent to the river was used for pasturing and hay meadows, the floodplains providing fertile soils. Historic flood meadows still exist in places and there are examples of



pre 18<sup>th</sup> century, irregular enclosure where this type occurs to the west.

- 4.4.6 Less fertile land was used as common land, much of this was enclosed from late 18<sup>th</sup> century to early 19<sup>th</sup> century. However, many enclosure boundaries have subsequently removed during the 20<sup>th</sup> century when modernisation of agriculture and the introduction of fertilisers meant that the less fertile soils could be cultivated as arable land, leading to field enlargement. The straightened river course and the drainage ditches constructed through fenland associated enclosure in the 18<sup>th</sup>-19<sup>th</sup> centuries are still present in the landscape today.
- 4.4.7 Two historic parks sit within the Flit valley: remnants of the Chicksands Priory Park and Flitwick Manor Park. Although Chicksands Priory Park has been much altered by military use during the 20<sup>th</sup> century it still contains a number of listed buildings and nature conservation sites; Flitwick Manor Park is grade II listed and includes ecologically important meadow land.



Flitton Moor SSSI



Pony paddocks on the valley floor

### *Settlement Pattern*

- 4.4.8 Within the valley are a number of significant settlements, namely Ampthill, Flitwick, Clophill, with Flitton village to the south. Building materials are typically red brick and white washed rubble or weatherboarding and clay roof tiles. Recent housing growth, infilling the land between Ampthill and Flitwick, along with linear development along roads, has resulted in a more urbanised character to parts of the valley. Clophill is particularly noted for its concentration of sandstone structures and listed buildings.

### **Features of Particular Value**

- Wooded valley sides at Simpsons Plantation/Warren Wood and wooded skylines define the valley in the central section.
- Valuable valley views from elevated locations.
- Pollard willows are characteristics features along the watercourse on the valley floor.
- Veteran trees within Flitwick Manor and Chicksands.
- Important wetland site at Flitwick Moor, the largest area of wetland in Bedfordshire and one of the best wetland sites in the south-east.
- Sandy Smith Nature Reserve important for its matrix of grassland, woodland and fen habitat.
- County Wildlife Site at Moors Plantation, River Flit, Wood End, Alders, Flitwick Manor, Flitwick Moor, Flit Valley, Duck End Marshy Grassland, Cainhoe Lakes, Upper Alders and Lower Alders.
- Important wet woodland sites at Upper and Lower Alders.
- Chicksands Priory, Ruxox Moat and Cainhoe Castle are scheduled monuments.
- Concentration of listed buildings within Clophill and high concentration of sandstone structures in village.

### **What is Changing in this area?**

- Past engineering of the watercourse to control flooding and draining of wet pastures resulting in a loss of fenland and carr woodland.
- Proliferation of roadside development from garden centres to small scale business with associated signage.
- Proliferation of pony paddocks.
- Planting of non-native hedges including leylandii to define field enclosures.
- Lack of access into the valley floor restricting experiences of the valley floor to that of the busy A507.
- Loss of field boundaries in later 20th century on lower valley sides resulting in an open landscape with little visual structure particularly south of Maulden, which is vulnerable to urban growth and urban fringe land uses.
- Growth of settlement weakening traditional settlement form and vernacular styles and creating harsh urban edges.
- Loss of tranquillity and rurality due to transport corridors and urban growth and development of pedestrian bridges across the A507.
- Decline/loss of orchards.



**Strategic Priorities for this Area**

- 4.4.9 The overall strategy is to enhance and renew the landscape and in particular improve the condition of historic landscape features and valley habitats.
- 4.4.10 To enhance people's appreciation of the identity of the Flit Valley and its cultural and heritage sites of interest through the creation of improved physical access including a river valley walk, opening up key views to and from the elevated greensand valley sides and mitigating the urbanising influences of settlement growth through planting which reinforces landscape structure on the valley sides.
- 4.4.11 Protect the areas of wooded valley side which are fundamental to defining the valley form around Clophill.
- 4.4.12 Restore valley floor character through the creation of wet woodland and valley floor grazed pastures.

## 4.5 IVEL VALLEY

### Location and Extent

- 4.5.1 The Ivel Valley lies between Moggerhanger, Northill and Sandy and cuts through the Greensand Ridge at the north-eastern end. It continues to the north and south beyond the Project Area and includes the hamlets of Thorncote Green, Brook End, and Beeston.
- 4.5.2 This is a low lying, relatively flat and expansive valley to the west but is well defined by the Greensand scarp to the east. The soils are predominately clay with drift deposits of glacial and valley gravel.

### What makes The Ivel Valley special?

#### *History of Horticulture and Market Gardening*

- 4.5.3 The development of transportation networks, (including the Ivel navigation and the Great North Road turnpike), and industrialisation during the 18<sup>th</sup> and 19<sup>th</sup> centuries enabled market gardening and gravel and sand extraction industries to develop along the valley. The light fertile soils especially on the river terraces supported a high number of horticultural businesses in the later 19<sup>th</sup> century, although the earliest record of market gardening in the area dates back to 1610. Many of these horticultural industries have declined in recent years, Although a small area around Northill remains in active use.

#### *Large Scale Expansive Landscape*

- 4.5.4 Shelterbelts of conifers and poplar are visually prominent in this flat landscape. They provide structure and enclosure, and contrast with the landscape patterns and concentration of woodlands in the landscapes of the Greensand Ridge to the east and west.



Open agricultural valley with ridge at Sandy in distance



River Ivel looking south



*Settlement and Communications*

- 4.5.5 The fertility of floodplain soils and the availability of water made the river valley an ideal location for settlement and there is evidence of settlement from prehistory. Because the valley provides a break in slope from the Greensand Ridge it is also ideal for easy transportation from one side of the ridge to the other. The Romans took advantage of this and built a road through the valley, which has continued in use (with minor variations in its alignment) ever since, as it is now the A1. This road provided a catalyst for the development of the settlement of Sandy at a crossing point on the river, to the North of the type. Throughout the post-medieval period the fertile soils on land adjacent to the river were enclosed through Acts of Parliament.
- 4.5.6 Built form is primarily Victorian – 20<sup>th</sup> century red brick or rendered buildings with tile roofs.

**Features of Particular Value**

- Open views to the Greensand Ridge to the east and the parkland landscape to the west - this valley landscape is important in linking physically and visually the different parts of Greensand Country.
- Areas of meadows and neutral floodplain grassland are of nature conservation value.
- Adjacent to the river are occasional withy beds (willow pollards), and rough grazing.
- Local Nature Reserve at The Riddy, Sandy.
- County Wildlife Site at Warren Villas and along the Ivel River.
- Greensand Ridge Walk crosses the area from east to west.
- Scattering of listed buildings within hamlets including rural cottages, manor house and farm.

**What is Changing in this area?**

- Physical fragmentation as well as noise intrusion from A1 and associated infrastructure.
- Loss of market gardening and redundant glasshouses giving rise to an air of neglect.
- Proliferation of horse paddocks creating visual clutter as a result of boundary fencing and shelters.
- Planting of leylandii hedges.
- Loss of water meadows and lack of active management of riverside pastures.

- Growth of settlements, including commercial and industrial development, creating abrupt urban edges and pressure for further development associated with existing villages/towns, especially Sandy.
- Gravel extraction resulting in the creation of open waterbodies/lakes on the valley floor around Seddington and Warren Villas.

### **Strategic Priorities for this Area**

- 4.5.7 The overall strategy is to renew the landscape and in particular improve the condition of valley floor features and improve habitat connectivity. This should include the active management of pollarded willows. Opportunities should be sought to re-wet areas to connect wet woodland and pastures from the River Ivel and The Riddy westwards towards Thorncote Green.
- 4.5.8 To enhance people's appreciation of the identity of the Greensand Ridge, linking the east and west landscapes through improved footpath and cycle networks from urban areas including Sandy, Northill, Moggerhanger and Beeston. Highlight through key viewpoints and interpretation those skyline features which help orientation and appreciation of sense of place.
- 4.5.9 Protect the areas of wooded skylines which form the context for the valley within the Project Area.



## 5.0 LOOKING FORWARD

### 5.1 CONTRIBUTING TO GREENSAND COUNTRY INITIATIVES

- 5.1.1 This section draws together the findings of the character assessment to help shape and direct initiatives to be developed and taken forward by the Partnership. It is anticipated that the landscape character assessment will form a framework for the development of special initiatives within the Project Area which celebrate the distinctiveness of the individual landscapes identified, and the processes which shape them.
- 5.1.2 Although this assessment will help to provide context and an important evidence base for initiatives identified and taken forward as part of the SotS Partnership, it will also be relevant to other organisations engaged in the conservation and management of the area either individually or as part of the Partnership, e.g. The Greensand Trust<sup>10</sup>.

### 5.2 DRAFT IDEAS FOR THE PARTNERSHIP

- 5.2.1 The Secret of the Sands Partnership has a clear aim to restore and strengthen landscape character focusing on key habitats and built environment features, and reconnecting local communities with their landscape. Of the seven threads established by the Partnership, two are particularly relevant to landscape including Living Heaths and Working Woodlands although initiatives related to Historic Parks and Revealing the Ridge are also relevant. A number of initiatives have already been identified under these threads and it is hoped that this landscape character assessment can inform the identification of geographical locations for particular activities and project work. Importantly this assessment also highlights how initiatives need not be limited to one thread but may address a number at the same time. Some of the key initiatives identified during this study which are relevant to the threads of the SotS include the list below.
- Seek opportunities for the reinstatement of heath and acid grassland within the Scarp and Slopes and Sandstone Hills landscape types. In these areas

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<sup>10</sup> The Greensand Trust was set up in 1999 (following a period as 'The Greensand Project') and seeks to conserve and enhance the wildlife, landscape and geology of the Greensand Ridge and surrounding areas, raise awareness of the area's wildlife, heritage and landscape, improve access to it and work with communities and landowners to do so.

identify areas of former heath from historic maps and establish those with potential for restoration. Restoration could require felling of plantation trees and introduction of appropriate grazing or restoration from arable land use on soils which continue to have low nutrient levels e.g. south of Bow Brickhill and around Stockgrove. Restore heath where it is visually significant and reinforces the change in character e.g. south of Bow Brickhill and in the Tetworth Park area, and along the northern valley sides of the Flit.

- Improve interpretation of local geology through use of sand extraction geological sites and, historic pits as features of the landscape. Explain why springs occur, and describe the local vernacular and use of stone in high status buildings and boundaries e.g. in the Heath and Reach area.
- Restore parkland character in areas where it has become fragmented<sup>11</sup>.
- Create new gateways, signage and branding which reinforces the identity of the Greensand Country.
- Provide interpretation trails for parklands and churches along the northern scarp, and open up views to the churches which act as local landmarks.
- Identify existing viewpoints looking westwards and identify new viewpoints (providing seating, parking and interpretation) and map the cones of visibility to protect from future development in adjacent landscapes.
- Manage existing woodlands ensuring age diversity and contributed contribution to the identity of the Greensand Country, reinforcing local sense of place.
- Plant new woodlands to help screen development beyond the ridge. Focus woodland on the steepest slopes and skyline. Avoid areas where planting will obscure the pattern of woodland in historically important views.
- Investigate opportunities to develop a heritage trail along disused railway routes taking in local nature reserve, the abbey site at Warden and influence of historic parkland at Southill.
- Seek opportunities for reopening local quarry sites to ensure provision of local building stone in the restoration and conservation of sandstone

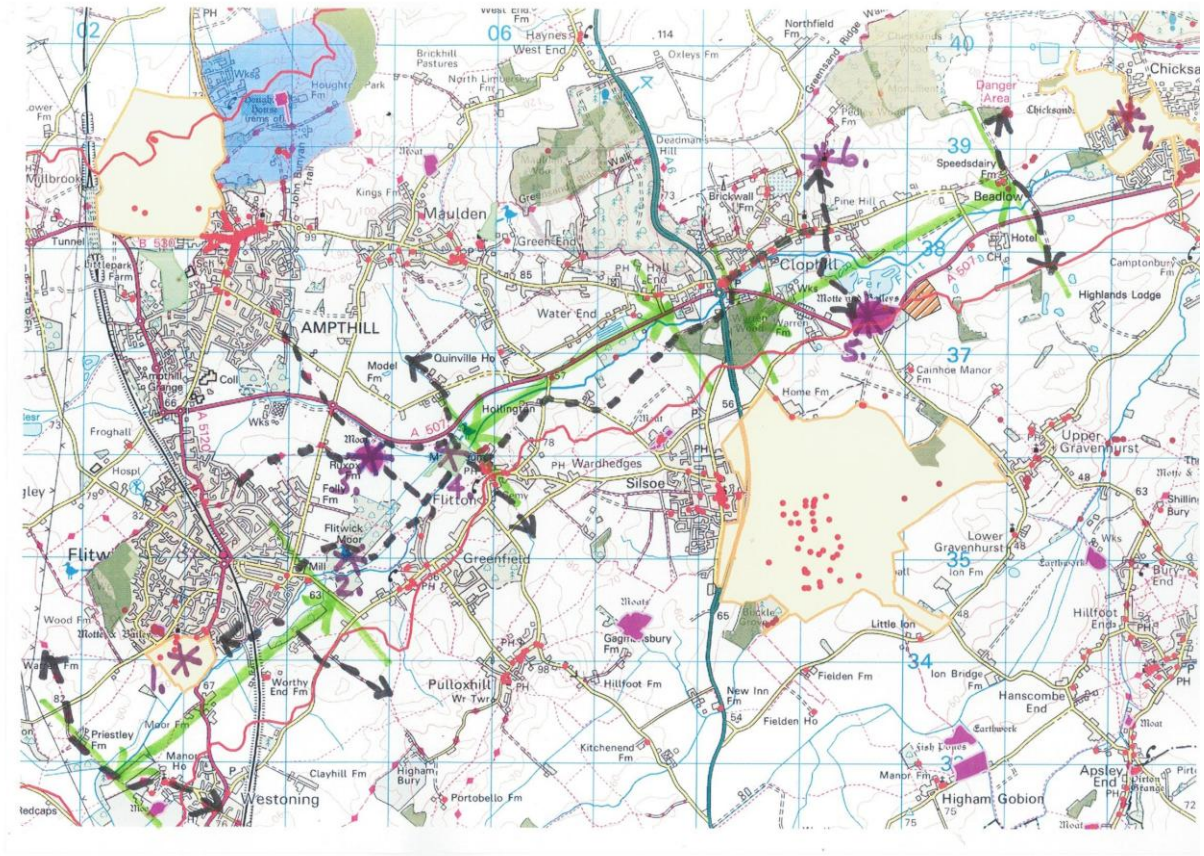
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<sup>11</sup> Refer to Parklands Audit which is a separate but parallel study.



structures and or negotiate the use of sandstone where it is a waste product from quarrying.

- 5.2.13 Seek opportunities to create a recreational route along the Flit Valley taking in a number of key sites of cultural and natural heritage interest.



Draft mapping to show the potential for a Flit Valley walk linking various sites of nature and heritage value/interest.

## APPENDIX 1: Landscape Type Descriptions



## INTRODUCTION

This section sets out detailed descriptions of each of the Landscape Character Types (LCTs) found within the Project Area. As noted in the introduction of this report Landscape Character Types differ from Character Areas in that they are not geographically specific and repeat across the area. Where ever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern.

The Landscape Character Types identified with the Project Area are illustrated on Drawing 8. The types help to explain the rapid changes and complex pattern of land use and habitats found across the ridge and within the river valleys. The types are described in detail below and are particularly valuable in informing future land management decisions.



# The Secrets of the Sands: The Greensand Country Partnership

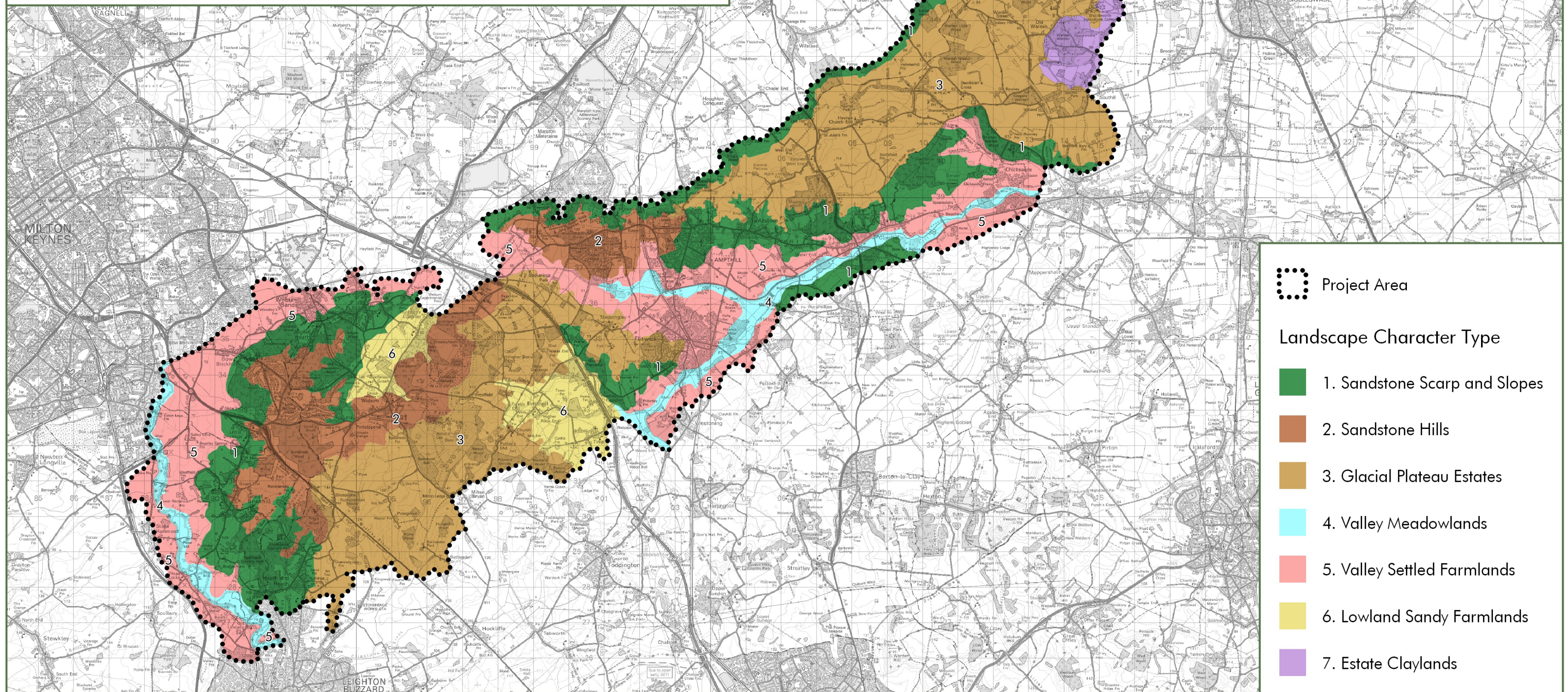
## Landscape Character Assessment - January 2016

### Drawing 8: Landscape Character Types



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## SCARP AND SLOPES

This landscape type occurs on the northern fringes of the Greensand Ridge and also overlooking the river valleys.



### Key Characteristics

- Lower Greensand geology giving rise to well drained acidic soils, in places overlain with glacial clays in the northeast.
- Pronounced, often narrow, scarp slopes decreasing in elevation to east.
- Elevated views across lower lying landscapes including river valleys.
- Distinctive skyline when viewed from adjacent low lying areas.
- High concentration of woodland on steep slopes.
- Heathland associated habitat with remnant patches of lowland heath and acidic grassland important for adders and other associated wildlife.
- Patchwork of pasture, arable, acid grassland and heath.
- Natural springs at junction of sand and clay geology with wet flushes.
- Historic defence sites overlooking river valleys – iron age hillforts, motte and bailey castles/ringworks.
- Sunken medieval lanes.
- Scarp crest Medieval villages with landmark churches.
- Historic parklands with designed vistas out over low lying land.
- Relic and active sandstone quarrying.
- Occasional communication masts are prominent vertical elements.
- Concentration of greensand as building material in association with brick, timber frame, thatch and clay tile.

### What is Changing in this Landscape?

- Urban Pressures - growth of conurbations below the scarp slopes which can have a visual impact on the scarp and result in increased recreation pressure and erosion.
- Sand extraction and loss of characteristic topography and vegetation.
- Impact of visitors on the landscape with the risk of erosion.
- Suburbanisation of lanes due to pressures from centres of population.
- Loss of parkland landscapes due to neglect, conversion of pasture to arable and/or fragmentation of ownership.

- Lack of traditional woodland management including coppicing and management of veteran trees.
- Introduction of recreational land uses within the landscape, such as golf courses and cycle tracks.
- Proliferation of pony paddocks and associated paraphernalia.
- Loss of heath and acid grassland due to neglect and scrub invasion
- Restoration of heathland/acid grassland through removal of conifer plantations.
- Loss of views to landmarks (e.g. church towers and Iron-Age hillforts) due to vegetation/tree growth.

### **Guidance for Land Management and Development**

#### *Character*

- Seek heathland restoration/creation through diversification of existing coniferous plantations by selective felling, and restoration of sand extraction sites.
- Extend and connect the existing woodland and heathland resource, particularly through the creation of additional broadleaved woodland and heathland mosaics.
- Conserve the wooded context of the ridgeline, buffering views to development on the ridge.
- Ensure the restoration of sand pits to agriculture or acid grassland - avoid the creation of lakes or use of sites for landfill.
- Ensure new woodland planting on sandy soils reflects the acid conditions and include species such as Scots pine, birch, rowan and hazel.
- Open up views to church towers where they have become obscured by vegetation and tree growth.
- Create new viewpoints from the crest of the scarp outwards.

#### *Rural Tranquillity*

- Avoid the development of recreational landscapes such as golf courses which can alter the pattern of vegetation and land use within the landscape and give rise to a more urban fringe character.
- Promote the retention of rural lanes by the management of hedgerows and verges and limiting urbanising influences such as signage and kerbing.

#### *Understanding and appreciation*



- Seek opportunities to promote understanding of the historical development of churches, village and small parklands.
- Promote circular themed walks in the area explaining the unique heritage and encouraging increased public access where appropriate.
- Development of Parkland Conservation Plans for parklands which are now in multiple ownership to ensure coordinated management to conserve and enhance original parkland features and ensure longevity of wider parkland character.
- Develop geology interpretation linking to extraction sites, building materials, vegetation changes and natural springs to tell the story of the geology.
- Development of an archaeological research project into archaeology in woods.
- Raise awareness of the Greensand Ridge where it is more visually pronounced and protect less pronounced areas from adjacent development.
- Providing interpretation into the changing pattern of land use and the value of heath habitats.

## SANDSTONE HILLS

This landscape occurs in elevated areas where the sandstone geology is dominant on the Greensand Ridge particularly in the far west and east of the Study Area and around Ampthill.



### Key Characteristics

- Lower Greensand geology giving rise to infertile, well drained acidic soils.
- Undulating, elevated topography with local complexity due to incised stream valleys.
- Significant woodland cover including Scots pine plantation.
- More open rectilinear arable fields on former common/heath in east.
- Matrix of heath habitats and acid grassland and areas of acid wetland associated with springs.
- Bracken, gorse, heather, pine and birch are common species in woods and road verges.
- Some arable on areas of former heath.
- Sand and gravel quarries and extraction of Fuller's Earth.
- High concentration of parkland landscapes.
- Not a heavily settled landscape with occasional villages or isolated farms.
- Local building materials including clay brick and tile, locally quarried brown ironstone, thatch and render.
- Place names indicate former heath land use or warrens.
- Rich seasonal colour variations.
- Strong sense of enclosure and intimate landscape often inward looking.
- Accessible landscapes of high recreational value including golf courses and country parks.

### What is Changing in this Landscape?

- Urban Pressures - growth of settlement beyond Greensand Country.
- Suburbanisation of lanes due to pressures from centres of population
- Golf course expansion.
- Lack of traditional woodland management including coppicing and management of veteran trees.
- Limited facilities for visitors.



- Coalescence of villages through linear development along roads.
- Renewable energy development – solar farms on south facing slopes.
- Proliferation of pony paddocks and associated paraphernalia.
- Loss of heath and acid grassland due to neglect and conifer plantation.
- Restoration of heathland through removal of conifer plantations.
- Expansion of broadleaved woodland.

### **Guidance for Land Management and Development**

#### *Character*

- Assess the potential for heathland/acid grassland restoration/creation through diversification of existing coniferous plantations by selective felling and restoration of sand extraction sites.
- Consider opportunities for extending and connecting the existing woodland and heathland resource, particularly through the creation of additional broadleaved woodland and heathland mosaics.
- Ensure the restoration of sand pits to agriculture or acid grassland - avoid the creation of lakes or use of sites for landfill.
- Ensure new woodland planting on sandy soils reflects the acid conditions and include species such as Scots pine and Rowan.

#### *Rural Tranquillity*

- Avoid the development of recreational landscapes such as golf courses which can alter the pattern of vegetation and land use within the landscape and give rise to a more urban fringe character.
- Promote the retention of rural lanes by the management of hedgerows and verges and limiting urbanising influences such as signage and kerbing.

#### *Understanding and appreciation*

- Promote circular themed walks explaining the unique heritage.
- Development of Parkland Conservation Plans for parklands particularly those now in multiple ownership, to ensure coordinated management to conserve and enhance original parkland features and ensure longevity of wider parkland character.
- Develop a place name research group and interpretation centre explaining the meaning of 'warren' and 'heath' in place names. These reinforce the identity of this landscape type and the Greensand Country as a whole.
- Develop geological interpretation linking to extraction sites, building materials, vegetation changes and natural springs to tell the story of the distinctive Greensand geology.

## LOWLAND SANDY FARMLANDS

This landscape occurs in the lower lying areas of the Greensand Country to the north of Woburn and around Everton.



### Key Characteristics

- Lower Greensand geology giving rise to infertile, well drained sandy brown soils.
- Lower elevation between 100 and 80 meters AOD.
- Springs and streams forming shallow valleys and gentle undulations.
- Mixture of arable and pasture with some isolated patches of semi-improved grassland.
- Small scale settled landscape giving rise to irregular fields of 16th-18th century with rectilinear blocks of woodland including oak woods.
- Enclosure pattern defined by hedgerows with mature hedgerow trees.
- Remnants of former parkland with in-field trees.
- Strongly wooded skylines.
- Sparsely settled landscape with many village 'ends' reflecting former marginal land and gradual clearance and common edge settlement.
- Local building materials including clay brick and tile, locally quarried brown ironstone, thatch and render with good examples of timber framed houses.
- Network of twisting lanes connecting settlements.
- Landmark churches.
- Lack of visual distinction between this type and wider clay vale to the north.

### What is Changing in this Landscape?

- Loss of parkland landscapes due to neglect or conversion of pasture to arable.
- Lack of traditional woodland management including coppicing and management of veteran trees.
- Limited facilities for visitors.
- Renewable energy development – solar farms on south facing dip slope.
- Proliferation of pony paddocks and associated paraphernalia.



- Loss of hedgerow boundaries.
- Noise and visual impacts of M1 corridor.
- Development associated with the M1 corridor which has a significant visual effect on this lower lying and open landscape type.

## **Guidance for Land Management and Development**

### *Character*

- Seek opportunities to restore area of pasture and connect meadow grassland sites where feasible.
- Improve woodland management and reintroduce traditional coppicing.

### *Rural Tranquillity*

- Seek opportunities to improve planting around the M1 corridor to reduce noise and visual impacts and help define the edge of Greensand Country where it meets the Clay Vale.
- Promote the retention of rural lanes by the management of hedgerows and verges and limiting urbanising influences such as signage and kerbing.

### *Understanding and appreciation*

- Development of Parkland Conservation Plans for parklands. particularly those in multiple ownership to ensure coordinated management to conserve and enhance original parkland features and ensure longevity of wider parkland character.
- Interpret ends settlements and associated small enclosure patterns and enclosures associated with assarting as part of an historic landscape.

## GLACIAL PLATEAU ESTATES

This landscape occurs across some of the highest parts of the Greensand Country south of Woburn and also between Haynes and Old Warren.



### Key Characteristics

- Lower Greensand geology overlain with glacial bolder clay deposits giving rise to loamy fertile soils.
- Elevated landscape gently rolling topography.
- Forms some of the most elevated parts of the Greensand Ridge.
- Expansive large scale 'blocky' character with empty feel and extensive views.
- Ancient woodland blocks enclose the landscape and form a wooded skyline.
- Estate farmland character comprising large rectilinear fields of arable land use.
- Extensive areas of parkland and former ecclesiastical sites.
- Concentration of Medieval moated sites and Medieval villages.
- Sparsely populated area with dispersed pattern of farmsteads (often model farms) and small hamlets/villages.
- Areas of ridge and furrow.
- Limited public right of way networks and 'private' estate character.

### What is Changing in this Landscape?

- Loss of parkland landscapes due to neglect or conversion of pasture to arable.
- Lack of traditional woodland management including coppicing and management of veteran trees.
- Limited facilities for visitors and limited public right of way network.
- Inappropriate planting of conifers around farm buildings and fields.
- Renewable energy development – solar farms on south facing dip slope.
- Lack of hedgerow management resulting on overgrown hedges and gappy hedges.



## Guidance for Land Management and Development

### *Character*

- Conserve the wooded context of the ridgeline, buffering views to development on the ridge.
- Reinstatement and management of avenue trees where they are visually prominent and make an important contribution to the wider landscape character e.g. Battlesden Park.
- Maintain distinctive architecture, associated with estates, and ensure that any modernisation of buildings (such as replacement windows) does not compromise their architectural integrity.

### *Rural Tranquillity*

- Promote the retention of rural lanes by the management of hedgerows and verges and limiting urbanising influences such as signage and kerbing.
- Avoid linear development along lanes and the loss of nucleated settlement pattern.

### *Understanding and appreciation*

- Promote circular themed walks in the area explaining the unique heritage.
- Development of Parkland Conservation Plans to ensure coordinated management to conserve and enhance original parkland features and ensure longevity of wider parkland character.
- Interpret the brick industry associated with the clay geology.
- Interpretation of the Battlesden and Potsgrove historic landscape through time.
- Development of an archaeological research project into archaeology in woods.

## ESTATE CLAYLANDS

This landscape occurs in the eastern half of the Greensand Country to the west of the Ivel Valley.



### Key Characteristics

- Underlying Lower Greensand overlain with drift deposits of Boulder Clay giving rise to loamy fertile soils.
- Gently rolling topography decreasing in elevation to the east.
- Forms some of the most elevated parts of the Greensand Ridge.
- Large rectilinear fields of predominately arable land use.
- Estate farmland character.
- High concentration of woodland including ancient woodland blocks which form a wooded skyline.
- Strong influence of historic estates throughout this landscape.
- Sparsely populated area with dispersed pattern of farmsteads (often model farms) and small Medieval hamlets/villages with estate cottages
- Extensive areas of grazed parkland supporting neutral and improved grassland.
- Park railings, boundary walls, gatehouses, perimeter planting, veteran trees and avenues reflect the high concentration of parkland.
- Concentration of thatched buildings and 'cottage ornee' style in villages to the east.
- Landmark churches.
- Concentration of Medieval moated sites.
- Warren place names associated with Medieval rabbit farming.
- Areas of ridge and furrow.
- Limited public right of way networks and 'private' estate character.

### What is Changing in this Landscape?

- Loss of parkland landscapes due to neglect or conversion to arable.
- Lack of traditional woodland management including coppicing and management of veteran trees resulting in a loss of parkland features
- Limited facilities for visitors and limited public right of way network.
- Inappropriate planting of conifers around farm buildings and fields.



- Lack of hedgerow management resulting on overgrown gappy hedges
- Growth of commercial tree nurseries

### **Guidance for Land Management and Development**

#### *Character*

- Conserve the wooded skylines and avoid development which may undermine this pattern.
- Reinstate and manage avenue trees where they are visually prominent and make an important contribution to the wider landscape character e.g. Ickwell and Southill Parks.
- Maintain distinctive architecture, associated with estates, and ensure that any modernisation of buildings (such as replacement windows) does not compromise their architectural integrity.

#### *Rural Tranquillity*

- Conserve the setting and views to landmark churches and seek opportunities to promote understanding of the historical development of churches and villages.
- Promote the retention of rural lanes by the management of hedgerows and verges and limiting urbanising influences (signage and kerbing).
- Conserve the parkland and estate character of this landscape through appropriate management and ensuring new development is in keeping with the strong vernacular and landscape character.

#### *Understanding and Appreciation*

- Promote circular themed walks in the area explaining the unique heritage including improved access into the parkland landscape and interpretation of parkland features including veteran trees.
- Development of Parkland Conservation Plans to ensure coordinated management to conserve and enhance original parkland features and ensure longevity of wider parkland character.
- Archaeological research project into archaeology in woods.

## VALLEY MEADOWLANDS

This landscape occurs along the valley floor of the three principle valleys within Greensand Country.



### Key Characteristics

- Alluvium deposits, peat and small areas of river gravels.
- Clayey and loamy soils that are slowly permeable and seasonally waterlogged.
- Lower lying often flat landscape adjacent to significant watercourses.
- Main rivers fed by water draining from the adjacent Greensand Ridge.
- Seasonally wet and waterlogged land supporting acid springs, mires and fens, reed beds, meadow and dry neutral grasslands.
- Mixed woodland and shelterbelts along the riverbanks create a sense of enclosure and wet woodland, mature willow pollards, native black poplar and scrub provide further ecological value.
- Concentration of past and current gravel and sand extraction and extraction of peat.
- Areas of open water from former extraction activity.
- Historical communications routes the A1 in the Ivel Valley, A507 in Flit Valley and Grand Union Canal adjacent to the River Ouzel.
- Relatively unsettled but recent development has extended onto valley floor in places.
- Historic bridges and crossing points.
- High concentration of small holdings, former market gardening with associated signage and pony paddocks giving rise to urban fringe character in places.

### What is Changing in this Landscape?

- Infrastructure results in physical fragmentation/noise/visual impacts.
- Loss of valley floor pastures due to poor management.
- Development pressure and new housing extending onto valley floor.
- Proliferation of pony paddocks/recreation land use on urban edges.
- Ad hoc development along communication corridors resulting in a loss of distinctiveness and rural character.



- Extraction sites for sand and gravel along the valley resulting in the creation of open water bodies/lakes.
- Growth and decline of market gardening activity and garden centres.
- Spread of non-native species e.g. Himalayan balsam.
- Planting of poplar adjacent to watercourses.
- Field enlargement through loss of hedgerows within the valley.
- Growth of vegetation on valley floor obscuring views.
- Decline in market gardening with number of derelict glasshouses.

### **Guidance for Land Management and Development**

#### *Character*

- Protect older grasslands and wet meadows, encouraging appropriate grazing.
- Protect existing flower rich meadows for conservation preventing scrub encroachment.
- Protect existing, traditional field pattern and associated hedgerows.
- Protect existing ponds and other wetland habitats, raising the water table on the valley floor where practical.
- Manage any dykes with high water levels where possible.
- Manage lines or clumps of trees or shrubs along rivers or streams, opening up views to the watercourse where possible.
- Plan to extend and re-create meadows where possible, seeking to revert arable land to grassland.
- Reinforce the valley floor character through management of roadside verges utilising lowland meadow management techniques.
- Improve the physical connections across the river valleys seeking to emphasise the changes in geology and land use.
- Ensure planting of woodland in valley landscapes includes wetland species and reinforces the distinction between the valley floor vegetation and that on the valley sides.
- Reinstatement pasture adjacent to settlement edges and the valley floor.

#### *Rural Tranquillity*

- Protect the valley sides and skyline from inappropriate development which undermines or masks the perceived changes in topography.
- Increase areas of semi-natural habitat and connect existing nature conservation sites.

*Understanding and Appreciation*

- Provide river valley trails which tell the story of the function of the valleys for communications and control of resources linking historic earthwork sites such as moated sites and castles and forts.



## VALLEY SETTLED FARMLANDS

This landscape occurs within the three principle valleys within the Greensand Country forming the valley sides where there has traditionally been settlement.



### Key Characteristics

- Lower Greensand, and small areas of Oxford and Gault clays giving rise to clayey and loamy soils that are slowly permeable.
- Lower valley sides which are flat or gently undulating.
- Farmland comprising a mix of arable and pasture.
- Drainage ditches and hawthorn hedges define rectilinear fields.
- Generally open and expansive character.
- Vulnerable to infrastructure and urban growth and urban fringe land uses including recreation and horticulture.
- Concentration of Roman archaeology and former settlements.
- Concentration of market gardening including glasshouses and garden centres.
- Significant settlement includes the fringes of Leighton Buzzard, Flitwick, Ampthill, and Clophill.
- Views from this landscape across and down the river valleys.

### What is Changing in this Landscape?

- Effects of infrastructure resulting in physical fragmentation and noise impact.
- Loss of valley side pastures due to poor management.
- Significant housing pressure associated with Flitwick, Ampthill and Maulden.
- Ad hoc development along communication corridors resulting in a loss of distinctiveness and rural character.
- Extension of urban areas along valley sides masking valley character and form.
- Growth and decline of market gardening activity and garden centres.
- Decline of orchards.

- Loss of hedgerows within the valley landscape and enlargement of fields which has blurred the distinction between the river valley landscape and surrounding clay hills or vale.
- Proliferation of horse paddocks and recreation land use adjacent to urban areas.

### **Guidance for Land Management and Development**

#### *Character*

- Ensure planting of woodland in valley landscapes reflects the clay/alluvial soils and contrasts with the sandy soil species.
- Consider new woodland planting to mitigate hard urban edges.
- Improve landscape structure through reinstatement of hedgerows and small woodlands.
- Protect the valley sides and skyline from inappropriate development which undermines or masks the perceived changes in topography.
- Proposed country park between Flitwick and Ampthill should reflect valley floor character and remain rural in character with minimal signage or hard landscaping.
- Avoid development which blurs the distinction between the valley sides and the valley floor.

#### *Rural Tranquillity*

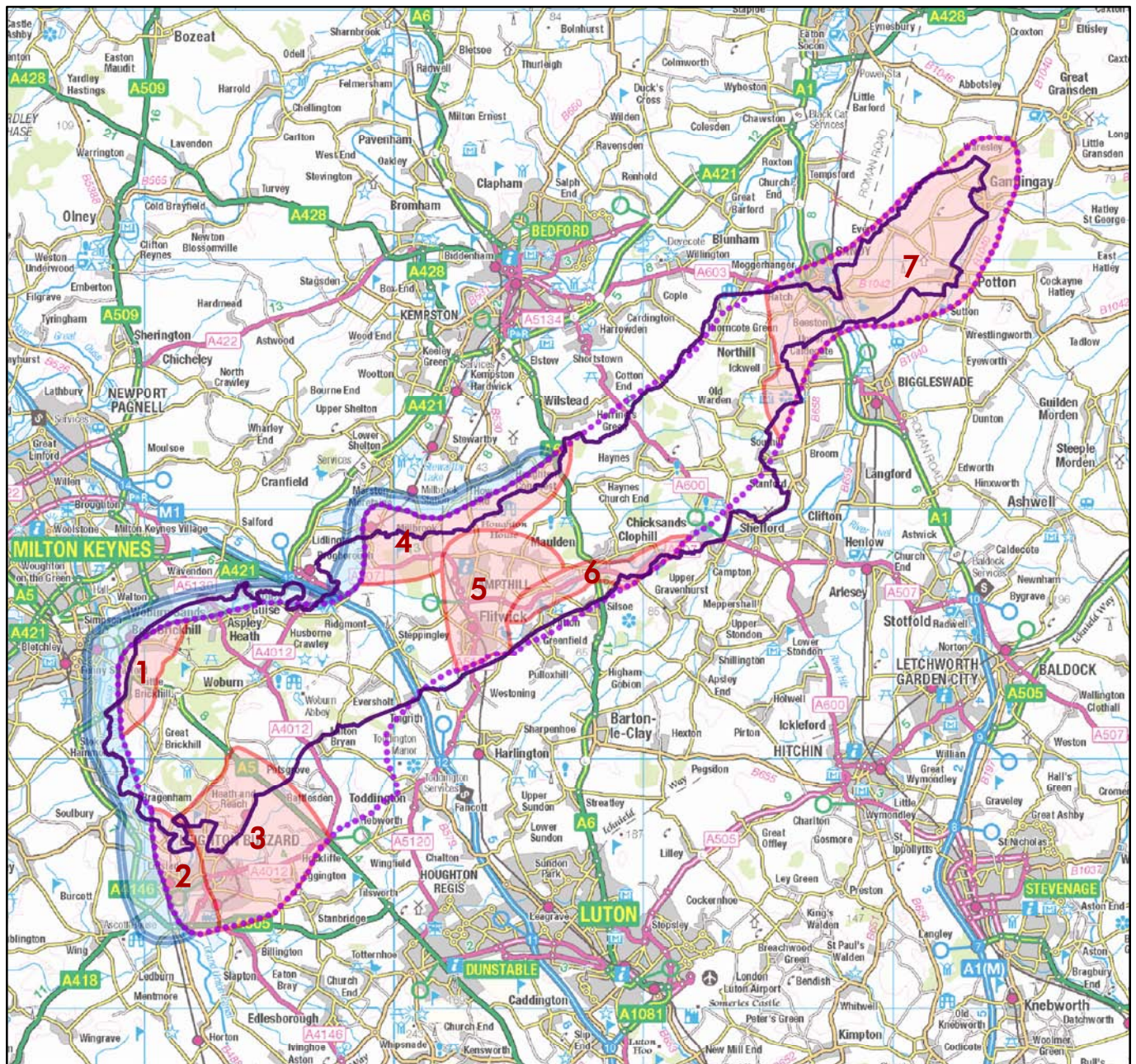
- Avoid development along road corridors which further undermines the rural tranquillity of the valley sides.

#### *Understanding and Appreciation*

- Seek opportunities to tell the story of the long history of settlement within these valley landscapes.
- Seek opportunities to physically connect sites of heritage and nature conservation interest.



## APPENDIX 2: Map showing Zones as Defined in Brief



## Secrets of the Sands

- Greensand Ridge adjusted LCA
- Bedfordshire Greensand Ridge NCA
- Extension Zones
- Priority Zones



1:250,000

0 5 10 km

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## APPENDIX 3: Summary of Questionnaire Responses

It's easy to describe the Greensand Ridge landscape in factual terms- its geology, vegetation, historic features and so on. But how does the distinctive landscape of the Greensand Ridge actually make people feel? How do people respond to the landscape? What makes it special to the people who live there? How do they like to interact with the landscape? Where are people's favourite views? What changes have they seen over the years? And what changes would they like to see in the future?

To answer these questions we developed a 'Spirit of Place' consultation, consisting of a simple free-answer questionnaire. In parallel, an app entitled 'Rate My View' has enabled people to take a photo of their favourite view and upload it to a website together with a summary description and location information. This Spirit of Place Statement summarises the responses to the questionnaires and includes quotations from the questionnaire responses. Together they paint a 'word picture' of how people respond to the Greensand Ridge landscape.

*You are so close to major roads, motorways and built-up areas, and yet the area gives you peace and quiet and well-being.*

*A place where you can walk the dog in lovely green space, and also take in the lovely views from the ridge.*

The Greensand Ridge means many different things to people. For many, it is simply home- a familiar landscape which they look at and travel through every day, and see changing throughout the seasons. The greatest numbers of respondents consider the Greensand Ridge as a place for walking and other recreation, and as a beautiful, quiet, peaceful and inspirational place to relax and unwind. It is valued for its wildlife, as a place to enjoy family time, as a place to work, for the variety of its unique landscapes and views, for its sense of history, its villages and its sense of community.

*A place to bring my daughter and show her all about nature, trees and animals.*

*It is the landscape I understand most as I live and work here.*

*I like the Iron Age hillfort at RSPB Sandy. You get a real sense of history there.*

One of the key things about the 'Spirit of Place' questionnaire is that it enables people to think about, articulate and record things which they may have always taken for granted, or perhaps not even consciously considered. The responses are varied and fascinating, and reflect the complexity of the Greensand Ridge landscape. When asked 'What makes the Greensand Ridge unique?' the most frequent responses are *landscape* (variety, diversity and beauty); *Ecology and habitats* and *Geology* (rock, soils and landform). These are followed by *views*, *history*, *accessibility*, *peace and tranquillity*, *trees* and *woodland*. Other responses include *old parks*, *the skyline*, *churches* and *paths for walking*.

*It is wonderful country for walking, with sandy soil so not muddy in wet weather.*



*There are lots of woods and estates and nature reserves and country parks.*

*A fantastic skyline, and a landscape with a great range of habitats particularly woodlands to walk through.*

*It has unique ecology and sand in the midst of a clay area.*

The questionnaire also provides a record of people's perceptions of landscape change (both positive and negative). By far the most frequently-mentioned positive change is the recent improvement in recreation provision, including paths, signage, visitor facilities and access (for example Rushmere Country Park Visitor Centre and The Hub in Ampthill Park). People also acknowledged the development of organisations such as the Greensand Trust who are focussed on the need to raise awareness of the area's landscape and history, co-ordinate grant funding, and enable volunteers to become involved in its management. The responses reflect an awareness of the impacts of changes in the surrounding area on the Greensand Ridge landscape and its views, particularly the closure of the Marston Vale brickworks and the subsequent environmental management and redevelopment of the land.

*The new visitors centre and children's area at Rushmere are great.*

*The view from Ampthill Park over Marston Vale is a mixture of a timeless view with the last few brick chimneys as a reminder of how fleeting man's changes to it can be.*

Of course the questionnaire recorded negative changes in the landscape too, which can help in the identification of future projects. Urban encroachment and increased traffic are by far the greatest concerns. A very wide variety of other issues were also raised, including loss of habitats, erosion of paths, felling of trees, anti-social behaviour, subsidence, loss of local employment, intensive farming practices, increased recreational land uses and historic buildings falling into disrepair.

*It has got more urbanised, e.g. new Millbrook roundabout, traffic lights etc.*

*Expansion of the urban development into the natural Greensand Ridge areas.*

*More soil erosion due to more recreational use and farming. Restriction to public access.*

Almost every respondent had one (or more) favourite views. Many of these are popular viewpoints such as the view across Marston Vale from Ampthill Park. Others are less well-known. They include views within the ridge, along it and from it. The river valleys, particularly the Flit also contain favourite views. Some are chosen for their composition, others for their seasonal variety, sense of history, patterns, wildlife, or simply because they are seen every day and associated with home.

*The view over Rammamere Heath when the wind blows the grass.*

*In places the view of the ridge is of a long continuous tree line on top of a hill.*

*The view from Houghton House westwards- a sense of history, peace, solitude, unspoiled views and adjacent woodland and farmland combined.*

*The view from the top of St Mary's Old Church Tower because it links the geology in the landscape and the structure.*

Respondents to the questionnaire had all sorts of ideas for changes which they would like to see within the Greensand Ridge landscape, although the most frequent response was *none!* Desired changes included further protection for the landscape and biodiversity; increased recreation provision, and improvements to footpaths and signage (including more disabled access and buggy-friendly paths). Other suggestions included information on specific places to visit throughout the year (e.g. bluebell woods in spring); encouragement of landscape scale habitat connectivity; improved design of new buildings, and provision of camping areas.

*Better networking of information and accessibility. More circular paths and bridleways.*

*Bringing Ampthill Park closer to its historical landscape; the development of a wildlife corridor along the ridge.*

*More purple heathland, not necessarily great swathes and not everywhere is appropriate, but it brings it more into the consciousness.*