A. Background

B. Archaeology and Heritage

C. Visual & Landscape Character

D. Ecology and Natural Habitat

E. Surrounding Settlements & Built Form

F. Surface Water Drainage & Flooding

G. Services & Utilities

H. Access & Movement

I. Minerals

J. Market Demand

K. Overall Summary

Baseline Summary

4

Evaluates the baseline constraints and opportunities of the Gilston Area, based on the technical evidence collected to date

BASELINE SUMMARY

A. Background

Paragraph 158 of the NPPF requires that a Local Plan is based on adequate, up to date and relevant evidence about the economic, social and environmental characteristics and prospects of the area. The NPPF requires that local authorities should ensure that their assessment of and strategies for housing, employment and other uses are integrated, and that they take full account of relevant market and economic signals.

As described in Chapter 1, a substantial amount of evidence is now available for the Gilston Area including that collated by East Herts and the considerable body of technical evidence which has been commissioned by the Principal Landowners (as listed at Appendix 1).

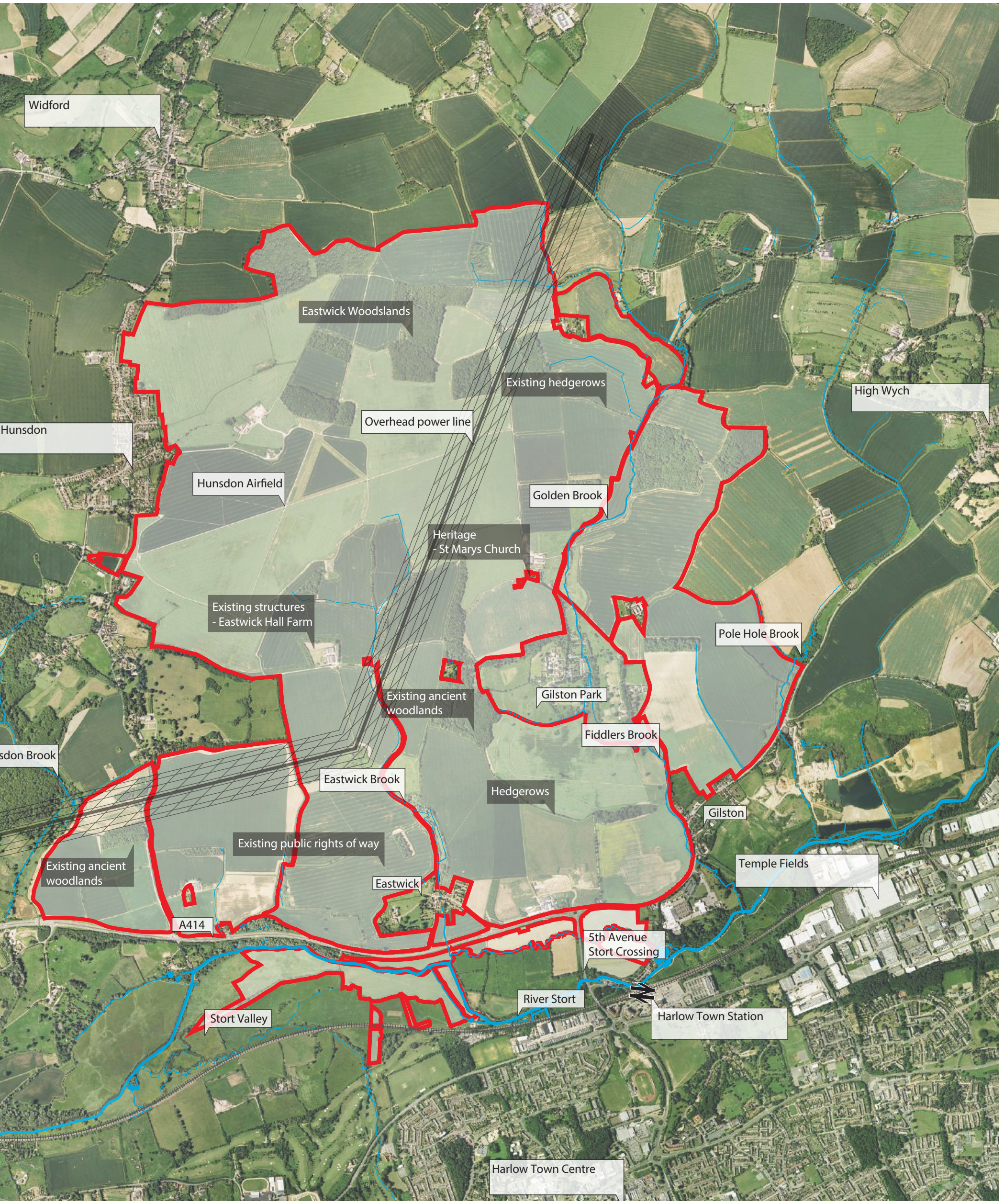
The main purpose of this technical work is to demonstrate that there are no show stoppers to the site's development, that any constraints are capable of being mitigated, that sufficient capacity exists to accommodate the spatial proposals and that the scheme is viable and deliverable.

This chapter provides a summary of key site characteristics, and the nature and scale of any constraints as identified in the evidence base collated to date.

A thorough understanding of the site context forms the basis of the proposals for the Gilston Area. These are broadly summarised under the following:

- Archaeology and Heritage
- Visual and Landscape Character
- Ecology and Natural Habitat
- Surrounding Settlements and Built Form
- Surface Water Drainage and Flooding
- Services and Utlilities
- Access and Movement
- Minerals
- Market Demand

Existing conditions


Widford
Eastwick Woodslands
Existing hedgerows
Overhead power line
High Wych
Hunsdon
Hunsdon Airfield
Golden Brook
Heritage
- St Marys Church
Existing structures
- Eastwick Hall Farm
Pole Hole Brook
Existing ancient
woodlands
Gilston Park
Fiddlers Brook
sdon Brook
Eastwick Brook
Hedgerows
Gilston
Existing public rights of way
Temple Fields
Existing ancient
woodlands
Eastwick
A414
5th Avenue
Stort Crossing
River Stort
Harlow Town Station
Stort Valley
Harlow Town Centre

B. Archaeology and Heritage

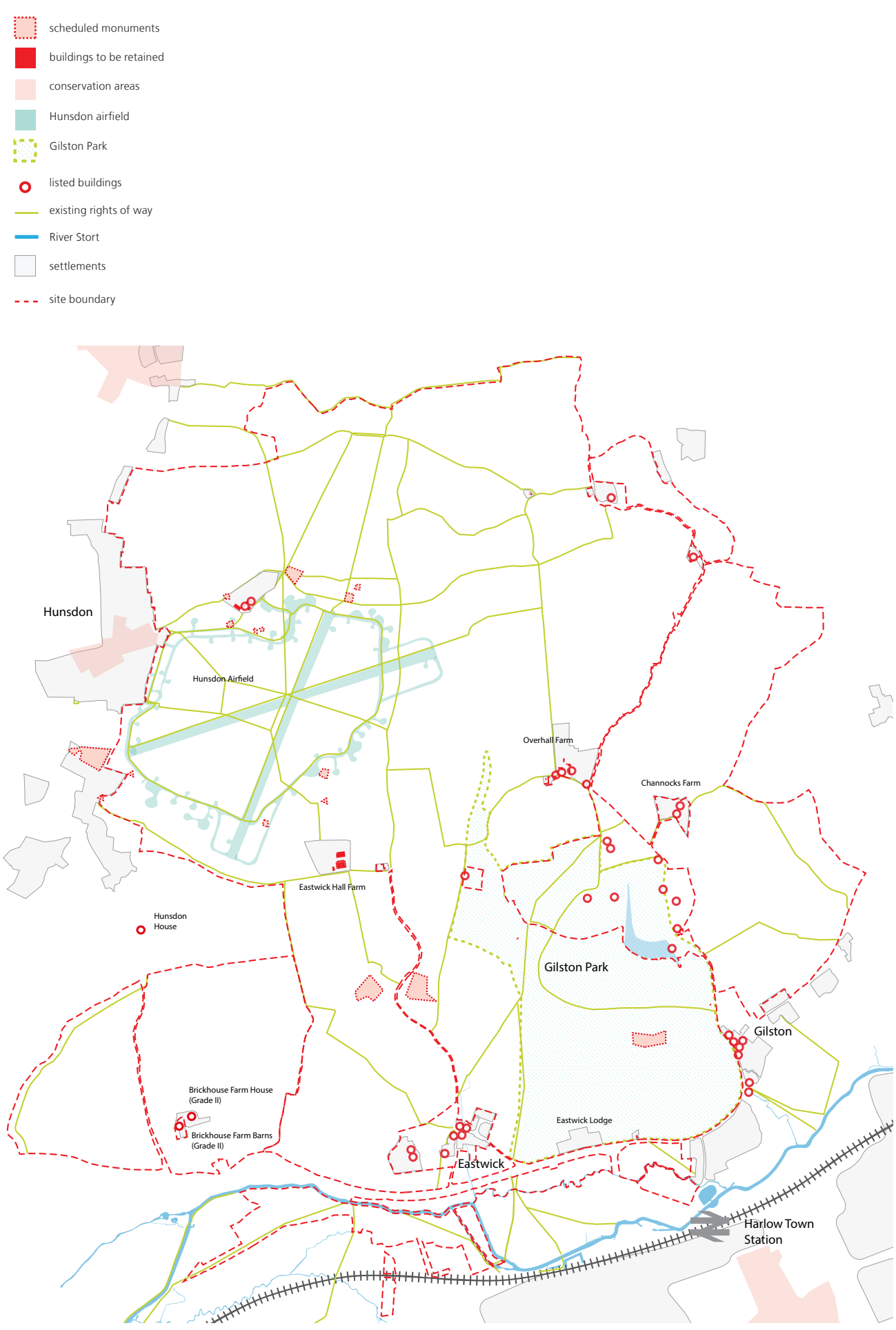
ARCHAEOLOGICAL BACKGROUND

Archaeological research and evaluation has revealed a complex landscape that suggests that archaeological evidence will reflect rural and agricultural subsistence, over a period of at least 4000 years.

Trial trenching has noted the presence of residual assemblages of flint material from the Mesolithic/ Neolithic periods but as yet it has been difficult to categorically establish any occupation prior to the late Bronze Age. From this period onwards, research has indicated that the site has been subject to a pattern of shifting settlement which has maintained a character of small nucleated settlements reliant upon an agricultural economy.

The earliest identified settlement of the site is during the Late Bronze Age. This appears to have been abandoned in the early Iron Age, and then repopulated with small farmsteads in the late Iron Age which continue through to the 2nd century AD. The Saxon through to early Post Medieval periods sees the development of the landscape, much as it is today. Hamlets and villages lie within tributary valleys to the River Stort. Between them lay a forested upland of heavy clays and tangle of narrow lanes and pathways winding from one isolated farmstead to another, with a dozen or so farms named after their occupiers.

Parkland estates such as Hunsdon and Gilston within the area were re-modelled in the 17th century and then again in the 19th century, when mechanised farming also impacted the landscape. Much of the archaeology encountered during geophysical surveys and trial trenching has been indicative of the 19th century alterations to the field systems and drainage across the estate. The modern period sees a marked change in the character of the site, with Hundson plateau being utilised for the airfield of RAF Hunsdon. The airfield is considered of national importance in particular, because the perimeter defences retain much of their original configuration and battle headquarters are in exceptional condition.



Existing archeological sites and built heritage

HISTORICAL DEVELOPMENT

The area includes three structures of Medieval origin (the churches at Eastwick, Hunsdon and Gilston), one site of 15th century origin (Hunsdon House), eight dating to the 17th century, ten to the 18th century and the great majority dating to the 19th century. Four further buildings are of late 19th-early 20th century date with the remaining structures all from the 20th century.

The overall arable and rural nature of the site has not been significantly affected by development since the Medieval period. The origin of the three churches indicates Medieval activity but no surviving domestic structures of the same date have been observed. The main phases of activity appear to have taken place in the 17th century in and around the settlements at Hunsdon and Pye Corner with the addition of a number of isolated farmsteads, including Brickhouse Farm. The 18th century follows a similar pattern with continued development at Hunsdon and again at Pye Corner and the addition of a number of agricultural buildings throughout the area, particularly in association with the 17th century sites.

The main focus of sustained activity takes place in the 19th century when the Gilston Estate is taken over and remodelled by Hodgson. The results of Hodgson's overhaul is the planned model Victorian Estate, much of which survives unaltered. The development that takes place in the same century out with the Estate development is comparatively slight. The 20th century additions also concentrated around the same area - including extending the established settlement at Pye Corner at the east end of Redericks Lane, in Hunsdon and Eastwick.

Two rare and significant resources within the proposal area are the pre-Gilston Estate structures, many of which are already listed. These earlier buildings are significant in that they survived the overhaul of the estate when many earlier structures were lost or incorporated in the new build.

The second significant resource is that of the Gilston planned Estate. The model estate is a rare resource, of regional significance and although many of the buildings that had been constructed to carry out specific tasks have now been converted to domestic accommodation, the survival in situ of the structures provides a near complete picture of the estate as it had been intended.

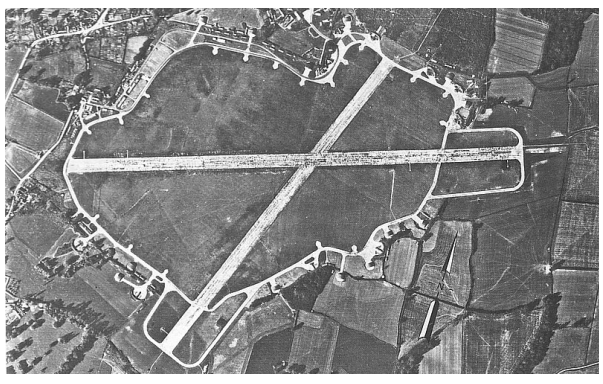
In 1939 a large area of the plateau to the east of Hundon was requisitioned for the construction of an airfield. The airfield opened in March 1941 as a night fighter station within No.11 Group of Fighter Command, and played host to over 20 squadrons.

Listed Buildings: St. Mary's church

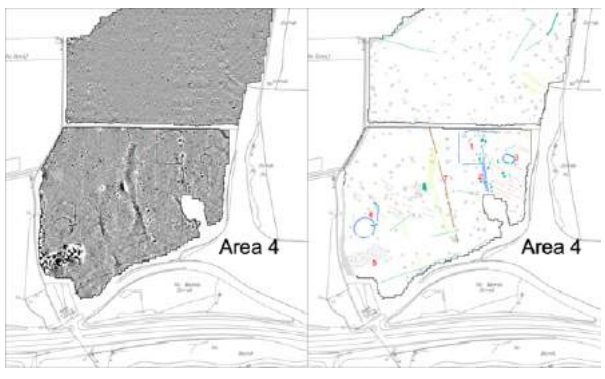
Hunsdon House

19th Century Gilston Estate

Scheduled Ancient Monuments



Hunsdon Airfield



Geophysical Anomalies

Gilston, c. 1904 *(source: W. Lyon)*

C. Visual and Landscape Character

SURROUNDING PARKS AND OPEN SPACES

The location of the Gilston Area on the northern valley slopes of the Stort Valley provides great potential for connections to strategic Green Infrastructure and leisure and recreational activities as illustrated in the plans opposite.

The Stort Valley is home to a wide variety of outdoor pursuits, leisure and recreational activities that form a regionally significant green corridor that links to the Lea Valley and the Olympic Park beyond. The site is also located close to two important forests and a Regional Park. Several smaller parks and gardens are also found in the wider area:

- Lee Valley Regional Park is a 10,000-acre (40 km2), 26-mile (42 km) long linear park. Much of it is green spaces, running through the northeast of London, Essex and Hertfordshire from the River Thames to Ware, in an area generally known as the Lee Valley. The park follows the course of the River Lea (Lee) along the Lea Valley. The park is made up of a diverse mix of countryside areas, urban green spaces, heritage sites, country parks, nature reserves and lakes and riverside trails, as well as leading sports centres.
- Hatfield Forest in Essex is owned by the National Trust and is 1,049 acres (4.245 km²) of woodland, wood pasture (grass plains with trees), lake and marsh.
- Epping Forest is an area of ancient woodland that covers 2,476 hectares. It contains areas of woodland, grassland, heath, rivers, bogs and ponds and is a Site of Special Scientific Interest.

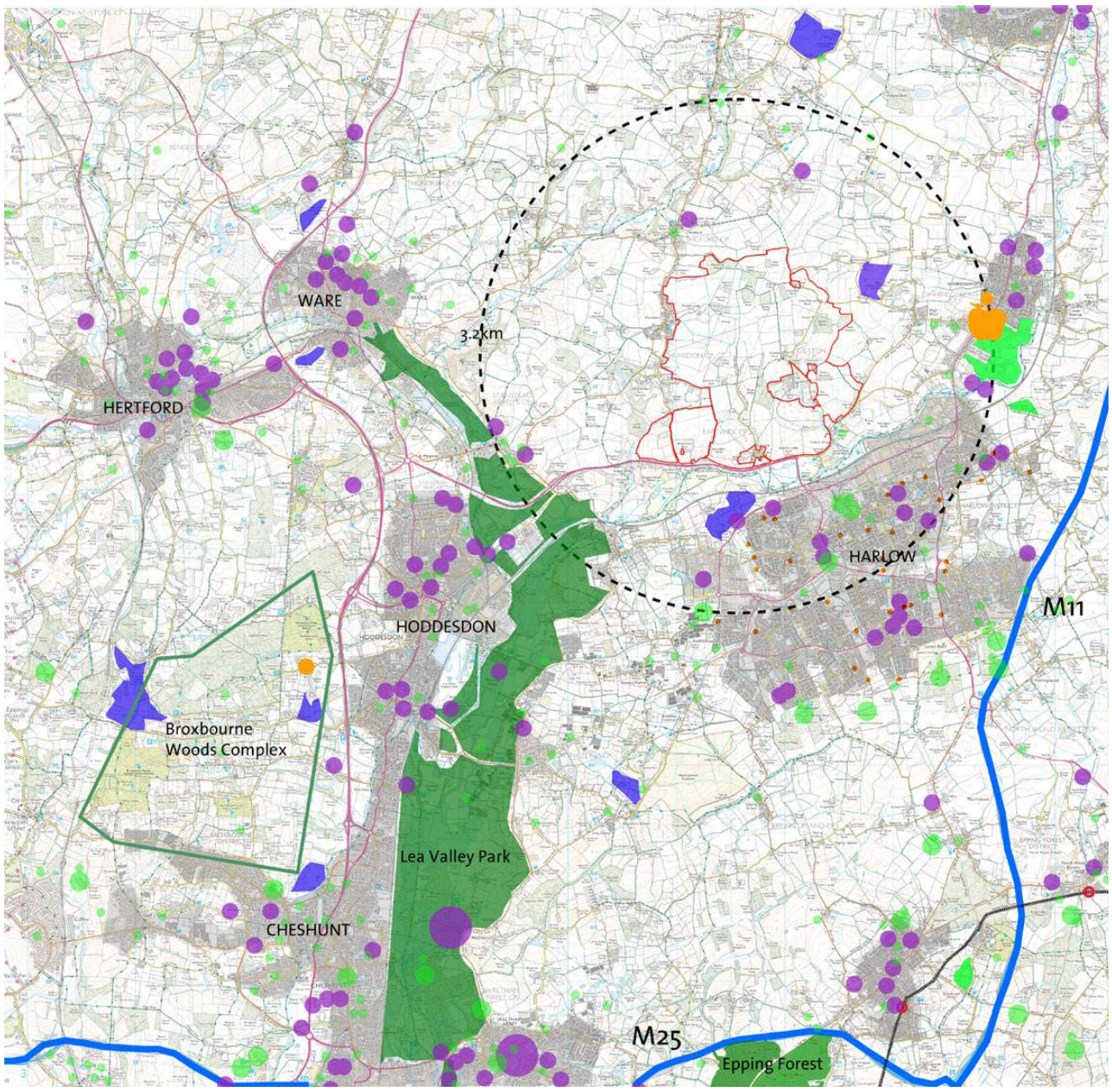
The wider area is well served by golf courses and sport centres.

The following studies have been carried out to identify the Green Infrastructure problems and opportunities of the wider area:

- East Herts District Council Green Infrastructure Strategy, 2011
- A Green Infrastructure Plan for the Harlow Area, Chris Blanford Associates, Nov 2005
- Stort Valley Feasibility Study, March 2007

KEY

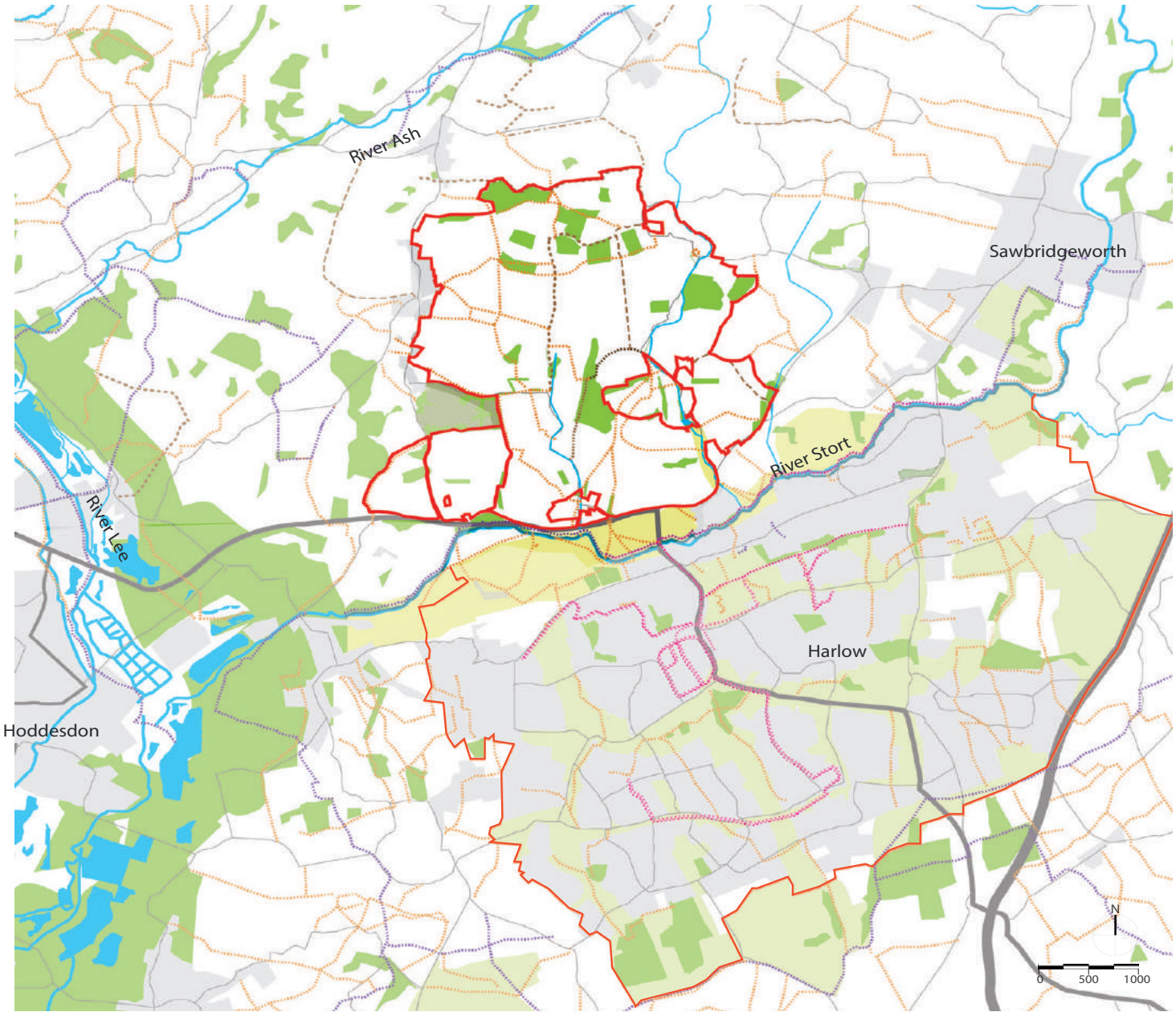
- Natural Open Space / Regional Parks
- Parks & Gardens
- City Farms, Allotments & Community Orchards
- Sports Facilities
- Golf Courses



Open Spaces, Green Infrastructure and Sport Facilities

LEGEND

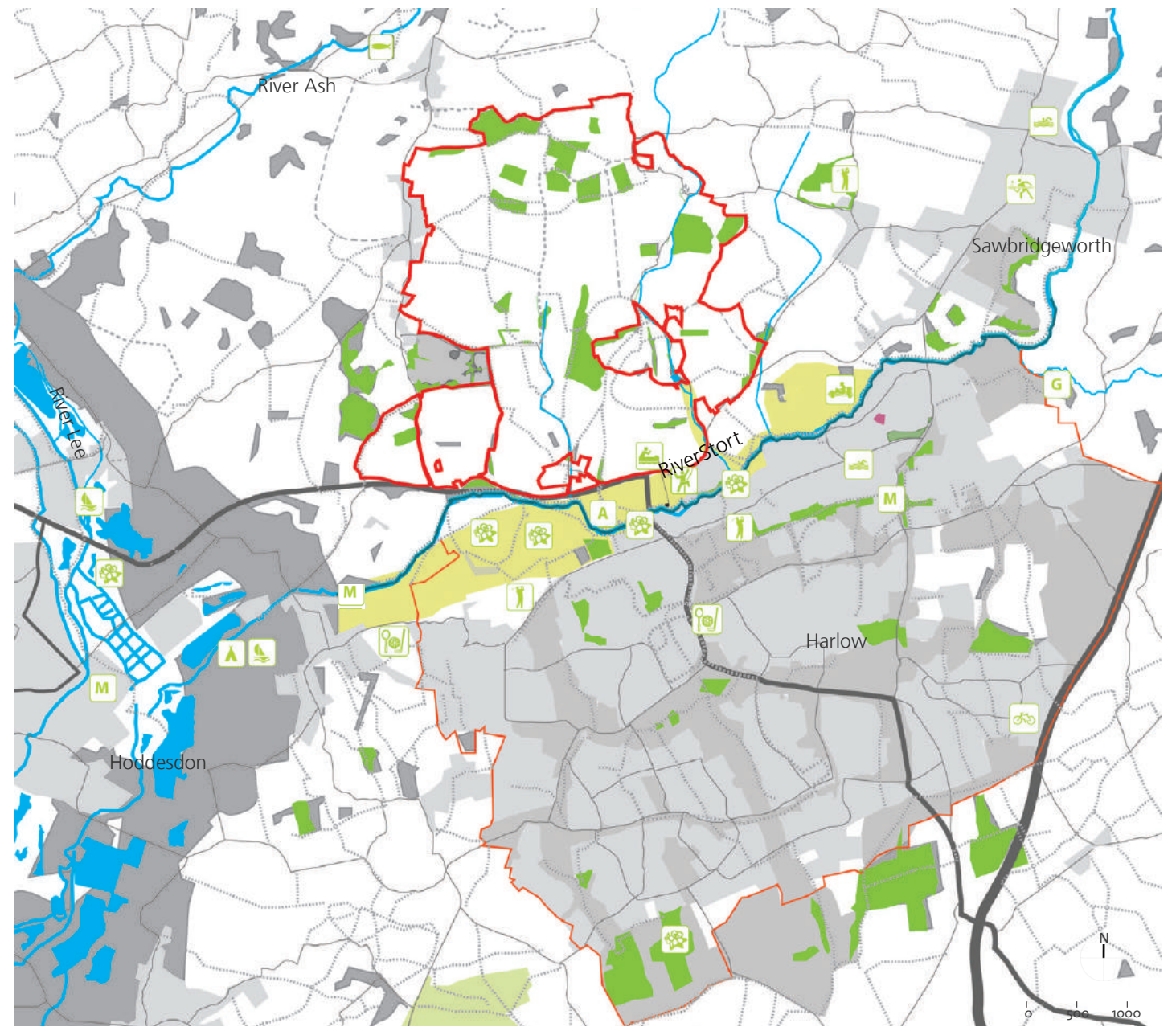
- Site boundary
- Harlow town boundary
- Existing parks & green spaces
- Towns and settlements
- Existing woodland
- Lee valley regional park
- Rivers
- River Stort navigation
- Public footpath
- National trail/ recreation
- Road used as footpath
- Byway
- Bridleway
- Other right of way
- Harlow sculpture trail in town



Existing Green Infrastructure and Public Rights of Way

LEGEND

- Swimming pool/ leisure centre
- Tennis club/ sports centre
- Go-karting
- Golf course
- Harlow outdoor education centre: climbing
- Harlow outdoor education centre: canoeing
- Sailing
- Camping
- Fishing
- Harlow cycling stadium
- Sports centre/ stadium
- M — Harlow museum
- A — Parndon Mill arts centre
- Nature reserve
- H — Henry Moore museum
- G — Gibberds Garden



Existing Public Recreation Facilities

SITE LANDSCAPE CHARACTER

East Herts have undertaken a landscpe character assessment of the wider area which was adopted as a Supplementary Planning Document (SPD) in October 2007 and forms part of the evidence base for the emerging East Herts District Plan.

Site observations and the landscape characters described in the SPD have been considered to create a high level site specific landscape analysis which reveals four areas of distinct character, shaped by topography, aspect and the overall environmental quality as well as the degree of connection to Harlow and East Herts.

1. The northern character area, 'woodland glade', contains clusters of ancient woodlands that fragment the open space and shorten views. This area feels very disconnected from Harlow and seems fully immersed in the Hertfordshire countryside.

2. The central character area, 'the plateau', runs as a central east-west strip of landscape across the site, north of the slopes. With the exception of the dips in the landscape formed from the two stream valleys, the area is predominantly flat and feels more visually disconnected from Harlow to the South. Views are more expansive across the site, punctuated by large human interventions in the form of a line of pylons and Hunsdon Airfield.

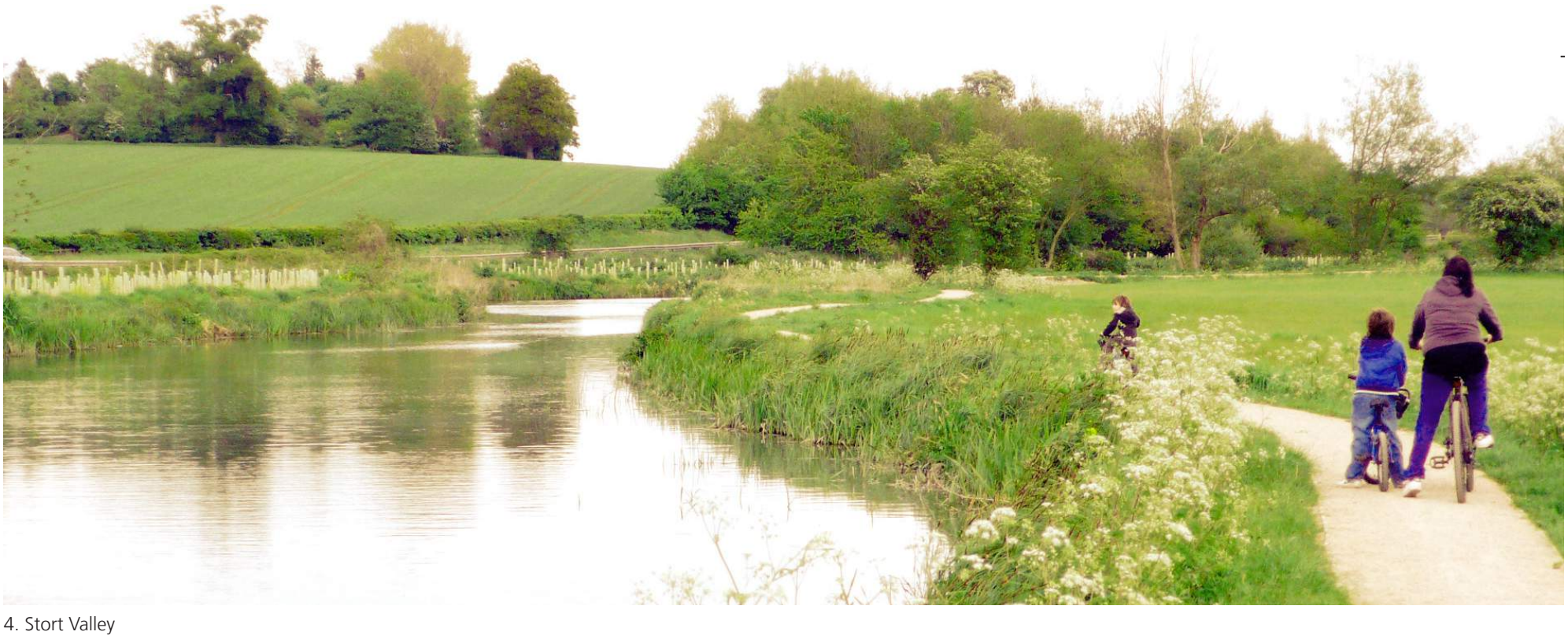
3. The southern character area, 'the slopes', consist of south-facing terrain sandwiched between the Stort Valley and the ridge lines across the middle portion of the site. Overlooking the Stort Valley this is, visually and physically speaking, relatively well connected to Harlow.

4. The Stort Valley runs along the southern perimeter of the site and represents one of the most influential landscape features in the area. The floodplain in the valley, borders upon the urban fringes of Harlow, provides natural habitats for a diverse ecology of wild life. The landscape setting of the Stort Valley between the site and Harlow presents an opportunity to enhance existing movement networks and to create a well connected gateway to the new development.

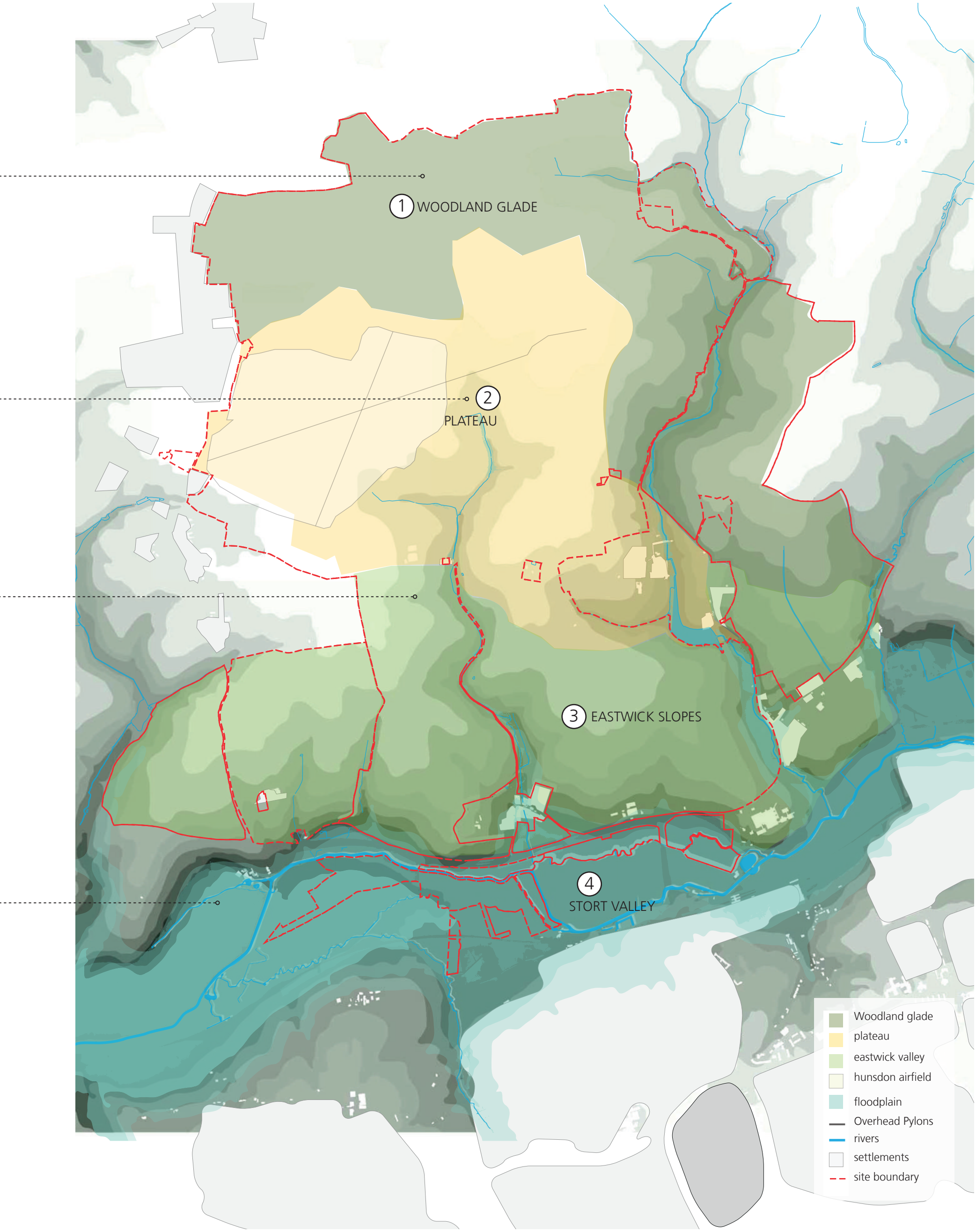
1. Woodland glade

2. Plateau and Hunsdon Airfield

3. Eastwick Slopes



4. Stort Valley



Gislton Area - Landscape Character Zones

SITE MORPHOLOGY AND LANDSCAPE FEATURES

TOPOGRAPHY AND GEOMORPHOLOGY

The site rises gently from the valley flood plain of the River Stort to the south of the site at circa 30m AOD to the Eastwick wood at circa 80m AOD on the East Hertfordshire plateau. Small valleys formed by three tributary watercourses of Golden Brook/Fiddlers Brook, High Wych Valley stream and Eastwick Valley stream cut through the northern slopes of the plateau from north to south across the site.

The River Stort flowing from east to west has been canalised to create the Stort Navigation, however, a meandering backwater section of the original river course exists accompanied by riparian trees.

GEOLOGY AND SOILS

The site geology consists of drift deposits of boulder clay resting on glacial sand and gravel. Where the boulder clay has become eroded on the valley sides, sand and gravel are present in localised areas on the surface.

Where the three north-south valleys have cut through the sand and gravel, the streams flow on head deposits of locally derived clays, silts and sands.

The floodplain of the Stort Valley consists of alluvial silty sand clay and peat, which is underlain by a variable thickness of chalky flinty terrace gravels, which crop out in small patches on the extreme south western edge of the study area. Generally the porosity of soils is poor and high in clay content which will have an impact on the site soil management strategy through construction and be a consideration for the project water management strategy.

LAND USE AND HABITAT

Much of the site comprises of large arable fields enclosed by hedges. However, there are some significant blocks of woodland (many of which are classified as ancient woodland) across the site and are particularly concentrated in the north-western corner of the site on the high ground.

The character of woodland and tree cover across the site varies with this topography from the riparian character of the Stort and its tributary valleys predominantly marked by Willow and Alder to the Oak and Hornbeam woodlands of the plateau.

HOLLOWAY

HOMEWOOD

ROYDON MEAD

AIRFIELD

HUNSDON MEAD AND THE RIVER STORT

ELECTRICITY PYLONS

GREEN LANES & HOLLOWAYS

Several Green Lanes cross the site and have formed a Holloway lined by mixed native hedgerows and coppice stools. Over the centuries, the use of these tracks have worn the ground away below the levels of the surrounding fields to create a sheltered and more internal experience of the landscape for the walker or rider. In the Holloway section of the Channock Farm Green Lane, the path is sunk 3.5m below the level of the surrounding landscape as it rises from the valley of High Wych Stream.

Also of particular relevance is the Holloway of Cock Robin Lane that leads from Eastwick valley and historically continued across the Hunsdon plateau but was truncated during the construction of the airfield.

HABITATS AND LANDSCAPE DEFINITION

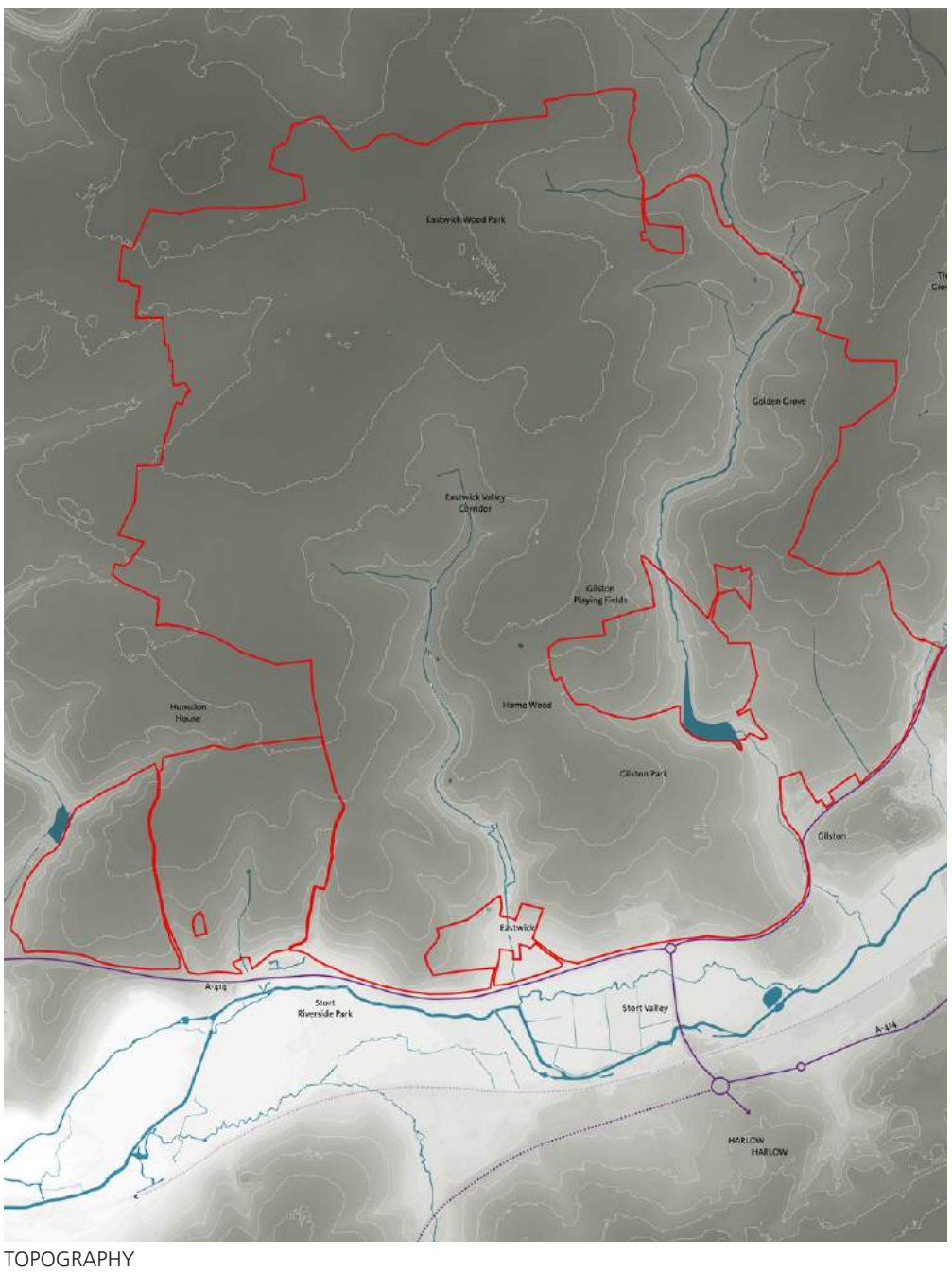
The local habitat and landscape are defined by:

- Woodland from Woodland Park to Valley: Hornbeam and Oak to north to Riparian habitats to south and in tributary valleys
- Key habitat types: grasslands, meadows, woodlands, wetlands, heathlands
- Designated sites: Site of Special Scientific Interest, Local Nature Reserve, County Wildlife Site, Local Wildlife Site, Ancient woodlands
- Veteran trees

OTHER FEATURES

Other landscape features, detractors or constraints of the site are:

- A414
- Electricity pylons (SW to NE of the site) & Services
- Designations and constraints within and immediately adjacent to the site include SSSI, LNR, CWS, LWS and Conservation Areas.



TOPOGRAPHY

GEOMORPHOLOGY AND LAND USE

GENERAL VISIBILITY

Views are available towards the Gilston Area across the Stort Valley from Harlow and across the Hunsdon Plateau. Visibility in most other parts of the surrounding landscape is generally restricted by localised variations in topography, dense vegetation and built form.

The majority of views across the Stort Valley from Harlow are from Elizabeth Way on the northern edge of the town. Glimpsed views are also available from some of the larger road corridors which align north south through the town (notably from the A1019 and A414). Additional to these, some properties aligning Harlow Road (near Roydon) and the Stort Valley itself (notably Parndon Mill) also experience views over the valley and towards the Gilston Area.

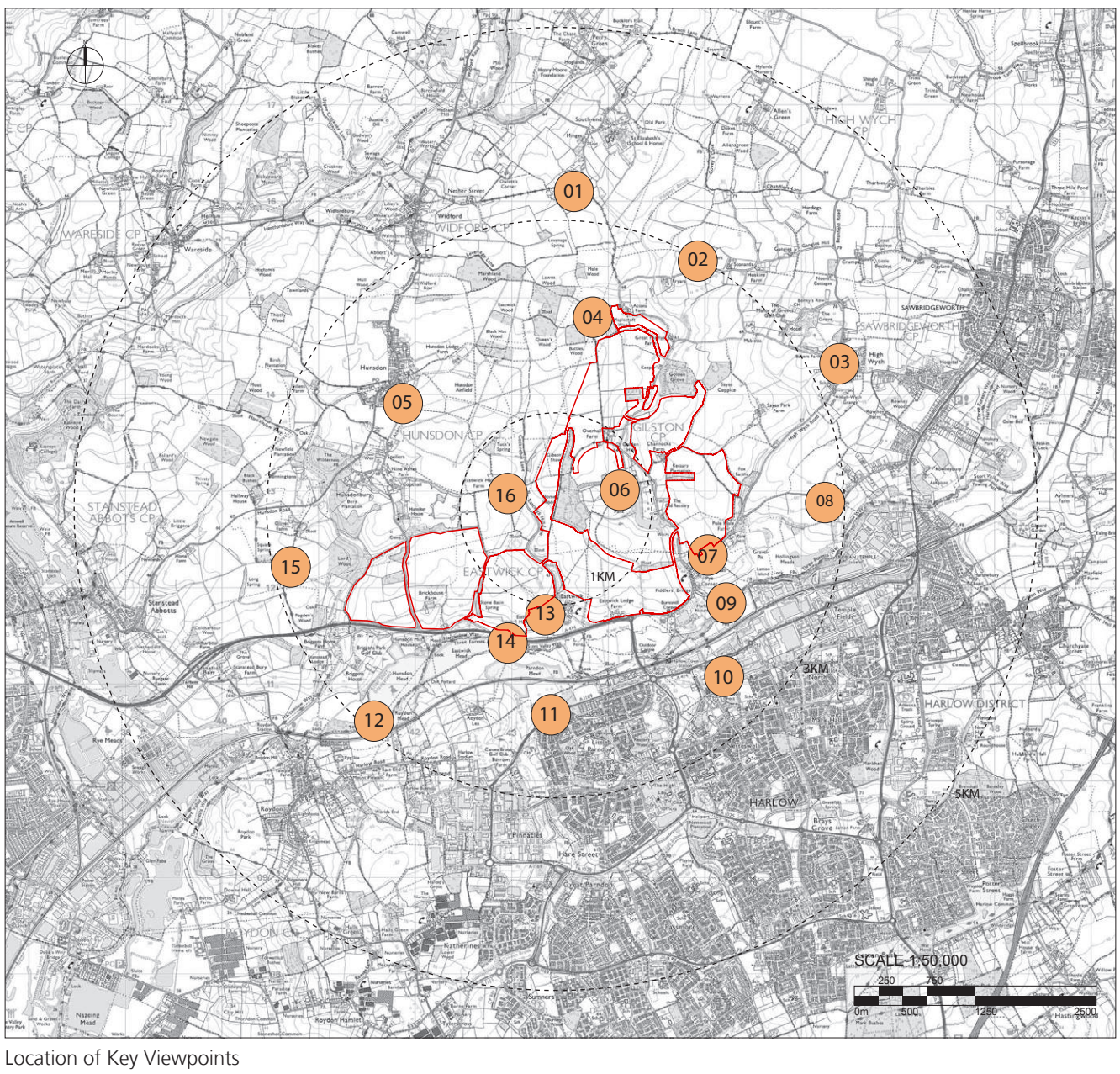
Hunsdon and the nearby airfield are located on a raised and open plateau enabling panoramic views across the area to the east. To the south the settlement of Hunsdonbury is more enclosed with open views only apparent at its northern edge. Further north, the settlement of Widford similarly is visually enclosed and sits on the far side of a ridgeline from the site.

Some raised and open fields are present in the vicinity of South-end and Allen's Green but longer views from these areas towards the site are generally curtailed by mature field boundaries and stands of established vegetation. Similarly to the east of the site (notably from High Wych) longer views tend to be limited to the tops of ridgelines with views into the Stort tributaries generally screened by established vegetation. Further east, a ridgeline visually separates Sawbridgeworth from the site.

Several key views within the Gilston Area have been identified as part of a high level Landscape and Visual Appraisal prepared by Capita. The location of these views are shown on the adjacent image.

Viewpoints

01	Turtle Farm
02	Carters Farm
03	High Wych
04	High Trees
05	Hunsdon
06	Gilston Park Lodge
07	Gilston Village
08	Redricks Farm
09	Maymeads Marsh
10	Town Park
11	Little Parndon
12	Hunsdon Mead
13	St Botolph's Church
14	Parndon Lock
15	Harcamlow Way (Square Spring)
16	Public Footpath near Eastwick Hall Farm



Location of Key Viewpoints

View into the Stort Valley

LANDSCAPE HERITAGE

The blocks and remnants of ancient woodland are important visual and historic features. Ancient woodland is land that has had continuous woodland cover since at least 1600 AD. The woodlands will require protection and careful integration into the development together with a potential buffer zone to help protect them from increasing recreational pressures.

Gilston Area does not contain any nationally registered parks or gardens. The nearest sites are Stansted Bury and Pishiobury which are approximately 1.4km and 2.4km respectively.

Gilston Park House is a Locally Important Historic Park and Garden as defined under the SPD Historic Parks and Gardens September 2007. Gilston Park comprises the house and accompanying parkland although the boundary definition of the park is not set out in the SPD. Key landscape features include the line of Lime trees; serpentine lake and terraces and parterres around the house.

Hunsdonbury, south of Hunsdon, is a listed Locally Important Historic Park. This sits outside the development site, approximately 380m from the western boundary. Hunsdon House in Hunsdon also lies approximately 380m outside the western boundary of the Gilston Area site.

The past two hundred years have taken their toll on the historic countryside. The removal of hedgerows through post-18th century enclosure has resulted in widespread boundary loss; modern arable farming techniques of deep ploughing and sub-soiling have removed archaeological sites often leaving only soil or cropmarks to indicate their existence. The removal of old field systems can also create new cultural monuments as with Hunsdon Airfield.

Hunsdon Airfield has 20th century military remains, partially dilapidated, and a memorial to those who flew from the airfield. Whilst there is historical military interest the landscape is open and exposed and there is an absence of structural vegetation or notable landscape features. The airfield is considered to be of relatively low landscape value.

History and Heritage of the Area

View across Gilston Park

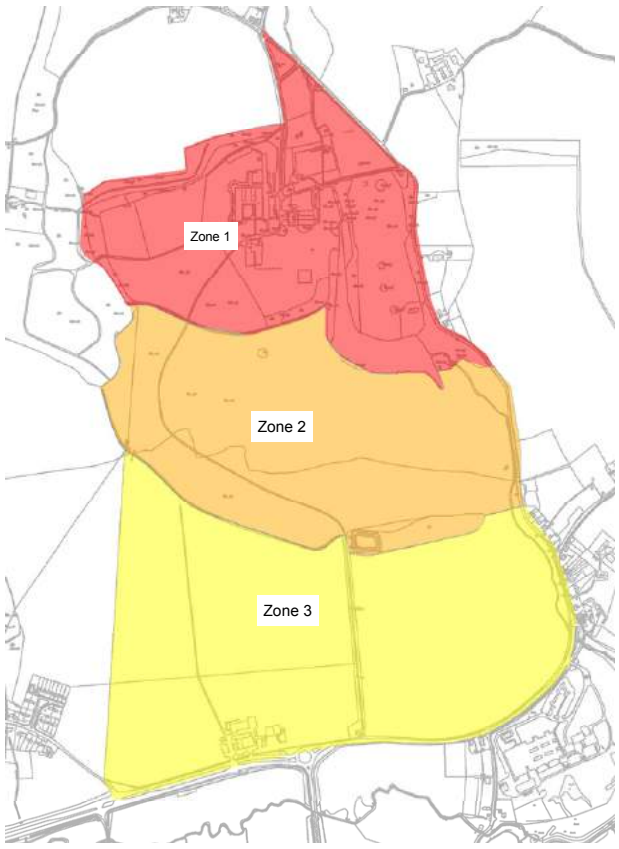
HISTORICAL ASSESSMENT

A historical assessment was carried out on Gilston Park to guide the development approach of the proposals. Three zones of sensitivity were identified (see adjacent diagram on opposite page):

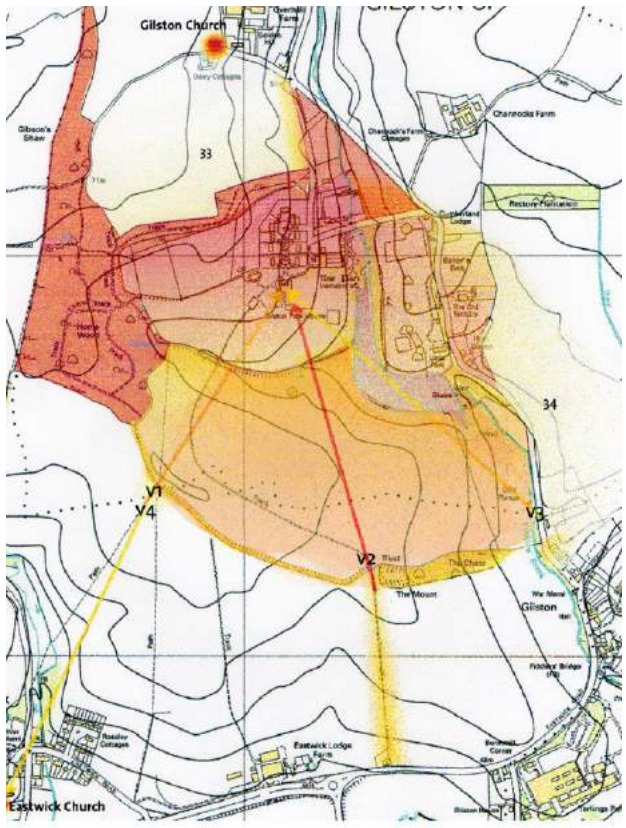
Zone 1: Gilston Park House, the landscaped garden and the water features are historically highly sensitive. This zone is outside of the site ownership and proposed development boundary.

Zone 2: This zone has moderate historic significance as parkland due to its visual link to zone 1. This zone provides highly significant views toward Gilston Park House. Important ecological features include Home Wood, The Chase, Gilston Lake CWS, Fiddler's Brook and the existing hedgerows.

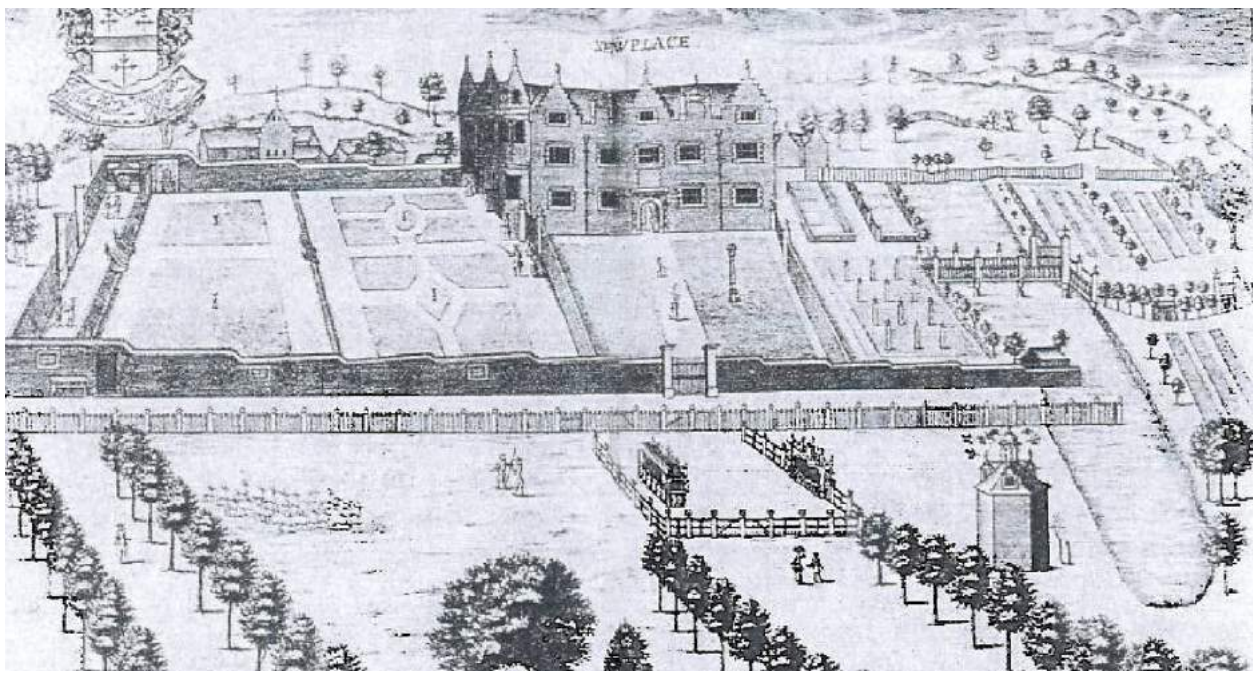
Zone 3: The existing avenue of lime trees is the only remaining park element within this area and the collective sensitive features of this zone are considered low. Important ecological features like the veteran and mature trees along Lime Avenue however, should be retained and incorporated in the proposed development with appropriate protection and management strategies.



Gilston Park sensitivity zones



Gilston Park sensitive access and view points



Historical maps Gilston Park

D. Ecology and Natural Habitat

The key natural assets are identified on a plan on the adjacent page and include sites designated for their conservation value, priority species and habitats designated under national legislation and other habitats and species of conservation value. Locally designated wildlife sites (County Wildlife Site (CWS) and Local Wildlife Sites (LWS)) have mostly been designated due to the presence of Ancient Semi-Natural Woodland (ASNW) or species rich grassland. The site also supports other areas of woodland and grassland outside of the designated sites that are of ecological value.

The site supports a network of hedges of varying value dependant on their age and the number of species they contain. There are also a number of veteran trees across the site.

The three tributary streams to the Stort Navigation and the River Stort provide important corridors allowing movement of wildlife north to south across the site.

The habitats present support populations of a number of species and species groups, the key groups include bats, Great Crested Newts, Birds and terrestrial invertebrates. The bat activity is centred around areas which provide roosting and foraging opportunities and include the Gilston, Eastwick, the Stort Navigation and the blocks of ancient woodland in the north of the site. A total of eleven different species have been recorded on the site including the nationally rare species of Barbastelle bat.

The Stort floodplain supports Kingfisher and Cetti's Warbler, which receive a high level of protection under the national legislation. Outside of the floodplain the remaining area of the site supports a number of other bird species including Skylark, Song Thrush, House Sparrow and Linnet during the summer and large numbers of Lapwing, Golden Plover Fieldfare and Redwing in the winter.

Although the majority of the Site contains arable land which is considered less favourable (but still of value) for Great Crested Newt (GCN), suitable GCN terrestrial habitats and features are present across the Site in the form of woodlands and hedgerows and ponds. Five ponds in the north of the site support small populations of GCN and another 2 ponds support a single population.

The site also supports Badgers, a small number of common reptiles (Slow Worm, Grass Snake and Viviparous Lizard) and terrestrial invertebrates, with the woodland, particularly Golden Grove and Sayes Coppice supporting the invertebrate assemblage of the most value within the site.

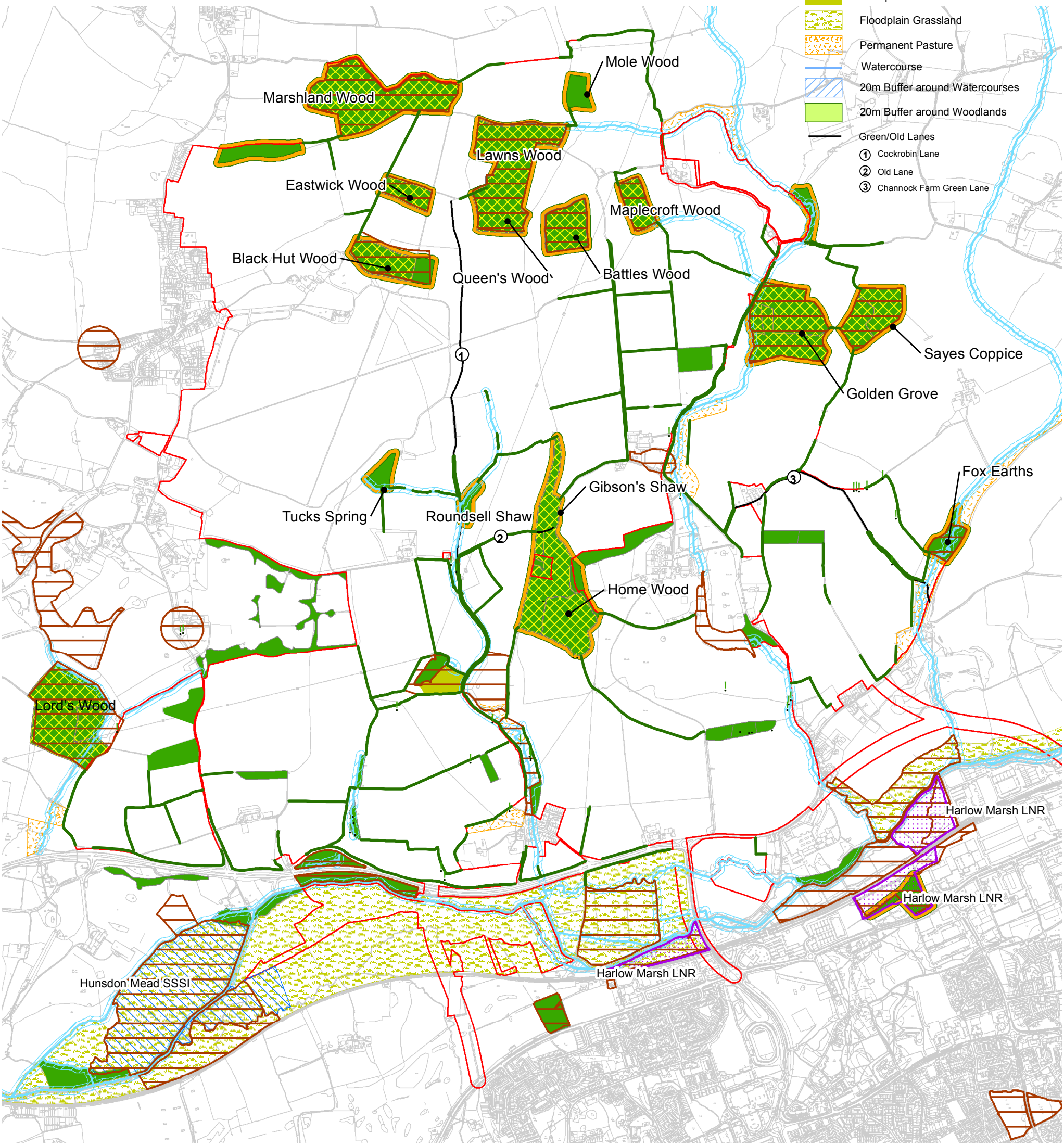
The River Stort and the Stort Navigation also provide suitable habitat for Otter and Water Vole although no evidence of either species has been recorded in recent surveys. Otters are known to be in the Lee and Stort catchment (the Stort is a tributary of the River Lee) and there is a potential project to reintroduce Water vole to the Stort upstream of the site identified in the River Stort Catchment Management Plan. The development proposals will include measures beneficial to the dispersal/movement of these species.

Eastwick Valley

Green Lane

Large ancient boundary hornbeam

Veteran trees

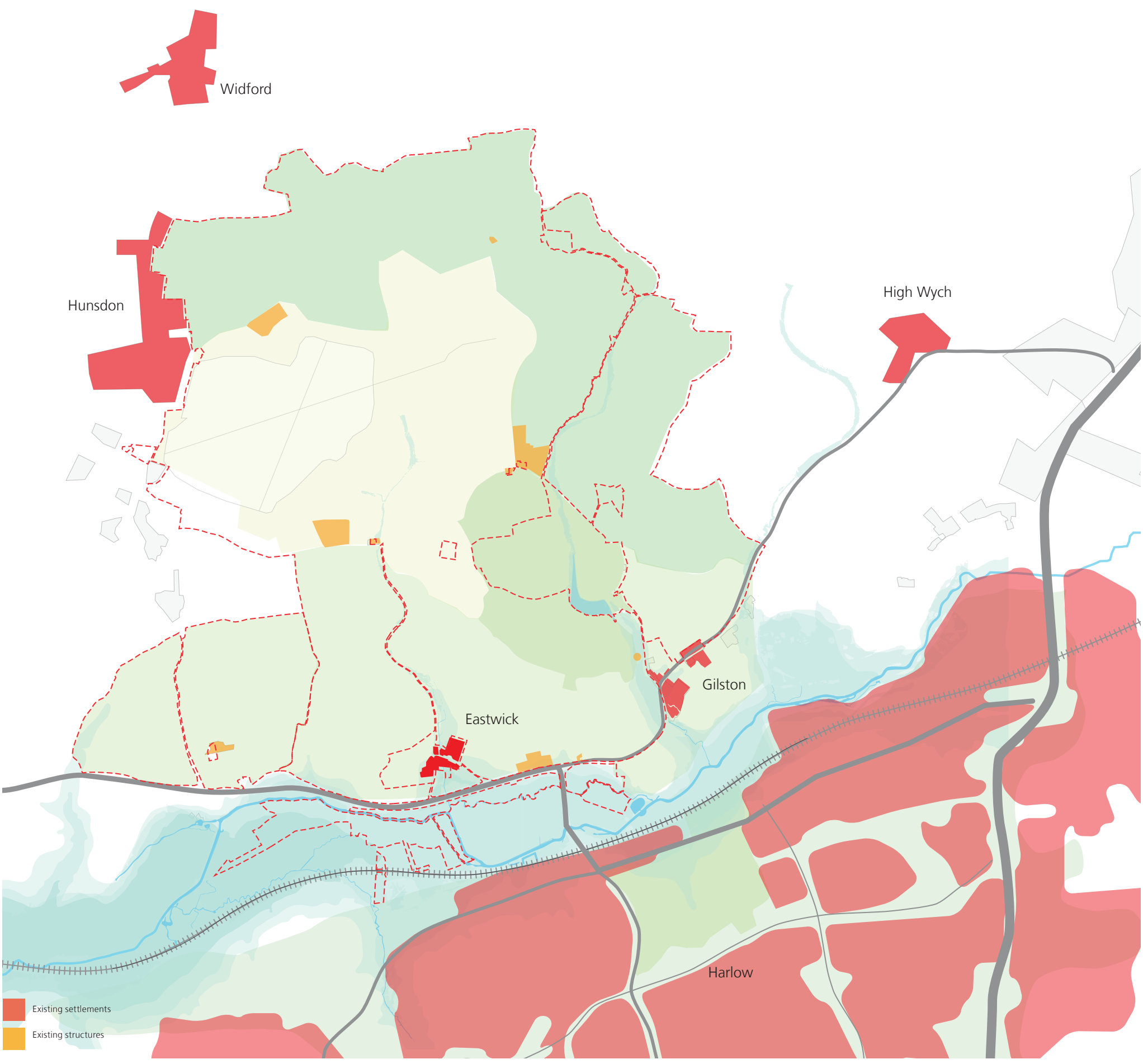


Summary of Ecological Features & Constraints - Habitats

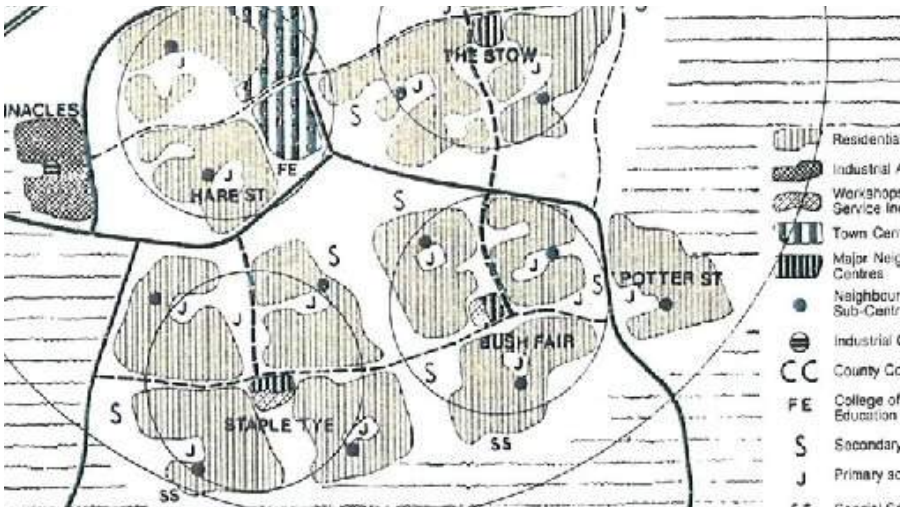
E. Surrounding Settlements & Built Form

There are five existing settlements that are in close proximity to the Gilston Area; Harlow, Hunsdon, Eastwick, Gilston and High Wych. The settlement of Widford located to the north of the site will not be visually impacted due to the woodland blocks along the northern extent of the site.

The relationship of the Gilston Area to its surrounding landscape and the villages of Eastwick and Gilston has been carefully considered. This has included an assessment of the existing physical and social functions of these two neighbouring villages.



Existing settlements adjacent to site



Spatial arrangement of Neighbourhood Centres and Hatches (indicated as Neighbourhood Sub-Centres) (from 'The Design of Harlow', F. Gibberd, 1980)


Harlow Town Centre


Harlow Town Centre


Harlow approach

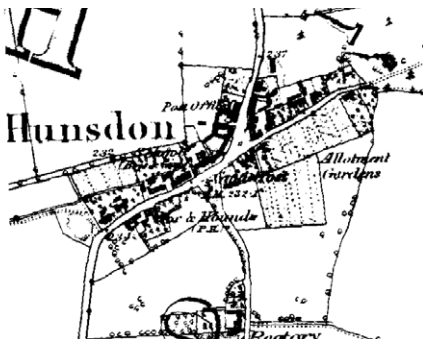

Aerial view Harlow Town Station

HARLOW

Harlow is the largest settlement in close proximity to the site with the northern extent of the town facing the Gilston Area across the Stort valley. The land use distribution in Harlow is a prime example of New Town masterplanning and provides the town with large, valuable areas of landscape, identified as 'Green Wedges'. The new town, designed by Sir Frederick Gibberd was built after World War II to ease overcrowding in London due to the mass devastation caused by the bombing during the Blitz. The town is divided into four main areas or 'clusters', situated on high ground and separated by open land in the valleys. Within each cluster are two to four residential 'neighbourhoods's. The northwest cluster includes the town centre which is located approximately 20 minutes walking distance from the Gilston Area. The 'Green Wedges' between the clusters carry the main roads into the town centre and accommodate secondary schools, playing fields and the town park in the north adjacent to the station.

Harlow Town station located on the northern edge of the town adjacent to the Stort Valley is ideally located to provide excellent access to Gilston Area.

Aerial view of hunsdon



Hunsdon 1884


The main junction of the Historic Core where Drury Lane meets High Street


View of the eastern boundary of the site from the airfield

HUNSDON

Located adjacent to Hunsdon Airfield, the village of Hunsdon borders the northwest part of the Gilston Area. The 1884 historic Map shows Hunsdon laid out on an east west axis along High Street and Drury Lane with the village centre at the junction. The village has more than trebled in size since then, with the majority of buildings located along the High Street changing the axis of the village to north/south. The development has stretched so far south that the rectory has now been absorbed into the village.

The village has 3 distinct character zones;
1) The Historic Core
2) New developments to the South
3) New developments to the North

Allotments were present on the 1884 historic map in the same location as they currently exist, however the overall area of allotments has greatly decreased.

The village is surrounded by agricultural land, with public right of ways to the east through the airfield. These are regularly used by residents for recreation and leisure. In the 1884 map the right of way which extends from Drury Lane led through a wooded area to Hunsdon Lodge. This is now the location of a farm and airfield buildings and the landscape has been flattened to accommodate the airfield.

EASTWICK

Located at the bottom of the Eastwick Brook tributary and adjacent to the A414, the village of Eastwick has a boundary with the Gilston Area. The 1884 historic Map shows Eastwick as a village centred around the junction of East Hall Lane and Eastwick Road. The village has marginally increased in size with the additional development of Roseley Cottages on Eastwick Road to the east of the village. This forms an immediate boundary with the Gilston Area. St. Botolph's Church, the Rectory and surrounding land appears to have remained relatively unchanged since 1884.

The village has 3 distinct character zones;
1) The Historic Core
2) Eastwick Manor
3) New development of Roseley Gardens

The St. Botolph Church was rebuilt in 1872 by A W Blomfield and is a local landmark and centre of the Eastwick village group.

Aerial view of Eastwick

Eastwick 1884


Eastwick Road

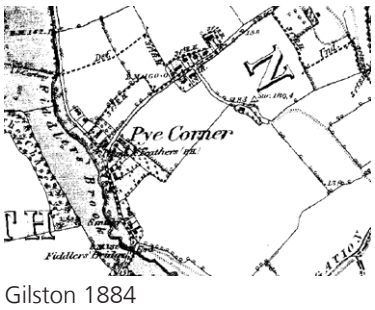
GILSTON

Located on Eastwick Road and Pye Corner, this village lies to the east of the Gilston Area boundary. The 1884 historic Map shows Gilston as a village stretched along Eastwick Road with the village centre at Pye Corner. The village has marginally increased in size with additional developments on Eastwick Road to the east of the village.

The village has 3 distinct character zones;
1) The Historic Core
2) Fiddlers' Brook green edge
3) Eastwick Road grouping

The village lies within the valley of the Fiddlers' brook tributary. The western edge of the village is screened by a thick copse of trees which runs north along the valley and Fiddlers Brook. This copse is also present on the 1884 Historic map.

Aerial view of gilston



Gilston 1884


Vine Grove

Aerial view of High Wych

High Wych 1884


Open views into the countryside


St James church

HIGH WYCH

Located south west of Sawbridgeworth, High Wych was formed into an ecclesiastical parish 1862, and became a separate civil parish 1901.

The 1884 historic map shows High Wych as a village centred around the junction of High Wych Road and High Wych Lane. The 19th Century flint church St James and the Church of England Primary school form the historic core of the village. Adjacent to the church the village includes some historic houses and thatched cottages, while the north eastern part of the village consists predominantly out of red brick and rendered buildings.

Despite the proximity to Sawbridgeworth, High Wych retains a quiet village character within. The village is affected, however by the main route along High Wych Road, which forms the southern edge of the village.

The village has 3 distinct character zones;
1) Historic St James church quarter
2) Residential village core
3) High Wych Road

High Wych lies approximately 1,5 km to the east of the Gilston Area, surrounded by open farmland with dispersed isolated old houses, farms and one hamlet, Allen's Green.


1 - Hunsdon Lodge Farm


2 - Actons Farm


3 - Eastwick Hall Farm


4 The Towers

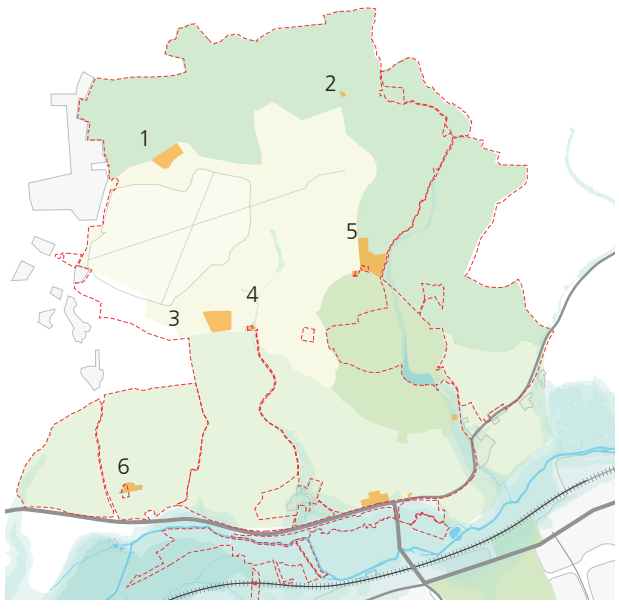

5 Dairy cottages


6 Brickhouse Farm

EXISTING STRUCTURES

There are a number of existing structures dispersed across the site. The majority of these existing buildings will be retained and carefully integrated into the new development.

Some of the existing barns have potential to be converted to accommodate new uses within the Gilston Area. Such appropriate changes or sensitive alterations can secure the continuing beneficial use of historic buildings, provided its original character and the surrounding settings are acknowledged.



F. Surface Water Drainage & Flooding

There are four main watercourse systems on and near the site:

- Hunsdon Brook, which sits beyond the western edge of the proposed site area and runs in a north-south direction before passing under the A414 via a large culvert;
- Eastwick Brook, which sits central to the site area and follows the route of Eastwick Hall Lane in a north-south direction through Eastwick, before passing under the A414 via a culvert;
- Golden/Fiddlers Brook, which runs adjacent to Gilston Lane and runs in a north-south direction before passing under Eastwick Road via a small culvert;
- Pole Hole Brook which collects a catchment to the East of the site before passing under Eastwick Road in the area of Pole Hole Farm.

The site area is predominantly greenfield in character with topography sloping gently towards the four local water courses. Due to the existing ground conditions the use of soakaways across the site is unlikely and there are no plausible local public sewer networks within the site area. Therefore the preferred drainage strategy for surface water is to discharge into the local watercourses in compliance with the principles of sustainable drainage.

An assessment of the impermeable areas across the site has been undertaken and work has been carried out to determine the necessary areas required for dry attenuation features (swales & basins) throughout the development areas, which will be linked in a cascade fashion down the hillside prior to discharging back to the water courses. These have been assessed for the 1in100 year storm event plus climate change allowance.

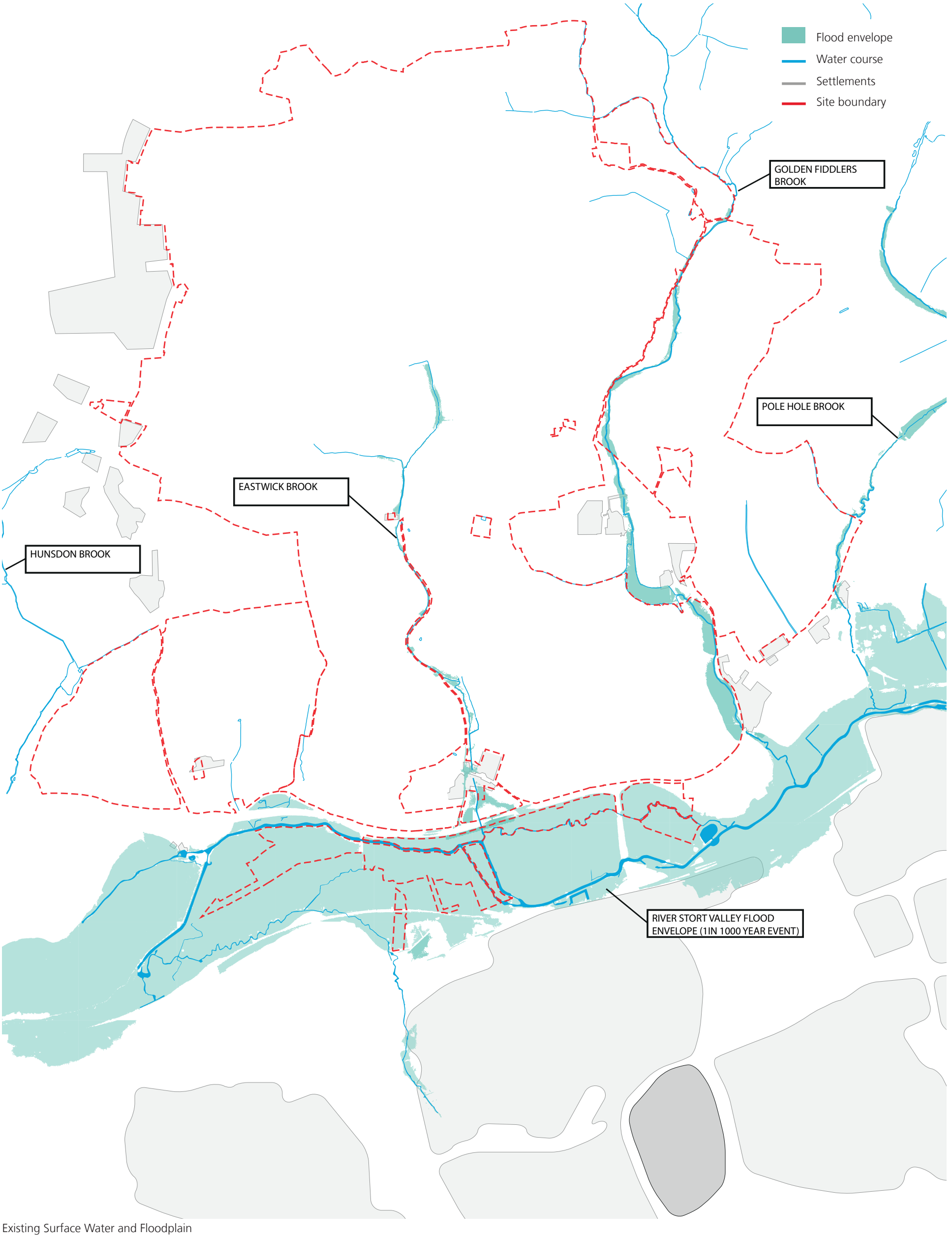
Flood modelling of the River Stort valley and its tributaries has been undertaken, including modelling of the Stort floodplain, in order to define the development edge. The flood model has been submitted to and approved by the Environment Agency. Further work will be undertaken to incorporate the recent amendments to climate change allowances in order to ensure no impact on the development edge.

The Council is updating its Strategic Flood Risk Assessment which will also inform the approach to mitigating flood risk.

Thames Water have recently advised that within the existing Rye Meads Sewerage Treatment Works there is capacity for development up until the year 2040, which includes development in the Gilston Area. The preferred drainage strategy for the foul water is to discharge via gravity sewer to the existing Trunk Main running through the Stort Valley. 2 connection locations will be required and pumping stations will be provided where changes in topography necessitate them.

SuDS Pond/Wetland, Hopwood Service Area, M42

Roadside Swale, Elvetham Heath, East Hampshire



Existing Surface Water and Floodplain

G. Services & Utilities

WATER

Affinity Water are the water supply authority for the Harlow area. An assessment of the proposed water demand for the proposed Gilston Area has been undertaken by Affinity Water. They have confirmed that there is capacity within their existing infrastructure to supply the proposed Gilston Area development. The supply will be from their existing twin trunk mains which run north-south through the development just to the east of Eastwick.

GAS

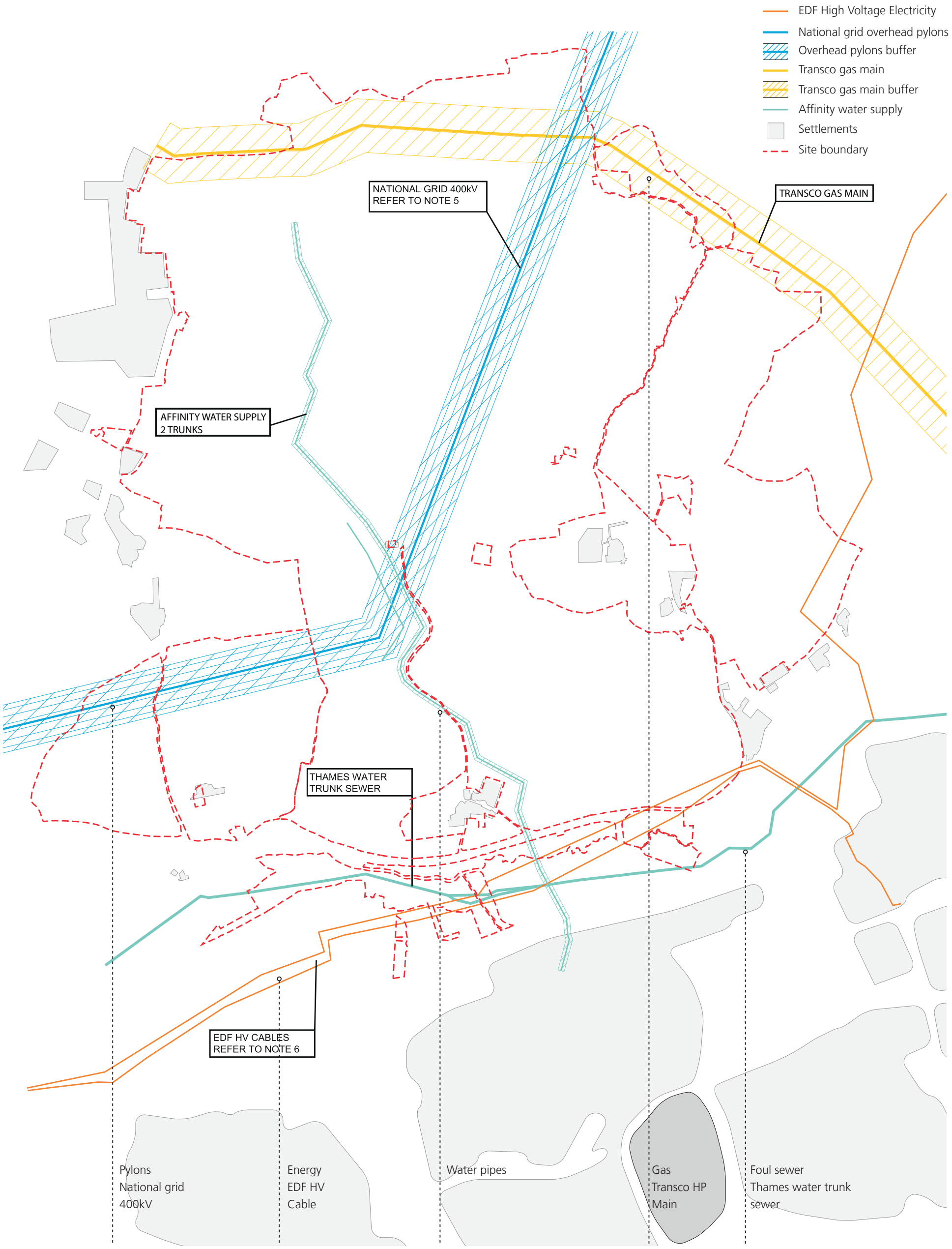
National Grid operates the National Gas Transmission System and have carried out an assessment for the provision of gas to the proposed Gilston Area. National Grid have confirmed that there is capacity within their existing infrastructure at Redricks Lane to supply the proposed development. A main will be laid from the connection point at Redricks Lane to the development via Eastwick Road.

ELECTRICITY

UKPowerNetworks (UKPN) are responsible for the power network in the Harlow area. There are existing 400kVA overhead power lines to the north west of the site. The proposed Gilston Area development plan sits outside the EMF proximity zone for these power lines. UKPN have confirmed that the proposed Gilston Area can be supplied from the existing Harlow West primary sub-station to the west of Harlow. A new primary sub-station will be required within the Gilston Area development in order to provide the power supply to the proposed secondary sub-stations throughout the Gilston Area.

BROADBAND

Superfast Broadband can be supplied to the area and may be provided in conjunction with the "Connected Counties" broadband programme depending on timings and roll out.



Existing Utilities

H. Access & Movement

The Gilston Area is located immediately to the north of the A414, the main link connecting Hemel Hempstead in the west to Maldon near Chelmsford in the east. The A414 provides initial access from the Gilston Area to Harlow via the Eastwick Roundabout and Burnt Mill Roundabout. From the Burnt Mill Roundabout, Harlow Town Centre is connected via Allende Avenue (A1019).

The A414 also provides the main connection to Junction 7 of the M11 to the south east of Harlow. The M11 connects Cambridge and North-East London via Epping, Bishop's Stortford and Stansted Airport. Essex County Council is currently consulting on a new Junction 7a on the east side of Harlow, with access to be provided via Gilden Way.

Eastwick Road, which becomes High Wych Road, forms the south eastern boundary of the Gilston Area which connects to Sawbridgeworth and in turn to Bishop's Stortford via the A1184.

The location of the Gilston Area in relation to local bus routes is shown in the adjacent figure.

Harlow is well served by buses. A number of bus services operate throughout the town, with the main hubs at Harlow Town Rail Station and Harlow Town Centre Bus Station. However, at present there is not a particularly good service to the employment areas at Templefields and Pinnacles.

The main bus operator within Harlow is Arriva who operate in conjunction with a number of additional smaller companies.

Harlow Rail station is well located for the Gilston Area and provides a service with six trains per hour to central London (some to Liverpool Street and some to Stratford) in the peak hours. Services are also provided to Stansted Airport and Cambridge.

In 2018 Crossrail services will commence through Liverpool Street which will further enhance the connectivity of the Gilston Area to areas within London.

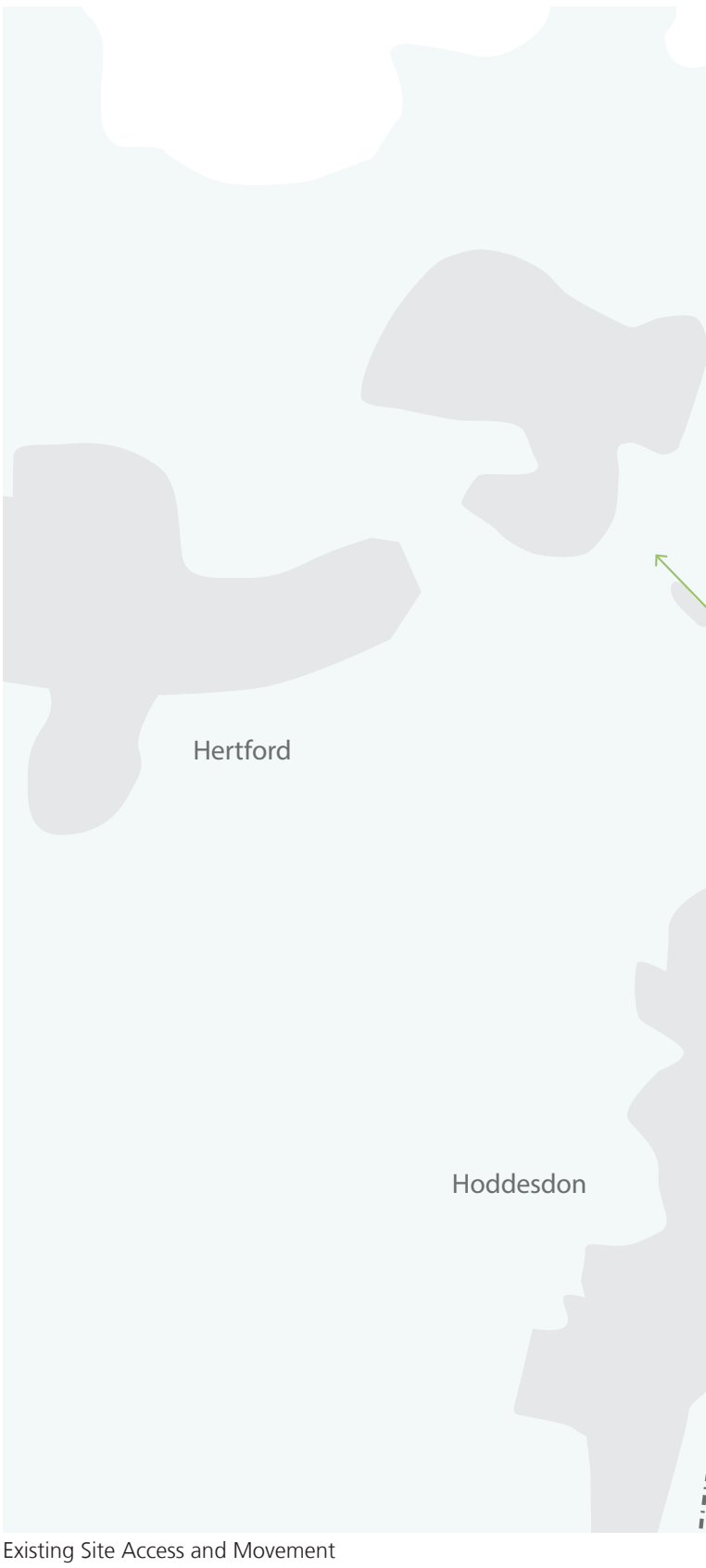
The main existing link from the Gilston Area is via a footway which runs alongside Fifth Avenue, connecting the site to Harlow Town Station. From here, wider shared footway/cycleways connect to Harlow Town Centre. In addition, there are a number of public rights of way connecting the site to the Stort Valley and beyond.

Vectos, on behalf of the Principal Landowners, has assessed likely vehicle movements associated with the Gilston Area. The highway network has been assessed using a series of traffic models.

Essex County Council has developed a VISUM model that considers traffic movements at a strategic level. This has been used to assess both the planned housing growth within the various Local Plans and the effects of the potential M11 Junction 7a.

Hertfordshire County Council has developed a COMET model that covers the majority of the County but focusses on the key strategic routes and in particular the A414 corridor. It is designed to look at a strategic level at potential interventions. Whilst it has been agreed that the VISUM model is the more appropriate strategic model for the Gilston/Harlow area, the modelling results that arise from VISUM will need to be reflected within the COMET model, particularly with regards to the potential for increased traffic heading westbound along the A414.

In addition, Vectos has developed a Paramics model, looking at the operation of highway network within Harlow and the southern areas of East Hertfordshire. This model considers junction performance in more detail than the strategic models. The base model has been agreed by Essex CC and Hertfordshire CC as being fit for purpose for this assessment work.



Existing Site Access and Movement

I. Minerals

A Minerals Evaluation has been commissioned for the site. The geological data available confirms the presence of sand and gravel within the site. However the deposit does not meet minimum criteria stipulated by HCC for site identification of economic resources.

British Geological Society (BGS) data supports the safeguarding provisions of the Mineral Consultation Area unless the prospective developer of an alternative land use, which may sterilize mineral resources, proves otherwise. The borehole information supplementing the BGS data forms a fuller picture of the site geology and indicates that economic resources are not present in the development footprints of the proposed Villages of the Gilston Area.

From information available the land does not contain potentially workable deposits and there is no opportunity for prior working because the deposits are not economic to extract.

J. Market Demand

East Herts and the M11 sub region are under significant housing market pressure. Prices are high and the projections for household growth have been revised upwards in recent years. Unless housebuilding is significantly increased this will lead to even higher prices. Young people are being priced out of both the purchase and rental market. The local housing market is increasingly failing to meet the needs of older residents too. The effects could threaten the sustainability of the local economy.

East Herts and its neighbouring districts continue to be amongst the most unaffordable districts in the country. The five Districts around Harlow have some of the least affordable house prices in the country. Half of all East Herts residents earn less than £40,000 a year. To buy a home at the district average price requires an income of c.£72,000. The income required to afford the average private rented property is just over £36,000.

For first time buyers the challenge of buying locally is substantial with the cheapest 25% homes costing 10 times the salary of a local resident in the lowest 25% of earners.

This is therefore an area of acute housing need.

A Strategic Housing Market Assessment (SHMA) has been prepared which covers the West Essex/ East Herts housing market area, comprising the administrative areas of East Herts, Harlow, Epping Forest and Uttlesford. The SHMA identifies that the level of housing need across the four authorities is for 46,058 homes up to 2033. This figure has been disaggregated amongst the four authorities. For East Herts, the level of need is 745 homes per year.

This represents a significant challenge. Historic delivery has not reached these levels for many years. There has been consistent and substantial under delivery against plan targets.

The Hertfordshire LEP has identified "accelerating delivery of housing sites" as one of its top priorities and a game changer for the Hertfordshire economy – and the Gilston Area is one of these strategic housing sites. The LEP's objectives is to deliver enough homes to meet demand and reduce prices and to exceed historic delivery and future targets and support the delivery of 4,500-5,000 homes per year. Strategic sites should be progressed urgently so that homes can be delivered within the next 10 years (rather than 20 years).

The latest DCA East Herts Housing Need Study 2015 suggested the following the following priorities:

- focus new delivery in market housing to address future demographic and household formation change and to meet the need for smaller units across the stock;
- address the under-occupation of almost 950 social rented properties to improve the turnover of family units and address the needs of 350 over-occupied households and those on the waiting list;
- link new affordable delivery to the growth in population of older people and enabling a better flow of the existing stock; and assess the Extra Care delivery strategy to meet the growth in 85+ year olds.


Gilston Park Estate
North of Harlow
Gilston Park Estate

K. Overall Summary

OPPORTUNITIES AND CONSTRAINTS MAPPING

As set out in this chapter there are a wide range of constraints within the site of varying importance. These have been mapped to build up an overall picture of the site.

The key utility constraints include the pylon corridor, the water main that runs down the western valley, and the gas main that skirts the eastern and northern boundary of the site. Of these the gas main has limited effect as the corridor does not exclude residential building, and is mostly outside the site. The water main excludes building within a relatively small easement of 8m. The 400kV power lines are considered the most challenging, with an exclusion corridor for residential development at 230m applied.

There are a number of scheduled monuments along the historic parklands, in and around Hunsdon airfield and Gilston Park. An extensive network of PRoW has been identified and the aim is that the majority of them will be retained. In case of any changes in PRoW, the spatial quality and character of the paths will be enhanced and integrated within the proposed design.

In regards to the 1,000- year flood plain data. All development is located outside this line. This affects the site around three waterways: River Stort and Pole Brook to the west and Fiddlers Brook to the east.

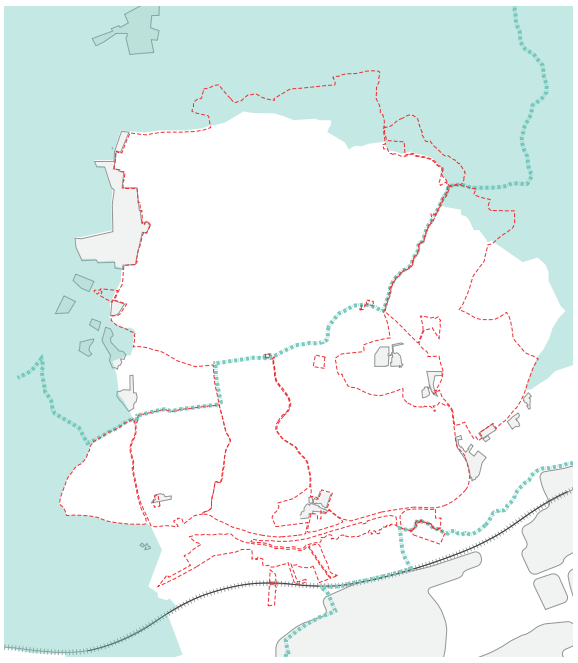
For the ecological constraints, sites have been identified and the aim is to maintain and enhance them in any development proposal. There are also a number of hedgerows. Those of higher ecological value have been identified and should be maintained where possible.

The constraints drawing establishes the baseline constraints for the site from which the Gilston Area proposals are to be developed. The information shown is based on baseline reports which contain full details of the environmental, cultural heritage and ecological constraints as well as transport and utilities considerations.

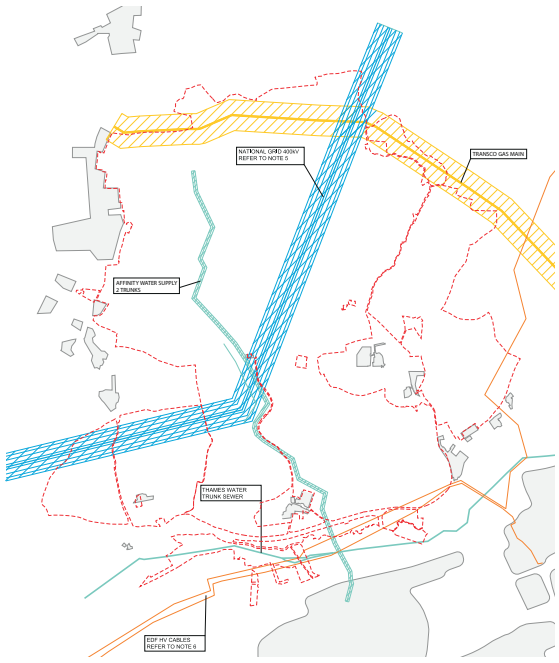
DEVELOPABLE AREA

By mapping all the constraints a total of 55 % of theoretical developable capacity of the site has been identified, however, as explained in Chapter 5 this has been further refined as part of the spatial framework strategy.

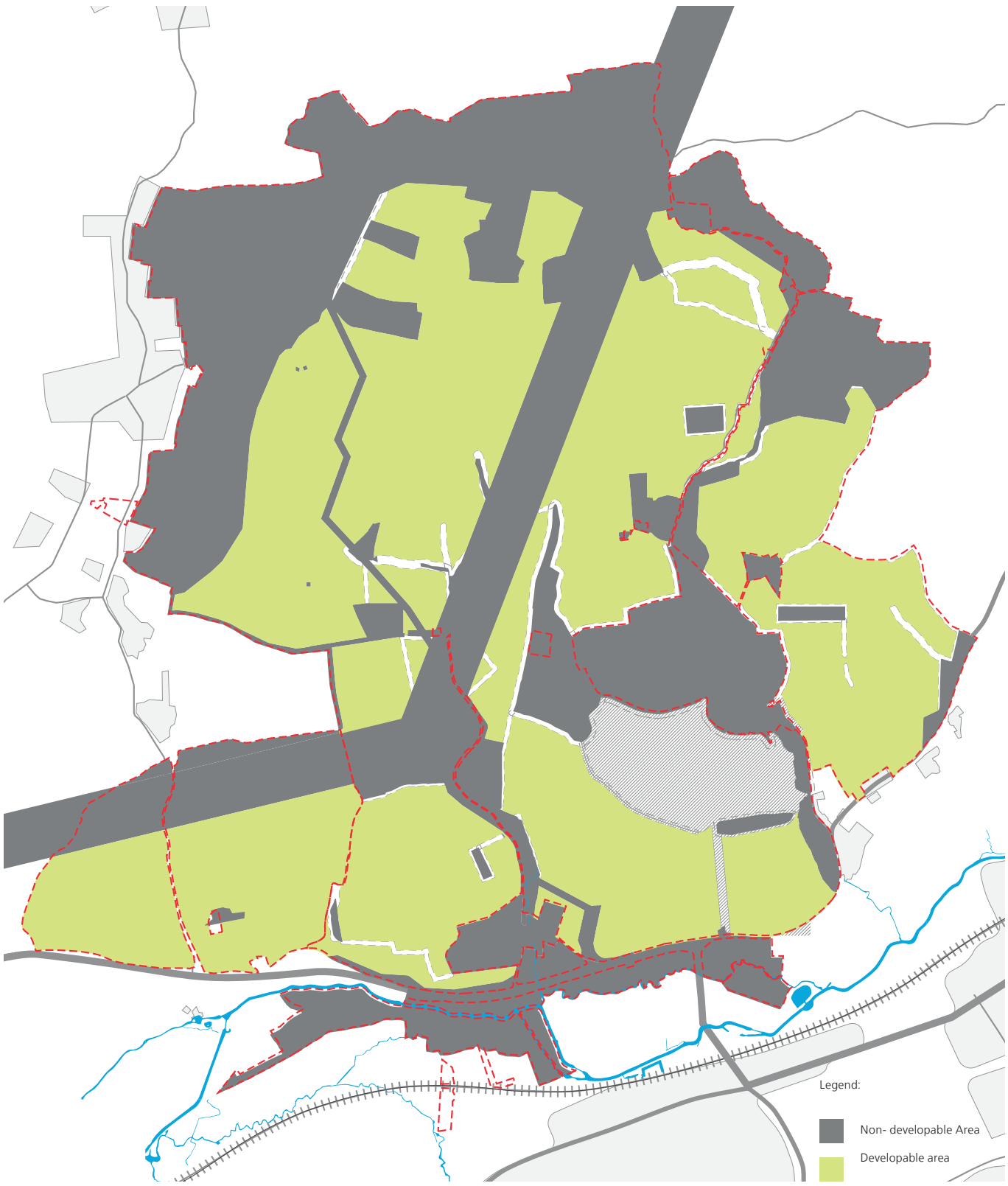
Overall, the detailed assessment of the existing site context has not identified any constraints that would prevent the Gilston Area vision being realised.



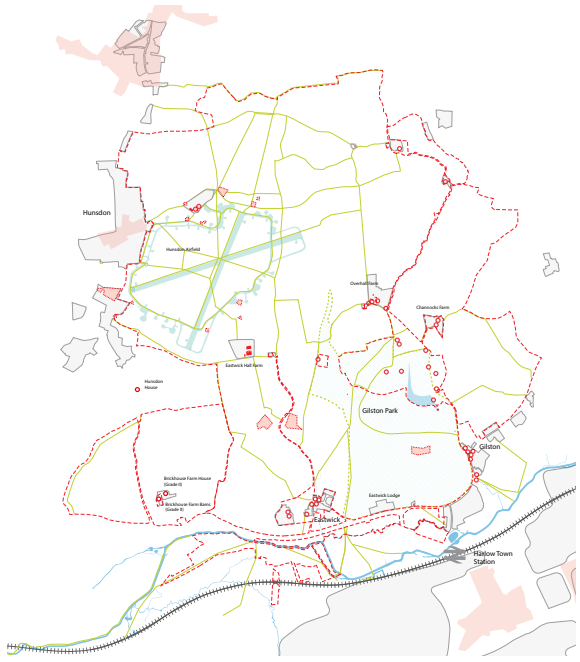
Green Belt



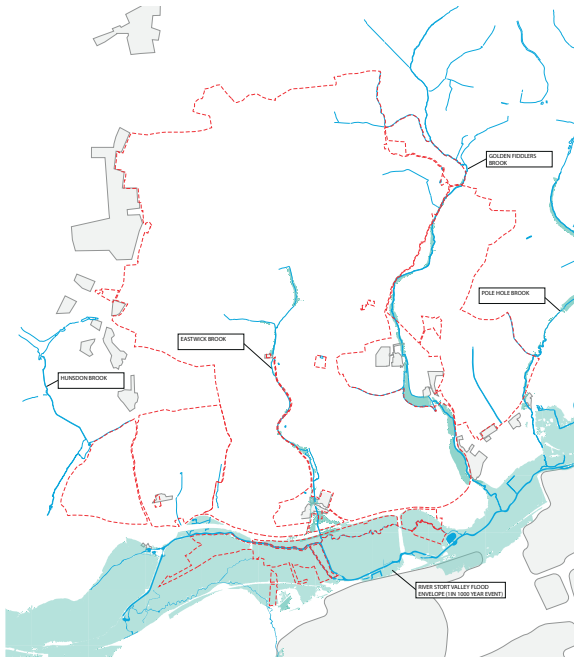
Utilities and Services



Theoretically Developable Land

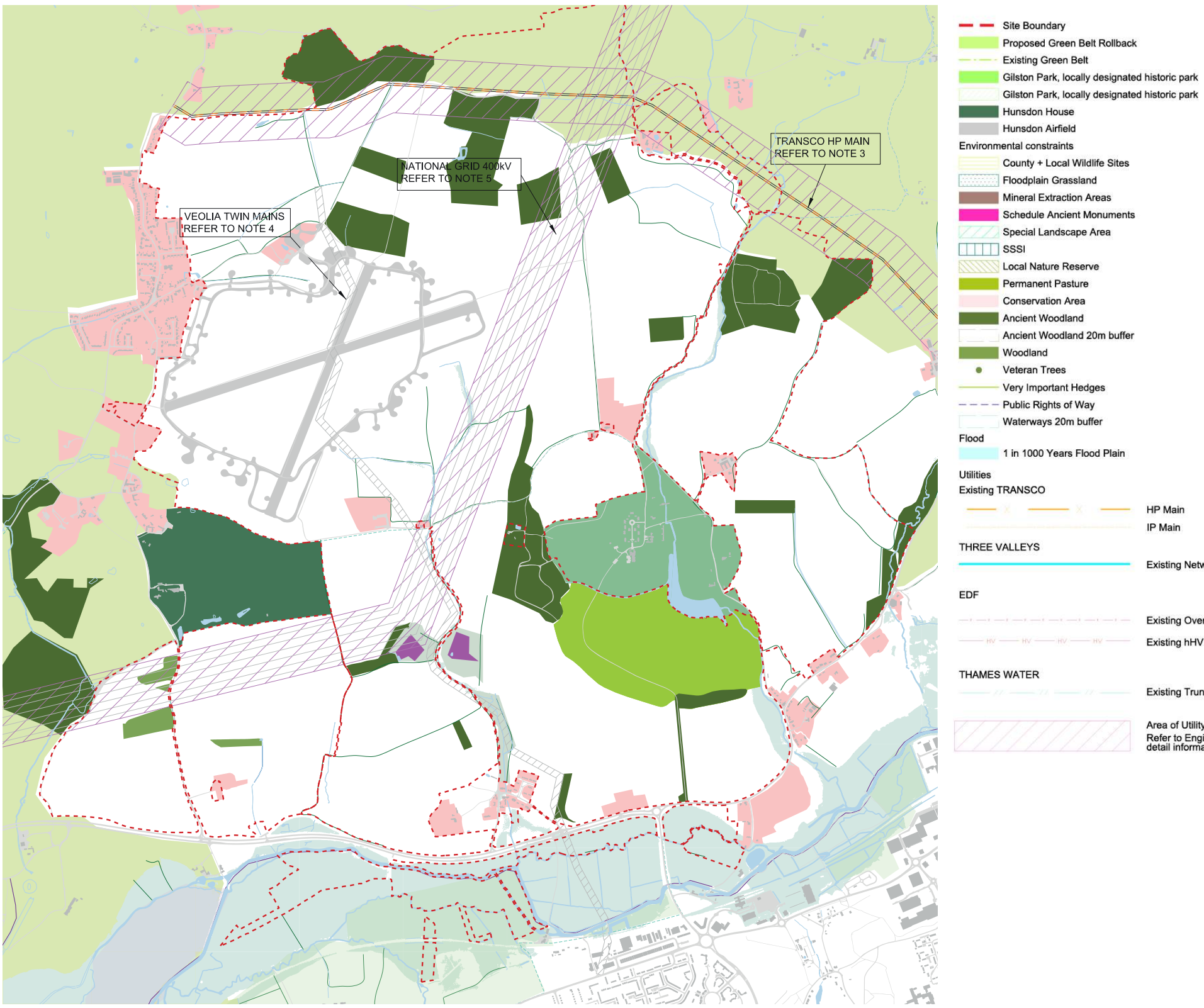


Archaeology, heritage and public rights of way



Floodplain to River Stort

Ecology and natural habitat



Constraints map