

NORTH ESSEX GARDEN COMMUNITIES

EVALUATION OF ALTERNATIVES:

MONKS WOOD, BRAINTREE

May 2017

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EVALUATION OF ALTERNATIVES: MONKS WOOD

Quality information

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01 Introduction

1.1 Introduction

1.1 Introduction

Colchester Borough Council, Braintree District Council and Tendring District Council are collaborating, alongside Essex County Council, to identify an agreed strategic approach to the allocation and distribution of large-scale housing led mixed use development, including employment opportunities and infrastructure provision, in the form of potential “Garden Communities”.

There has been a resurgence in the interest and attention being paid to the potential of Garden Communities and how they fit into the 21st Century Context. With the Town and Country Planning Association (TCPA) as strong advocates at the forefront of this movement, many places have sought to appreciate how a modern interpretation of the original Garden City Principles might address the urgent need to increase the level of housing development in the UK. The intention of the Garden Communities programme is to provide high quality homes, new transport improvements, good schools, jobs and community amenities to be delivered in a strategic and sustainable way. The four councils are in agreement that the TCPA's Garden City Principles provide a valuable initial framework for achieving new settlements that are inclusive and provide genuinely affordable, well designed homes, local jobs and schools, integrated transport systems, high standards of green infrastructure and promotion of health within and beyond the emerging local plan period for each authority of 2032/2033. In response the councils are exploring the potential to establish new settlements in the form of North Essex Garden Communities, for which broad search areas have been identified by the councils for further consideration. This is in the context of the duty placed under the Localism Act 2011 on neighbouring authorities to cooperate on key strategic cross boundary issues in the preparation of their local plans.

As part of their investigation and analysis of the Garden Communities opportunity and its application and suitability to North Essex, the Councils commissioned AECOM to undertake a ‘Garden Communities Concept Feasibility Study’. This was presented across four volumes and completed in June 2016.

Since the submission of this work promoters of an additional site (herein referred to as ‘Monks Wood’) have provided background evidence for consideration.

As a consequence this report provided baseline analysis to the same level of detail as that considered for other search areas and concludes with headline considerations on development capacity, infrastructure requirement and overall assessment.

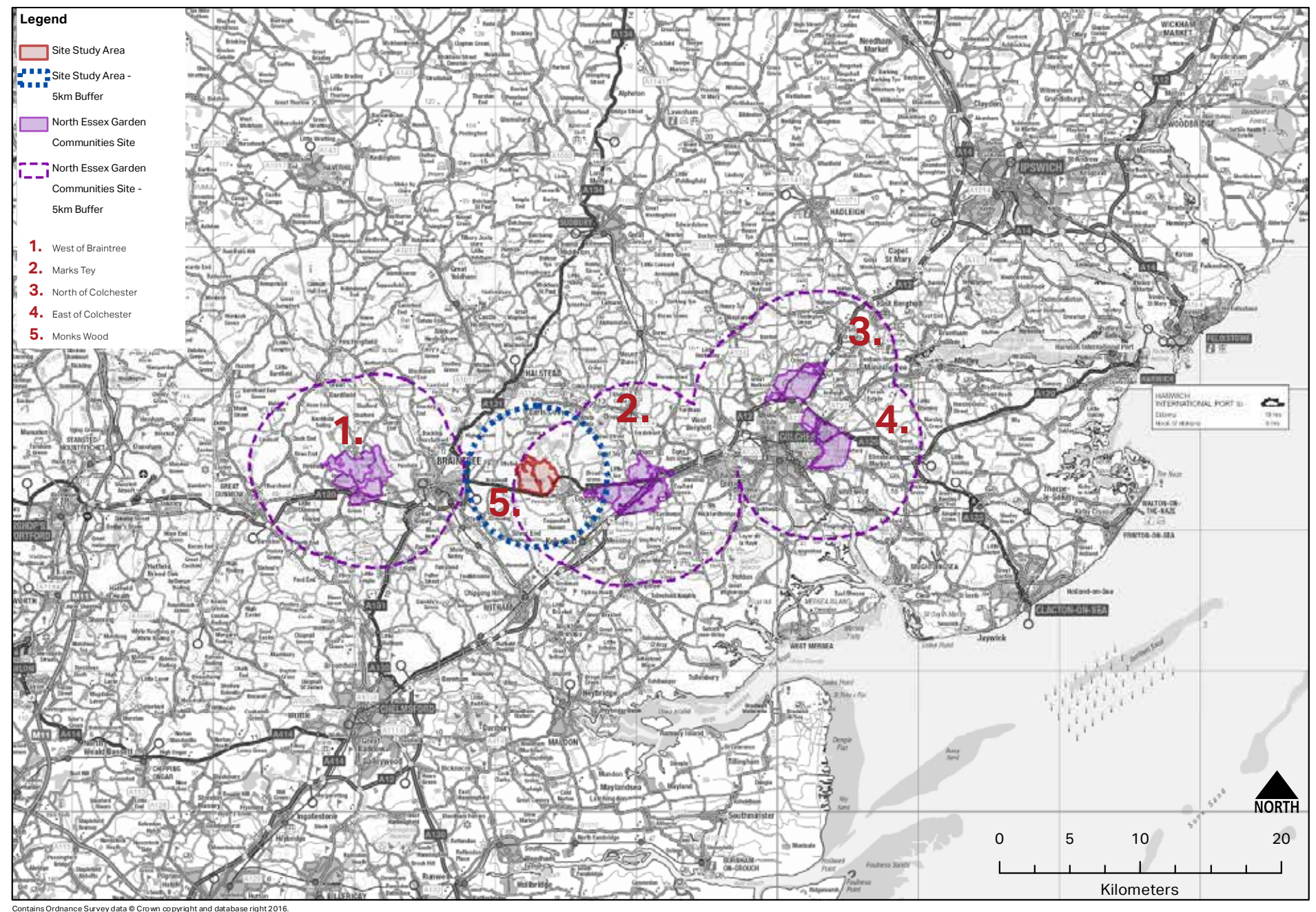


Figure 1: Study Area Context.

Definitions

Throughout this report the following key terms and definitions are used when referring to the Monks Wood Garden Community:

Site Study Area:

The red line boundary as indicated by the site promoters in their submission 'Expression of Interest'.

5km Buffer Zone:

This study area has been defined as a 5km buffer around each proposed site, shown on Figure 2, which in the case of Monks Wood is indicated by a blue dashed line.



Figure 2: Study Area Definition

This chapter provides baseline synthesis and key findings associated with the Monks Wood Garden Village proposal.

It concludes with a high level assessment of development capacity and infrastructure requirement.

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2.1 Site Overview and Landuse

The Monks Wood site is located approximately 5km east of Braintree and 13 km west of Colchester. The southern boundary is defined by the A120 which links Braintree and Colchester via the A12. The settlement of Coggeshall is south east, on the southern side of the A120. The village of Pattiswick is dispersed in small clusters, such as around the Church and Pub, with Stisted and Bradwell in close proximity to the west and south-west respectively. The site comprises agricultural land with a landscape of existing field boundaries and woodland. A number of smaller rural lanes also bisect the site north to south.

The dotted black line shown in Figure 3 represents the maximum potential development area submitted on the 21st March 2017 by the land agent. However, the reduced red line boundary has been submitted as the preferred option and is thus considered throughout the rest of this document.

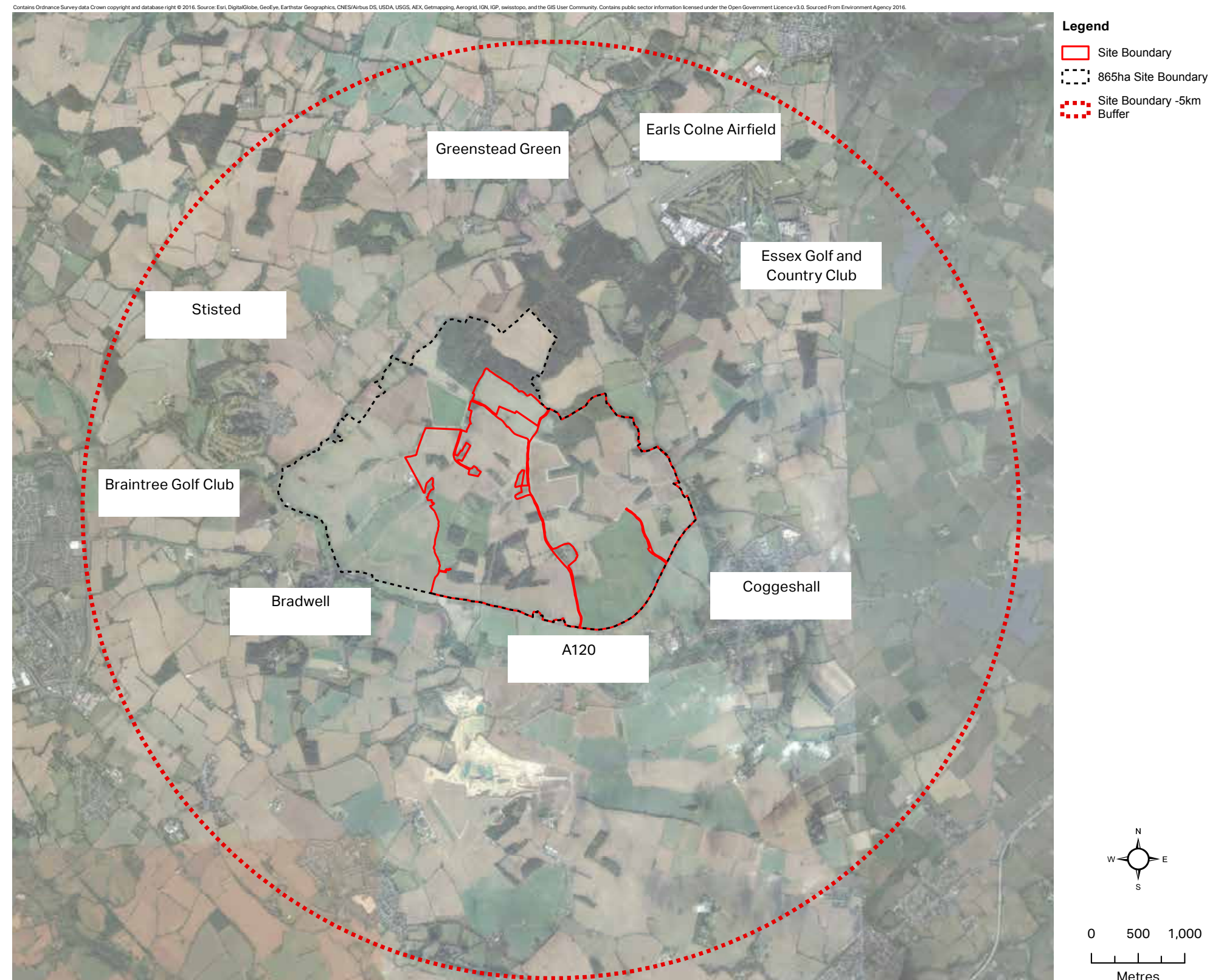


Figure 3: Proposed site (shown with a solid red line) at Monks Wood, with Local Context and wider site.

2.2 Call for Sites

Key Findings

- The Call for Sites process for Braintree DC undertaken to support the development of the new Local Plan identified 6 sites in close proximity to the study area and south of the A120. This estimated a development area which collectively amount to 79.91ha of potentially developable land.
- The individual site details submitted for the Call for Sites, although not specifically for the purposes of a garden community, are shown below in Table 1.
- It has been suggested by the promoters of Monks Wood Garden Village (a site submitted after the Call for Sites and referenced COGG 641 below) that a first phase could deliver 1,500 homes and 60,000m² of commercial space.

Call for Sites Reference	Location	Proposed Use	Site Area (ha)
COGG 641	Coggeshall (& Bradwell) North West Coggeshall. Submitted Summer 2016 during Draft Local Plan preparation (therefore not in 2016 SHLAA)	Residential (at least 5,000 homes)	539 ha
Sites to south of A120			
COGG 177	Land north of Ambridge Road/ Robinsbridge Road, Coggeshall	Residential Estimated yield of 500 (SHLAA)	19.3 Ha
COGG 180	Coggeshall West: Land at Highfields, Coggeshall	Mixed Use / 127 homes	25.9 Ha
COGG 175	Vicarage Fields, West Street, Coggeshall	Residential- Estimated yield of 127 homes	4.78 Ha
COGG 629	Land at Westland Nurseries, West Street, Coggeshall	Residential for 55 dwellings	3.83 Ha
COGG 640	Land North of West Street, Coggeshall	Residential circa 100 units	5.9 Ha
COGG 623	Land South Of West Street, Coggeshall	Residential 200 Units	20.2 Ha
Total Site Area: 618.91 Ha			

Table 1: Braintree DC Call for Sites

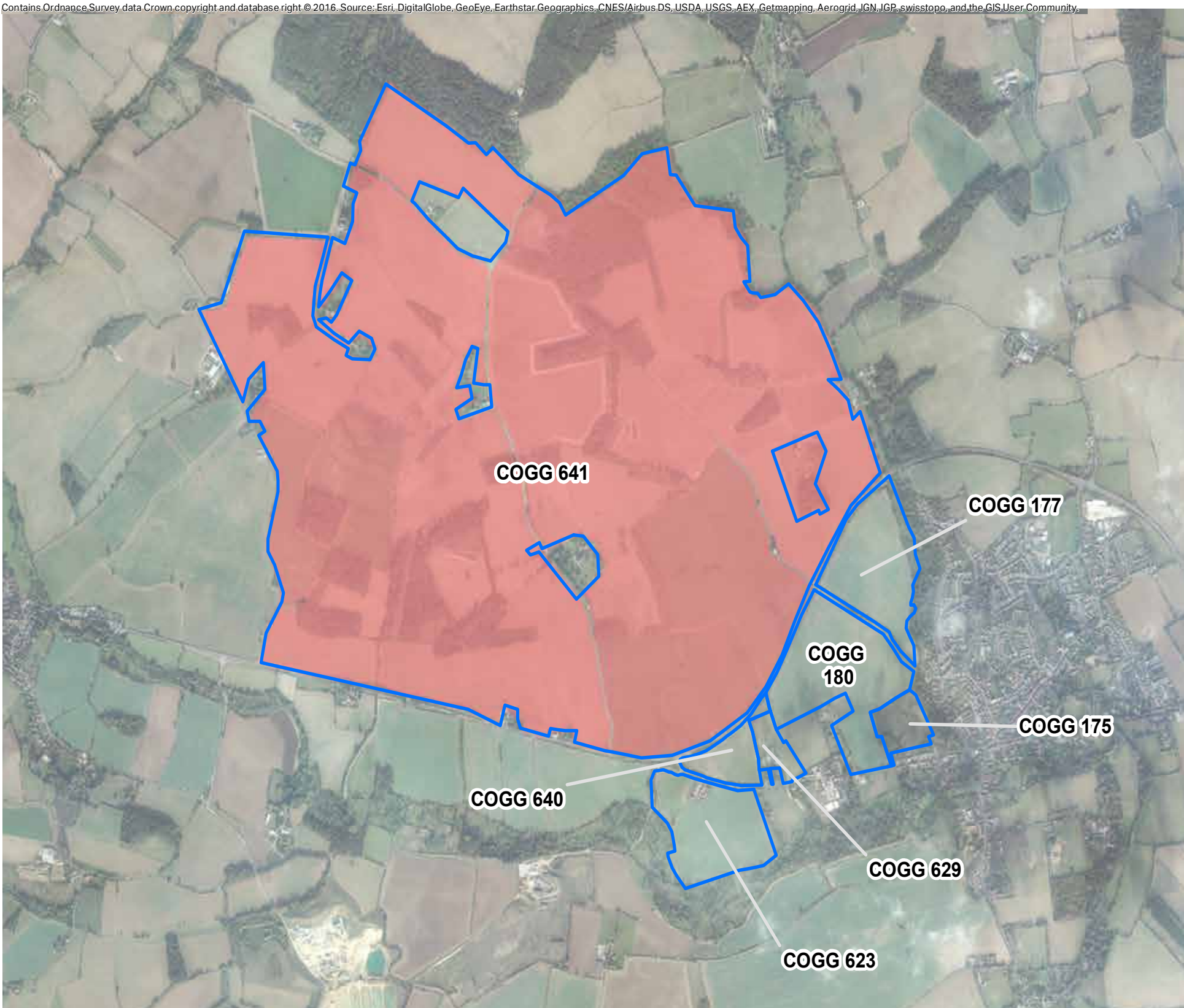


Figure 4: Braintree DC Call for Sites

2.3 Land Promoters and Development Agreements

Key Findings

- The land is in the single ownership of the Hill family and promoted by Lightwood Strategic Ltd.
- There are also a number of much smaller parcels of land in private ownership in close vicinity to the site identified through the Call for Sites process which are not currently included in the red line boundary. These are shown in Figure 4 to occupy the land between the south east of the site and Coggeshall.

Table 2: Preparation Documents Commissioned by Promoter to Date

Document	Prepared By
Monks Wood, Braintree, EOI	Lightwood Planning

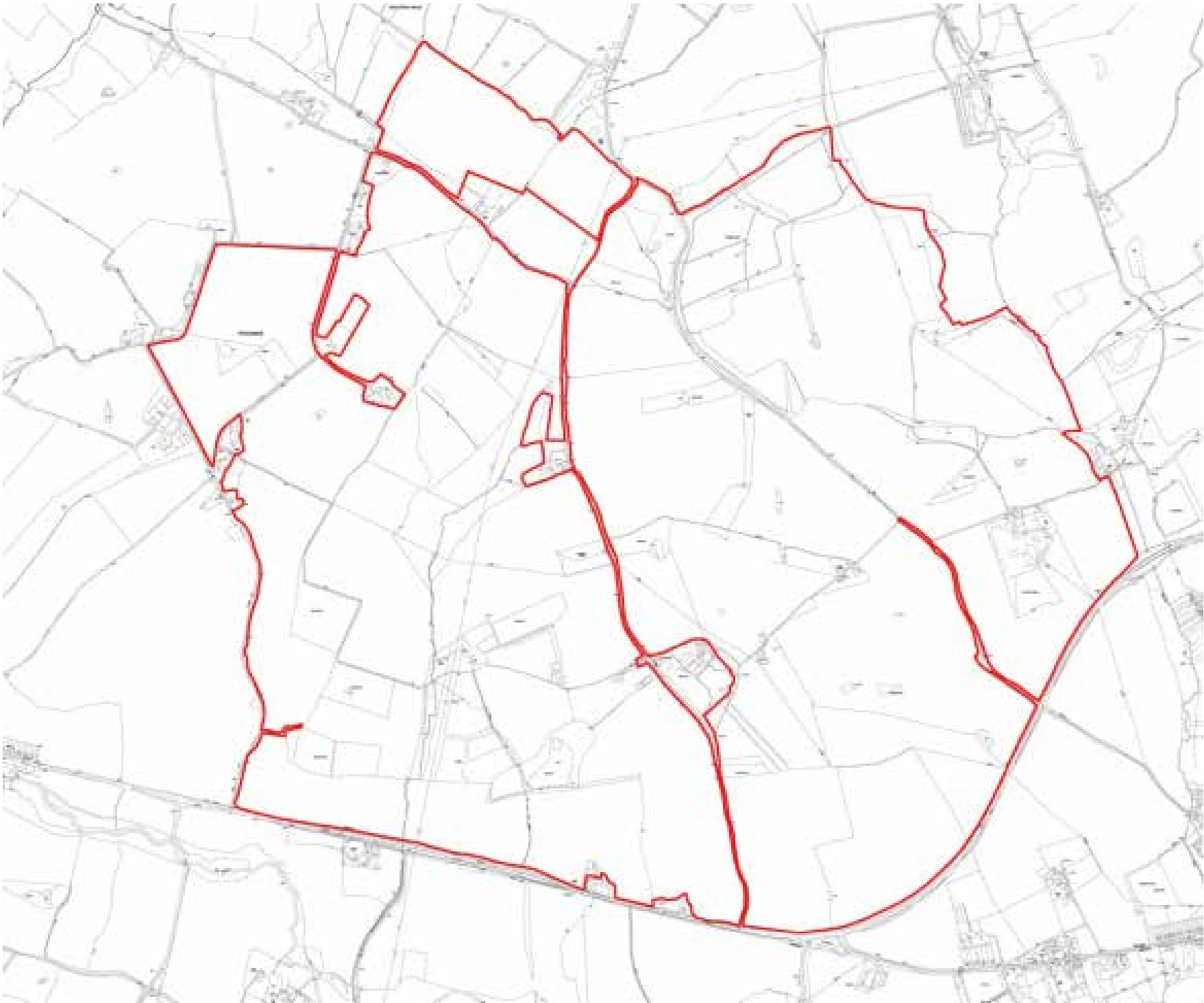


Figure 5: Monks wood - Land under the ownership of the Hill Family.

2.4 Surrounding Settlement Hierarchy

Key Findings

- The settlement of Braintree lies 5km to the west with Colchester 13 km to the east.
- Coggeshall is the closest settlement to the proposed boundary that offers access to facilities as a Key Service Centre. Earls Colne - also a Key Service Centre- is situated to the north beyond the 5km buffer.
- Kelvedon, to the south of Coggeshall and just outside the 5km buffer, is also a Key Service Centre with a railway station providing direct mainline rail access to Colchester and London.
- Other settlements in the immediate vicinity are low density villages with strong rural character such as Pattiswick, Stisted and Bradwell.

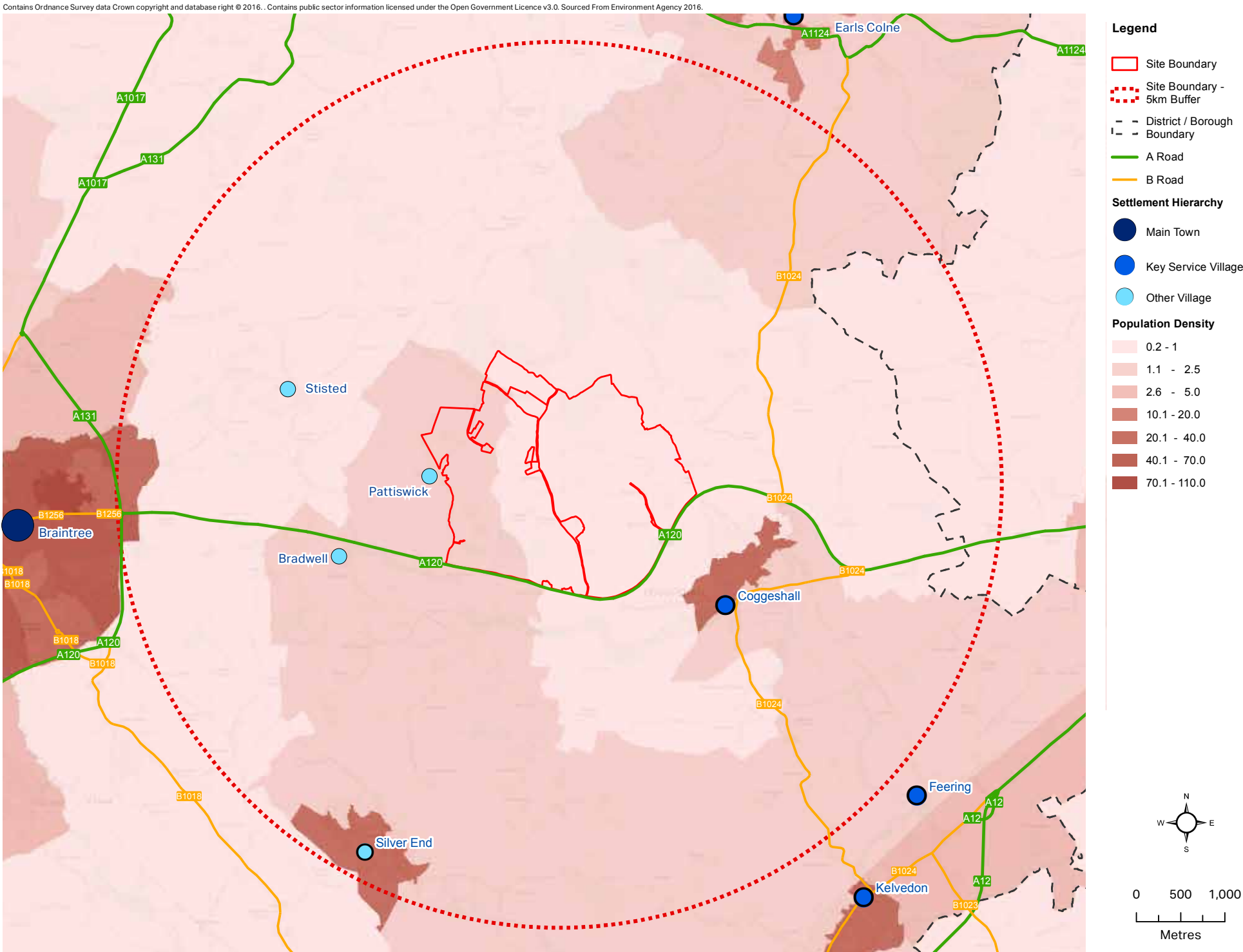


Figure 6: Monks Wood Settlement Hierarchy. Source: AECOM

2.5 Economic Context

Key Findings

- The closest concentration of existing employment to the site is in and around the village of Coggeshall. The village centre is home to a small cluster of service orientated businesses, with the Priors Industrial Estate located adjacent to the A120 on the northern edge of the village. Because the A120 is part of the strategic road network with connectivity to Stansted Airport and the Haven Gateway ports (Harwich and Felixstowe), the businesses located here have a focus on logistics and distribution. The Earls Colne Business Park lies approximately 3km north-east of the proposed boundary and provides space for around 40 businesses, as well as the Essex Golf and Country Club and the Anglian Flight Centre.
- The closest main urban centres, providing a variety of established services, existing businesses and employment opportunities, are: Braintree (and Braintree Freeport) approximately 5km west, and Colchester approximately 13km east. In addition a linear pattern of retail, leisure and other business types, including formal business parks (Tollgate Business Park and Westside Centre), is found between Marks Tey and Stanway, within 10km of the Monks Wood site area. All these concentrations of employment are readily accessible to the site from the strategic road network (A120 and A12),
- As evidenced by the Braintree District Employment Land Needs Assessment 2015, current levels of employment self-containment are low, with more residents working outside the district than in. Key centres for employment outside of Braintree include Colchester as mentioned, but also Chelmsford and London. Assuming that a degree of out commuting would continue from any new garden community, the rail stations of Marks Tey, Kelvedon and Witham on the Great Eastern Mainline (GEML) are each reasonably accessible (within 30 min drive), providing a sustainable transport link to these centres and associated employment opportunities. However, without its own railway station, the Monks Wood site would require other forms of connecting public transport, such as rapid bus transit, to create sustainable first leg journeys.
- Stansted Airport is a further source of employment for residents of Braintree. It is accessible from the A120 and within an approximate 30 minute drive. Planned improvements to the A120 in the vicinity of Monks Wood may reduce this, though its extent may be dependent on the selected road alignment. In addition, as the UK’s third largest freight airport, an expansion of freight volumes could further increase logistics demand in the area. The A120 improvements would also be beneficial to this, especially in the added context of the Haven Gateway ports and planned upgrades to the A12 in the vicinity of Marks Tey.
- The site location is within the zone 1 retail catchment areas of both Braintree Town Centre and Braintree Freeport. A certain level of retail needs generated from any new community might therefore be expected to be met from these centres. This proximity would therefore need to be taken into account in the planning of the garden community and its own centre.
- Overall as a prospective employment location the site has a number of potential benefits, notably strategic connectivity, albeit the current single carriageway configuration of the A120 between Braintree and Marks Tey on which the site is located, potentially limits the site’s suitability as an employment location. The site will equally face competition from more established employment locations in and around both Braintree and Colchester, together with Witham and Chelmsford, with the latter especially relevant with respect to office based employment and the importance of a London connection. To attract future businesses flexible and complimentary employment space is most likely to be in demand.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Figure 7: Monks Wood Economic Context. Source: AECOM.

2.6 Utilities

Key Findings

Electricity

- There is spare capacity available at Coggeshall Primary substation. An 11 kV connection will be required between Coggeshall Primary substation and Pattiswick; approximately 2 km of overhead lines and buried cables. Furthermore, an existing 400 kV cable currently runs across the site.

Water supply

- The Anglian Water Resource Zone that Pattiswick is situated within is forecast to be in a deficit condition by 2039, resulting in additional importation of water from neighbouring areas being required. This forecast is based on the current rate of growth in the area; any additional growth in population will result in the deficit occurring at an earlier date.

Gas

- Intermediate and High pressure networks have adequate capacity. Medium and Low pressure networks will require reinforcement and extension to service new developments.

Waste Water

- Pattiswick does not sit within the catchment area for a Wastewater Treatment Works (WwTW). The Coggeshall works sit to the east and the Stisted works sit to the west. Coggeshall WwTW is currently assessed as having sufficient volumetric capacity (headroom between the permitted dry weather flow and the demand) and process capacity (relating to the volume of water a WwTW is capable of treating to the required quality standards set by the discharge permit). Stisted WwTW is a smaller works and was not assessed for volumetric or process capacity in the latest study due to the absence of planned growth within the catchment.
- Anglian Water have confirmed that the Coggeshall, Great Tey and Bocking water recycling centres can accept limited inflows during the Anglian Water's planning period to 2032. All would require a form of pumping to serve Pattiswick.
- The water courses in this area of North Essex can be sensitive to phosphate levels contained in treated effluent discharged into them from water recycling centres (WRCs). As such it is possible that additional treatment processes may be needed to achieve a higher quality effluent standard. Alternatively, or in addition, it may be necessary to pump and discharge to a less a sensitive water course. It is not possible to confirm what the actual solution might be at this time for a new Garden Community at Monks Wood, and further investigation would be required. But it is possible that the additional infrastructure costs might be incurred.

Telecommunications

- BT Openreach has made a commitment to supply high speed fibre optic broadband to all development over 30 dwellings at no cost to the developer.

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Sources

- Anglian Water
- BT Openreach (October 2016)
- UKPN Distributed Generation Map
- National Grid GGas (September 2014)

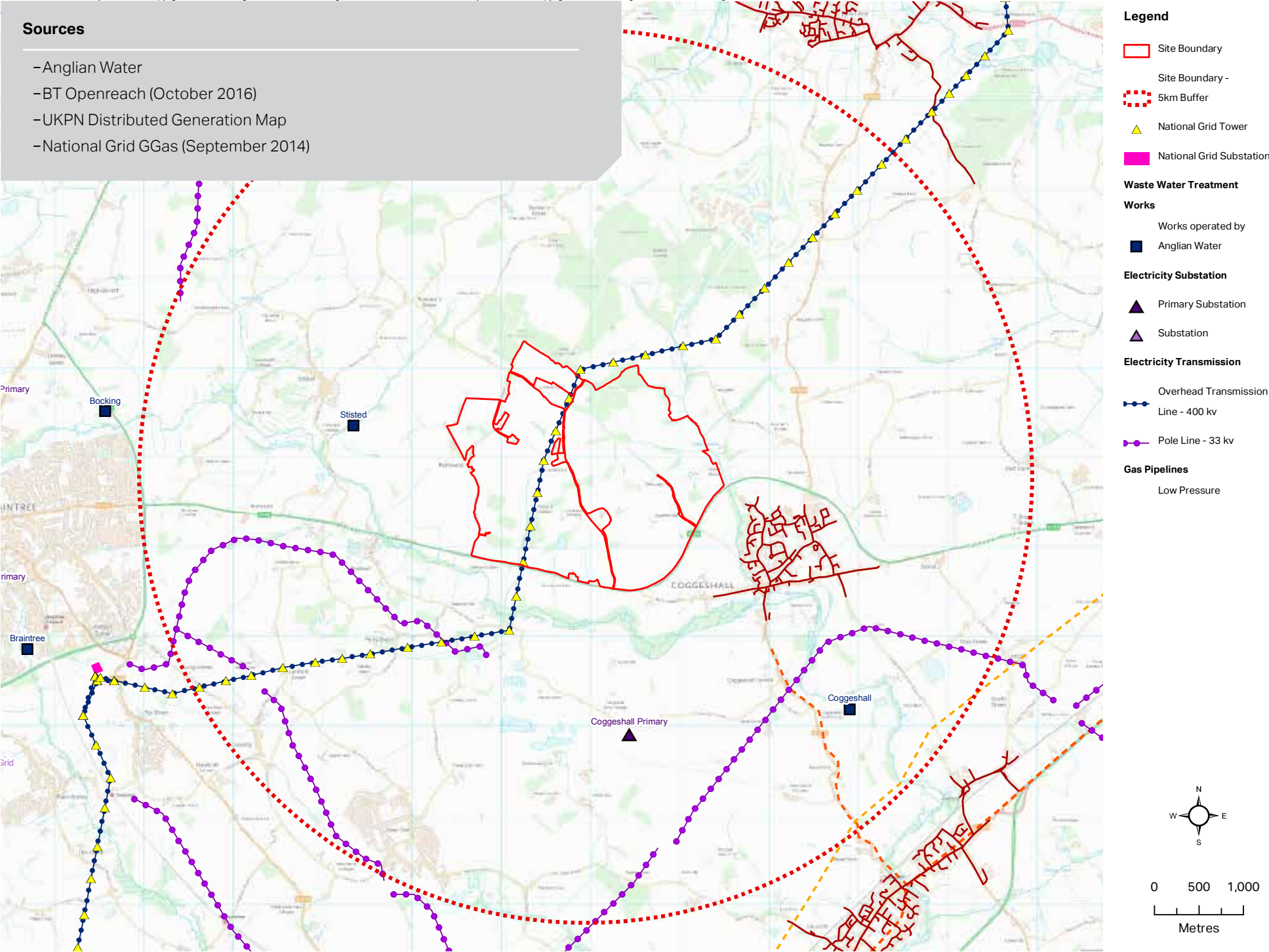


Figure 8: Monks Wood Utilities. Source: Anglian Water / National Grid

2.7 Landscape Character, Sensitivity and Condition

Key Findings

- The existing topography is broadly defined by the Blackwater River Valley, with the site situated just to the north on a gently undulating plateau sloping to the south.
- Forming part of two distinct Character Areas; High Garrett/ Markshall Wooded Farmland and the Blackwater River Valley. The former is described as a flat to undulating landform with a strong pattern of large and small woods, with medium to large arable fields, bounded by low well trimmed thick hedgerows and some mature hedgerows trees. The site slopes down to the River Blackwater, which is described as having gently sloping valley slides, with arable farmland as the predominate landuse on the valleys slopes.
- The settlement pattern is characterised by scattered farmstead and large Halls with their associated estates.
- Forming part of the South Suffolk and North Essex Clayland National Character Area, the geology consists of boulder clay, patches of brick earth, and river gravels and alluvial deposits in the immediate vicinity of the river.

Sources

- Natural England, National Character Areas - GIS Digital Boundary Datasets
- OS Terrain 50
- Natural England GIS Digital Boundary Datasets
- Environment Agency Geostore
- Soilscape, National Soil Resources Institute (accessed through magic.co.uk)
- Landscape Character of Braintree District

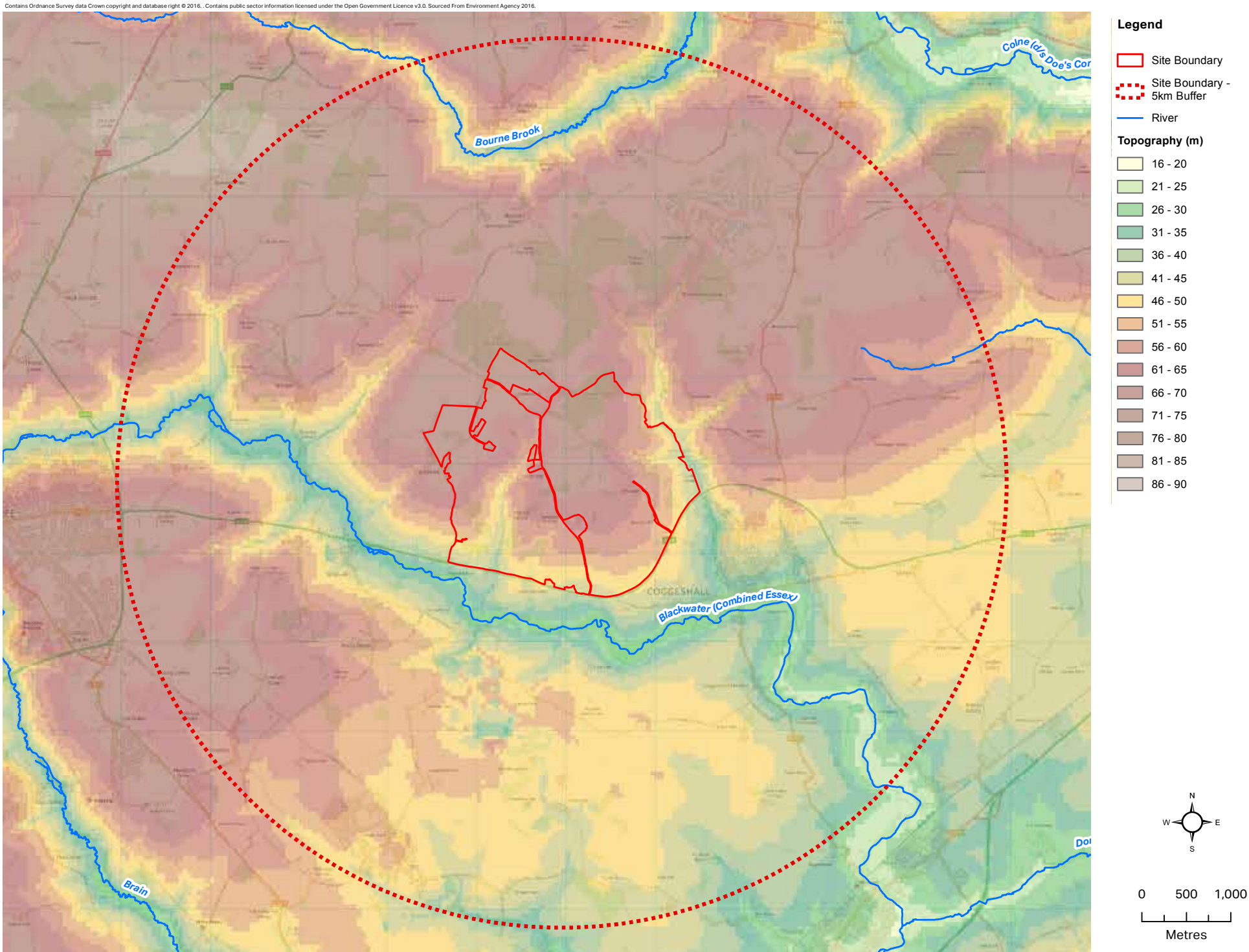


Figure 9: Monks Wood Landscape and Topography. Source: Natural England / Environment Agency

2.8 Agricultural Land Classifications

Key Findings

- The quality of agricultural land is predominantly Grade 2 -Very Good.
- The south-eastern edge of the site is classified Grade 3 - Good to Moderate which defines the River Bllackwater Valley.
- A bank of woodland (non-agricultural land) defines part of the northern boundary.

Sources

- Natural England, National Character Areas - GIS Digital Boundary

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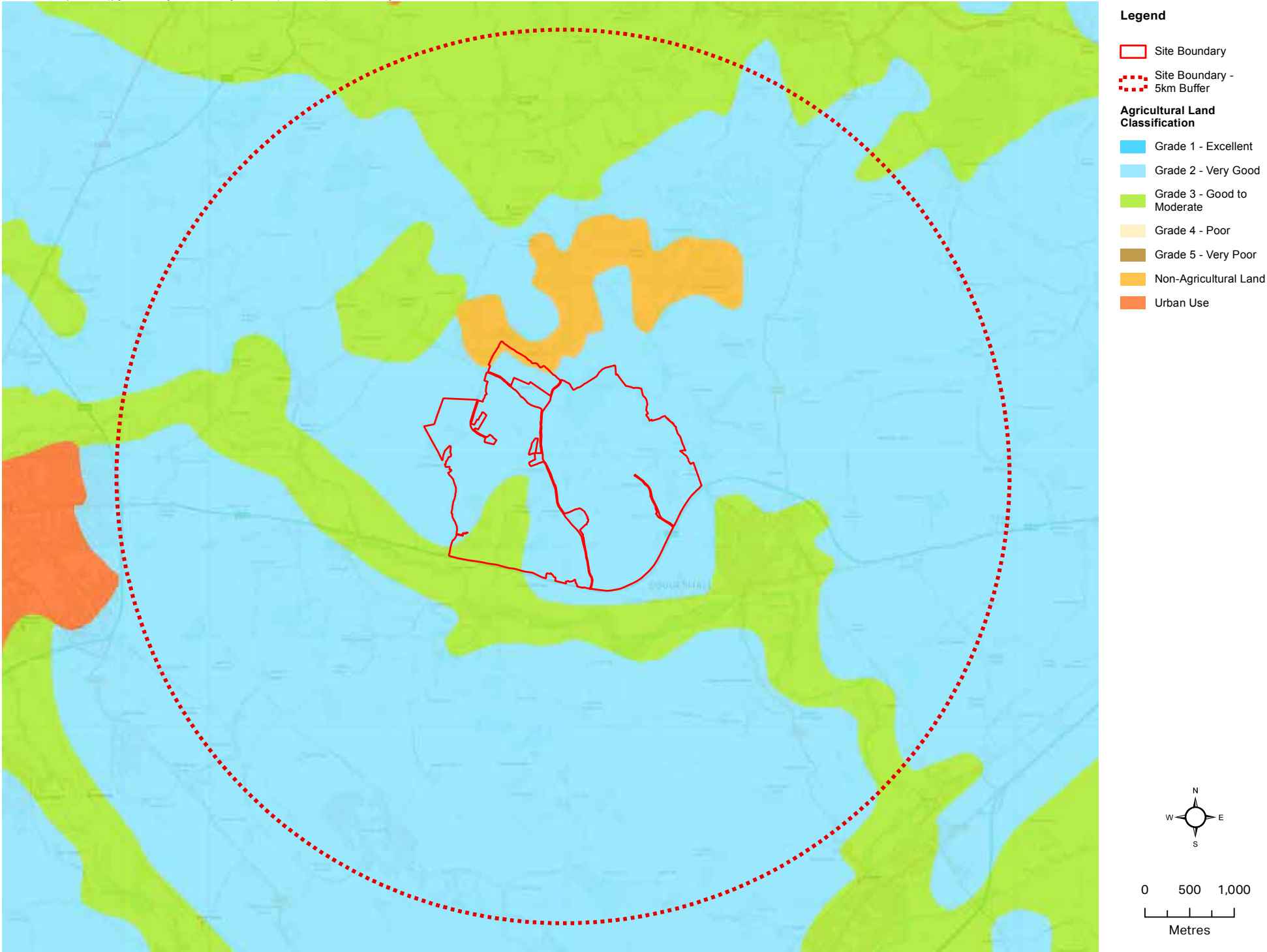


Figure 10: Monks Wood Agricultural Land Classifications. Source: Natural England

2.9 Ecological Designations

Key Findings

- The area around the site study area has a rich and varied ecological baseline with a mosaic of habitats including: ancient woodland, arable fields, semi-improved grassland and the River Blackwater.
- Of particular importance is the nationally designated Belcher's and Broadfield Woods SSSI. This is located within the 5km buffer area.
- There are a number of Local Wildlife Sites (LoWS) both in and around the site study area. These are designated mainly for woodland habitat.
- The LoWS should be retained within any new development and green linkages made between them and to existing habitat located on the periphery of the site.

Sources

- Natural England, National Character Areas - GIS Digital Boundary Datasets
- OS Terrain 50
- Natural England Designated Sites Citations
- Essex Wildlife Trust for LoWS

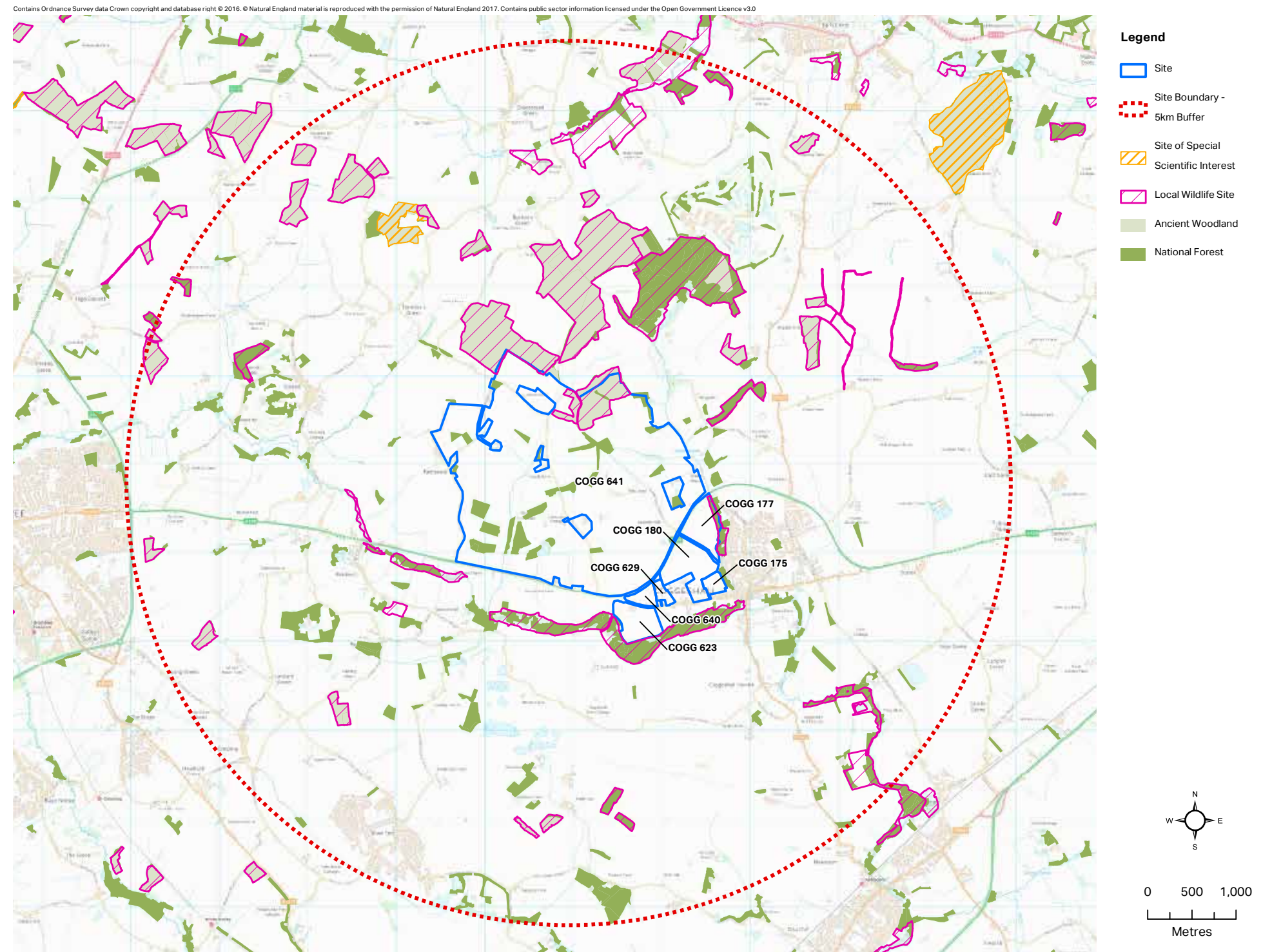


Figure 11: Monks Wood Ecological Designations. Source: Natural England / Environment Agency

2.10 Parks, Recreation and Historic Environment

Key Findings

- Of particular note is the Coggeshall Abbey Scheduled Monument, located to the south east of Coggeshall. However, it is not in the site area and is likely to be screened from any potential development by the village of Coggeshall itself.
- The study area contains a number of Listed Buildings (Grade I, II and II*). There are 24 Listed Buildings within or on the immediate periphery of the site area. These are predominantly buildings, including farm houses and cottages but also include a dovecote, church and a retaining wall. The setting of these buildings should be of key consideration with any new development.
- The Braintree District Historic Environment Characterisation Report details that there appears to have been settlement in and around the Coggeshall area from the Mesolithic period onwards. In the Roman Period Stane Street ran through Coggeshall to Colchester. There have been a number of excavations in Coggeshall, including on the Roman farmstead and in the area between the river and market-place. These have demonstrated the survival of archaeological features and deposits.

Sources

- Braintree District Historic Environment Characterisation Report
- Braintree Historic Environment Characterisation (2010)
- OS Terrain 50
- Natural England GIS Digital Boundary Datasets
- Historic England

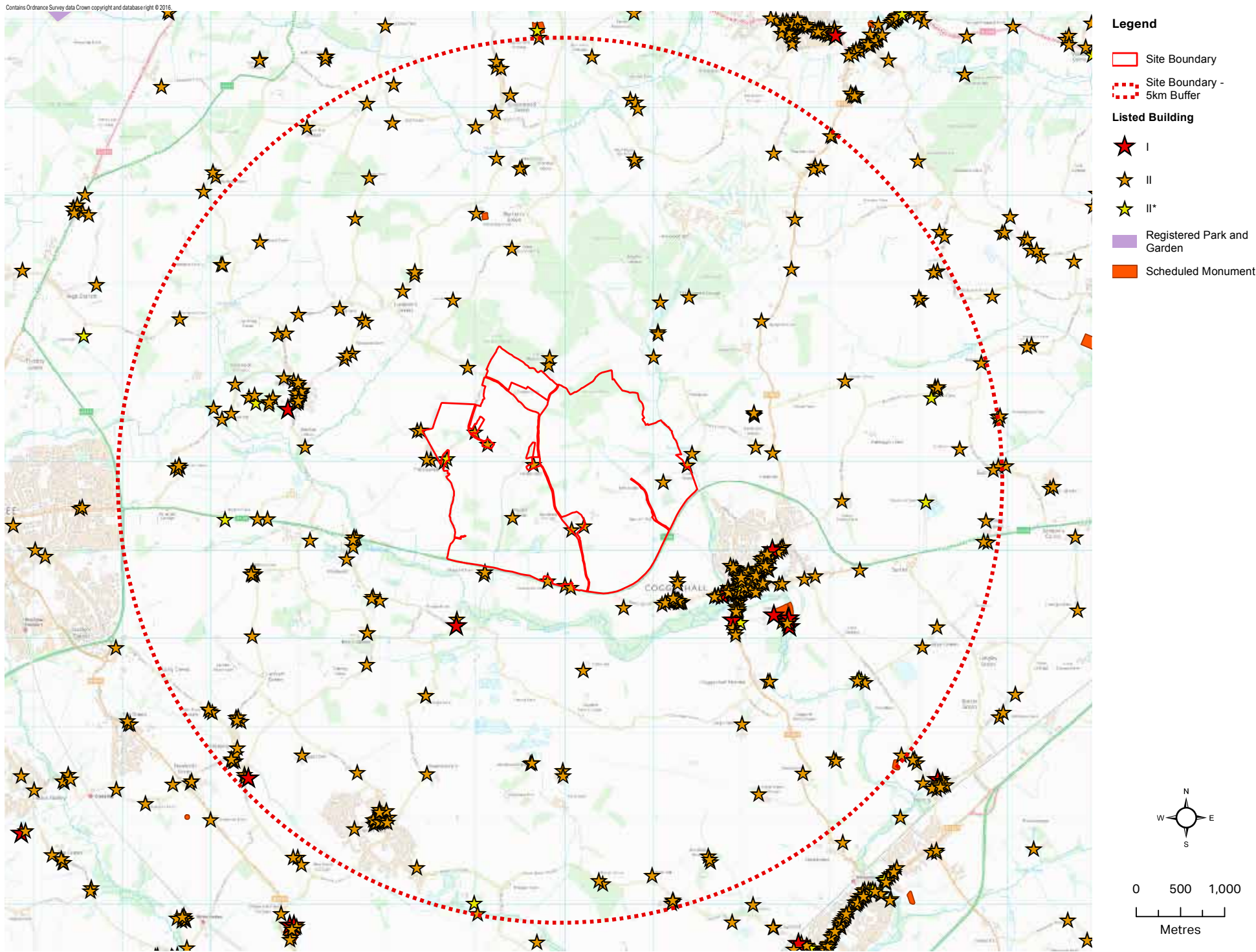


Figure 12: Monks Wood Recreational and Heritage Assets. Source: English Heritage / Natural England

2.11 Water Cycle

Key Findings

- The study area is located within the Blackwater River catchment. This River flows from west to east outside the development area to the south, on the opposite side of the A120, southwards into the North Sea at Maldon. Robbin's Brook flows along the eastern boundary of the development, north to south. A small brook flows through the western half of the site also from north to south. A number of smaller ditches and streams also dissect the area.
- Within the study area there is an undulating landscape that generally falls from the north to south.
- The Blackwater River is classed as a heavily modified watercourse, with a moderate ecological status and good chemical status.
- Land within the study area drains to a priority water which is considered to be 'at risk' from agricultural diffuse pollution sources. The entire site is within a surface water and groundwater Nitrate Vulnerable Zone. There are no water recorded abstraction licenses within the development area or groundwater source protection zones. The site is however within a surface water drinking water safeguard zone for pesticides and nitrates.
- Flood risk from rivers has little impact on the site. The Flood Zone 2 and 3 extents from the Blackwater River remain outside the development area. The flood extents from the Robbins Brook run along the development area with both Flood Zone 2 and 3 along the margins of the site. Flooding from surface water is more widespread, but generally limited to highways and areas along the natural drainage paths in the topography. The area is not considered to be at high risk of groundwater flooding.
- Potable water is supplied by Anglian Water and falls within their South Essex water resource zone. This zone takes supplies from a variety of sources including groundwater sources and surface water pumped from the River Colne into storage at Ardleigh reservoir, which is jointly owned with Anglian Water. The South Essex water resource zone has a greater than 90% chance of being in supply deficit by 2040 without further intervention. This is due to growth in households and target headroom requirements. Planned mitigation by Anglian Water takes the form of demand management and amendments to the Ardleigh agreement with Affinity Water over the resources in the area.

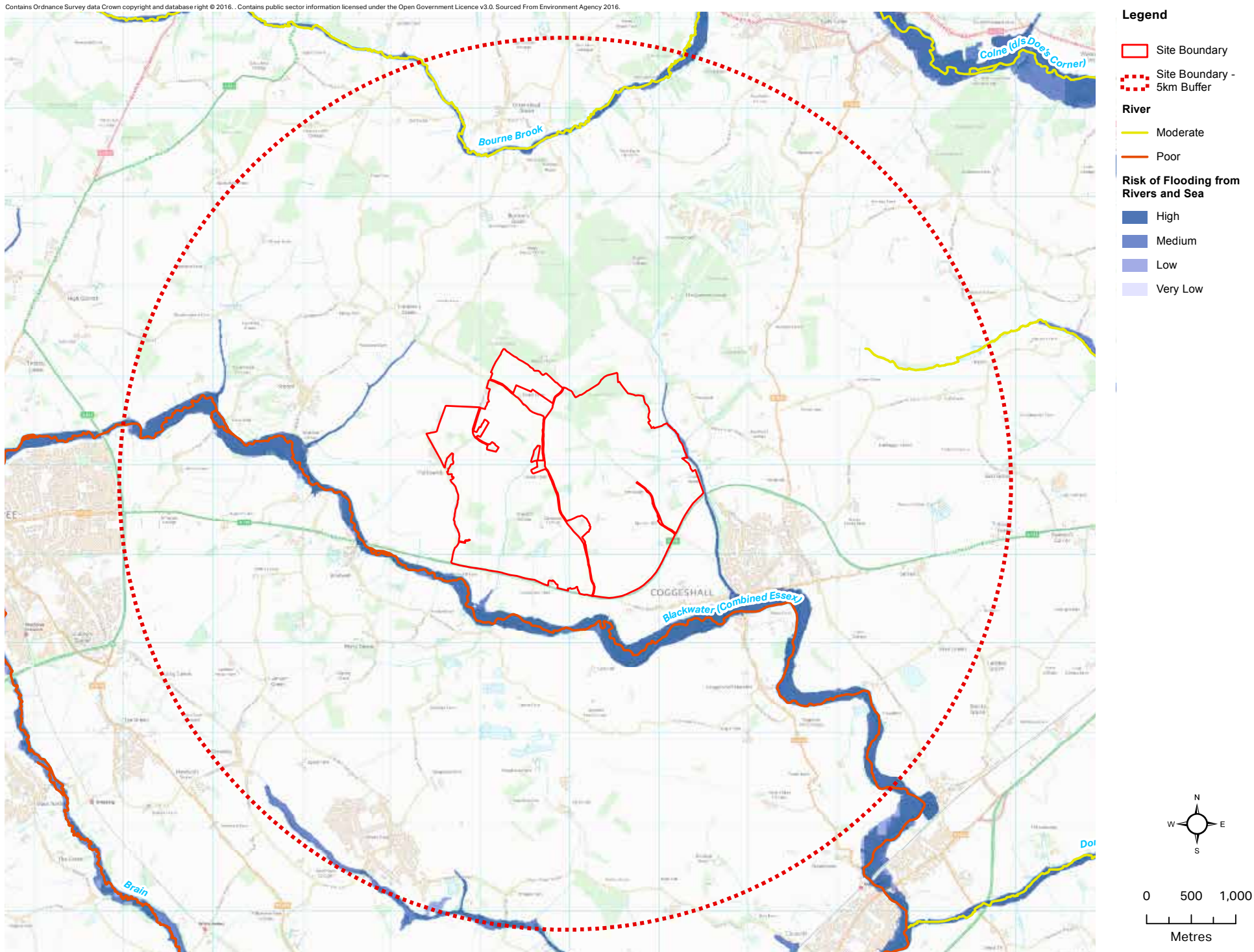


Figure 13: Proposed site at Monks Hill Water Cycle. Source: Natural England / Environment Agency

Sources

- Environment Agency Catchment Data Explorer, Environment Agency website (27th February 2017)
- Environment Agency WIYBY online maps, Environment Agency website (27th February 2017)
- Environment Agency Long Term Flood Risk Information, Gov.uk website (27th February 2017)
- Final Water Resource Management Plan 2015-2020, Affinity Water (June 2014)
- Haven Gateway Water Cycle Study Stage 2 Report, Haven Gateway Partnership (November 2009)
- Level 1 Strategic Flood Risk Assessment Final Report, URS (May 2015)
- Waste Water Treatment Works Needs Assessment in Essex and Southend-on-Sea Final Report, URS (June 2014)

2.12 Movement and Connectivity

Key Findings

Travel Patterns

- 2011 Census mode share data for the LSOAs in which the Monks Wood site sits demonstrates a strong reliance on individual motorised modes with 67% of all work related trips undertaken by either car or motorbike. Public transport trips (17% of all work related trips) appear relatively high given the absence of a rail station within close proximity to the site. This is likely explained by the fact that the Census data is main mode of transport and therefore a high proportion of commuters in this LSOA drive to the stations of Braintree and Marks Tey, i.e. drive is their 1st leg and rail is the 2nd leg. Walking and cycling (active modes) work-related trips account for 9%, with 1% cycling and 8% walking. The Census data set in which the site sits also includes the edge of Coggeshall which would likely result in this data set being skewed slightly, given the area of interest is predominantly rural whilst Coggeshall may likely see higher walking to work statistics. The output area used is the lowest possible for which the variable exists however.
- The majority of journeys to work are shown to be between 5 and 20km (34%) whilst journeys over 20km represent 28%. This would suggest that a large proportion of trips would require a motorised form of transport based on current home - work trips (62% of total trips). Journeys fewer than 5km represent 16% and under 2km this drops to 10%. When considering both travel including and excluding (13%) working from home as a comparison, the figures remain consistent. Therefore the influence of settlements of Coggeshall and further afield the edge of Braintree appear to be considerable and thus suggest a localise draw, even though the current site sits within an rural and somewhat isolated location at present.
- Braintree District is characterised by a substantial but lower level of self-containment of travel patterns than other North Essex districts with 46% of people living and working in Braintree. The main travel movements to work outside of Braintree are toward Chelmsford and London, both representing 12% of Braintree's working population commuting to these destinations.

Road

- The A120 trunk road borders the southern edge of the site, which in this location is a single lane carriageway in both directions. This section of the

Key Findings

- A120 currently experiences congestion and journey time issues due to the constrained nature of the link capacity along this section of the road.
- A recent publication and consultation process has taken place led by ECC in partnership with Highways England exploring the potential future re-alignment of the A120 from Braintree to the A12. The realignment, whether on-line with the current alignment or a new alignment altogether, will probably alleviate the current congestion issues on the single carriageway sections of the A120.
 - The Braintree Local Plan modelling identifies Marks Farm roundabout and the A120/B1024 junction in Coggeshall as overcapacity in its full development scenario (2032). This includes significant development on sites at West of Braintree, Marks Tey, Great Notley and along the eastern edge of Braintree settlement. However, it is important to note that the Local Plan modelling does not assume major development in or surrounding Pattiswick.

Rail

- The Monks Wood site is not served by a railway station.
- Kelvedon Station is the closest station some 5.6km to the southeast of the site. It can accessed via the B1024 and provides access to mainline services with approximately two services an hour towards Colchester and three services an hour to Liverpool Street
- Braintree and Braintree Freeport are both located approximately 5km from the site via the A120. They provide access to the Braintree branch line, which is currently limited to one service per hour towards Witham.
- Marks Tey station is located at about 14km drive from the site using the A120 and provides access to the Great Eastern Main Line services with four trains per hour in the direction of Colchester and London.

Key Findings

Public Transport

- The area is served by several strategic bus routes operating on the A120, these include the following:
 - National Express 250 between Ipswich and Stansted with 11 services per day (including night services)
 - Route SX 133, Stansted to Braintree with a service frequency of 1 bus per hour. This service also offers a much less frequent service to Colchester.
 - Route 70 connecting Colchester with Chelmsford via Braintree with 2 to 3 services per hour
 - Route 803 connecting Witham to Harwich via Braintree with 2 to 3 services per day.
- These bus services do not currently stop near to the Monks Wood site. The closest bus stop for bus route 70 is located on West Street in Coggeshall (1km+ from the site). Other long distance services stop on the A120 at Bradwell (2km+ from the site).

Sources

- North Essex Garden Communities Baseline Compendium, June 2016
- Braintree Local Plan Options Assessment, February 2016
- Anglia Route Study, Network Rail, March 2016
- Google Maps, consulted February 2016

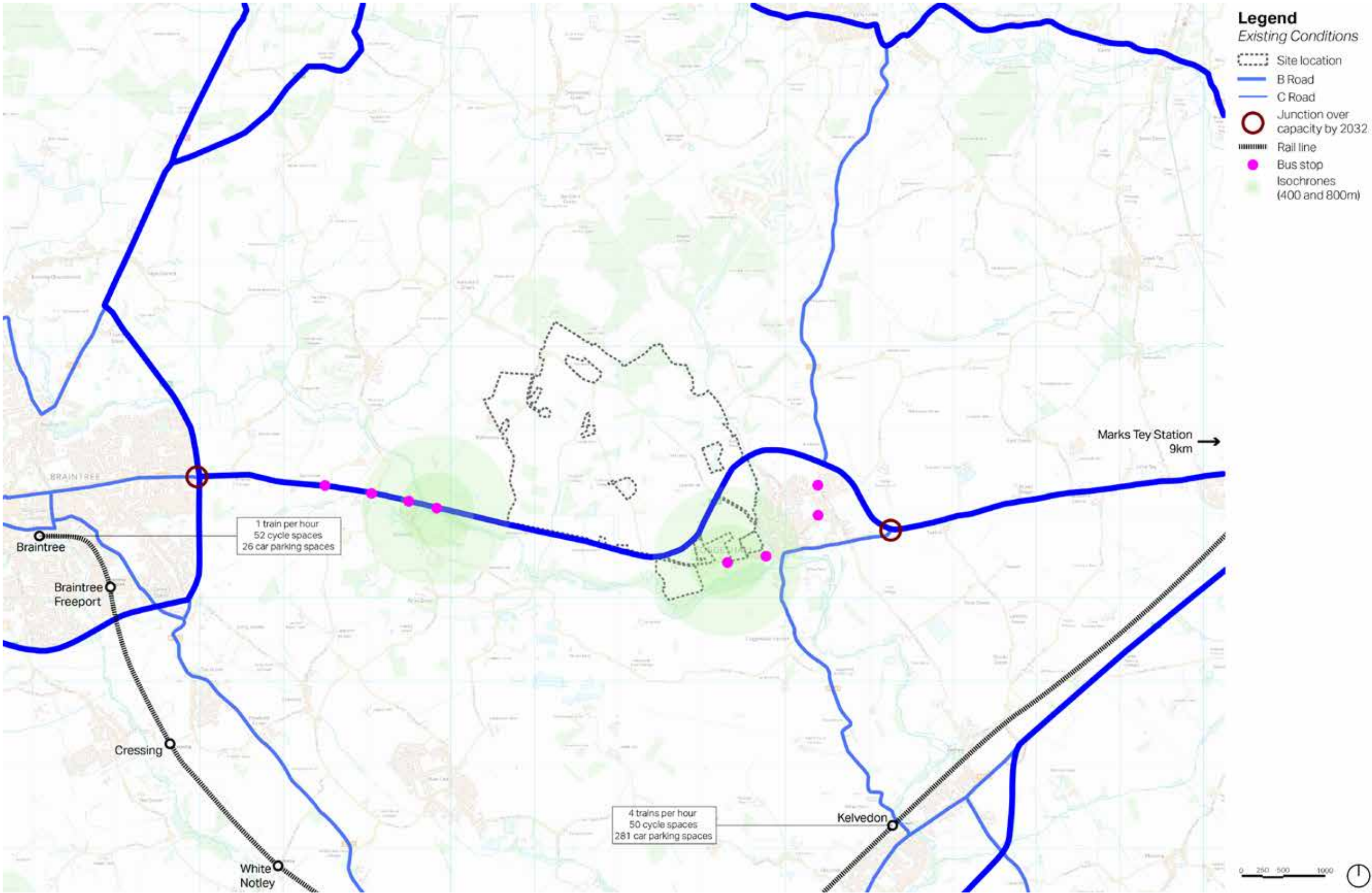


Figure 14: Monks Wood- Transport Context

Opportunities and Constraints

Travel Patterns

- Opportunity to plan towards a more sustainable modal split for this area and others in Braintree will allow mitigation of the impact on the network by not reproducing the current high levels of car usage and ownership.
- Existing modal splits need be challenged and reflect the transit-oriented development (TOD) nature of the identified sites as one of the main Garden Communities principles. For that, opportunities to encourage sustainable travel in and around Pattiswick should be sought, including improvements to walking and cycling infrastructure and public transport provision.
- The absence of a rail station is a detriment to the future development of Pattiswick to improve sustainable movements to main employment areas and reduce the need for car usage and ownership.
- Given the rural location of the area under investigation, innovative car sharing / car hire schemes should be explored, but at this time are unlikely to be particular viable to operators unless a critical mass can be assumed.
- Given the current share of work trips consisting of journeys of less than 5km is 16%, with a further 10% categorised as less than 2km, this represents a potential target for short distance journeys to be undertaken by walking or cycling if the infrastructure requirements are met, such as safe and secure cycling routes and cycle parking to encourage those trips. This will remain a challenge for external trips outside of the site however, given the location of the site to existing larger settlements and the potential severance created by the A120. However with the correct infrastructure implementation, movement within the site and to the localised periphery is evidently possible and should be focused on, given short distance trips by car cause the majority of local congestion and could be avoided through clear design and transport strategies.

Road

- The Local Plan modelling does not include development sites identified around Pattiswick. This would suggest that even without development in Pattiswick the highway network is constrained and will require mitigation measures to ensure development can be accommodated. This would require further modelling assessment in future to ensure the impact of this proposal is adequately assessed and mitigatiomeasures put forward.

Opportunities and Constraints

- Constraints to access maybe in the form of unsuitable existing road networks and the ability to form access from these. This hinders the ability for the network to accommodate multiple new developments that are self-contained in their location and with sufficient accessibility to ensure there are good linkages between developments without relying on car movement throughout the town.
- Access would likely be formed in two main locations from the A120 (current alignment). Junctions are likely to be at grade and signalised in order to allow for future bus priority and to accommodate future traffic flows
- As part of the newly proposed A120 scheme, traffic reductions are expected in key settlements such as Coggeshall. This would reduce the volumes of traffic using the A120/B1024 junction, subsequently improving its performance in the case of Option B, C, D or E being taken forward and offering the possibility for the existing alignment to be developed as a rapid transit corridor.
- On the other hand Option A, which is the only one reusing part of the existing A120 alignment, will be likely to improve performance and access to the site. However, it will also be likely to create a severance between the site and Coggeshall and limit the opportunity to develop this corridor as a prime public transport corridor.
- It is unlikely that the existing rural road network to the north would be suitable nor appropriate for upgrading given the nature of these and character.
- New junctions should allow for bus priority routes off the A120 through the site.

Public Transport

- Given the location of the site to existing urban settlements and stations, it appears unrealistic and challenging to consider a rail station at Pattiswick given the status of any potential new east-west rail line between the GEML and Stansted. However, located halfway between Marks Tey and Braintree, this site could benefit from the wider public transport proposals explored within the scope of the North Essex Garden Communities including rapid transit (bus or tram-train) network.

Opportunities and Constraints

- In addition, the current studies undertaken for the new A120 open possibilities to consider the old A120 alignment for rapid transit, that would run along the Monks Wood site.
- In addition to rapid transit proposals, opportunities exist to look at a local bus network connecting the development site identified under this scope and key destination such as rail stations at Marks Tey and Braintree.
- Local bus services require greater frequencies to provide an attractive ‘second tier’ of public transport to support the rail station and provide a 1st leg trip to the station of residents of new developments which lie outside of the 800m active modes catchment.

Active Modes

- Direct routes, linking the existing settlement of Coggeshall and new development sites, would be required.
- Given the size of sites under investigation in Pattiswick, opportunities should be explored to develop a consistent network of greenways and quietways across the existing and extended urban settlements, providing key connections to the station and other main local destinations.
- In a number of cases the addition of formal cycle lanes may prove difficult given the nature of the road network (notably concerning available space, speeds and role). Formal cycle lanes are one of the main solutions to ensuring that residents will take up active modes for both short and longer distance movements.
- A dedicated cycle corridor over the A120 to link Coggeshall

Sources

- North Essex Garden Communities Baseline Compendium, June 2016
- Braintree Local Plan Options Assessment, February 2016
- Anglia Route Study, Network Rail, March 2016
- Google Maps, consulted February 2016

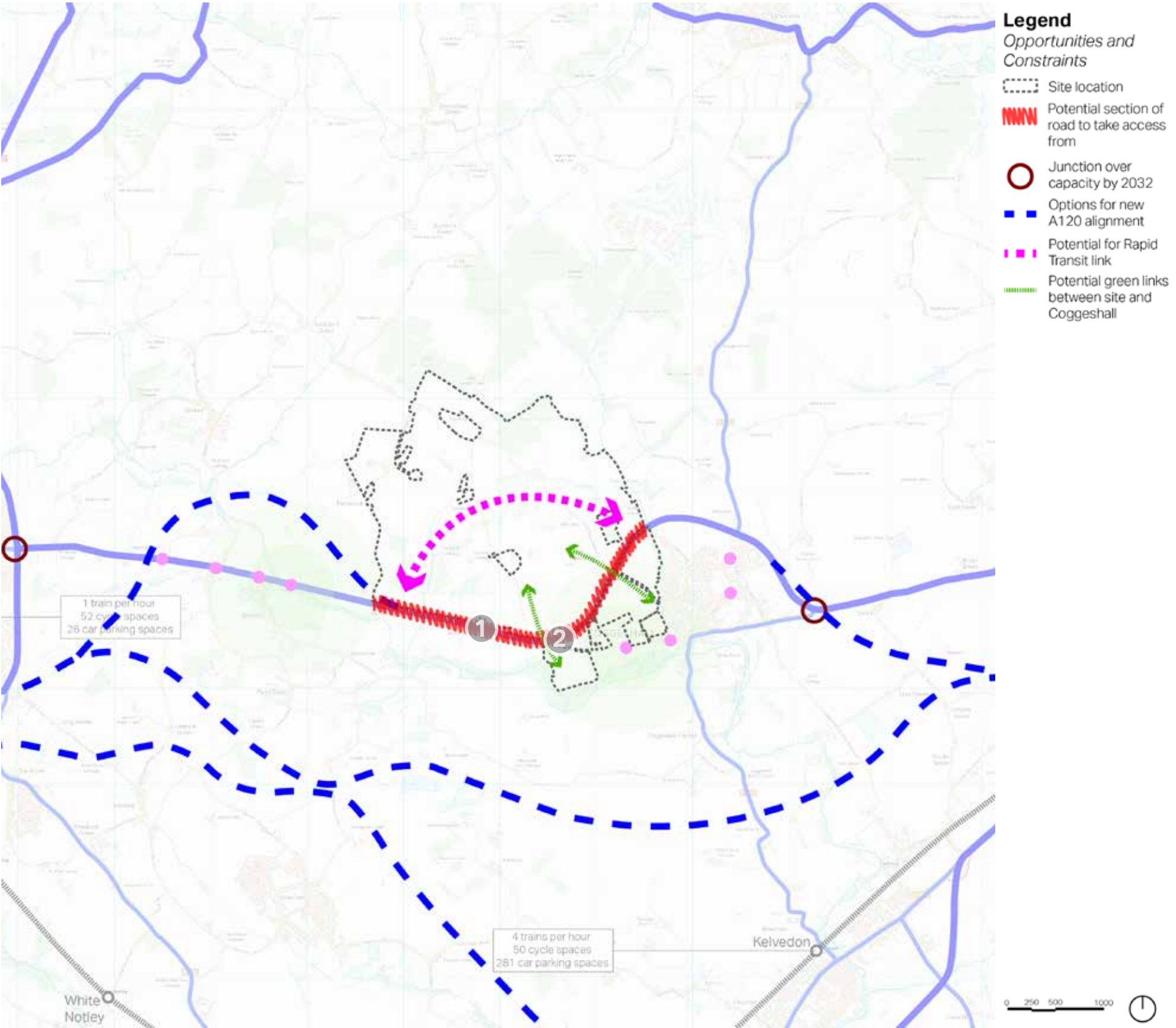


Figure 15: Monks Wood, transport context

2.13 Social Infrastructure - Education

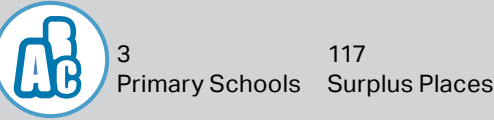
Essex County Council has developed a Commissioning School Places in Essex 2016-2021, published in January 2017. This provides information related to future pupil numbers and where further expansion will be required to meet housing demands. It is important to note that the outputs generated through the Commissioning School Places in Essex do not take account for any other local plan growth, as outlined in Appendix two of the commission.

The 5km buffer of the proposed settlement at Monks Wood is within Braintree District Council. The following social infrastructure review is based on assessing the current situation, committed infrastructure and future issues where these are relevant to the Monks Wood Site. However, although an overall surplus has been identified, the impact of growth allocated in the surrounding Local Plans has not been considered.

As the current projected need does not assess the wider impact of cumulative development in the surrounding area, the Infrastructure Development Plan is currently revising these numbers. As a result, future demand may be under represented in the following analysis.

Key Findings - Primary

Current Situation within 5km Buffer (February 2017)



Committed Infrastructure within 5km Buffer of site.

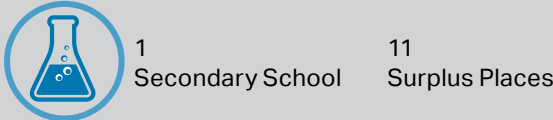
- There are no plans for a new, or expansions to an existing, primary school within Braintree District and within 5km of the site.

Future and Wider Issues

- The Commissioning Plan forecasts a decrease of 116 primary school pupils between 2016 and 2021 for Braintree, in which there is a forecast surplus of 1,479 places across the local authority by 2021.
- Proposed growth at Monks Wood would create a significant requirement for primary school places, therefore proposals coming forward would need to consider the delivery of future education infrastructure provision.
- Essex County Council are seeking contributions from housing developers towards the cost of providing the additional places required for the pupils generated by new housing.

Key Findings - Secondary

Current Situation within 5km Buffer (February 2017)



Committed Infrastructure within 5km Buffer

- A review of the Essex Commissioning School Places 2016-2021 identifies no committed secondary school provision, assessment may be needed to identify whether a new school(s) is required given the quantum of development which might be delivered.

Future and Wider Issues

- The Commissioning Plan forecasts an increase of 322 secondary school pupils between 2016-2021 for Braintree, in which there is a forecast surplus of 1,186 places across the local authority by 2021.
- Proposed growth at Monks Wood would likely create significant requirement for secondary school places, depending on the scale of development. If the site were to come forward, there would need to be consideration for the delivery or contribution to education infrastructure.
- Essex County Council are seeking contributions from housing developers towards the cost of providing the additional places required for the pupils generated by new housing.

Key Findings - Further Education

Current Situation within 5km Buffer (February 2017)



Committed Infrastructure within 5km Buffer

- There is no identified Further Education infrastructure within a 5km radius of the proposed Monks Wood settlement.

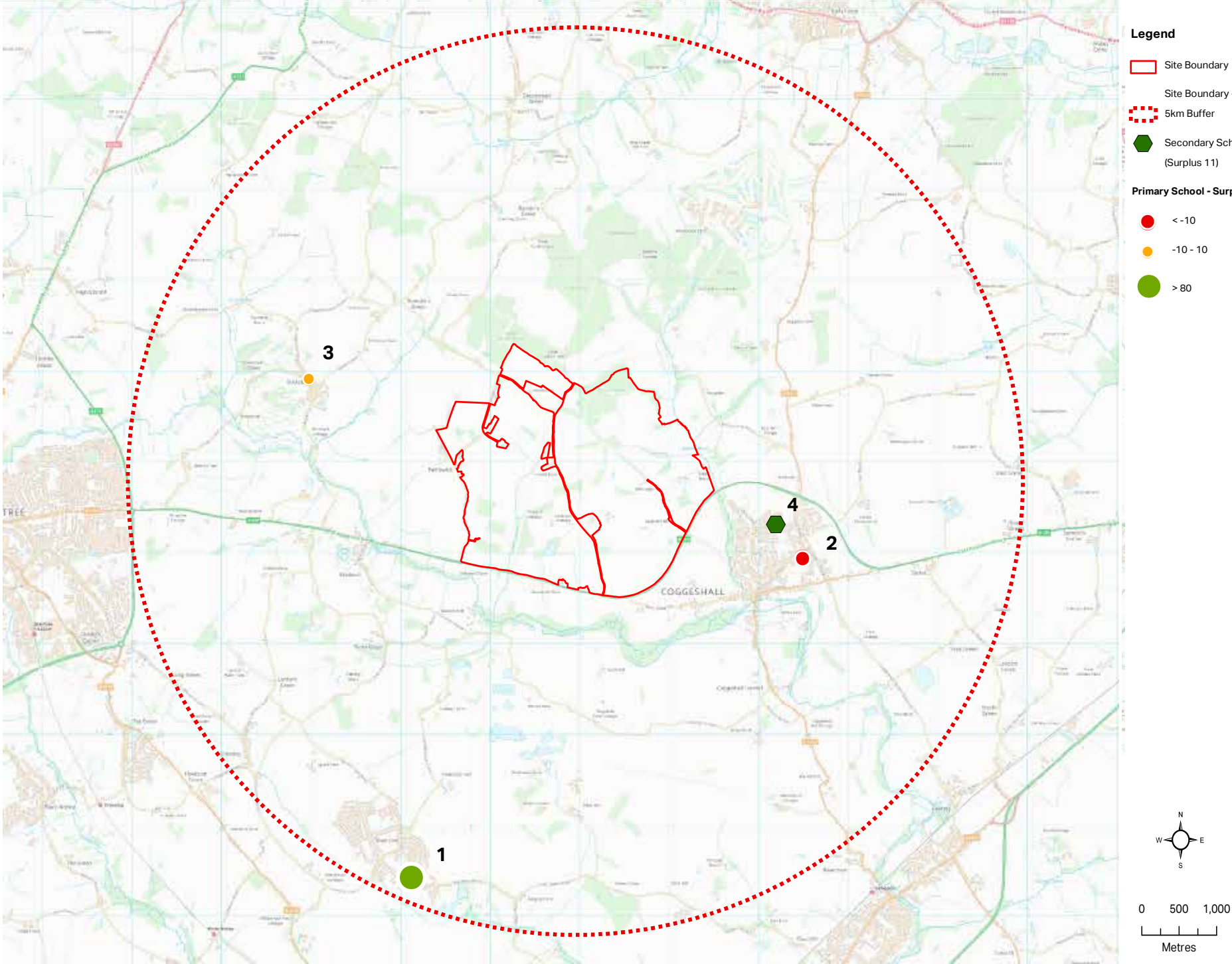
Future and Wider Issues

- The minimum age at which young people in England can leave learning increased in 2013, requiring young people to continue education or training to the end of the academic year in which they turn 17. This has been followed with a policy beginning in 2015 where all young people must remain in learning to their 18th birthday, This is referred to as Raising the Participation Age (RPA).
- This requires local authorities to ensure and provide options for young people to learn the skills required. Local authorities have the duty to:
 - Promote effective participation in education or training to young people;
 - Ensure that sufficient places are available to meet the reasonable needs of all young people and encourage them to participate; and
 - Make available to young people support that will allow them to participate in education or training.
- As a result, students may be required to travel to Colchester and Braintree to access Further Education.

Sources

- Department of Education, Edubase Portal (February 2017)
- Commissioning School Places in Essex 2016-2021

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Legend

- Site Boundary
- Site Boundary - 5km Buffer
- Secondary School (Surplus 11)
- Primary School - Surplus / Deficit
 - < -10
 - 10 - 10
 - > 80

Primary School Capacity Analysis			
Primary School Name	Capacity	Surplus / Deficit	Label
Silver End Primary School	420	129	1
St Peter's Church of England Voluntary Controlled Primary School, Coggeshall	312	-16	2
Sisted Church of England Primary Academy	108	4	3
TOTAL	840	177	

Secondary School Capacity Analysis			
Secondary School Name	Capacity	Surplus / Deficit	Label
The Honywood Community Science School	1,050	11	4
TOTAL	1,050	11	

Figure 16: Monks Wood Education Context. Source: Edubase (2016)

Social Infrastructure - Health

Key Findings

Current Situation within 5km Buffer



GPs

- There are 2 GP practices identified within 5km of the proposed Monks Wood settlement, one of which is within close proximity to the south east of the site in Coggeshall.
- There is an overall deficit in provision of GPs across the wider 5km buffer zone with -2139 patient spaces. However, this is a theoretical assessment, and the actual pressures may be more pressing. It can be seen that both of the current facilities have a poor patient to GP ratio, which further development will further exacerbate.

Hospitals

- There are currently 0 hospitals identified within 5km of Monks Wood.

Sources

- NHS England, MyNHS Portal datasets (February 2017)
- Health and Social Care Information Centre (HSCIC) dataset (January 2016)

Key Findings

Committed Infrastructure within 5km Buffer

- In absence of an Infrastructure Delivery Plan for Braintree, this analysis has not identified any committed or planned infrastructure for healthcare within 5km of West of Braintree within Braintree District.

Sources

- Not applicable.

Key Findings

Future and Wider Issues

- The proposed Monks Wood settlement sits within Mid Essex Clinical Commissioning Group, which is an NHS organisation set up by the Health and Social Care Act 2012 to organise the delivery of NHS services.
- The CCGs receives funding and are commissioned by NHS England to provide primary care services (including GPs), in turn the CCGs commission most services in their areas to trusts that include hospital and community healthcare.
- Depending on the scale of development, new GP provision will be required. Consideration will need to be given to provision on-site or an upgrading of facilities in the wider area. Similarly, the future demand for hospital beds will likely require upgrading of existing facilities in the wider area, which development may need to contribute towards.

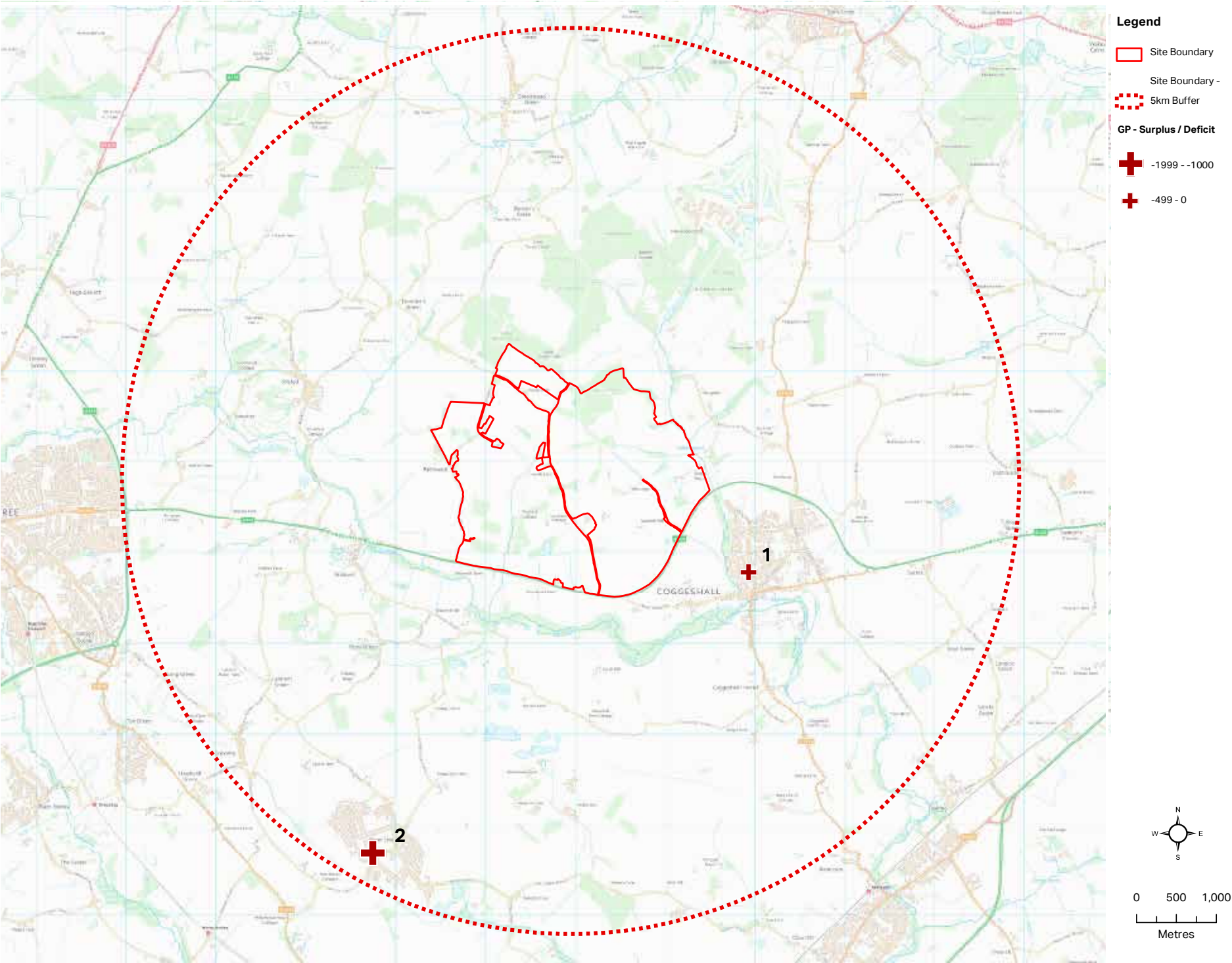
Mid Essex Clinical Commissioning Group

- Mid Essex CCG has identified that demand will increase due to population growth, ageing and an increase in people with multiple long-term conditions. However, despite the growth in future patients projected, Mid Essex is one of the 11 most financially challenged health economies.
- To address these issues, the CCG is looking to improve the integration of multiple aspects of the health system including hospital teams, community staff, primary care and social care. The CCG is therefore putting greater focus on responding to the needs of local people, using stages of life model.

Sources

- Mid Essex Clinical Commissioning Group

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GP Capacity Analysis					
Practice Name	Full Time Equivalent GP's	Patients	Capacity	Surplus / Deficit	Label
The Coggeshall Surgery	3	5,678	5,400	-278	1
Silver End Surgery	1	3,661	1,800	-1,861	2
TOTAL	4	9,339	7,200	-2139	

Figure 17: Monks Wood Health Infrastructure Context. Source: MyNHS, HSCIC

Social Infrastructure - Community Facilities and Emergency Services

Key Findings

Current Situation within 5km Buffer



- Across the 5km buffer zone, the analysis identifies one fire station but no police or ambulance stations.

Libraries

- There are two libraries within the 5km wider area of the proposed Monks Wood settlement, although none are within Pattiswick itself.

Youth Centres

- There is no youth centres within 5km of the proposed Monks Wood settlement.

Community Centres

- There is one community centres within 5km of the development. It is assumed that the Bradwell Village Hall provides a range of services and is thus classed as a community centre.

Sources

- East of England Ambulance Services, Essex Police, Essex County Fire & Rescue Services
- Google maps to identify community facilities, libraries and youth centres

Key Findings

Committed Social Infrastructure within 5km Buffer

- In absence of an Infrastructure Delivery Plan for Braintree, this analysis has not identified any committed or planned infrastructure for community facilities or emergency services within 5km the proposed Monks Wood Settlnent.

Sources

- Not applicable.

Key Findings

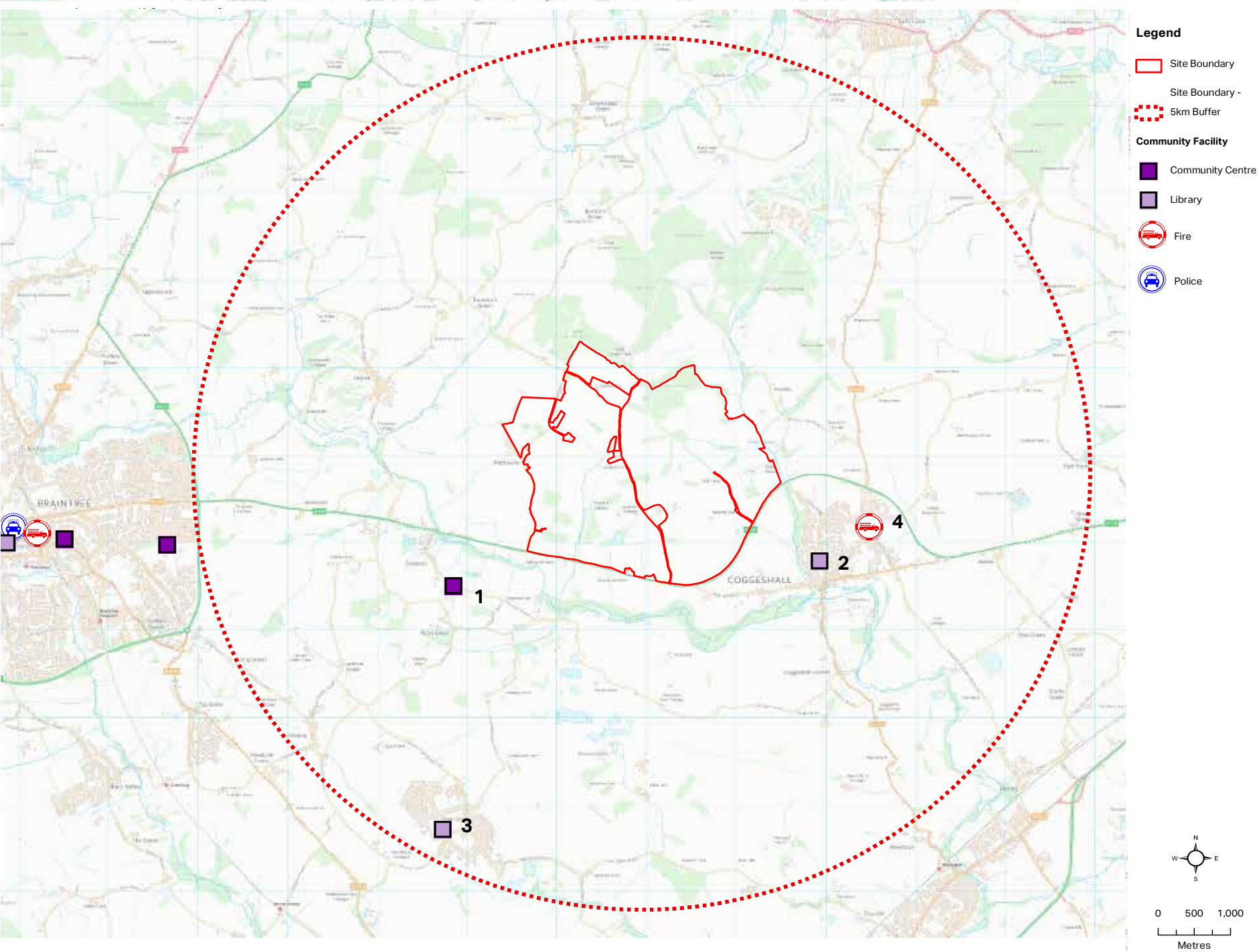
Future and Wider Issues

- A review of ambulance services has identified a change in the future model of ambulance provision by the early 2020s within the East of England's Ambulance Services. This involves a hub and spoke service in order to meet demand from existing populations. Traditional ambulance stations act as the main hubs of service, with smaller 24/7 posts acting as the spoke.
- Further work will need to determine whether the capacity of the existing emergency services can cope with the forecasted increase in population.
- Further work will need to determine whether the capacity of the existing community facilities can cope with the forecast increase in population. However, it is likely that future development of the scale proposed at Monks Wood would need to provide some community offer commensurate with the eventual scale of any future new settlement.

Sources

- East of England Ambulance Services
- Essex Police
- Essex County Fire & Rescue Services

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Community Service Facilities		
Name of Facility	Type	Label
Bradwell Village Hall	Community Centre	1
Coggeshall Library	Library	2
Silver End Library	Library	3

Emergency Service Facilities		
Name of Facility	Type	Label
Station 24 Coggeshall	Fire	4

Figure 18: Monks Wood Community Facilities and Emergency Services. Source: East Of England Ambulance Services, Essex Police, Essex County Fire & Rescue Services, Google Maps to Identify Community Facilities, Libraries and Youth Centres

2.14 Development Capacity

Key Drivers

Overview

AECOM have measured the proposed site to be 558.15 hectares of agricultural land bordered to the south by the A120, which links Braintree and Marks Tey. Figure 19 has been digitised from the Lightwood Planning Expression of Interest document to produce a total developable area for the proposed site based on this figure.

The following sections provide an analysis of existing proposals and are not an indication or recommendation for future use. The land is in single ownership and promoted by Lightwood Strategic Ltd solely.

Proposed Landuse

- An initial phase would consist of up to 1,500 homes, with additional capacity for approximately 5,000 homes within the masterplan area as shown in Figure 19.
- The development would aim to provide at least 150,000m² of commercial space for industrial, warehousing and office development. Local needs retail, the care sector, leisure and hospitality uses (e.g. motorway hotel) will also provide employment as will the (non-commercial) education sector.
- Delivery of a new sports hub
- Delivery of a new free school (not specified if primary or secondary)

Green Infrastructure

- The estate is undulating with a propensity of woodland, particularly on the perimeters, providing substantial established screening, landscaping and amenity.
- The potential involvement of the National Trust in the stewardship of a new 120 acre country park and wider green infrastructure network within the village itself;
- The growing and local use of biomass fuel with the country park, related to flood attenuation measures and to contributing to the Governments renewable energy targets

Connectivity

- Developer subsidy for A120 improvements
- Introduction of sustainable transport modes



558.15 ha
Total Site Area

16.39 ha
Mixed-Use (Community Facilities)

5,151
35 dph

197.55 ha
Open Space

213.75 ha
Total Developable Area

32.67 ha
Employment and Leisure Land

147.17 ha
Residential Developable Area

122.03 ha
Green Corridors and Infrastructure

View Corridor

Figure 19: Developable Area Diagram



1



4



2



5



3



6

Figure 20: Existing Viewpoints

2.15 Indicative Infrastructure Requirement

Project List

The following table identifies the key project requirements to support Monks Wood as it relates to Social Infrastructure, Utilities and Transport. These projects are based on a high level, assumption based, assessment of the infrastructure requirements for approximately 5,000 homes and usages associated with this level of development.

Infrastructure	Demand Arising from Development Option	Cost per Unit (£)	Total Cost (£)	Phasing	Justification
Education					
Primary Schools Form Entry	2.2	£3,750	19,316,250	Phasing of education infrastructure to occur within development period and post according to the housing growth triggers	Minimum requirement, assuming off-site mitigation and no account of existing surplus/deficit in existing surrounding facilities. Education costs and calculations based upon <i>The Essex County Council Developers' Guide to Infrastructure Contributions - Revised Edition 2016</i>
Secondary Schools Form Entry	2.3				
Early Year Facilities	3				
Healthcare & Community					
General Practioners	5	£2,250	11,589,750	Phasing of healthcare infrastructure to occur within development period and post development, according to the housing growth triggers for each facility	Minimum requirement, assuming off-site mitigation and no account of existing surplus/deficit in existing surrounding facilities. All AECOM Social Infrastructure Modelling (SIF) standards as set out in Appendix 2 of the North Essex Issues and Options Assessment.
Dentists	6				
Acute Hospital Beds	19				
Library Space	296				
4 Court Sports Centre	0.7				
4 Lane Swimming Pool	0.1				
Open Space					
Outdoor Sport	15.11	£2,750	£31,278,207	Phasing of open space infrastructure to occur within development period and post development, according to the housing growth triggers for each type	Minimum requirement based on standards as set out in Appendix 2 of the North Essex Issues and Options assessment.
Children's Play Space	3.46				
Semi Natural Open Space	19.75				
Parks and Gardens	13.03				
Amenity Green Space	8.72				
Allotments	2.24				
Country Park	-	-	£10,000,000	Phasing of country park to occur within development period and post development, according to the housing growth trigger	
Utilities - Scheme-wide Enabling Works					
Energy		Scheme Wide Enabling Works Cost/unit: £16,250 Environment/ Sustainability/ Waste Cost/unit: £500	Scheme Wide Enabling Works Total Cost: £83,703,750 Environment/ Sustainability/ Waste Total Cost: £2,575,500		
24 No. 11 kV to 400 V distribution substations	18.0 MW			Phasing of energy infrastructure to occur within development and post development period, according to housing growth triggers	Distribute end-user loads
4 No. 11 kV ring circuits from primary substation to connect to distribution substations.	-				
400 V LV circuits from distribution substations to end users	-				
Potable Water					
New network of distribution pipework	2,490 m3/day			Phasing of potable water infrastructure to occur within development and post development period, according to housing growth triggers	New supply pipework
Waste Water					
1 No. Pumping station	2,241 m3/day			Phasing of waste water infrastructure to occur within development and post development period, according to housing growth triggers	Raw sewage to existing treatment plants
Plot connections for all properties to waste water distribution network	-				
Gas					
1 No. Medium to Low Pressure reducing station	21 MW			Phasing of gas infrastructure to occur within development and post development period, according to housing growth triggers	Connecting to end users
Plot connections for all properties to gas distribution network	-				

Infrastructure	Demand Arising from Development Option	Cost per Unit (£)	Total Cost (£)	Phasing	Justification
Utilities - Off-Site Requirements					
Energy					
Primary Substation 33/11 kV with 2 x 30 MVA transformers	18 MVA	-	£9,000,000	2033/34	Provide electrical power capacity for development
33 kV connection to new Primary Substation from existing Overhead Line south of Pattiswick. 2 km distance	-	-			
Potable Water					
Extensiton of existing network from Braintree	2,490 m3/day	-	£4,000,000	Initial Phase	Distribution of potable water to end users
Additional importation from neighbouring areas required to serve the Anglian Water Resource Zone	-	-	-		
Waste Water					
5 km waste water transmission connection from new pumping station in Pattiswick to Bocking Water Recycling Centre	2,241 m3/day	-	£5,000,000	Initial Phase	
Gas					
3 km extension to existing Medium Pressure network serving Coggeshall	-	-	£2,400,000	Initial Phase	Gas supply to end users
Telecommunications					
Development of access chambers for BT Telecoms network, BT Openreach fibre optic network and private telecoms network throughout development	-	-	£2,000,000	Initial Phase	ICT and data networks to end users
Transport - On-Site / Off-Site Requirements					
Travel plan measures (smarter choices, car clubs, charging points, etc) - Straight Period	-	-	£4,378,350	Up to Plan Period	To ensure non-car mode transit is embedded from the outset and to connect with the sub-regional transport connectivity solutions.
New guided busway on site - Up to Plan Period	-	-	£1,750,000	Up to plan Period	
New pedestrian / cycle way on site - Up to Plan Period	-	-	£1,000,000	Up to Plan Period	
Transport Hub BRT / LRT At Grade - (2031 / 2032)	-	-	£10,000,000	2031/2032	
Upgraded pedestrian & cycle networks - Up to Plan Period	-	-	£3,000,000	Up to plan period	
Bus service subsidies & other public transport improvements - Straight Line	-	-	£2,060,400	Up to plan Period	
At grade high quality pedestrian / cycle crossings over A120	-	-	£2,000,000	Up to Plan Period	
Upgrade existing site access junction - Initial Phase	-	-	£10,000,000	Initial Phase	To facilitate vehicular connection to the site

This Section sets out Performance Review conclusions.

03 Review against the North Essex Garden Community Principles

- 3.1 Criteria
- 3.2 Review

3.1 Criteria

Introduction

A qualitative assessment of the options has been undertaken using selection criteria based upon Sustainability Objectives for Colchester, Tendring and Braintree alongside TCPA Garden City Principles. This has not been informed by any specific masterplanning exercise and instead the assessment represents professional judgement only made in the context of a high level understanding of the information put forward by Lightwood Planning.

1. Physical Limitations

- There are physical limitations which may be difficult to mitigate or will likely require significant time and investment to be overcome.
- There are some physical limitations which require mitigation in order to maximise development potential
- There are no or very limited physical limitations to development.

2. Impacts

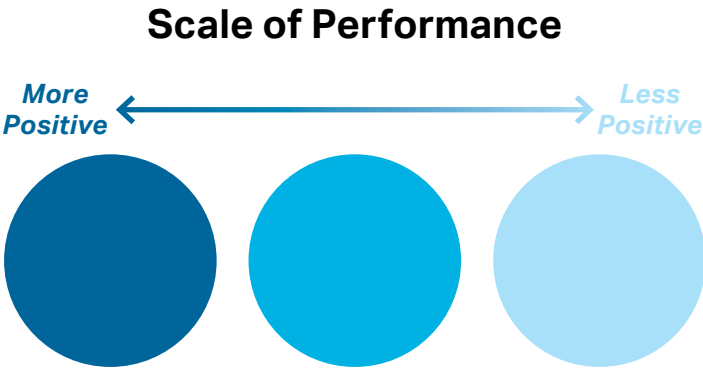
- Development may have a detrimental and negative impact upon areas of value and importance.
- Development would require mitigation in order to ensure its impact on surrounding areas of value and importance is not at the detriment to their current status.
- Impacts on surrounding areas of value and importance would be limited and acceptable.

3. Environment / Amenity

- Development may cause an unacceptable impact upon the occupiers of existing properties and neighbouring areas / towns.
- Development would require mitigation to ensure an acceptable impact upon the occupiers of existing properties and neighbouring areas / towns.
- Development would likely have an acceptable relationship on occupiers of existing properties and neighbouring areas / towns, and the impact may be positive.




4. Transport




- There is very limited potential to achieve integrated and accessible sustainable transport systems.
- There is potential to achieve integrated and accessible sustainable transport systems, but this is likely to require significant on and off site investment.
- There is existing access to sustainable transport systems or relative ease to establish an integrated and accessible transport system.








5. Resilience	
	Development may have a detrimental impact on surrounding town centres, regeneration / development priority areas or established institutions.
	Development may impact on surrounding town centres, regeneration / development priority areas or established institutions, although this impact could be mitigated.
	Development would likely make a positive contribution to surrounding town centres, regeneration / development priority areas or established institutions.


6. Housing	
	There is limited potential to secure a provision of a mix of tenures and housing types
	The ability to secure a mixed tenure and housing type development would likely require significant grant funding / developer support
	There is likely to be strong potential to provide a mix of housing types and tenure within the development.

7. Employment Opportunities	
	Development may not be able to support enough, or is not located close enough to existing centres, to secure a wide range of local jobs on site or in easy commuting distance of new houses.
	It is likely to be possible to provide a wide range of jobs within the development, but providing sustainable transport access to local jobs in the wider area may be difficult.
	It is likely to be possible to provide a wide range of jobs within the development, with good sustainable transport potential to local jobs in the wider area.

8. Mixed -Use Opportunities	
	There is limited opportunity to ensure the inclusion of cultural, recreational and shopping facilities in walkable, vibrant, sociable neighbourhoods.
	There is potential to ensure the inclusion of cultural, recreational and shopping facilities in walkable, vibrant, sociable neighbourhoods.
	There are existing cultural, recreational and shopping facilities within the site or in very close proximity which may have a positive effect on the development of community, with potential for new services that will ensure high levels of sustainability.

9. Environment Quality and Sustainability	
	There are identified constraints that may limit the potential to incorporate areas of publicly accessible open space, allotments/food productions areas, biodiversity gains, SUDs and / or implement zero carbon/energy positive technology.
	There are some constraints that may limit the potential to incorporate areas of publicly accessible open space, allotments/food productions areas, biodiversity gains, SUDs and / or implement zero carbon/energy positive technology.
	There are no constraints that limit the potential to incorporate areas of publicly accessible open space, allotments/food productions areas, biodiversity gains, SUDs and / or implement zero carbon/energy positive technology. And existing landscape features exist which may assist provision.

10. Developability & Deliverability	
	All or the majority of the potential development area is not currently available, nor will it become available within the emerging local plan period (to 2032). And/or some of the land ownership is currently unknown or fragmented, with no current knowledge of the prospect of an appropriate delivery mechanism being agreed that will enable a proportion of the land value created to be used to fund delivery of infrastructure, community assets and long term stewardship needed for a garden community.
	All or the majority of the potential development area is currently available or can become available in time for meaningful development to commence within the emerging local plan period (to 2032); initial analysis suggests development should be capable of being commercially viable, but infrastructure requirements and investments are likely to be comparatively high. There is considered to be a good prospect of an appropriate delivery mechanism being agreed that will enable a proportion of the land value created to be used to fund delivery of infrastructure, community assets and long term stewardship needed for a garden community.

	All or the majority of the potential development area is currently available or can become available in time for meaningful development to commence within the emerging local plan period (to 2032); initial analysis suggests development should be capable of being commercially viable, and infrastructure requirements and investments are likely to be comparatively lower. There is considered to be a good prospect of an appropriate delivery mechanism being agreed that will enable a proportion of the land value created to be used to fund delivery of infrastructure, community assets and long term stewardship needed for a garden community.
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3.2 Review

	Monks Wood	<div><div><div>More Positive</div><div>←</div><div>→</div><div>Less Positive</div></div><div><div></div><div></div><div></div></div></div> <div>Comparative Observations</div>
1. Physical Limitations	<div></div>	<ul style="list-style-type: none">Monks Wood is considered to have some form of physical limitation that would require mitigation.The most significant limitations relate to: road access/junction capacity, surface water management, localised severance from transport infrastructure and existing hedgerowsThe highway network is constrained and will require mitigation measures to ensure development can be accommodatedIt is considered that all limitations are capable of mitigation, though extent and cost will vary.Significant number of heritage assets to be considered within the red line boundary
2. Impacts	<div></div>	<ul style="list-style-type: none">Agricultural Land Impact - Development will result in the loss of Grade 2 Agricultural Land, which Natural England classify as 'Very Good' and is considered to to be the best and most versatile farmland in England. Land in the far south-western corner is slightly poorer quality (Grade 3), but the majority is Grade 2. Development of this site will need to demonstrate the overriding housing need and other place-making advantages, together with confirming no alternative land is available, including brownfield which has less agricultural value.Landscape / Townscape Merit - The site is largely open and managed farmland with the only adjoining settlement of Pattiswick which currently experiences an isolated setting. The larger settlement of Coggshall to the east and south of the A120 is also set within a broader setting and contained by existing landscape features. The site is raised farmland plateau with medium to large field patterns and mature hedgerows creating a degree of enclosure which limits the occurrence of extensive / distant views. Within this there are a number of Grade 2 listed buildings with an agricultural significance. It is considered that development of this site could still respect the immediate setting of these buildings or otherwise successfully integrate then into the Garden Community. Therefore, while the landscape change will be significant the impact is likely to be acceptable overall, especially if the network of existing hedgerows and associated veteran trees can be retained.Nature conservation interest - there is a large aspect of Ancient woodland to the north of the site and areas of National Forest predominantly towards to the south western corner. Although it should be possible to incorporate these areas into development proposals and the associated green infrastructure strategy, caution should be had in regard to existing habitats and wildlife .
3. Environment / Amenity	<div></div>	<ul style="list-style-type: none">Settlement Coalescence – The A120 provides a physical barrier between the south eastern edge of the Monks Wood site and the village of Coggeshall with the closest built extent being approximately 200m. The A120 together with the agricultural fields located between Robins Brook (western edge of Coggeshall village) and the A120 provides a degree of separation. However, in the event that the Garden Community was developed, because of the presence of Ambridge Road, pressure to expand Coggeshall westwards might reasonably be expected. Under this scenario the risk of settlement coalescence would be much greater.
4. Transport	<div></div>	<ul style="list-style-type: none">The A120 between Braintree and Marks Tey, from which access to the Monks Wood site would be taken, is only single carriageway and has capacity constraints. It is therefore unlikely to be able to accommodate a development of the scale of the potential Garden Community, whether 5,000 new homes or higher.Active Modes - Site topography is flat or gently sloping and lends itself well to promoting cycling and walking, and the development of an effective network throughout the site. Connectivity across the A120 would potentially be an important element to consider if conectivity with the amenities of Coggeshall was considered important.Public Transport -Adjacency and direct access of the site to A120 is advantageous in terms of connecting the site with North Essex inter-urban bus routes, providing connectivity with Stansted Airport in the west and Colchester in the east.The opportunity to achieve a development of significant scale with population critical mass may rely on a system with greater connectivity and speed such as a form of BRT, without this inter-urban/inter-regional public transport system, the risk exists that the majority of journeys external and internal to the site would likely be car based in this area. This is further emphasised by the location of Kelvedon station, some 4km south of the site and linked by the B1024, which in its current state is not appropriate to accommodate nor should be promoted to provide a connection via private car to the station. With major upgrade, this road in theory could accommodate a bus link; however the benefit of connection to the stopping services towards London and Ipswich on the GEML would require further assessment.Essex County Council is currently consulting on options for upgrading the A120 including its potential realignment in the vicinity of the Monks Wood site. The impact of these options for a new garden community in this location has not been assessed, but each road option is likely to have both pros and cons for the development, which would need to be identified and taken account of.

	Monks Wood	<div><div>More Positive</div><div><div></div><div></div><div></div></div></div> <div>Comparative Observations</div>
5. Resilience		<ul style="list-style-type: none">Resilient Town Centres - The site is located approximately 1.5km from the village centre of Coggeshall, 5km to the east of Braintree Town Centre and approximately 13km west of Colchester. A development on the scale of the Garden Community could have the potential, if not appropriately planned and managed, to develop as a competitor location, especially with respect to Coggeshall and Braintree Town Centre, further impacting on its resilience. It would therefore be important for the Garden Community to develop an economic strategy that compliments Braintree Town Centre and Braintree Freeport, and which would not harm the economic viability of the existing and largely small scale independent retail/food/beverage traders of Coggeshall. Equally however, the Garden Community itself must avoid becoming a dormitory residential suburb.This will be a challenge and key requirements will likely be: provision of mixed retail, with a particular focus on convenience and associated A2/A3 uses incremental to housing growth, limited comparison retail, sustainable transport connectivity with Braintree Town Centre and Braintree Freeport, no large single town centre, a focus on B1 and SME employment space, and the identification of other niche uses that help create vibrancy and a sense of community.
6. Housing		<ul style="list-style-type: none">Nothing within the location or character of this option in itself would likely compromise the ability to achieve a mix of housing type, tenure and affordability.
7. Employment Opportunities		<ul style="list-style-type: none">Access to local employment – This location is considered to have good access to local jobs, for example Braintree, Braintree Freeport and Colchester, with proximity to the A120 and A12 likely to give the site itself some potential for new employment space. The Great Eastern Main Line railway with direct connectivity to London can also be accessed from stations located at Marks Tey (c.9 km east), Kelvedon (c. 4km south) and Witham (c. 12km), but the challenge will be to ensure that that they can be reached by modes of travel other than the car. Because the site sits on the alignment of the existing A120, this is more likely to be achieved by promoting high frequency public transit connectivity between it and Marks Tey railway station. In comparison both Kelvedon and Witham stations can only be accessed by B-classified roads. Additionally, because the site is on the east side of Braintree, it is further from Stanstead airport, the M11 London-Stanstead-Cambridge Corridor and Chemsford, which are locations employment growth is forecast.
8. Mixed-Use Opportunities		<ul style="list-style-type: none">Achieving Mixed Uses - The scale of the population potential of this option is sufficient in theory to create the conditions needed to generate the demand for and make viable a mix of uses throughout the development. However, there are few existing uses or pockets of population/community within the site that could be used as the basis on which to initially centre and develop an early phase mixed use opportunity, which may help to achieve initial critical mass within the overall development. As such securing genuine mixed use communities, and the benefits that are derived from this, is unlikely to be an early achievement of this option unless annual housing completion rates are far higher than standard developer models would ordinarily deliver. Furthermore, without provision of a BRT form of infrastructure, the opportunity and ease with which residents of the settlement would visit local centres such as Braintree Freeport by car will be high.Employment Land Type - The identified employment land/space requirement of the area is predominantly B1 (office), together with flexible space for the start-up and development of SMEs. This land use can more readily be located alongside and interwoven with other uses, including residential, retail, culture and recreation to create, over time, a genuine mix of uses within walkable, vibrant and sociable neighbourhoods. B2/B8 space could be accommodated to the south and aligned to the key A120 distribution corridor.
9. Environment Quality and Sustainability		<ul style="list-style-type: none">Monks Wood is at a scale that it is possible to incorporate strong levels of open space provision.Existing natural landscape features, which would form the initial structuring elements of green infrastructure/green grid, are present within the site.The site is predominantly located on intensively farmed agricultural land, with potential biodiversity gains possible from development.Risk of flooding is limited, focused mostly around existing highways.
10. Developability		<ul style="list-style-type: none">Land - As greenfield agricultural land with direct access from the A120 via its development could be commenced relatively quickly and within 6-10 years, following receipt of planning permission. Developability of this site is also assisted by being in single ownership and is being promoted in its totality for development by a single promoter. However, the extent of first phase development could be constrained by the need to invest heavily in utility infrastructure; which consistent with the site's rural location is currently very limited in terms of physical networks and capacity.Landowner / Developer Negotiations - It is understood that it should be possible to achieve an appropriate delivery mechanism for this site that will enable a proportion of the land value created to be used to fund delivery of infrastructure, community assets and long term stewardship needed for a Garden Community.

