



# The High Speed Rail (London – West Midlands) (Greatmoor Railway Sidings Etc.) Order

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## **Environmental Statement – technical appendices** **Volume 4.4:** Cultural heritage baseline report



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(Greatmoor Railway Sidings Etc.) Order

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**Volume 4.4:**  
Cultural heritage baseline report



## Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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# 1 Introduction

## 1.1 Structure of the cultural heritage appendices

1.1.1 The cultural heritage appendices for the Proposed Scheme comprise:

- Volume 4.04: Environmental Statement Technical Appendix: Cultural heritage baseline report (this appendix);
- Volume 4.05: Environmental Statement Technical Appendix: Gazetteer of heritage assets;
- Volume 4.06: Environmental Statement Technical Appendix: Cultural Heritage Impact assessment; and
- Volume 4.07: Environmental Statement Technical Appendix: Remote Sensing Survey Summary Report.

1.1.2 Maps referred to throughout the cultural heritage appendices are shown on Map ES-11 to Map ES-14, in Volume 3 of this Environmental Statement (ES).

## 1.2 Content and scope

1.2.1 This baseline provides the evidence base against which the assessment of assets that may be affected by the Proposed Scheme can be determined. It collates information about known and potential heritage assets from a variety of sources and presents a chronological description and discussion of the development of the study area, placing assets within their historical and archaeological context.

## 1.3 Study area

1.3.1 The Greatmoor Railway Sidings study area lies within the Aylesbury Vale District of Buckinghamshire.

1.3.2 All non-designated and designated assets within the land required for construction of the Proposed Scheme and within 500m of it have been detailed in this baseline assessment. In addition, designated heritage assets have been examined within 2km of the Proposed Scheme.

1.3.3 All identified assets are listed in Volume 4.05: Environmental Statement Technical Appendix: Gazetteer of heritage assets under unique reference numbers in the format 'GRS001' and shown on Maps ES-11 to ES-12, in Volume 3 of this ES. The Gazetteer also includes the data/gazetteer information produced for the HS2 Phase One ES, covering the assets located within the Greatmoor Railway Sidings study area contained in community forum areas 12 (Waddesdon and Quainton<sup>1</sup>) and 13 (Calvert, Steeple Claydon, Twyford and Chetwode<sup>2</sup>).

<sup>1</sup> [http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5\\_CFA12\\_Cultural\\_heritage\\_Gazetteer\\_of\\_heritage\\_assets\\_CH-002-012.pdf](http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5_CFA12_Cultural_heritage_Gazetteer_of_heritage_assets_CH-002-012.pdf)

<sup>2</sup> [http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5\\_CFA13\\_Cultural\\_heritage\\_Gazetteer\\_of\\_heritage\\_assets\\_CH-002-013.pdf](http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5_CFA13_Cultural_heritage_Gazetteer_of_heritage_assets_CH-002-013.pdf)

## **1.4 Data sources**

- 1.4.1 Sources examined as part of this baseline assessment include published secondary sources, cartographic sources, historic environment record (HER) data for non-designated heritage assets and Historic England National Heritage List (NHL) data for designated assets. A full list of published and unpublished sources can be found in Section 11 of this appendix.

## **1.5 Surveys undertaken**

- 1.5.1 The following surveys were undertaken as part of the environmental impact assessment (EIA) process:

- A summary of the remote sensing systematic analysis, interpretation, mapping and recording undertaken on the land required for Greatmoor Railway Sidings as part of the HS2 Phase One ES.

- 1.5.2 In addition to the above, a non-intrusive geophysical survey will be undertaken prior to the determination of the application. This was not practicable during the production of this ES due to the presence of crops within the Proposed Scheme.

## 2 Geology, topography and landform

- 2.1.1 The study area lies within the northern part of Buckinghamshire, the geology of which is dominated by undulating claylands comprising heavy blue-grey clays, consisting of formations of Kellaway and Oxford Clays. These clays overlie a bedrock geology comprising Jurassic limestone and sandstone of the Purbeck and Portland groups.
- 2.1.2 The topography of the study area can be split into an upland zone formed by a ridge of hills located on the north eastern edge of the study area between Finemere Wood Site of Special Scientific Interest (SSSI) and Knowlhill Farm. Remnants of Bernwood Forest are located on the north eastern side of the study area (along the ridgeline). To the south east of the ridgeline the landscape falls away to form part of the flat open landscape of the Vale of Aylesbury.
- 2.1.3 A course of the River Ray crosses the study area to south of the Proposed Scheme towards Woodlands Farm. This channel of the River Ray is also fed by a second source to the north which crosses the Proposed Scheme from north-east to south-west at Sheephouse Wood SSSI.
- 2.1.4 These tributaries include alluvial deposits along their length. Such deposits have the potential to mask archaeological deposits and to 'seal in' deposits of palaeoenvironmental interest, as well as other assets.
- 2.1.5 The Proposed Scheme area is bisected by the line of London Extension of the Great Central Railway (GCR) which is currently used as a freight line for the Greatmoor facilities. In the centre of the study area (but excluded from the Proposed Scheme area) is the Greatmoor EfW facility. Road access for the facility (and for construction of the Proposed Scheme) uses the former route of the Grendon Underwood and Princes Risborough Line, which linked the GCR to the Great Western Railway.
- 2.1.6 These 19th century railways may have truncated any archaeological deposits within their footprints. Areas of clay extraction (now used as landfill sites) for the former Calvert Brickworks are located to the west of Sheephouse Wood SSSI. No archaeological remains survive in these areas.



## 3 Archaeological investigational history of the study area

- 3.1.1 A programme of archaeological and built heritage assessment<sup>3</sup>, archaeological evaluation<sup>4</sup> and mitigation has been undertaken for the Greatmoor EfW facility site. The Greatmoor EfW facility bounds the south western edge of the Proposed Scheme. The archaeological investigation works recorded the remains of a rural settlement (GRS015) associated with Lower Greatmoor Farm (GRS002), within the footprint of the Greatmoor EfW facility. The full report of the archaeological investigations for the Greatmoor EfW facility was not available during the production of this ES.
- 3.1.2 As part of the HS2 Phase One ES, an archaeological survey involving the systematic analysis, interpretation, mapping and recording of archaeological sites from aerial photographs, hyperspectral imagery and Light Detection and Ranging (LiDAR) imagery was undertaken. The results of this survey for the study area are summarised in Volume 4.07: Environmental Statement Technical Appendix: Remote Sensing Survey Summary Report and are shown on Map ES-14, in Volume 3 of this ES. The results of this survey are included in Section 4 below.

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<sup>3</sup> SLR (2011) Greatmoor EfW, Calvert, Buckinghamshire, Heritage Impact Assessment; Lower Greatmoor Farm and Finemere House.

<sup>4</sup> APS (2011) Land at Calvert/Greatmoor Buckinghamshire: Geophysical Survey unpublished report 109/11, and APS (2011b) Archaeological Evaluation of Land at Calvert in Charndon and Greatmoor in Grendon Underwood, Buckinghamshire

## 4 Archaeological and historical background

### 4.1 Introduction

4.1.1 This section provides a chronological overview of the archaeological evidence within the study area. This baseline review forms a contextualisation within which individual assets can be considered. Descriptions of all archaeological assets, whether designated or not, which lie wholly or partially within land required for construction of the Proposed Scheme, or within 500m of the edge of this land, are contained in Volume 4.05: Environmental Statement Technical Appendix: Gazetteer of heritage assets. The assets are mapped on Maps ES-11 to ES-12, in Volume 3 of this ES. The Gazetteer also considers all designated archaeological assets within the wider study area. The Gazetteer entries include assessments of significance where appropriate.

### 4.2 Early prehistory (circa 500,000 BC - 4000 BC)

- 4.2.1 The earliest evidence of human occupation in Britain dates from the Lower Palaeolithic (approximately circa 500,000 BC) onwards. This evidence comprises assemblages of flint tools of a variety of typologies and faunal remains. In general very few Palaeolithic artefacts have been recorded in the clayland landscape which comprises the landscape of the study area<sup>5</sup>.
- 4.2.2 Assemblages of Palaeolithic material have usually been recorded in lowland Britain reflecting both the exploitation of river valleys and coastal plains, glacial lakes and other potential hunting grounds<sup>6</sup>, as well as the preferential survival of remains in such locations. Assemblages are similarly centred in areas of particular geology, near to areas with flint-bearing rocks suitable for tool-making.
- 4.2.3 Palaeolithic remains have been recorded in Buckinghamshire, including from gravels associated with the Padbury Brook at Steeple Claydon and Twyford, to the north of the study area<sup>7</sup>.
- 4.2.4 The watercourses within the study area are local streams and tributaries, and no river terraces or gravels are recorded which might be suitable for preserving redeposited Palaeolithic remains. No cave sites, or geology or topography suitable for such sites, lies within the study area.
- 4.2.5 Mesolithic sites in the wider region are generally located on rising ground overlooking river valleys and watercourses and are frequently found on sandy geology such as the Corallian Ridge and the Hampshire Greensand<sup>8</sup>. No such geologies lie within the study area, which is characterised by heavy clay with a lack of the free-draining soils favoured by hunter-gatherers.

<sup>5</sup> Silva, B., (2008), An archaeological resource assessment of the Lower and Middle Palaeolithic in Buckinghamshire.

<sup>6</sup> Wymer, J., (1968 ), Lower Palaeolithic Archaeology in Britain. Farley, M., (2012), Discoveries of Ice Age mammals and other Pleistocene deposits in Central and Northern Buckinghamshire. In: Records of Buckinghamshire, Volume 52.

<sup>7</sup> Farley, M., (2012), Discoveries of Ice Age mammals and other Pleistocene deposits in Central and Northern Buckinghamshire. In: Records of Buckinghamshire, Volume 52.

<sup>8</sup> Hey, G., (2010), Late Upper Palaeolithic and Mesolithic. In: The Solent Thames Archaeological Research Framework.

### 4.3 Later prehistory (4000 BC to 43 AD)

- 4.3.1 The Neolithic (circa 4,000 – 2,400 BC) period is generally characterised by more permanent settlement, a reduction in nomadic, transient hunter-gatherer groups, and by the establishment of farming. It should be noted, however, that despite this shift to agriculture, hunting, gathering and fishing remained important to the local economies<sup>9</sup>.
- 4.3.2 Settlement evidence for the Early Neolithic commonly comprises flint and stone scatters, limited pottery remains, and occasional cut features such as pits. Settlement enclosures and funerary monuments begin to be recorded in the landscape in the later Neolithic, but are scarce, and none are recorded within the study area.
- 4.3.3 Evidence for this period elsewhere in Buckinghamshire suggests that settlement continued to be situated adjacent to watercourses, with evidence frequently recorded buried or concealed beneath colluvium<sup>10</sup>. The emphasis on exploitation of free-draining soils and on generally lighter soils remained, in contrast to the heavy clay of the study area. Such clay is difficult and time-consuming to cultivate. Although the watercourses within the study area are generally small in scale, there may be potential for finds, and potentially cut features, of Neolithic date to lie within the Proposed Scheme.
- 4.3.4 Early Bronze Age (circa 2,400 - 1,500 BC) settlements are most likely to be found on rising ground overlooking water courses and river valleys, or other lighter free draining soils, a reflection of the need for the resources and transportation provided by the major rivers. No such features have been recorded within the study area, although there may be some potential in the landscape adjacent to the tributaries of the River Ray.
- 4.3.5 The Middle Bronze Age (circa 1500 - 1100 BC) saw the first sustained settlement evidence, with round houses, field enclosures and droeways all recorded elsewhere within Buckinghamshire. Settlement evidence for this period would comprise more substantial cut features (including postholes, gullies, enclosures and paddocks) as well as artefactual evidence. Roundhouses are the typical settlement feature of the period found both in isolation and in small groups. As with earlier periods, these settlements are most likely to be found overlooking water courses in landscapes with free-draining soils suitable for agriculture. Deforestation and woodland clearance expanded during this period. This deforestation suggests there may be greater potential for settlement in the more marginal upland areas, including much of the study area. No such settlement is recorded within the study area.
- 4.3.6 The Bronze Age also saw early land division, evidence for which survives as extant landscape features in central and southern Buckinghamshire. These divisions survive as shallow cut features as well as earthworks and large dykes. There is no evidence, however, for similar large scale land division in the clay uplands, which may have been more suitable for cattle and horses, rather than agriculture<sup>11</sup>. Surviving evidence for

<sup>9</sup> Thomas, J., (1999), Understanding the Neolithic.

<sup>10</sup> Bradley, R., (2010) The Neolithic and Early Bronze Age. In: The Solent Thames Archaeological Research Framework.

<sup>11</sup> Kidd, S., (2010), Prehistoric Farmers. In: Farley, M. (ed), An Illustrated History of Early Buckinghamshire.

these land divisions would comprise linear earthworks and ditches, which may or may not correspond to later field boundaries<sup>12</sup>.

- 4.3.7 The extant pattern of isolated farmsteads changed in the Iron Age (700 BC – 43AD). This period saw the addition of larger settlements and more centralised features such as hillforts, of which the nearest example is at Aylesbury, and oppida, the nearest of which is at St Albans. These large settlements are rarer in North Buckinghamshire than in other parts of southern Britain. This may reflect the use of the claylands for livestock, as opposed to arable farming.
- 4.3.8 In the Late Iron Age (circa 100 BC - AD43) the study area probably fell within the territory of the Catuvellauni, with a major oppidum at St Albans<sup>13</sup>.
- 4.3.9 Population increases during the Iron Age may have necessitated farming on previously more marginal areas, such as the clay uplands. It has been established from mollusc and pollen evidence that the landscape had been largely cleared of woodland in the Bronze Age, which may have further encouraged farming in the study area.
- 4.3.10 Evidence of Iron Age settlement in the wider landscape around the study area is scarce, although this may be due to a lack of archaeological investigation in the region.

## 4.4 Romano-British (AD 43 - 410)

- 4.4.1 Changes in settlement patterns in Buckinghamshire in the Late Iron Age/Roman period have been described as 'subtle rather than dramatic'<sup>14</sup>. The study area during this period formed part of the Roman Civitas Catuvellaunorum<sup>15</sup>.
- 4.4.2 This pattern may not be clear-cut across the region and could have been dependent on the changing quality of the agricultural land as the climate improved. It is currently difficult to determine the potential for continuity of occupation of Late Iron Age sites into the Roman period within wider landscape. Settlement of Roman date is usually more extensive in scale than that of the later Iron Age, with a greater variety of material culture (including now pottery typologies, metalwork and glass); there is also widespread use of stone, brick and tile for building. In addition, the establishment of the Roman road network had a major effect on the landscape, leading to the establishment of new settlements and the growth of existing centres<sup>16</sup>.
- 4.4.3 Evidence of Late Iron Age settlement continuing into the Roman Period has been recorded elsewhere in Buckinghamshire, although no such evidence has been recorded within the study area itself.
- 4.4.4 The small town at Fleet Marston was located 9km to the south east of the Proposed Scheme. This small town can be expected to have had an extensive hinterland of agricultural settlements in order to support it; these could be in the form of both farmsteads and villa estates. Associated remains are likely to extend along Greatmoor

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<sup>12</sup> Kidd, S, (2009). Buckinghamshire Late Bronze Age and Iron Age: Historic Environment Resource Assessment, Buckinghamshire County Council website

<sup>13</sup> Cunliffe B., (2005), Iron Age Communities in Britain (4th Ed).

<sup>14</sup> Kidd, S., (2010), Prehistoric Farmers. In: Farley, M. (ed), An Illustrated History of Early Buckinghamshire.

<sup>15</sup> Zeepvat, R. J. and Radford, D., (2010), Roman Buckinghamshire. Solent Thames Research Framework

<sup>16</sup> Zeepvat, R. J. and Radford, D., (2010), Roman Buckinghamshire. Solent Thames Research Framework

Road (formerly named 'Akeman Street')<sup>17</sup>, which is located at the southern end of the Greatmoor EfW facility access road (3km to the south of the study area).

4.4.5 No Roman remains have been identified within the study area.

## 4.5 Early medieval and medieval (AD 410 - 1539)

4.5.1 The broad pattern of landscape and settlement which exists in the study area and the wider landscape was laid out during the early medieval and medieval period. Clustered villages surrounded by agricultural hinterland predominate, with scattered manors and farmsteads (and an ecclesiastical grange at Shipton Lee) in the surrounding countryside.

4.5.2 During this period the study area formed part of the Royal Forest of Bernwood<sup>18</sup>. It should be noted that 'forest' in this context does not necessarily mean that it was wooded. The word may have originally been derived as a description of a place outside the ordinary laws and subject to special laws concerned with preserving game, specifically deer. Nearly always the legal forest was much larger than the physical woodland and areas of unenclosed heath and moorland were considered acceptable elements of a 'forest'<sup>19</sup>. Any terrain that comprised 'vert', vegetation which afforded food and shelter for game, could be included within the forest.

4.5.3 The establishment of these forests made the pursuit of deer a socially divisive function, restricting venison to the elites, and the harsh punishments established following the Norman Conquest formed part of a process of direct control of elements of the landscape by the Crown<sup>20</sup>.

4.5.4 There is evidence of royal hunting in the Forest of Bernwood from the pre-Conquest period and the settlement of Brill to the south west of the study area included a hunting lodge built by Edward the Confessor<sup>21</sup>.

4.5.5 Bernwood is recorded as a Royal Forest in the Domesday Survey and it is highly likely that the forest expanded throughout the 11th and 12th centuries, in line with the expansion of the forest system throughout Britain. The forest reached its largest extent in the second half of the 12th century when it was recorded as part of the 1184 Assize of Woodstock. This expansion under Henry II, however, was probably a legal jurisdiction in order to provide a link with other Royal Forests, rather than an expansion of physical woodland. An inquest of 1254 details income of the 'Forester' of the Forest of Bernwood, which included contributions from Diddershall, Shipton Lee and Quainton<sup>22</sup>. The study area lies in the northern part of the former forest.

4.5.6 The expansion of the forest proved unpopular with local landowners and lords and in 1217 the 'Charter of the Forest' was issued. This 'disafforested' those areas claimed

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<sup>17</sup> Margary, I., (1973), *Roman Roads in Britain*, 3rd Ed.

<sup>18</sup> Harvey, I. M. W., (1997), *Bernwood in the Middle Ages*. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

<sup>19</sup> Grant, R., (1991) *The Royal Forests of England*.

<sup>20</sup> Grant, R., (1991) *The Royal Forests of England*.

<sup>21</sup> Harvey, I. M. W., (1997), *Bernwood in the Middle Ages*. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

<sup>22</sup> Harvey, I. M. W., (1997), *Bernwood in the Middle Ages*. In: Broad, J. and Hoyle, R. (eds), *Bernwood: The Life and Afterlife of a Forest*.

under Henry I, and re-establishing the Forest of Bernwood across a more compact area centred on Brill, Boarstall and Oakley<sup>23</sup>.

- 4.5.7 In addition, the granting of land in the forests to the nobility reduced the area directly controlled by the crown. A perambulation of Bernwood Forest, carried out in 1298, records a much smaller area of forest. Several areas are excluded, as being formerly part of the forest under Henry II, but since having been specifically 'disafforrested'. This includes woodlands at Shipton Lee (within the study area) and Middle Claydon (to the north of the study area) suggesting that the study area no longer formed part of the Royal Forest by 1298<sup>24</sup>.
- 4.5.8 Several areas of designated ancient woodland are located within the study area and probably previously formed part of the Forest of Bernwood (GRS027, GRS028, GRS029, GRS030, GRS031, GRS032, GRS033, GRS034, GRS035 and GRS036).
- 4.5.9 A former Cistercian Grange belonging to Thame Abbey<sup>25</sup>, was located outside of the study area (2.2km east of the Proposed Scheme) at Shipton Lee. This Grange and its demense formed part of the hamlet of Shipton Lee, sandwiched between Quanton and Bernwood Forest. An outlying Hermitage, potentially associated with the Grange, survives as extant earthworks (GRS014) at the junction of Three Points Lane (GRS038) (within the study area) close to Finemerehill House (GRS001).
- 4.5.10 Open field strip fields in the form of ridge and furrow cropmarks and earthworks were recorded across the study area, as part of the ES remote sensing survey (summarised in Appendix 4.07 and shown in Map ES-14) identified in areas L31 (GSR040, L32 (GSR041), L33 (GSR042), L34 (GSR043), L35 (GSR044), L36 (GSR045), L37 (GSR046), L38 (GSR047), L39 (GSR048), L40 (GSR049), L41 (GSR050), L42 (GSR051) and L43 (GSR052). In addition an area of extant ridge furrow was identified within the study area but outside of the survey area (and the Proposed Scheme area), to the south of Knowlhill Farm, adjacent to Sheephouse Wood (GRS032), during the site walkover.
- 4.5.11 The ridge and furrow remains within the study area are located away from the historic village cores, in areas adjacent to ancient woodland (associated with the Forest of Bernwood). This suggests that these features represent the remains of assarted (woodland clearance) fields, potentially associated with the Grange (and hermitage) and/or small demesne farms. These remains are likely to reflect land management in the late medieval/early post medieval period, following the disforestation of the Bernwood.

## 4.6 Post-medieval (1539 - 1900)

- 4.6.1 The post-medieval period witnessed the widespread abandonment of the medieval agricultural organisation based on open fields with its ridge and furrow strips divided by headlands. This was replaced by enclosed fields, both for arable production and to provide enclosed pasture.

<sup>23</sup> Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle, R. (eds), Bernwood: The Life and Afterlife of a Forest.

<sup>24</sup> Harvey, I. M. W., (1997), Bernwood in the Middle Ages. In: Broad, J. and Hoyle, R. (eds), Bernwood: The Life and Afterlife of a Forest.

<sup>25</sup> 'Parishes : Quanton with Shipton Lee', in A History of the County of Buckingham: Volume 4, ed. William Page (London, 1927), pp. 92-99. British History Online <http://www.british-history.ac.uk/vch/bucks/vol4/pp92-99> [accessed 12 June 2016].

- 4.6.2 The enclosure of the landscape potentially commenced in the later medieval period and accelerated after the final dissolution of the monasteries under Henry VIII between 1536 and 1539, which brought more land into private ownership. This had a significant effect on the study area with the surrender of the Grange estate of Shipton Lee (which included the hermitage site near Finemerehill House), by Thame Abbey in 1539<sup>26</sup>.
- 4.6.3 The landscape within the study area was enclosed in a piecemeal fashion from the 16th century onwards. The landscape around Doddershall (to the south of the study area) was enclosed from 1495 and other areas may have seen similar early enclosure, before parliamentary enclosure was carried out in the 18th and 19th centuries.
- 4.6.4 Many of the farmhouses and associated agricultural buildings in the study area were built between the 17th and 19th centuries (see Section 5). These include Lower Great more House (GRS003), Finemerehill House (GRS001), Knowlhill Farm (adjacent (north east) of the study area) and a former farm complex located between Lower Greatmoor House and Finemerehill House (GRS015). This former farm complex was still present on maps up to the mid-20th century and earthwork remains of this farm were still visible in a copse (during the walkover), adjacent to a Proposed Scheme landscape/ecology planting area.
- 4.6.5 These post medieval farms were linked to the settlements at Quanton and Grendon Underwood by a drove way (GRS039) and Three Points Lane (GRS038).
- 4.6.6 Claydon, the 18th century seat of the Verney family, lies approximately 2.8km to the east of the Proposed Scheme, is located outside of the study area. However, documentary evidence indicates that the Verne Estate formerly incorporated parts of the study area including Finemerehill House<sup>27</sup>.
- 4.6.7 As discussed in Section 3 above. Archaeological evidence of post-medieval settlement (GRS026) associated with Lower Greatmoor House has also been recorded within the Greatmoor EfW facility. These remains were associated with the former route of the drove way (GRS039).

## 4.7 Twentieth century/modern (1900 - present)

- 4.7.1 The Twentieth century industry is represented by the clay extraction pits that were worked at Calvert (GRS025). These are recorded on maps dating from the mid-20th century, and included extensive infrastructure.
- 4.7.2 The railways within the study area are discussed within the 'built heritage' section below.

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<sup>26</sup> 'Parishes : Quanton with Shipton Lee', in A History of the County of Buckingham: Volume 4, ed. William Page (London, 1927), pp. 92-99. British History Online <http://www.british-history.ac.uk/vch/bucks/vol4/pp92-99> [accessed 12 June 2016].

<sup>27</sup> SLR (2011) Greatmoor EfW, Calvert, Buckinghamshire, Heritage Impact Assessment; Lower Greatmoor Farm and Finemere House.



## 5 Built heritage

### 5.1 Introduction

5.1.1 This section provides baseline information relating to built heritage assets within the land required, temporarily or permanently, for construction of the Proposed Scheme, 500m study area and 2km study area. This section provides the following information:

- descriptions of all built heritage assets or asset groupings wholly or partially within the land required, temporarily or permanently, for construction of the Proposed Scheme. This includes descriptions of settlements where relevant;
- descriptions of all built heritage assets or asset groupings wholly or partially within 500m of the edge of the land required, temporarily or permanently, for construction of the Proposed Scheme. This includes descriptions of settlements where relevant.

5.1.2 A broad overview of the character and form of the settlement pattern within the study area can be found in Section 6 of this appendix.

5.1.3 Further information on all these assets, plus those other designated assets which lie within the wider study area but are not described in this section of the appendix, can be found in the Gazetteer in Volume 4.05: Environmental Statement Technical Appendix: Gazetteer of heritage assets. The assets are mapped on Maps ES-11 and ES-12, in Volume 3 of this ES.

### 5.2 Built heritage assets within the land required, temporarily or permanently, for construction of the Proposed Scheme

#### Railway Heritage

5.2.1 The Great Central Railway (GCR (GRS019)) was the last of the great Victorian mainline railway projects and was opened in 1899 to link London, with a terminus at Marylebone, to Sheffield via Leicester and Nottingham.

5.2.2 The GCR had a junction near Woodland Farm where it linked with the now-disused the Grendon Underwood to Ashendon Railway which was opened in 1906 (FC022). This former track is now used as an access road for Greatmoor EfW facility.

5.2.3 The GCR was constructed to a very advanced standard for its day with very few steep gradients and few sweeping curves to facilitate high speed traffic. The line was also designed to accommodate future European expansion. To this end (and unlike the other great Victorian mainlines) the structures on the line including bridges and platforms were constructed to accommodate the larger European loading gauge, with a long-term view towards connection to Europe via a channel tunnel. Stations were also built to a standardised design as islands between the tracks in order that the track could be moved away from platforms and/or extra track could be added if and when necessary<sup>28</sup>.

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<sup>28</sup> Healy, J., (1987), Echoes of the Great Central.



- 5.2.4 The GCR from the beginning had difficulty competing with the existing large railway conglomerates, especially in attracting passenger traffic. The GCR did however develop a niche for moving rich business passengers on fast luxurious trains, effectively creating Britain's first long distance commuter line. The GCR also developed strongly as a route for moving freight<sup>29</sup>.
- 5.2.5 The financial crisis and poor relations with Europe engendered by World War I and its conclusion put paid to GCR hopes for a European connection and channel tunnel. As such, under the 1923 Railway Grouping Act the GCR became subsumed within the London and North Eastern Railway. Duplicating services already available via both the London and North Eastern Railway and London Midland and Scottish the former line of the GCR did not prosper. As freight transport by rail declined after World War II the line became increasingly neglected.
- 5.2.6 Traffic on the former GCR was run down during the early 1960s with most local and branch line passenger services being cancelled in 1963 with the closure of many rural stations. Mainline services were also heavily curtailed with trains running beyond Nottingham being cancelled in 1960 and the service between London and Nottingham reduced to three slow services per day<sup>30</sup>. A total of five bridges, underpasses, and points are recorded within the land required to construct the Proposed Scheme, associated with the GGR.

### 5.3 Built heritage assets within 500m of the boundary of the land required, temporarily or permanently, for construction of the Proposed Scheme

- 5.3.1 The following built heritage assets or asset groupings, both designated and non-designated, lie wholly or partially within 500m of the land required, temporarily or permanently, for construction of the Proposed Scheme. The assets are described from the north, running a clockwise rotation around the Proposed Scheme.

#### **Finemerehill House (GRS001)**

- 5.3.2 Finemerehill House is a Grade II listed house situated on the western edge of Quainton Parish adjacent to the boundary with Grendon Underwood and approximately 40m to the east of the Proposed Scheme. The house is accessed from the north via Three Points Lane (GRS038) which runs south from the Claydon estate between Sheephouse Wood SSSI (GRS035) and Romer Wood (GRS033).
- 5.3.3 The house lies on a hillside at approximately 121mAOD, the western limit of a ridge which runs east to Quainton, and slopes down to the west overlooking the relatively flat landscape around Lower Greatmoor and the Great Central Railway at approximately 70m AOD.
- 5.3.4 The earliest origins of the house are unclear from documentary sources, but it is likely that the farm was established either in the late medieval or early post medieval period as a private landholding for pasture<sup>31</sup>. An inscribed tablet at the house dated to 1628

<sup>29</sup> Healy, J., (1987), Echoes of the Great Central.

<sup>30</sup> Healy, J., (1987), Echoes of the Great Central.

<sup>31</sup> SLR (2011) Greatmoor EfW, Calvert, Buckinghamshire, Heritage Impact Assessment; Lower Greatmoor Farm and Finemere House.

appears confirm the early date for the existence of a farm in this location. The houses proximity to the earthworks for the medieval hermitage (GRSo14), suggests that the farm house may have its foundations associated with dissolution of Thame Abbey.

- 5.3.5 The earliest map evidence for the house is Jefferys' Map of Buckinghamshire dated 1770 shows a building on the western edge of 'Fine Moor Hill' overlooking Greatmoor. Finemerehill House also appears on Bryant's Map of 1825, called Kinemore Farm, situated between Greatsea Wood and Quainton Wood (referring to Finemere Wood SSSI). The 1880 Ordnance Survey map shows Finemerehill House situated towards the eastern edge of a small irregular curtilage, with outbuildings to the west and wooded grounds with trees lining Three Points Lane as it ran further south.
- 5.3.6 The house was extensively remodelled in the last quarter of the 19th century (as shown by the Ordnance survey map of 1899). The farm buildings to the west of the house were removed and replaced with new outbuildings arranged as a courtyard to the northeast, placing the house at the western edge of the plot overlooking the lower ground to the west of Finemere Hill.
- 5.3.7 The house and its curtilage remained little changed throughout the 20th century. The wider landscape however underwent some change. In the early part of the century the Calvert Brick Works (GRSo25) was created and expanded rapidly and the Grendon Underwood and Princes Risborough Railway (GRSo22) was opened in 1906 while a number of small farmsteads were lost and fields amalgamated into larger units. The boundaries of ancient woodland near to the house remained unchanged.
- 5.3.8 The house occupies an elongated, sub-oval plot of land with an outbuilding to the northeast and vegetation cover surrounding the house to the east. The garden boundaries are defined by mixed mature hedges.
- 5.3.9 The setting of Finemerehill House is dominated by the wide vista afforded by its position on the hillside (particularly westwards towards the Vale of Aylesbury). This aspect was deliberately exploited during the redevelopment of the site in the late 19th century.
- 5.3.10 The central portion of the visible landscape is dominated by larger post-enclosure fields in the foreground (in the area of the Proposed Scheme landscape planting), originally crossed by drove ways and interspersed with similar small farmsteads, though this element of the landscape is now gone for the most part. The landscape in the middle distance includes the Calvert landfill site, railways, quarry workings the Greatmoor EfW facility and prison (at Grendon Underwood). This view in the middle distance has evolved throughout the modern period (although the rural landscape of the wider Vale is prominent) and it's this setting within which the Proposed Scheme will lie.
- 5.3.11 The curtilage of the house forms its immediate setting, underwent change as part of its redevelopment in the late 19th century. The garden boundary was reshaped, with trees and farm buildings removed to allow the opening up of views to the west. The historic and organic pattern of development of the farm was broken at this point, and the curtilage no longer reflects the type of farmstead it once was, reducing its legibility.

- 5.3.12 The Finemere Hill area includes many public Rights of Way, and the identification of the house as a local landmark is an indication that the house has a connection to the surrounding landscape beyond that which was intended, with views toward the house forming a significant part of its setting.

### **Lower Greatmoor Farm (GRS003)**

- 5.3.13 Lower Greatmoor Farmhouse is a Grade II listed house with an attached barn located in the parish of Grendon Underwood, around 50m south of the Greatmoor EfW facility (and within 90m of the land required for the construction of the Proposed Scheme). The local landscape is partly open, with large fields divided by a mixture of low hedgerows and mature hedgerows, and scattered mature trees and plantations of woodland.
- 5.3.14 The house is dated in its listing to the 17th century. The curtilage of the farm has remained little changed (until recently) since the early 19th century, with land to the west and east of the house containing associated buildings.
- 5.3.15 The farm was originally approached from the north via a private track between hedgerows<sup>32</sup>. This route was severed/alterd by the development of the railway. The house and barn (forming a modest linear plan typical of medieval and later dairying or stock rearing) would have been seen from the northwest facing towards the southeast, and ancillary buildings were clustered to the south and east of the house.
- 5.3.16 The farm is now approached along a track through fields from the south. The views of the house are from the south between farm buildings created in the 20th century, the tree-lined backdrop formed by the former hedgerows lining the original access road. The Greatmoor EfW facility is visible above the tree-lined backdrop (and dominates the view to the north). The building stock now includes modern structures to the south and west of the house, and a dairy constructed in the mid-19th century.
- 5.3.17 The farmland historically associated with the farmhouse included fields to the south and east of the former access road. An area of former moorland (denoted in the name 'Great Moor'), the farm is an example of early colonization of previously uninhabited land. Its selection as a location for settlement may be attributed to the natural drainage provided by water courses which partly surround the farm and its accessibility by drove road (GRS039) between markets at Grendon Underwood and Quainton. As discussed in Section 3, post medieval settlement evidence associated with the farm and drove way were recorded to the north of the asset prior to the construction of the Greatmoor EfW facility.
- 5.3.18 The anciently enclosed fields that enclose the farm may have been assarted from woodland and were initially likely to have been dominated by improved pasture.

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<sup>32</sup> SLR (2011) Greatmoor EfW, Calvert, Buckinghamshire, Heritage Impact Assessment; Lower Greatmoor Farm and Finemere House.

## 6 Historic map and air photo regression

6.1.1 The analysis of the cartographic evidence for the study area is contained in Table 1 below.

Table 1: Cartographic evidence

Map Name	Date	Description
Jefferys Map of Buckinghamshire	1770	This map shows the areas much of the existing woodland. The map also shows the location of Finemerehill House, which is labelled as Fine Moor Hill and a number of buildings dotted across 'Greatmoor'.
Ordnance Survey	1813	The map depicts Three Points Lane, the site of Lower Great Moor Farm and Finemere House 'Fine Mere Hill'. The now abandoned farm is labelled as 'Shipton Lee Farm'. A potential drove road is depicted connecting these farms to the Quainton and Grendon Underwood.
Bryants Map of Buckinghamshire	1825	The map depicts as largely unchanged. Finemere House is depicted as 'Kinemere Farm' and Lower Greatmoor Farm is depicted as 'Gritmoor Farm'.
Grendon Underwood Tithe Map	1844	This map covers the area of the Proposed Scheme located in the parish of Grendon Underwood (Excluding Finemerehill House which is located in in Quainton). The core of the existing Lower Greatmoor Farm is depicted and the surrounding landscape is shown as irregular enclosed fields and woodland. The drove way is also depicted.
Ordnance Survey	1880	The map depicts Three Points Lane, the site of Lower Great Moor Farm and Finemere House 'Fine Mere Hill'. The now abandoned farm is labelled as 'Shipton Lee Farm'. A potential drove road is depicted connecting these farms to the Quainton and Grendon Underwood.
Ordnance Survey	1899	The map depicts the GCR bisecting the Proposed Scheme area, for the first time. The line cuts through the droveway,
Ordnance Survey	1900	No significant change.
Ordnance Survey	1952	The map depicts the Grendon Underwood to Ashendon Railway is depicted for the first time. The farm buildings located between Finemerehill House and Lower Greatmoor Farm are depicted as still being present. The Calvert Brickworks are depicted to the north west of 'Charndon Wood'.
Ordnance Survey	1958	No significant change.
Ordnance Survey	1966	No significant change.
Ordnance Survey	1984	A clay pit is depicted in the former area of 'Charndon Wood'. Upper Greatmoor Farm is depicted adjacent to Lower Greatmoor Farm for the first time. The farm buildings located between Finemerehill House and Lower Greatmoor Farm are no longer depicted,

## 7 Historic landscape

7.1.1 A search has been undertaken on the Historic Landscape Character Data provided by the Buckinghamshire Historic Environment Record within the extent of works.

Table 2: Buckinghamshire Historic Landscape Character Data

HLC UID	Description	Former Use
HBC2289	20th century enclosure. Prairie fields.	Pre-18th century enclosure
HBC2291	Pre-18th century enclosure	
HBC2297	20th century enclosure. Prairie fields.	Pre-18th century enclosure
HBC3447	Pre-18th century enclosure	
HBC3448	Pre-18th century enclosure	
HBC3449	20th century enclosure. Prairie fields.	Pre-18th century enclosure
HBC3405	20th century enclosure. Prairie fields.	Pre-18th century enclosure
HBC3428	20th century enclosure. Prairie fields.	Pre-18th century enclosure
HBC3450	Pre-18th century enclosure	
HBC3451	Pre-18th century enclosure	
HBC3530	19th century enclosure	Pre-18th century open field

## 8 Historic parks and gardens

- 8.1.1 An aspect of the post-medieval landscape was the creation of private parkland, often designed as pleasure grounds for the aristocracy and rising gentrified class.
- 8.1.2 No designated parks and gardens lie within 500m of the land required, to construct the Proposed Scheme.

## 9 Archaeological character

### 9.1 Introduction

- 9.1.1 As part of the HS2 Phase One ES assessment for community forum areas 12 (Waddesdon and Quainton<sup>33</sup>) and 13 (Calvert, Steeple Claydon, Twyford and Chetwode<sup>34</sup>), the Greatmoor Railway Sidings study area was sub-divided into archaeological character areas. These archaeological character areas were derived from a consideration of the current topography, geology and current land-use. From these factors the potential for recovery of archaeological remains is considered.
- 9.1.2 From these broad character areas, the landscape was further subdivided into Archaeological Sub-Zones (ASZ) which have allowed for a more in-depth understanding of the archaeological potential of the study area. The Greatmoor Railway Sidings study area has been sub-divided into 9 ASZ. Although initially defined and characterised by current land use, a number of additional factors have determined the potential of these subzones to contain archaeological remains of value. These factors include topography, geology, historic character and distribution of known archaeological finds, sites and assets.

### 9.2 Character area

- 9.2.1 The broad historic character for the study area is dominated by undulating land formed from heavy Oxford Clays. This clay is generally poorly drained, with the water courses that do exist flowing south and west into the Upper Thames.
- 9.2.2 Settlement in the wider area is primarily nucleated villages but within the study area the settlement character is of dispersed settlement, comprising scattered farmsteads and hamlets. The landscape contains parliamentary enclosure, earlier piecemeal enclosures and elements of former ancient woodland, including Bernwood Forest.
- 9.2.3 Archaeological evidence is limited, again reflecting the lack of archaeological work.

### 9.3 Archaeological sub-zones

- 9.3.1 The ASZ identified as part of the HS2 Phase One ES contained in the study area are presented in Table 3, Archaeological sub zones, south to north. An indication of archaeological potential for each sub-zone is provided.

<sup>33</sup> [http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5\\_CFA12\\_Cultural\\_heritage\\_Baseline\\_report\\_CH-001-012.pdf](http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5_CFA12_Cultural_heritage_Baseline_report_CH-001-012.pdf)

<sup>34</sup> [http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5\\_CFA13\\_Cultural\\_heritage\\_Baseline\\_report\\_CH-001-013.pdf](http://webarchive.nationalarchives.gov.uk/20140806173413/http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/cultural-heritage/Vol5_CFA13_Cultural_heritage_Baseline_report_CH-001-013.pdf)

Table 3: Archaeological sub zones

No	Name	Topography	Geology/soils	Modern land use	Historic character (HLC)	Archaeology (from baseline DBA)
12-11	River Ray and surroundings	The topography of the ASZ slopes down into the Ray, forming a shallow valley, before rising to a high point to the north, adjacent to Finemere Wood SSSI.	The underlying bedrock is Mudstone, of the Weymouth Member. Alluvial deposits are recorded alongside the course of the Ray, although no gravel terraces are recorded.	Agriculture, a mix of arable and pasture, as well as two small lakes.	The landscape within the ASZ has historically been agricultural, with straight boundaries and regular enclosures indicative of parliamentary enclosure.	The River Ray represents an attractive location for early settlement, as one of the larger watercourses in a landscape of heavy clay. There is a potential medieval water mill to the north, and several pond-bays indicate historic exploitation of the river. Several earthworks, of unknown origin, were recorded during a walkover survey.
12-13	Finemere Wood SSSI	Gentle south-facing slope, on the southern edge of Finemere Hill.	The underlying geology is Mudstone a mix of the Weymouth and Stewartby formations.	Woodland.	The ASZ is designated as ancient woodland, and is recorded as such on early maps.	The ASZ formed part of the medieval Royal Forest of Bernwood, and there may be evidence of medieval woodland features from this period. Settlement remains are unlikely.
12-14	Farmland on the edge of Bernwood Forest	Generally flat, although rising to Finemere Hill to the east	The underlying geology is Mudstone of the Stewartby Member. Small areas of alluvium are recorded along the course of a small stream, a tributary of the Ray.	Agriculture, primarily arable.	This area was probably part of the Royal Forest of Bernwood, before being disafforested in the later medieval period. There is some evidence of assarting. This area probably formed part of the Verney Estate, centred at Middle Claydon.	Limited evidence has been recorded, but there is evidence of medieval activity in the surrounding landscape.
12-15	Romer/Greatsea/Balmore Wood	West-facing slope, forming the western edge of Finemere Hill	The woods lie on an interface between Mudstone of the Stewartby Member, and Mudstone of the Weymouth Member	Woodland.	The ASZ is designated as ancient woodland, and is recorded as such on early maps.	The ASZ formed part of the medieval Royal Forest of Bernwood, and there may be evidence of medieval woodland features. Settlement remains are unlikely.
12-16	Sheephouse Wood SSSI	The wood is situated on a gentle south-facing slope.	The underlying geology is Mudstone of the Stewartby Member.	Woodland.	The ASZ is designated as ancient woodland, and is recorded as such on early maps.	The ASZ formed part of the medieval Royal Forest of Bernwood, and there may be evidence of medieval woodland features. Settlement remains are unlikely. However, there may be evidence of earlier activity, given the south facing slope and



No	Name	Topography	Geology/soils	Modern land use	Historic character (HLC)	Archaeology (from baseline DBA)
						proximity to a small watercourse.
12-17	Former Claypit	As a former claypit, the original topography has been removed.	The solid geology comprises Mudstone of the Peterborough Member.	Landfill	Formerly part of the Royal Forest of Bernwood, this was excavated as a claypit in the 20th century.	Any archaeological remains will have been removed.
13-1	Calvert landfill	As a former claypit the original topography has been removed	The solid geology comprises Mudstone of the Peterborough Member	Landfill	Formerly part of the Royal Forest of Bernwood, this was excavated as a claypit in the 20th century.	Any archaeological remains will have been removed.
13-2	Decoypond Wood	Generally level, slight west facing slope	The solid geology comprises Mudstone of the Stewartby Member	Woodland	The ASZ is designated as ancient woodland, and is recorded as such on early maps.	The ASZ formed part of the medieval Royal Forest of Bernwood and there may be preserved woodland features of medieval and post-medieval date. Settlement remains are unlikely. A large post-medieval decoypond lies within the wood.
13-3	Fields around Great Pond Farm	The fields are situated on a slight west-facing slope which rises to Knowlhill to the east of the CFA	The ASZ sits on an interface between the Stewartby and Peterborough Mudstone Members.	Agriculture	The ASZ is rural and agricultural, with the irregular boundaries indicative of piecemeal enclosure. This area was probably historically part of Bernwood Forest, and may have included a large pond, as indicated by Great Pond Farm.	The ACZ formed part of the medieval Royal Forest of Bernwood and there may be preserved woodland features of medieval and post-medieval date. Medieval and post-medieval settlement remains are unlikely. There are antiquarian references to potential Roman finds in the area, suggesting there may be potential for currently unrecorded features.

## 10 Analysis and research potential

### 10.1 Analysis of understanding

- 10.1.1 There is a clear lack of archaeological evidence within the study area, primarily as a result of lack of development, and potentially due to the inhospitable environment formed by the heavy clays. Archaeological assets and features identified within the study area are primarily medieval and post-medieval in date.
- 10.1.2 The geology and topography of the study area, heavy clay with limited water courses, is ill-suited to occupation and exploitation. The streams and tributaries that are present are small and would have had limited potential for prehistoric exploitation however there is some potential for alluvium to 'seal in' palaeoenvironmental remains.
- 10.1.3 The study area appears to have been largely wooded during the early medieval period, as part of the Royal Forest of Bernwood. The forest underwent disafforestation and assarting during the later medieval period. The early post medieval period saw the development of farmsteads across the study area, interlinked by a drove way and Three Points Lane (a field lane). This rural landscape remained largely unchanged, even with the introduction of the railway and the development of the brick works at Calvert.
- 10.1.4 The settings of the listed Finemerehill House and Lower Greatmoor Farm, both located within the study area, have been impacted by the construction of the Greatmoor EfW facility.
- 10.1.5 Understanding of the archaeological potential of the area is constrained by several factors including;
- the limited archaeological work carried out within the wider area;
  - the truncation effect of ridge and furrow agriculture on earlier archaeological remains; and
  - limited effectiveness of geophysical survey on the geology of the study area; and

### 10.2 Research potential and priorities

- 10.2.1 The Proposed Scheme has some potential to increase our archaeological knowledge and understanding of the locality. Many research questions can best be formulated at either a scheme wide or at a county/multiple community forum area level. These will draw heavily on the regional and period research frameworks, which have been prepared with support from Historic England<sup>35</sup>.
- 10.2.2 This section presents research questions which are specific to the heritage assets, either known or suspected, within the study area.
- 10.2.3 The research potential and priorities are considered on a chronological basis:

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<sup>35</sup> Oxford Archaeology and Buckinghamshire CC et al.,(Ongoing), *Solent Thames Research Framework: A framework for Berkshire, Buckinghamshire, Oxfordshire, Hampshire and the Isle of Wight*, Oxford Archaeology, Oxford.

- palaeoenvironmental evidence is lacking within the study area and the wider landscape. Can the waterlogged deposits provide evidence of the prehistoric environment and shed light on potential use of the claylands in this period?
- there is a general lack of archaeological evidence within the study area; is this a biased result of limited archaeological works, or does it reflect limited historic activity due to the heavy clay and lack of watercourses?
- can the extent(s) of the Royal Forest of Bernwood be determined at various periods; can our understanding of the processes behind the expansion and decline of the Royal Forests be expanded, and is there evidence of assarting and other woodland settlement activity?
- what evidence survives relating to the construction of the railways, and can we draw any conclusions about their role in social history, including any navy camps or other features?

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## 11.2 Cartographic Sources

### Historic Maps

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- Bryants Map of Buckinghamshire 1825. Centre for Buckinghamshire Studies

### Tithe Maps

- Grendon Underwood Tithe Map 1844. Centre for Buckinghamshire Studies

### Ordnance Survey Maps

- 1813
- 1880; 1:2500
- 1899; 1:2500
- 1900; 1:10,000
- 1952; 1:10,000
- 1958; 1:2500
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