

## INTRODUCTION

15.1 This chapter of the ES assesses the likely significant effects of the proposals on the cultural heritage resource.

15.2 The cultural heritage resource encompasses historic landscapes, archaeological remains and built heritage (historic buildings) that may survive as upstanding or buried remains. In line with best practice, the impact assessment process for heritage is separated between these three sub-topics, each requiring different techniques for their study and assessment. On advice from Gloucestershire County Council (see paragraph 15.33), the historic landscape has not in this case required assessment for the application site. The impact of the proposals on cultural heritage resources has therefore been assessed under two sub-topic headings, archaeological remains and built heritage.

## METHODOLOGY

15.3 Information relating to the cultural heritage resource has been obtained for an area extending to a 500m radius from the application site boundary (subsequently referred to as the study area). Information has been collated using desk-based research techniques and existing sources of published and unpublished information as described below, supplemented by a site walkover.

### Gloucestershire Sites and Monuments Record

15.4 The Gloucestershire Sites and Monuments Record (GSMR) is a database of recorded archaeological sites, findspots and archaeological events within the county. Information held on GSMR (as at June 2008) has been reviewed and synthesised for the purposes of this assessment. Relevant extracts from the GSMR for the study area are provided in gazetteer format in Table 15.6 at the end of this chapter.

### Documentary sources

15.5 Information relating to any Scheduled Ancient Monuments, Listed Buildings and Historic Parks and Gardens within the study area was obtained from English Heritage's online resources. Information relating to designated Conservation Areas was obtained from the Tewkesbury Borough Local Plan.

15.6 A search of other relevant primary and secondary sources was carried out both online, and at the

Gloucestershire Archives and within Wessex Archaeology's own archive. Recent volumes of local journals were consulted, and both published and unpublished archaeological reports relating to excavations and observations in the area around the application site were studied. The information sources consulted are listed under 'References' at the end of this chapter.

### Cartographic sources

15.7 A search of historic manuscript and Ordnance Survey maps was undertaken to help clarify the archaeological potential of the application site. The maps relevant to the application site are listed under the 'References'.

### Previous studies

15.8 In 1989 an archaeological evaluation was undertaken at Wingmoor Farm (29; Wills & Parry 1990, 194) following evidence from aerial photographs indicating an area of cropmarks adjacent to the quarry, and the results of a geophysical survey, indicating the possibility of anomalies of archaeological interest in six randomly placed areas within the site covering a total of 3ha (Figure 15.1). The subsequent targeted trial excavation established that the geophysical features of possible archaeological significance were mainly of geological origin with evidence of some disused modern field boundaries.

15.9 The Aggregate Landscape of Gloucestershire: Predicting the Archaeological Resource (Mullin 2005) undertaken by the Archaeology Service at Gloucestershire County Council, assessed the archaeological resource threatened by the extraction of aggregate minerals within Gloucestershire, including the application site.

15.10 To the east of the application site at Lower Farm, archaeological excavations in advance of quarrying in the 1960s recorded a small Saxon cemetery (No. 1 on Figure 15.1).

## ASSESSMENT METHODOLOGY

### Context

15.11 As described in detail in Chapter 7 of this ES, the predicted effects of the proposals on the cultural heritage resource have been considered against two scenarios:

- (i) the do nothing scenario, with the site closing 13 May 2009 and no further operations taking place at the site, and
- (ii) minimum engineered scheme, required to leave the site in a safe and suitably managed form.

15.12 A number of relevant documents were reviewed to inform the assessment methodology. These include the standards and guidance set by the Institute of Field Archaeologists (IFA) in their papers of 1993 and 1994 (revised in 2001), and the guidance offered in Planarch II (Hey and Lacey 2001). Although originally developed for the assessment and comparison of road schemes, the most up-to-date and comprehensive best practice guidance for undertaking heritage EIAs is that contained in the Design Manual for Roads and Bridges published by the Highways Agency (DMRB Volume 11 Section 3 Part 2 HA208/07 Cultural Heritage, subsequently referred to as the DMRB 11.3.2).

### Definition of impacts

15.13 Within the DMRB an impact is defined as a 'change to the cultural heritage resource caused by the mitigated scheme'. Guidance is given on the identification and definition of impacts, which in summary can be: positive; negative; direct; indirect; long-term; temporary; and/or cumulative. Impacts can arise from activities which take place during construction and operation/existence.

15.14 The DMRB sets out an assessment methodology for each cultural heritage sub-topic which defines the significance of effects as being dependent on the value/sensitivity of the cultural heritage receptors and the magnitude of the impacts upon them. For each sub-topic the guidance defines impacts and effects very specifically and this definition has been followed in this assessment.

15.15 The assessment methodologies for the two sub-topics, both of which follow a broadly similar three step approach, are detailed as follows:

#### *Criteria for assessing the value of resources*

##### *Archaeological remains*

15.16 In assessing the value of archaeological remains, professional judgements have been made with reference to the following criteria used by the Secretary of State for Culture Media and Sports to consider applications for Scheduling (PPG 16 Annex 4):

- rarity;
- documentation;

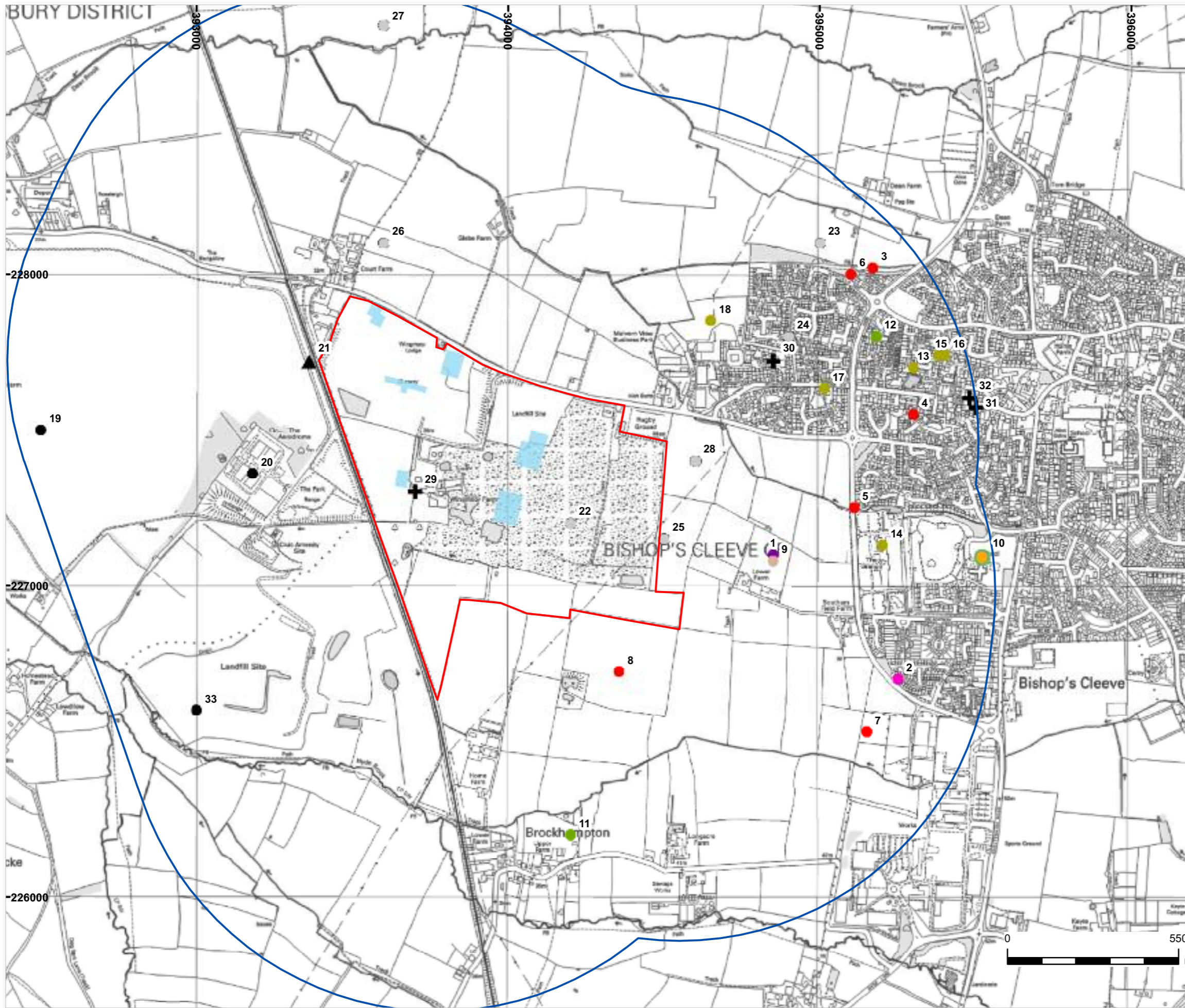


Figure 15.1 : Site Location, Study Area and GSMR information

- Site
- Study Area
- GCC 1989 Evaluations and Geophysics
- Prehistoric and Iron Age
- Prehistoric and Romano-British
- Romano-British
- Saxon-Early Medieval
- Medieval
- Post-medieval
- Multi-period
- + Negative evidence
- Second World War
- Desk-based Assessment
- ▲ Cold War
- Unknown



Source: Wessex Archaeology

Scale: 1:12 500



Based upon the Ordnance Survey scale map with the permission of The Controller of Her Majesty's Stationery Office  
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- group value;
- survival/condition;
- diversity;
- fragility/vulnerability;
- potential, and
- amenity value.

15.17 Reference has also been made to section 5.10 of Annex 5 of DMRB 11.3.2 which considers factors including the local and regional context of the asset (based on the policies within statutory and emerging development plan documents and knowledge from research frameworks and characterisation initiatives), and changes in setting.

15.18 Table 15.1 identifies the framework used for assessing the value of archaeological remains in this assessment based on the DMRB guidance.

**Table 15.1: Factors for Assessing the Value of Archaeological Remains**

Value	Factors for assessment
Very High	World Heritage Sites Assets of acknowledged international importance Assets that can contribute significantly to acknowledged international research objectives
High	Scheduled Monuments Undesignated assets of schedulable quality and importance. Assets that contribute significantly to acknowledged national research objectives.
Medium	Designated or undesignated assets that contribute to regional research objectives.
Low	Undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives.
Negligible	Assets with very little or no surviving archaeological interest.

#### Built heritage

15.19 Table 15.2 provides the framework used for assessing the value of historic building assets in this assessment. This is taken from DMRB 11.3.2 Annex 6.

Listed building Grades I and II\* are judged as 'High Value', and Grade II buildings as 'medium value'. Locally listed or other historic buildings and structures are judged as of 'low value'.

**Table 15.2: Factors for assessing the value of Historic Buildings**

Value	Factors for assessment
Very High	Standing structures inscribed as of universal importance as World Heritage Sites Other buildings of recognised international importance
High	Scheduled Monuments with standing remains Grade I and Grade II* Listed Buildings Other Listed Buildings that can be shown to have exceptional qualities in their fabric or historical association Conservation Areas containing very important buildings Undesignated structures of clear national importance
Medium	Grade II Listed Buildings Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical association Conservation Areas containing important buildings Historic Townscape or built-up areas with historic integrity in their buildings or built settings (eg including street furniture and other structures)
Low	'Locally Listed' buildings Historic (unlisted) buildings of modest quality in the fabric or historical association Historic Townscape or built-up areas of limited integrity in their buildings, or built settings (eg including street furniture and other structures)
Unknown	Assets with very little or no surviving archaeological interest.

#### Criteria for assessing magnitude of impact

15.20 Judgement of the magnitude of impact derives from the principle that the physical preservation of an historic asset is preferred and that the most severe impact would be the destruction of the resource. Other types of impact are ranked between these extremes. The assessment of the magnitude of impact (i.e. the damage

caused to the asset by the proposed works) does not take into account the value of sensitivity of the asset which is taken into consideration in assessing the overall significance of effect.

#### Archaeological remains

15.21 Table 15.3 provides the framework for judging the magnitude of impacts to archaeological remains in this assessment, as taken from DMRB 11.3.2 Annex 5.

**Table 15.3: Factors in the Assessment of the Magnitude of Impacts on Archaeological Remains**

Magnitude of Impact	Factors for assessment
Major adverse	Change to most or all key archaeological elements, such that the resource is totally altered. Comprehensive changes to setting.
Moderate adverse	Changes to many key archaeological elements, such that the resource is clearly modified. Considerable changes to setting.
Minor adverse	Changes to key archaeological elements, such that the asset slightly altered. Slight changes to setting.
Negligible adverse	Very minor changes to elements or setting.
No change	No change.

#### Built heritage

15.22 Table 15.4 provides the framework for judging the magnitude of impacts to historic buildings used in this assessment, as taken from DMRB 11.3.2 Annex 6.

#### Assessing significance of effect

15.23 The DMRB sets out an assessment methodology which defines the significance of effect as being dependent on:

- The value/sensitivity of the cultural heritage receptors affected, and
- The magnitude of the impacts, adverse or beneficial, on cultural heritage receptors.

15.24 The assessment of the impact of the Scheme has been informed by the use of a matrix (Table 15.5) to allow the value/sensitivity of the receptor to be judged against the magnitude of impact, identifying the significance of any effect. It is important that professional judgement is

**Table 15.4: Factors in the assessment of the magnitude of impacts to Historic Buildings**

Magnitude of Impact	Factors for assessment
Major adverse	Change to key historic building elements, such that the resource is totally altered Total change to the setting
Moderate adverse	Change to many key historic building elements, such that the resource is significantly modified Changes to the setting of an historic building, such that it is significantly modified
Minor adverse	Change to many key historic building elements, such that the asset is slightly different Changes to the setting of an historic building, such that it is noticeably changed
Negligible adverse	Slight changes to historic buildings elements or setting that hardly effect it
No change	No change to fabric or setting

applied, so that the assessment is flexible and realistic rather than being applied mechanically.

15.25 Table 15.5 applies to both heritage sub-topics and has been taken from DMRB 11.3.2, Annexes 5 and 7.

15.26 In some circumstances, beneficial effects may arise from projects, eg. an improvement to the setting of a Listed Building from reduction of current impacts. These effects are not recorded in Table 15.5 and are considered on a case by case basis, as and where they arise.

15.27 Definitions relating to the significance of adverse and neutral effects are described here:

#### Neutral effect

15.28 The proposals:

- are not in conflict with, and do not contribute to policies for the protection or enhancement of the heritage resource;
- maintain existing historic character in a landscape/townscape;
- have no appreciable impact, either positive or negative, on any known or potential heritage assets;

**Table 15.5: Significance of effect matrix**

		Magnitude of Impact				
		No change	Negligible	Minor	Moderate	Major
Value/sensitivity	Very High	Neutral	Slight	Moderate/Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
	Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
	Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
	Unknown	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

- are a combination of slight positive and negative impacts, on an aspect of heritage that is of minor importance, and/or
- do not result in severance or loss of integrity, context or understanding within a historic landscape.

#### Slight adverse effect

15.29 The proposals would:

- be in conflict with local policies for the protection of the local character of the heritage resource;
- have a detrimental impact on the context of regionally or locally significant heritage assets, such that their integrity is compromised and appreciation and understanding of them is diminished;
- damage locally significant heritage features for which adequate mitigation can be specified, and/or
- not fit well with the form, scale, pattern and character of a historic landscape/townscape/area.

#### Moderate adverse effect

15.30 The proposals would:

- be out of scale with, or at odds with the scale, pattern or form of the heritage resource;
- be intrusive in the setting (context), and negatively affect the appreciation and understanding of the heritage resource;
- be in conflict with local or regional policies of the protection of the heritage;
- be damaging to very important heritage assets, resulting in loss of features such that their integrity is compromised, but not destroyed and adequate mitigation has been specified, and/or
- directly impact on important or moderately important heritage, resulting in loss of features such as their integrity is substantially compromised, but adequate mitigation can be specified.

#### Large adverse effect

15.31 The proposals would

- have a major negative direct impact on very important heritage assets such that they are lost or their integrity is severely damaged;
- have a moderate negative impact on or compromise the wider setting of multiple very important heritage assets, such that the cumulative impact would seriously compromise the integrity of a related group or historic landscape/townscape;
- have a major negative impact on important heritage assets, such that their integrity is lost and no adequate mitigation can be specified;
- be highly intrusive and seriously damage the setting of the heritage resource, such that its context is seriously compromised and can no longer be appreciated or understood;
- be in serious conflict with government policy for the protection of the heritage resource as set out in PPG15 and PPG16, and/or
- be strongly at variance with the form, scale and pattern of a historic landscape/townscape.

#### CONSULTATION

15.32 The EIA scoping request was informed by the results of a desk-based cultural heritage assessment. In addition to the scoping request submitted to Gloucestershire County Council, the detailed desk-based assessment (DBA) was also made available to the County Council's Senior Planning Archaeologist.

15.33 The EIA scoping request contained a summarised version of the DBA, which concluded that based on the level of baseline data available, the sub-topics of buried archaeology and built heritage should be

considered for assessment within the ES, but the sub-topic of historic landscape excluded. The scoping request also stated that the methodology to be followed for the assessment would be based on the DMRB.

15.34 In response to the scoping request and submission of the detailed DBA, the County Council's Senior Planning Archaeologist confirmed that the available baseline information and the scope of EIA assessment as concluded in the DBA was sufficient to inform the EIA of the proposed Scheme on the cultural heritage resource.

#### IMPLICATIONS OF POLICY AND GUIDANCE

15.35 The national legislative and policy framework protects statutorily designated cultural heritage assets and gives guidance on the management of non-designated heritage assets through the planning process.

#### Archaeological Remains

15.36 Under the Ancient Monument and Archaeological Areas Act 1979 the Secretary of State has a duty to compile and maintain a schedule of monuments of national importance. Once scheduled, the Secretary of State's consent is required before any works are carried out including demolishing, destroying, damaging, removing, repairing, altering, adding to or covering up of the monument.

15.37 Planning Policy Guidance 16: Archaeology and Planning (PPG 16) sets out the Secretary of State's national planning policy on archaeological remains. PPG 16 acknowledges the potentially fragile and finite or irreplaceable nature of archaeological remains (paragraph 6), and states that the desirability of preservation of archaeological remains and their setting is a material consideration within the planning process (paragraph 18). PPG 16 states that there is a presumption in favour of the physical preservation of nationally important archaeological remains (paragraph 8), and that, where preservation in situ is not justified, it is reasonable for planning authorities to require the developer to make appropriate and satisfactory provision for excavation and recording of remains (paragraph 25).

15.38 PPG 16 notes that in spite of the best pre-planning application research, there may be occasions when the presence of archaeological remains only becomes apparent once development has commenced (paragraph 31).

15.39 The statutory development plan comprises Regional Planning Guidance for the South West (RPG 10) Adopted in September 2001, the Gloucestershire Structure Plan (Second Review, Adopted 1999); Adopted Gloucestershire Minerals Local Plan 1997-2006; Adopted Gloucestershire Waste Local Plan 2002-2012; and the Tewkesbury Borough Local Plan 1991-2011. Account has also been taken of draft policies in the Regional Spatial Strategy (RSS) for the South West which are well advanced through the statutory planning process. Policies in the statutory development plan protect archaeological remains in line with guidance in PPG16.

15.40 RPG10, Policy EN3 instructs local authorities to afford the highest protection to historic and archaeological areas, sites and monuments of international, national and regional importance. New development should preserve or enhance historic buildings and conservation areas and important archaeological features and their settings, having regard to the advice in PPG15 and PPG16. The restoration and appropriate re-use of buildings of historic and architectural value is encouraged.

15.41 Draft Policy ENV1 of RSS for the South West protects and enhances the quality, character, diversity and local distinctiveness of the historic environment. Loss of or damage to assets should be avoided or any unavoidable damage mitigated or compensated through offsetting actions.

15.42 Local Policies reflect national and regional guidance. Policy NHE6 of the adopted Structure Plan states:

Policy NHE.6 - Historic Environment: *The distinctive historic environment of the County will be conserved and enhanced. Scheduled Ancient Monuments, Listed Buildings, Conservation Areas and their settings will be preserved. Historic settlements and landscape, historic parks and gardens and sites of archaeological, importance will be protected from the adverse effects of development*".

15.43 Policies E4 and 29 of the Adopted Gloucestershire Minerals Local Plan 1997-2006 and Adopted Gloucestershire Waste Local Plan 2002-2012 respectively are relevant to the protection of archaeological remains.

- Policy E4: *Proposed mineral development will not be permitted where it would involve significant alteration or cause damage to nationally important archaeological remains (whether scheduled or not) or would have a significant impact on the setting of visible remains; unless the effects can be adequately mitigated.*

- Policy 29: *Proposals for waste development will only be permitted on a site of local archaeological importance where satisfactory mitigation arrangements have been defined following consideration of the results of an archaeological evaluation, recording or excavation and subsequent publication of the results.*

15.44 Both policies conclude that proper assessment of the presence and importance of archaeological remains is required in order to determine whether minerals and waste developments would be permitted.

### Built Heritage

15.45 The Planning (Listed Buildings and Conservation Areas) Act 1990 allows for the listing of buildings of 'special architectural or historic interest', and that protection includes not only the building itself but all structures within, and including, its curtilage. Listed Building consent is needed to demolish a Listed Building or any part of it, or alter it in any way that would affect its character, inside or out.

15.46 Sections 16 and 66 of the Town and Country Planning Act 1990 requires that consent for works affecting a Listed Building should have regard for the desirability of preserving the setting of that building. The definition of setting can be found in PPG 15 sections 2.16 and 2.17. This states that the setting of a building can include not just ancillary land but also land some distance from it. Its setting can be associated with its inclusion within a particular group of buildings and the quality of the spaces between them and that in some cases setting can only be defined by a historical assessment of a building's surroundings.

15.47 Planning Policy Guidance 15: Planning and the Historic Environment (PPG15) establishes the Secretary of State's policy on historic buildings and conservation areas. The protection of the historic environment, whether individual listed buildings, conservation areas, parks and gardens, battlefields or the wider historic landscape is to be taken fully into account both in the formulation of authorities' planning policies and in development control.

15.48 Planning policies in the statutory development plan, as defined at paragraph 15.39, also protect the historic environment in accordance with advice in PPG15. At the regional level Policy EN3 of RPG10 and ENV1 of draft RSS, referred to at paragraph 15.40 and 15.41 are relevant.

15.49 The assessments undertaken as part of the EIA conform to the requirements of national guidance and the planning policies listed above.

## EXISTING ENVIRONMENT - THE ARCHAEOLOGICAL AND HISTORICAL RECORD OF THE STUDY AREA

15.50 The following section provides a description of the archaeological and historical record known to exist within the study area. This is compiled from information sources detailed in the Methodology section of this chapter.

15.51 It should be noted that no scheduled ancient monuments, conservation areas or historic parks and gardens are recorded within the study area.

15.52 The nearest listed building to the proposed development is at Lower Farm, approximately 300m from the application boundary. A number of other listed buildings are recorded within the study area, but none will be directly affected by the proposed scheme. Indirect impacts on the setting of the listed building at Lower Farm have been assessed in Chapter 8 of this ES and are not considered further in this chapter.

15.53 A gazetteer of the archaeological and historical sites numbered from 1 to 33 in the text below is provided in Table 15.6 (at the end of this chapter), and their location shown on Figure 15.1.

### Physical context

#### *Topography and geology*

15.54 The natural landform within the site has been changed by mineral extraction and restoration.

15.55 The underlying geology is river terrace deposits of sand and fan gravel overlying clay and shales of the Lower Lias / Early Jurassic epoch.

### Chronological archaeological and historical context

#### *Palaeolithic and early prehistoric*

15.56 Evidence for early hominid activity is not recorded within the study area and Palaeolithic occupation of the wider county of Gloucestershire is not well understood (Saville 1884). Whilst the region would have been situated at the edge of the Final Glacial ice sheets, and can be assumed to have been accessible to Palaeolithic populations, known sites are few and the ability to predict sites of this date is poorly developed. Consequently, areas of sand and gravel geology have been recognised as a potentially important Palaeolithic

archaeological resource in a county-wide study of aggregate extraction landscape (Mullin 2005).

15.57 Similarly, evidence for Mesolithic activity is often most readily identified through the recovery of scatters of discarded stone tools. Whilst there is no evidence from the study area relating to the activities of hunter gatherer populations, evidence from the higher valley slopes and the uplands to the east indicate that populations were moving through the landscape at the beginning of the Holocene epoch which marked the final end of glacial conditions in Britain.

#### *Prehistoric – Neolithic, Bronze Age and Iron Age*

15.58 In broad terms, human activity from the Neolithic through to the later Bronze Age and Iron Age saw a change from hunter-gatherer subsistence as populations became more sedentary and engaged with agricultural production and subsistence regimes. The range of material culture expanded from flint tools to include pottery and, by the Bronze Age, metalwork. From the Neolithic onwards the construction and use of funerary monuments also developed.

15.59 There is traditionally more evidence for prehistoric activity recorded in the upland areas of Gloucestershire, with distribution and patterns of activity poorly represented in the lowland of the Severn Vale. One reason for this is that alluviation in the valley bottom tends to mask archaeological deposits, leading to problems with the recognition of archaeological sites on aerial photographs (Mullin 2005, 52).

15.60 The Severn Valley has been identified as an area where the understanding of prehistoric settlement and activity is very lacking (Mullin 2005, 59). However, excavated archaeological evidence from Bishop's Cleeve, clearly indicates that the valley side has been a settled agrarian landscape since at least the later Bronze Age. Extensive evidence for Iron Age and Romano-British settlement has been recorded at a number of places within the town, contributing important information to the possible use and development of immediate surrounding area throughout the prehistoric and into the Romano-British period (Lovell et. al. 2007; Parry 2000).

15.61 Within the study area there is no direct evidence for Iron Age activity, although small amounts of prehistoric pottery have been recorded as components of mixed assemblages at two sites of predominantly Romano-British date (1 and 2). Whilst these records give no clear indication of extensive activity, a number of cropmarks noted from aerial photographs show possible

linear ditches and enclosure features (22-25 and 27) which may represent archaeological features of prehistoric date.

15.62 The small amount of possible pottery of this date recorded at Lower Farm (2) could be indicative of settlement, but in isolation does not contribute to an understanding of Iron Age activity in this valley bottom location.

#### *Romano-British*

15.63 In contrast to the earlier periods, evidence for settlement during the Romano-British period, within the Severn Vale and the study area is much better represented in the archaeological record. Evidence recovered during excavations and as chance finds at a number sites within Bishop's Cleeve (2-7) indicate a settled agrarian landscape in the fertile valley bottom. To the immediate south of the application site, evidence for a rectilinear cropmark could, by morphological comparison, indicate the presence of a small enclosure, possibly a Romano-British farmstead (8).

#### *Saxon and early Medieval*

15.64 Evidence from archaeological investigations indicates that the core of the settlement at Bishop's Cleeve is probably Saxon in origin (Lovell et. al.). In the 8th century King Offa granted the site of a monastery at Cleeve, a toponym probably relating to the position of the area beneath the escarpment of the Cotswolds to the east. It became referred to as Bishop's Cleeve in the 9th century after the grant of the early established monastery to the Bishop of Worcester.

15.65 To the immediate east of the application site, evidence for a small Saxon cemetery was recorded prior to mineral extraction at Lower Farm in the 1960s (9). The cemetery of 26 individuals most likely served a small settlement, possibly part of a dispersed settlement pattern (Holbrook 2000; Reynolds 2006, 145).

15.66 The rural settlement pattern of small parishes and the names and locations of the villages and hamlets around the study area, as with much of the rest of the county had been established by 1066 (Reynolds 2006, 133). Bishop's Cleeve (Clive), Southam (Surham), Suindone (Swindon), Elmstone Hardwicke (Almundestan), Uckington (Hochinton) and Gotherington (Godrinton) are all mentioned in the Domesday Survey of 1086. During this period the study area was likely situated in the rural hinterland of the small settlements which flanked the northern side of the River

Swilgate (Brockhampton, Swindon, Stoke Orchard and Hardwicke). The valley of the Swilgate, to the south of the application site, provided an early communication link between the settlements as it was not until the mid 19th century that Stoke Orchard Lane was established (northern boundary of the Site).

15.67 During the early medieval period the application site would have been situated within the rural hinterland in the manor of Cleeve between these developing settlements, in the midst of a commonly farmed open field system with origins in the later Saxon/early medieval period.

#### Post medieval and modern

15.68 The rural medieval landscape is likely to have remained little changed through the medieval and into the post-medieval period. There is no direct archaeological evidence for extensive settlement activity within the study area, beyond that represented by the historic cores of the existing villages and hamlets.

15.69 In 1821 a documentary reference (D2761/15) to Wingmoor Field names a series of fields, including New House Field, which may be the earliest reference to the construction of Wingmoor Farm. Deeds and estate papers dated 1825 (D182 IV/3) mention the existence of Wingmoor Farm and the common field system which surrounded it. The earliest consulted map of the farm dates to 1830 and comprises a plan of the Wingmoor Estate as part of a set of deeds (Figure 15.2). By the mid 19th century, the site was situated within the open field system in an area shown as Wingmoor Field on later maps (i.e. 1841 Tithe Map Figure 15.3). The farm itself was surrounded on all sides by orchards. The open field system and common grazing on the nearby upland remained until the relatively late enclosure of the land by Act of Parliament in 1847 (Figure 15.4).

15.70 By 1830 the farm comprised the farmhouse with two ranges of barns and outbuildings to the north and a group of three small buildings to the south-east. By 1884 the most northerly range of outbuildings had been extended to form a long L-shaped range around a yard. The front of the farmhouse had also been remodelled to incorporate the two bay windows and a porch visible on the present building.

15.71 In 1919 sales particulars of the Wingmoor Estate a detailed description of the house and its outbuildings (D13028/5) is provided (Figure 15.5), which included: a greenhouse; stables for 12 horses; harness room and carriage house; large nine-bay Dutch Barn; a range of

cattle sheds and small barns; a mill house with cider mill and press; an open yard and other ancillary buildings. The house itself was arranged over a basement and three floors.

15.72 Throughout the remainder of the 20th century the application site and the buildings at Wingmoor Farm are depicted on Ordnance Survey and estate maps with little change to the plan and layout of the buildings or the field system, with the exception of a loss of a small number of field boundaries. By the 1920s little trace of the former open fields is discernable within the fieldscape, save for traces of slight S-curves in boundaries and some longer, narrower field divisions.

15.73 In 1840 the Birmingham and Gloucester Railway line was constructed, passing diagonally through the study area; the line of the railway severed the open field system.

15.74 Mineral extraction began on part of the application site in the 1960's, to the east of Wingmoor Farm. In 1989 Grundon obtained planning permission (88T/8446/01/02) for the extraction of minerals from land at Wingmoor Farm and extraction has progressed across the site in stages leaving the farmhouse, outbuildings and farmyard on one of the last unextracted areas. The farmhouse is currently used as site offices and the outbuildings stand empty. Recently one range of outbuildings was demolished leaving one incomplete range and a number of isolated barns. Extraction in the former orchards to the south of the farmhouse, where traces of the orchard ridges survived as earthworks in the pasture fields, has recently started.

15.75 To the west of the railway line a military airfield was developed during the Second World War (19). Today the site is used for light industry. Further elements of defence heritage are recorded with a Royal Observer Corps post located to the immediate west of the application site on a thin strip of land between the road and the railway line. The below ground post survives in a state of disrepair (21).

### EXISTING ENVIRONMENT - THE RECEIVING ENVIRONMENT

15.76 The above record of the cultural heritage resource known to exist within the study area has been used to assess the potential for further archaeological and cultural heritage resources to be present and potentially impacted on by the proposals, as described and evaluated below.

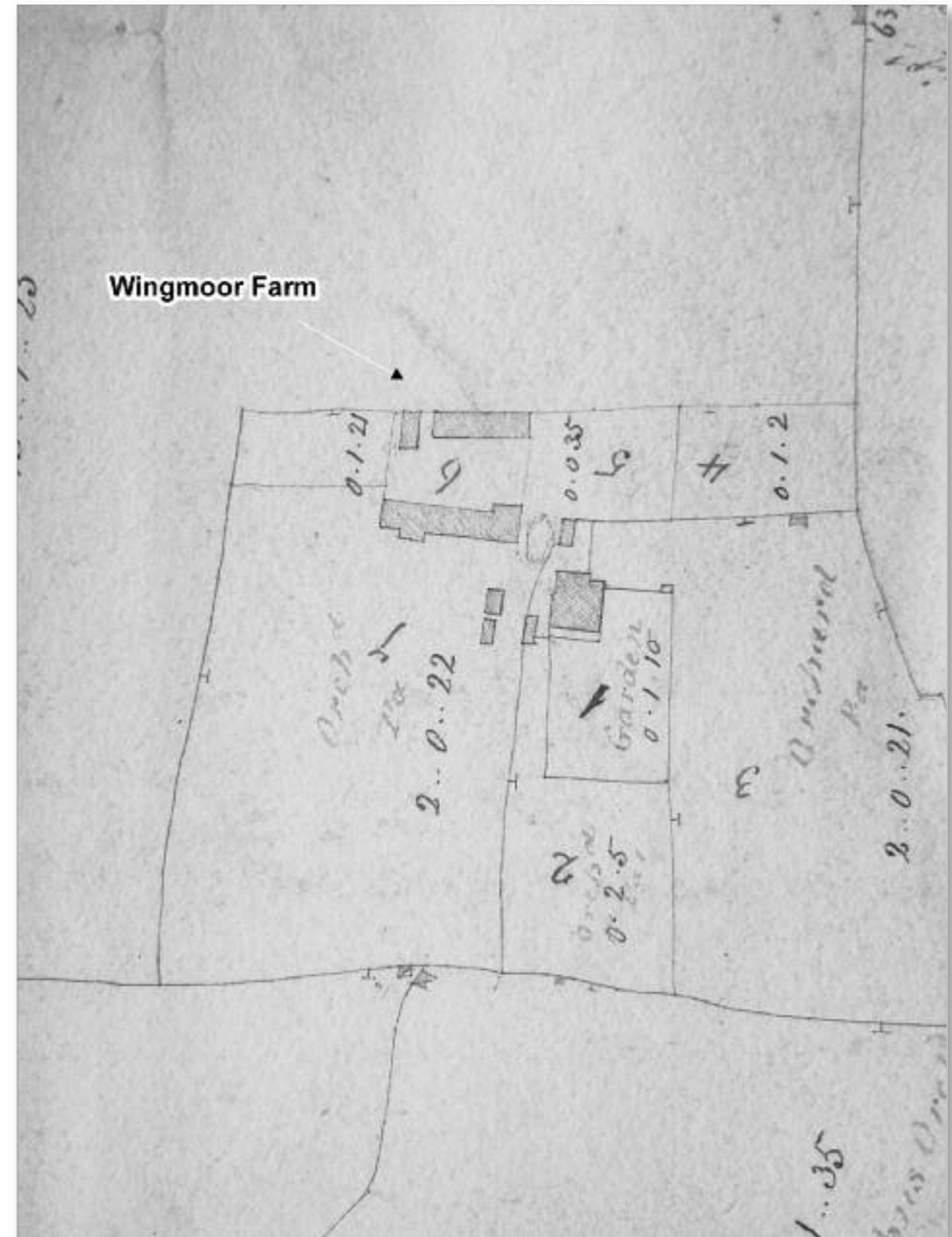


Figure 15.2 : Plan of Wingmoor Farm 1830

Source. Wessex Archaeology

Not to Scale

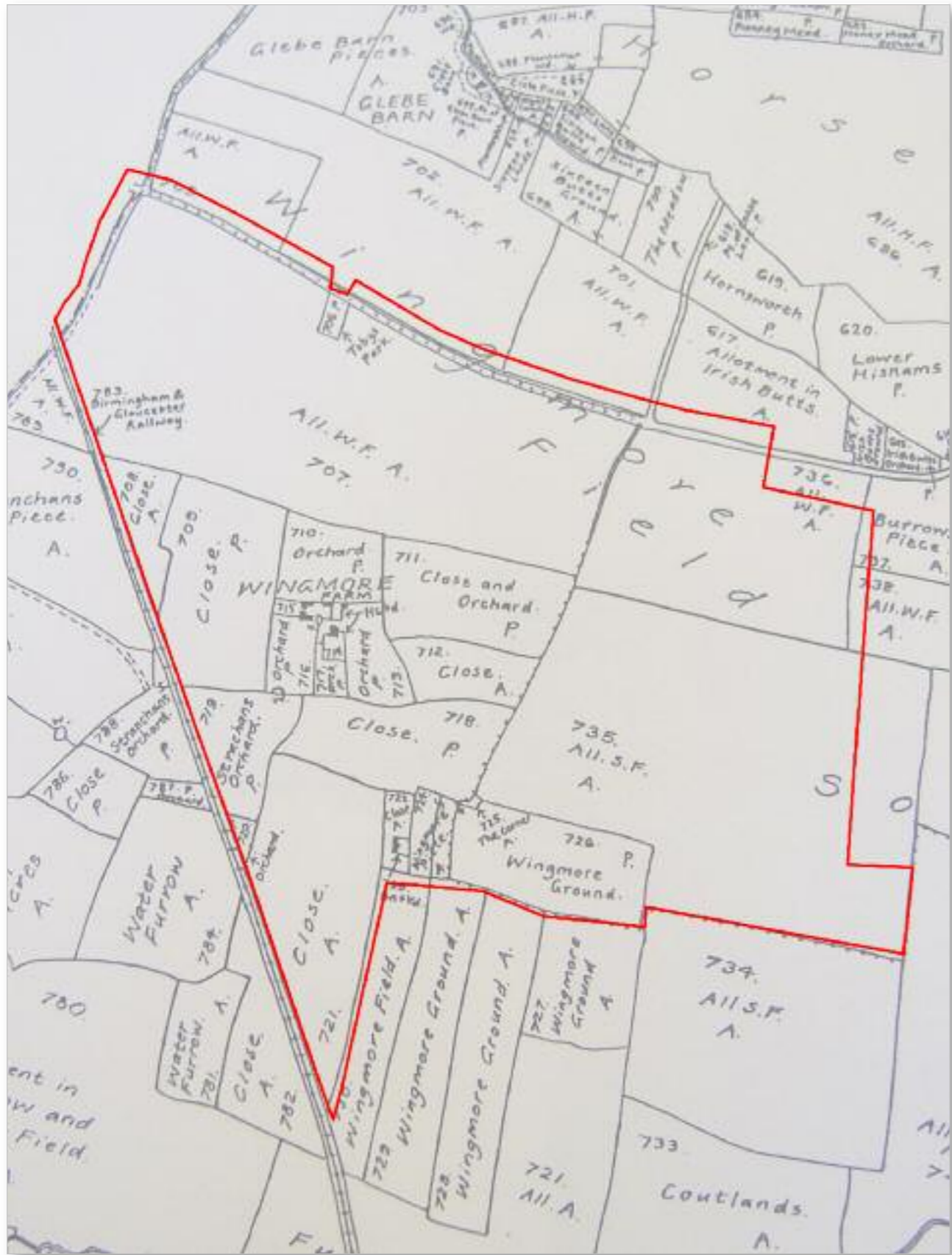


Figure 15.3 : Extract from Bishop's Cleeve Tithe Map 1841

Source. Wessex Archaeology

Not to Scale

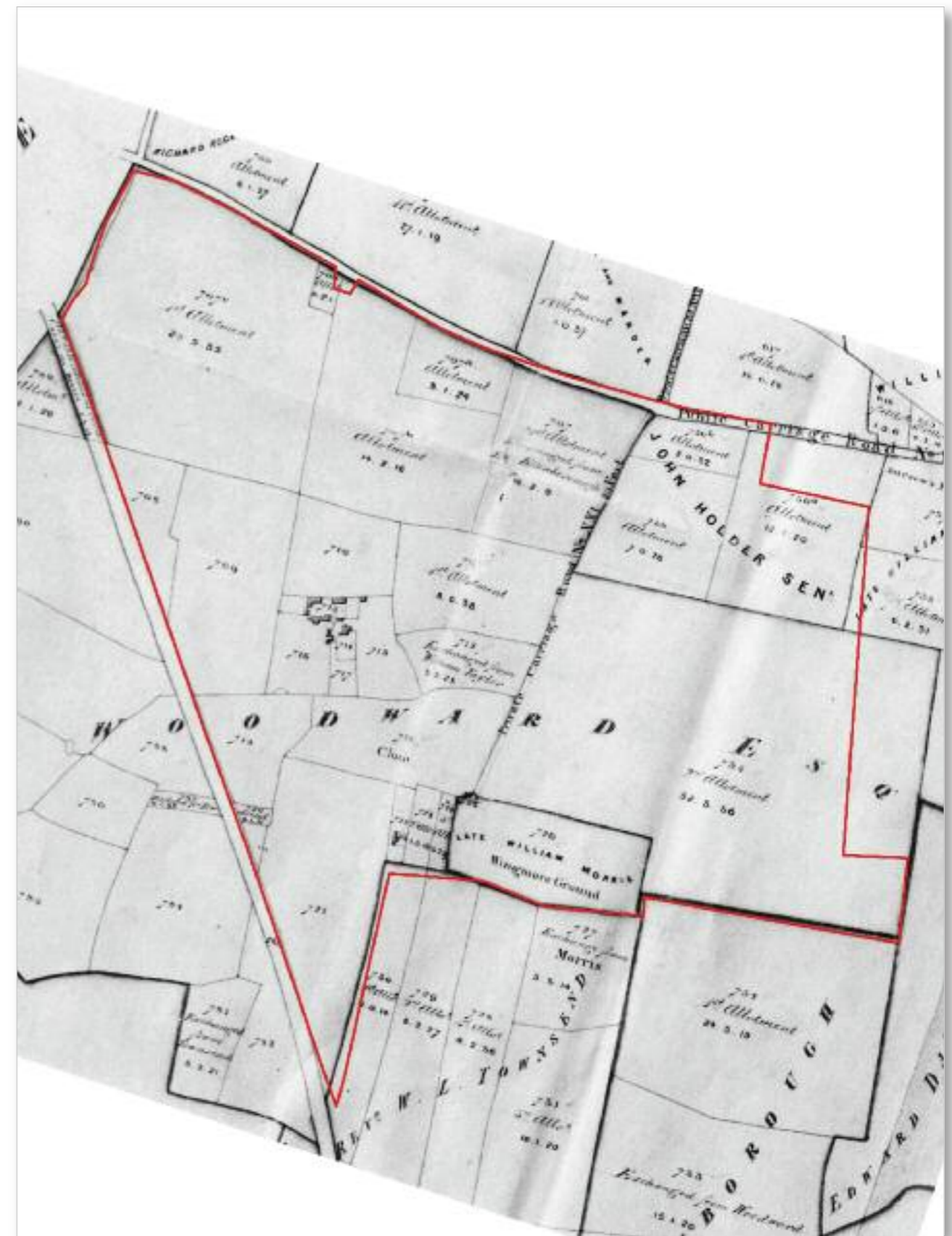


Figure 15.4 : Extract from Bishop's Cleeve Inclosure Map 1847

Source. Wessex Archaeology

Not to Scale



Figure 15.5 : Extract from Wingmoor Estate sales particulars 1919

Source. Wessex Archaeology

Not to Scale

#### Potential archaeological deposits

15.77 There is potential for the gravel deposits in areas previously undisturbed by mineral extraction to contain Palaeoliths, deposited as part of the gravel geology and indicative of human activity during the Palaeolithic period in the wider region.

15.78 Whilst the presence of Palaeoliths within gravel deposits is not considered likely to be prolific, where present, the retrieval of such artefacts in any number would be of value and relevance to regional research programmes. In practice the recovery and identification of such material is very difficult. However, individual Palaeoliths if recorded, would be of low value.

15.79 Archaeological investigations close to the application site have recorded evidence for settlement dating from the prehistoric to the Romano-British period. Further evidence for settlement activity is indicated by cropmarks of rectangular enclosures recorded on aerial photographs close to the site. This evidence combined indicates that throughout these periods this part of the fertile Severn Vale was a populated agrarian landscape.

15.80 It is considered that there is an enhanced potential for remains of settlement activity of prehistoric to Saxon date within the application site. If present, remains would likely comprise cut features such as pits and ditches, accompanied by cultural material such as pottery. However, due to the detrimental effects of arable farming and the likely adverse impact of heavy vehicle movement associated with the mineral and waste operations, the survival of potential archaeological deposits is considered likely to be poor. On balance it is considered that, where present, archaeological deposits of this nature are likely to be of low value.

#### Historic buildings at Wingmoor Farm

15.81 The farm house and the outbuildings are historic structures which remain largely unchanged since their construction in the mid to late 19th century and are a partial survival of a much more extensive range of farm buildings.

15.82 Given the local scale of their significance and their relatively recent date, the complex of buildings at Wingmoor Farm is judged to be of low value.

#### IMPACT IDENTIFICATION

15.83 As described in detail in Chapter 7 of this ES, the predicted effects of the Scheme on the cultural heritage resource have been considered against two scenarios:

- iii) the notional do nothing scenario, with the site closing 13 May 2009 and no further operations taking place at the site, and
- (iv) minimum engineered scheme, required to leave the site in a safe and suitably managed form.

15.84 Under the notional do nothing scenario there would be no further development on the site, and therefore no change to the cultural heritage resource as identified above.

15.85 The potential for archaeological remains within the site (as outlined above) means that under the minimum engineered scheme there is the potential for disturbance to previously undisturbed archaeological remains. Disturbance to potential remains could result from works necessary to level parts of the site to enable surface water to be managed acceptably, and to create suitably engineered batters to the completed landfill cells.

15.86 There is the potential for gravel deposits to contain Palaeoliths. The value of any individual Palaeoliths would be low value. In relation to the presence of archaeological deposits relating to later settlement activity, it is considered that, where present, any remaining archaeological deposits of this nature would be of low value. It is assumed that both these types of deposits would be effectively preserved by record.

15.87 In relation to historic buildings, in the minimum engineered scheme scenario the historic buildings at Wingmoor Farm would be retained.

#### Comparison with the Do Nothing Scenario

15.88 The potential impact of the proposals was assessed against the do nothing scenario. Excavations required for the continued extraction of sand and gravel deposits within the application site could result in a direct impact on buried archaeological deposits. Whilst the deposits are judged of low value with reference to Table 15.1, the magnitude of impact is assessed as major adverse without mitigation, since continuing mineral extraction would change and totally alter the resource (see Table 15.3) resulting in its loss.

15.89 The proposed scheme would have a direct impact on the standing structures identified as belonging to the 19th century agricultural complex of Wingmoor Farm. Whilst the structures are considered of low value, with reference to Table 15.2, the magnitude of the impact is assessed as major adverse without mitigation since the structures would be demolished and the asset lost (see Table 15.4)

15.90 All impacts identified are considered to be permanent.

### Comparison with the Minimum Engineered Scheme

15.91 Potential impacts of the proposals assessed against the minimum engineered scheme are assessed as the same as for the do nothing scenario.

15.92 Excavations required for the continued extraction of sand and gravel deposits within the application site could result in a direct impact on buried archaeological deposits. Whilst the deposits are judged of low value with reference to Table 15.1, the magnitude of impact is assessed as major adverse without mitigation, since continuing mineral extraction would change and totally alter the resource (see Table 15.3) resulting in its loss.

15.93 The proposed scheme would have a direct impact on the standing structures identified as belonging to the 19th century agricultural complex of Wingmoor Farm. Whilst the structures are considered of low value, with reference to Table 15.2, the magnitude of the impact is assessed as major adverse without mitigation since the structures would be demolished and the asset lost (see Table 15.4)

15.94 All impacts identified are considered to be permanent.

### MITIGATION MEASURES

15.95 The nature and scope of mitigation measures to reduce the magnitude of impacts as assessed above have been discussed and agreed in principle with Gloucestershire County Council's Senior Planning Archaeologist in respect of the proposed Scheme. The measures outlined below are likely to be stipulated as conditions of planning consent and would be carried out to a timescale and brief specified by the County Archaeologist.

15.96 An Archaeological Watching Brief would be carried out during topsoil removal in areas of remaining

sand and gravel extraction as a suitable measure to confirm the absence of archaeological remains and to effectively preserve by record any deposits uncovered by the extraction process.

15.97 Prior to the demolition of the complex of farm buildings at Wingmoor Farm, the structures would be recorded in line with the standards of English Heritage Level 2 Building Survey. This will include a descriptive and photographic record of the interior and exterior of the buildings which would satisfy the requirement to preserve by record these elements of the built heritage resource which are of local importance. The survey would need to be carried out after the office facilities currently occupying the buildings had been relocated to the MRF and once the bat roosts occupying the roof and cellar space of the main farm house building have been relocated as proposed as part of the ecological mitigation measures (see Chapter 14).

### SIGNIFICANCE OF THE RESIDUAL IMPACTS

15.98 The residual impact is a measure of the actual impact of the proposed scheme assuming proposed mitigation measures in place.

15.99 Table 15.5 sets out the basis upon which a judgement has been made on the significance of the proposals residual impact on archaeological remains and built heritage. Paragraph 15.24 explains that the overall significance of an effect (or impact) is assessed taking account of the value of the resource affected when judged against the magnitude of the impact.

15.100 The potential archaeological deposits are assessed of likely low value. Their preservation by record through archaeological watching brief is a suitable technique to mitigate for potential impact when considering their likely nature and value but does not reduce the magnitude of impact (major adverse) since the continued extraction activities would result in the loss of any remaining archaeological resource. The overall significance of the residual impact of the proposals on potential archaeological deposits is assessed as slight adverse with reference to the matrix set out at Table 15.5 and description at paragraph 15.29. Where archaeological deposits do not prove to be present, there will be no impact.

15.101 The complex of farm buildings at Wingmoor Farm are assessed as low value. Their preservation by record is a suitable technique to mitigate for potential impact but does not reduce the magnitude of impact since

the buildings would be lost through demolition. The overall significance of the residual impact of the proposals on built heritage is assessed as slight adverse, (Table 15.5 allows for this scoring to be slight or moderate adverse to provide flexibility. In this case a score of slight adverse has been decided as it is considered that the potential resource would not be of more than low value, as defined by the guidance) with reference to the matrix set out at Table 15.5 and description at paragraph 15.29.

### CUMULATIVE EFFECTS

15.102 No cumulative impacts are predicted.

### SUMMARY

15.103 The likely significant effects on the cultural heritage resource resulting from the implementation of the proposals have been identified, and their magnitude assessed.

15.104 The cultural heritage resource includes potential archaeological deposits and components of the built heritage resource, which have been individually assessed using methodologies tailored to the particular sub-topics in line with current best practice.

15.105 Information on the cultural heritage resource was gathered from a study area, which extended 500m from the site boundary, using desk-based sources of information and a site-walkover. Early consultation with the Gloucestershire County Council's Senior Planning Archaeologist confirmed that no additional pre-application surveys were required and that the effects of the proposals could be judged using the existing level of information.

15.106 Potential effects on the cultural heritage resource resulting from the proposals have been identified as damage to or loss of potential archaeological deposits (low value) and the loss of a complex of 19th century agricultural buildings which make up Wingmoor Farm (low value).

15.107 The proposals would result in the potential loss of/damage to archaeological deposits (where present) consistent with a major adverse impact without proposed mitigation. Similarly, without mitigation, the demolition of the Wingmoor Farm complex would result in the total loss of the 19th century buildings, consistent with a major adverse impact.

15.108 These impacts would be mitigated by means of an archaeological watching brief and historic building recording (respectively). These techniques are designed to enable preservation by record, a suitable measure for receptors of low value. However, the techniques themselves cannot reduce the magnitude of the identified impacts and consequently, the significance of the residual impacts of the proposals in both cases is slight adverse.

15.109 The assessment has identified that the proposals would have the same residual impact in comparison against either the do nothing scenario or the minimum engineered scheme.

**Table 15.6 : Gazetteer of Gloucestershire Sites and Monuments Record***(Summarised from source)*

No. on Figure 15.1	SMR No.	Site	Period	Easting	Northing	Status
1	5376	Saxon cemetery, Lower Farm, Bishop's Cleeve	Prehistoric and Iron Age	394850	227100	
2	6421	Pottery Finds	Prehistoric and Romano-British	395250	226700	
3	9882	Romano-British settlement in OS parcel 2600	Romano-British	395170	228020	
4	11122	Pottery finds at Stoke Road, Bishop's Cleeve	Romano-British	395300	227550	
5	11123	Roman finds at The Grange	Romano-British	395110	227250	
6	13060	Roman settlement features recorded during 1991 archaeological evaluation of Hitchins phase 5, Bishop's Cleeve	Romano-British	395100	228000	
7	28094	A modern archaeological evaluation of land at Cleeve Business Park, Bishops Cleeve	Romano-British	395150	226530	
8	28667	Rectilinear cropmark, possibly a Romano-British farmstead, Bishop's Cleeve	Romano-British	394356	226724	
9	5376	Saxon cemetery, Lower Farm, Bishop's Cleeve	Saxon-Early Medieval	394850	227080	
10	20592	Evaluation and excavation at site of proposed primary school, The Grange, Bishop's Cleeve. An undated hearth and a possible ditch were recorded along with three post medieval furrows.	Multi-period	395520	227090	
11	6996	Brockhampton Medieval Settlement	Medieval	394200	226200	
12	13061	Archaeological evaluation, Bishop's Cleeve (Phases 8 & 9)	Medieval	395180	227800	
13	6424	Clay Pit and Kiln	Post-medieval	395300	227700	
14	10756	The Grange Victorian Mansion	Post-medieval	395200	227130	
15	12046	Archaeological evaluation, Stoke Road, Bishop's Cleeve	Post-medieval	395380	227740	
16	12047	Archaeological evaluation (Bovis) Stoke Road, Bishop's Cleeve	Post-medieval	395400	227740	
17	18072	Barn, 35 meters North-West of Withy Furlong, Stoke Road	Post-medieval	395014	227633	Grade II
18	20937	Evaluation on Land at Malvern View Business Park, Bishop's Cleeve	Post-medieval	394650	227850	
19	15219	World War II airfield at Stoke Orchard now used by Coal Research	Second World War	392500	227500	
20	27766	Desk based assessment at The Park, Stoke Orchard.	Second World War	393180	227360	
21	21047	Royal Observation Corps (ROC) post, Stoke Orchard.	Cold War	393360	227720	
22	4446	Linear cropmarks S of Quarry	Unknown	394200	227200	
23	6428	Circles	Unknown	395000	228100	
24	6429	Cropmark	Unknown	394900	227800	
25	6430	Cropmark	Unknown	394500	227150	
26	6930	Loudilow Lane	Unknown	393600	228100	
27	6934	Cropmark	Unknown	393600	228800	
28	8724	Burrows Piece Fieldname	Unknown	394600	227400	
29	9901	Negative evaluation on land at Wingmoor Farm, Bishop's Cleeve	Negative evidence	393700	227300	
30	19897	Former Telecommunications site, Stoke Road	Negative evidence	394850	227720	
31	27135	Negative watching brief at 25 and 31 Stoke Road, Bishop's Cleeve	Negative evidence	395500	227572	
32	27699	Negative modern watching brief at 24 Stoke Road, Bishop's Cleeve	Negative evidence	395480	227600	
33	15918	1996 desk based assessment at Wingmoor landfill site, Stoke Orchard/Bishop's Cleeve	Desk-based Assessment	393000	226600	

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### Cartographic sources

- 1830 Terrier of Wingmoor Farm, Southam and Brockhampton D177/VII/13
- 1841 Bishop's Cleeve Tithe Map and Apportionment GDR/T1/27
- 1847 Inclosure Map Bishop's Cleeve (on CD in Gloucestershire Archives) 1919 Bishop's Cleeve: sale particulars of the Wingmoor Estate D1302 8/5
- 1884 1st edition Ordnance Survey 25" Gloucestershire Sheet 19/11
- 1902 2nd edition Ordnance Survey 25" Gloucestershire Sheet 19/11
- 1923 3rd edition Ordnance Survey 25" Gloucestershire Sheet 19/11
- 2005 Ordnance Survey Explorer (1:25000)
- 2008 Ordnance Survey Landplan (1:10,000)

### Documents

- 1821 Bishop's Cleeve: lands (10a.) in Tunbridge Field, Guyloe Field, Wingmore Field, Newhouse Field and Settons Field.
- 1825 Deeds and papers relating to the estate of Thomas Walkeley of Southam, yeoman, deceased including valuation of land (c 270a), copies of deeds relating to a message, 2 cottages and c 130 acres of land in Brockhampton [Bishops Cleeve], Wingmore Farm in Southam and c 40 acres of land in Woodmancote [Bishop's Cleeve] including lands in the common fields (field names).

### Online resources

- <http://www.magic.gov.uk>
- <http://lbonline.english-heritage.org.uk/>
- <http://www.gloucestershire.gov.uk/archives>  
(accessed June2008)