



Assessment of archaeological resource in aggregate-producing areas of Bath and North-East Somerset

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Executive Summary

This document is an archaeological resource assessment of the aggregate producing areas of Bath and North-East Somerset (BANES). It was undertaken by Museum of London Archaeology in partnership with BANES District Council in 2010 and 2012, with funding from the Aggregates Levy Sustainability Fund, as administered by English Heritage.

The aim of the project has been to improve knowledge of the archaeological resource within all past, present and potential future aggregate producing areas in BANES, with the intention of increasing public, industry and other stakeholders' awareness of archaeological remains within aggregate geology areas. The study will assist strategic planning decisions regarding future aggregate extraction, along with the management of buried heritage assets, including setting out research agenda and appropriate archaeological mitigation strategies where archaeological assets are under threat of removal by quarrying.

The project includes a Geographical Information System (GIS) analysis of archaeological data, as contained within the BANES Historic Environment Record (HER) and enhanced by National Mapping Programme survey of the Mendip Hills (a digital plot of archaeological features visible as cropmarks on aerial photographs) and assets contained within the National Record for the Historic Environment. The project data was enhanced by applying a consistent chronology and by assigning asset type (eg industrial, domestic, defence), which was then used to generate a series of asset density maps. This has allowed an invaluable overview of the archaeological resource within BANES and the nature of activity over time, which has not previously been possible. The assessment report summarises the known resource by chronological period, and attempts to identify patterns in human activity across two study areas defined for the project. Study Area 1 comprises all drift geology (river gravels, sand, and alluvium) along river valleys, including the Chew Valley Lake. Study Area 2 comprises past and present extraction sites on hard geology.

Historically, aggregate extraction in BANES has been extensive, with just under 300 historic quarries across the District, although aggregate is currently extracted at just two active quarries (Upper Lawn Quarry and Hayes Wood). There are extant permissions at a further four dormant quarries, but their re-opening is considered unlikely.

The assessment revealed some clear patterns associated with asset density, geology, topography and asset distribution. The assessment revealed a greater concentration of assets on hard geologies (Study Area 2). In both study areas, the early prehistoric period (from the Palaeolithic to the Neolithic) has the lowest asset density, while there is an increase in known assets from the Bronze Age onwards. The study shows a drop in known assets in the early medieval (Saxon) period, and the highest density in the post-medieval period. The low density of assets dated to the Modern period probably reflects selective recording based on whether the asset is considered to hold heritage interest.

The report also highlights some irregularities in the general trend of increased asset density which may indicate anomalies within the data as a result of genuine aspects of past occupation and activity or possibly investigation practices. Visibility and attraction for investigators plays an important role in the recording of assets. Whilst cropmarks and earthworks, for example, would be more obvious to investigators, other assets are likely to be underrepresented because they remain buried and are therefore harder to identify.

Several factors in recovering archaeological evidence were highlighted: investigation in advance of extraction has played an important role in the recovery of assets, and where mitigation is carried out, detailed dating evidence can be collected and provide significant information of the historic landscape character of an area; in areas with a low density of investigations in advance of development/extraction, fieldwalking has played a major role in the recording of assets, although with less dating evidence as the recording largely relies on visibility of an assets.

The assessment identified the need for further research, aimed at identifying whether the asset densities identified are a true reflection of the distribution of past human activity, or merely the result of a bias in archaeological investigation. A considerable number of assets were recovered by antiquarians/local enthusiasts and there is scope to refine our

understanding of the discoveries made. A number of general research priorities are proposed, including extension of the NMP survey across the District, re-assessment of assets recovered by antiquarians (where possible). Further specific research priorities were identified to improve understanding of particular periods and asset types. The report outlines a process of desk-based assessment, intrusive and non-intrusive prospection and evaluation leading to an informed mitigation strategy for aggregate areas.

1 Introduction

1.1 Background

- 1.1.1 This project comprises an archaeological resource assessment of the aggregate producing areas of Bath and North-East Somerset (BANES). It was undertaken as a partnership between Museum of London Archaeology (MOLA) and the BANES District Council, between 2010 and 2012, and incorporates input from period experts and English Heritage in 2012. The project was funded by the Aggregates Levy Sustainability Fund (ALSF) as administered by the English Heritage (EH) Historic Environment Enabling Programme (HEEP; superseded in 2011 by the National Heritage Protection Plan). The study follows similar projects in Gloucestershire, Worcestershire, Warwickshire, Norfolk and Suffolk, West Berkshire, the Isle of Wight and East Sussex.
- 1.1.2 The project has adhered to English Heritage MoRPHE guidance on project management and procedures. It meets the aims and objectives set out in a Project Design, produced by MOLA in 2010 (MOLA 2010).
- 1.1.3 The project has met two strategic objectives set out in the English Heritage Strategic framework for Historic environment Activities and Programmes (SHAPE 2008):
- Corporate Objective 1A: *'Ensure that our research addresses the most important and urgent needs of the historic environment'*. This has been achieved through research programme G2 'Defining the questions: Devising research strategies, frameworks and agenda' within sub programme number 11172.110 'Supporting research Frameworks: national, regional, local, diachronic and thematic frameworks'.
 - Corporate Objective 4B: *'Develop and disseminate policies, principles, guidelines, standards and exemplars to promote better management of change in the historic environment'*. This has been achieved through empowerment programme D4 'Guidance for Local Government' within sub programme number 42244.110 'Promoting Characterisation in Strategic Planning'
- 1.1.4 The project fulfils English Heritage research themes (A): 'Discovering, studying and defining historic assets and their significance'; and (D) 'Studying and assessing the risks to historic assets and devising responses' (English Heritage 2005, 4).
- 1.1.5 The project meets the published criteria for ALSF projects 1; in particular:
- developing the capacity to manage aggregate extraction landscapes in the future
 - delivering to public and professional audiences the full benefits of knowledge gained through past work in advance of aggregates extraction
 - reducing the physical impacts of current extraction where these lie beyond current planning controls and the normal obligations placed on minerals operators
 - addressing the effects of old mineral planning permissions
 - promoting understanding of the conservation issues arising from the impacts of aggregates extraction on the historic environment.
- 1.1.6 Historically, aggregate extraction in BANES has been extensive, with just under 300 historic quarries. Current extraction has however declined with just two active quarries in the district, at Upper Lawn Quarry and Hayes Wood. There are extant permissions at four dormant quarries, but their re-opening is considered unlikely. The extraction of limestone, aggregates and other mineral resources is governed by the existing Bath and North-East Somerset Local Plan (adopted 18 October 2007) and will also be addressed in the Local Development Framework (LDF) which is currently being developed to guide future planning decisions.

- 1.1.7 At the time of incorporating expert comments to the draft report, the planning system within England has changed, with the publication of the National Planning Policy Framework (NPPF) in March 2012 (DCLG 2012).
- 1.1.8 One of the 12 core principles that underpin both plan-making and decision-taking within the framework is to 'conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations' (DCLG 2012 para 17). It recognises that heritage assets are an irreplaceable resource (para 126), and requires the significance of heritage assets to be considered in the planning process, whether designated or not. The contribution of setting to asset significance needs to be taken into account (para 128). The NPPF encourages early engagement (i.e. pre-application) as this has significant potential to improve the efficiency and effectiveness of a planning application and can lead to better outcomes for the local community (para 188). The NPPF states that adverse impacts on the historic environment from mineral extraction are a material consideration (paras 143; 144).

1.2 Aims

1.2.1 The primary aim of the project, as set out in the Project Design (MOLA 2010) was to improve the quality and quantity of available archaeological data in respect of potential aggregate producing areas within BANES, and to facilitate more informed advice concerning the impacts and mitigation of aggregates extraction. The specific aims are to:

- inform the minerals planners of the archaeological sensitivity of aggregate areas in order to guide future minerals strategy and assist with decision making in respect of existing and future minerals permissions;
- provide planning archaeologists with an overview of the archaeological resource within aggregate areas, which will assist with the management of assets potentially affected by quarrying, along with the development of archaeological research frameworks
- enhance the current understanding of the nature and significance of archaeological assets within aggregate areas for minerals extraction companies, archaeological contractors, academics and the general public.

1.2.2 Associated aims of the project comprised:

- Defining the spatial extent aggregate geologies digitally within BANES, using a Geographical Information System (GIS) and including past, present and potential areas of aggregate extraction.
- Enhancing the BANES Historic Environment Record (HER) including incorporating information from English Heritage's National Record for the Historic Environment. The HER is the primary repository of archaeological information within the district.
- Using GIS to creating a series of asset density maps of types of site (eg, defence, domestic) by chronological period.
- Producing a report analysing the state of archaeological knowledge of each aggregate producing area (Resource Assessment).
- Providing recommendations for archaeological research agenda and archaeological mitigation strategies.

1.2.3 It is hoped that the results of the project and the project outputs (enhanced HER data, report and features maps) will facilitate dialogue between archaeologists, minerals planners, the public and aggregates industry in respect of archaeological remains and aggregate extraction.

1.3 Objectives

1.3.1 In order to meet the aims of the project, the objectives, as set out in the Project

Design, were as follows:

- **Objective 1:** produce baseline archaeological data to facilitate decision making associated with archaeological remains and aggregate extraction.
- **Objective 2:** define aggregate geology study areas (the 'aggregates resource') within GIS.
- **Objective 3:** collate HER data within the study areas.
- **Objective 4:** enhance the HER data with information contained within the National Record for the Historic Environment (NRHE), a national archaeological database maintained by English Heritage, along with archaeological features visible as cropmarks on air photographs and digitally plotted by the English Heritage National Mapping Programme (NMP).
- **Objective 5:** provide the HER with enhanced data in an appropriate format so that it can be incorporated back into the HER.
- **Objective 6:** assess the state of archaeological knowledge of each aggregate producing area (Resource Assessment).
- **Objective 7:** develop an archaeological Research Agenda and Strategy for aggregates areas.
- **Objective 8:** develop historic environment policies and mitigation strategies for aggregates areas.
- **Objective 9:** increase understanding of archaeology and aggregates and facilitate further dialogue between archaeologists, minerals planners, the public and aggregates industry.

1.4 The Project Area

- 1.4.1 The Project Area is the administrative district of Bath and North East Somerset, an area of around 350km². This has been defined by modern administrative requirements and has no spatial meaning in terms of the nature and extent of past human activity, and simply acts as a 'cookie cutter' in extracting a sample from a far wider canvass.
- 1.4.2 Within the Project Area two discrete study areas have been defined as part of the present project, outlined in Section 2.3. These have a total combined area of around 62km².

1.5 Management and personnel

- 1.5.1 This project was managed by MOLA. The Project Executives were David Bowsher of MOLA and Richard Sermon of Bath and North-East Somerset Council. Jon Chandler of MOLA was the Project Manager and edited and contributed to the writing of the report. Helen Dawson of MOLA was the project coordinator and principal author. Rupert Featherby of MOLA incorporated period expert and English Heritage comments and contributed to the writing of the report. Historic Environment Record (HER) data was provided by Sarah MacLean (former BANES HER officer). Marry Ruddy, MOLA Geoarchaeologist, contributed to Section 3: description of the aggregate resource.
- 1.5.2 Period experts comprised Tim Darvill (Bournemouth University) Early Prehistory; Barry Cunliffe (Oxford University) Later Prehistoric and Roman period; Peter Davenport (Cotswold Archaeology), medieval settlement; Nick Corcos (Avon Archaeological Unit) Post-Roman Landscape, and Richard Irving (Combe Down Heritage Society) Quarrying, Mining and Industry.

1.6 Report structure

- 1.6.1 Section 1 provides the project origin and scope, aims objectives, project area, personnel and report structure.

- 1.6.2 Section 2 outlines the methodology, including how the study areas were defined; the method used to enhance and validate the data, and the production of asset density figures.
- 1.6.3 Section 3 describes the aggregate resource within the Project Area including an overview of past aggregate extraction.
- 1.6.4 Section 4 provides a general archaeological and historical background of the Project Area (BANES), with an overview of past archaeological investigation associated with quarrying activity.
- 1.6.5 Section 5 provides an overview of the density of assets for each period within each study area.
- 1.6.6 Sections 6 and 7 comprise the archaeological resource assessment for Study Areas 1 and 2 respectively. Each section begins with a short discussion of the distribution and density of known finds and sites across the study area, identifying spatial trends, and discussing the known sites and their significance.
- 1.6.7 Section 8 sets out current archaeological research agenda and strategy and how the findings of the study fit with published research priorities.
- 1.6.8 Section 9 provides recommendations for archaeological mitigation strategy.
- 1.6.9 The project conclusions are in Section 10, with a bibliography in Section 11. Section 12 is a gazetteer of all assets within the study areas. A series of period-based asset distribution maps is included at the back of the report.

1.7 Acknowledgements

- 1.7.1 The Bath and North East Somerset Aggregates Archaeological Resource Assessment was funded by English Heritage, through the Aggregates Levy Sustainability Fund (ALSF). MOLA would like to thank Peter (Buzz) Busby, National Terrestrial Aggregates Advisor for his help and comment during the preparation of the Project Design and the course of the project.
- 1.7.2 MOLA would like to thank Richard Sermon (BANES Archaeological Officer) Sarah MacLean (former BANES HER officer), Roderick Millard (BANES HER officer), Sarah Johnston (BANES Senior Planning Officer), Graham Herridge (BANES Senior Systems & GIS Technician), and Neil Best (BANES Planning Policy Officer) for providing relevant data and their useful comments.
- 1.7.3 The following period experts agreed to comment on the period summaries and their input is gratefully acknowledged: Nick Corcos, Barry Cunliffe, Tim Darvill, Peter Davenport, and Richard Irving.

2 Methodology

2.1 Introduction

- 2.1.1 The project methodology is set out in the Project Design approved by English Heritage, and detailed in this section. It has been used in archaeological resource assessments by MOLA for the Isle of Wight (Pethen 2010) and the London Borough of Havering (Rodenbüsch 2010) and in assessments by other archaeological organisations, including South Gloucestershire (Blackwell 2010), Gloucestershire (Mullin 2004), and Worcestershire (Jackson and Dalwood 2006).
- 2.1.2 The project is GIS based and used ESRI ArcGIS (ArcMAP 9.1) to analyse enhanced HER data within a spatial environment, in order to assess asset distribution and density. The GIS spatial data and associated attribute table is referred to throughout as a 'layer' (feature class). 'Table' refers to data extracted from the GIS into a Microsoft Excel or other database programme.

2.2 Defining the extent of the aggregate resource

- 2.2.1 The spatial extent of aggregate geologies within BANES was digitised within GIS. It was primarily defined using the British Geological Survey (BGS) Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50), and the BGS Directory of Mines and Quarries (BGS 2008). More detailed geology digital mapping was not available. This was refined with information on existing and proposed aggregate extraction sites identified in the Local Plan and the British Pits Database (obtained under licence), and from past quarrying extents digitised from historic maps (see Section 2.2.6 below). Generally the distribution of past quarries matched the aggregate areas mapped by the BGS. Existing and past quarries located just outside the BGS mapped area were incorporated into the mapping defining the aggregates resource. The areas of aggregate geology identified were buffered by 100m to allow for aggregate potentially extending outside the mapped boundary to take into account the low resolution (small scale) of the mapping, mapping errors, and aggregate that potentially extends beneath adjacent non-aggregate deposits. Fig 2 is a simplified geology map showing the areas of Superficial and Solid geology aggregates (as set out in Sections 2.3 and 3) that have been and could potentially be extracted.

Current and potential extraction sites

- 2.2.2 BANES minerals planners provided the location and extent of current extraction sites, along with the type of aggregate (ie bedrock or superficial).
- 2.2.1 Potential future areas allocated for minerals extraction were identified from the published BANES Local Plan (2007). Bath and North East Somerset is not required to contribute to provision of aggregates to meet former Avon's regional apportionment. Bearing in mind the potential environmental impact of primary aggregate production and the strategic planning position, the Local Plan considers that it is appropriate to resist proposals for primary aggregate production in BANES unless the material to be produced is not obtainable from quarries in South Gloucestershire or North Somerset.
- 2.2.2 Somerset has enough reserves to meet its national requirements for limestone extraction until 2028. Consultation was ongoing at the time of writing as whether this reserve should be increased. With regards to sand and gravel, Somerset's requirement quota is tied in with Devon's and at present, and for the foreseeable future, Devon has provided the entire quota. The necessity for contribution to the reserve by quarries in BANES is therefore minimal. New extraction sites would only be approved if it was impossible to find an alternative external source (Minerals Option Paper).

- 2.2.3 There are only three extant extraction sites within BANES (Fig 3), Stowey Quarry, Upper Lawn Quarry and Hawes Wood Mine, and one of those, Stowey Quarry, ceased in 2007/8. It is only considered active as there is an extant permission for mineral extraction until the 30 November 2012 and aggregate recycling until 2028. While the extraction has ceased, the establishment of an aggregate recycling facility and the restoration of the site has not yet been undertaken.
- 2.2.4 Planning permission was granted in 2001 to Upper Lawn Quarry for an extension to secure reserves until 2011, although this will require extending to enable remaining reserves to be worked out. While information on reserves is not available, there are no current plans for additional reserves. The site is currently active and producing Bath stone for building work.
- 2.2.5 Hayes Wood Mine is a large underground mine producing Bath stone and covering approximately 70 hectares at Limpley Stoke within the Green Belt and the Cotswold AONB. Production is limited to 18,000 tonnes per annum. The current permission still has substantial reserves remaining which will last beyond the proposed plan period. Planning permission for a large extension to the mine was granted in 2005 with an end date of 2042.

Past exploitation

- 2.2.6 Areas of past aggregate extraction were identified from digital scans of historic Ordnance Survey (OS) mapping, which was incorporated and georeferenced in GIS. The map OS 6" to the mile and 1:10,000 scale maps from the 1st edition (late 19th century) up to the present day were obtained under licence from BANES Council. Quarries and pits shown on these maps were digitised in ArcGIS and provide a distribution map of past aggregate extraction, which was also used to refine the aggregate resource extent (see above). Any quarry or pit labelled as such was included except where these were specifically labelled 'Brick Pit' or 'Clay Pit' (Brickearth and Clay are not aggregate geologies). All pits visible on the Ordnance Survey 1:1250 scale maps (all epochs), where available were digitised. If these maps were not available for any reason, then the OS 6" (1:10,560 scale) map was used. A total of 288 extraction sites were identified. These are shown on Fig 3.

2.3 Definition of study areas

- 2.3.1 The aggregate resource identified above was subdivided into two study areas, shown on Fig 4, which were agreed with Richard Sermon and BANES Development Planning teams in order to ensure that these were appropriate and fit for purpose. Urban Areas were excluded as the nature of tenure (i.e. perpetual ownership of bricks and mortar) means future minerals extraction unlikely. The extent of urban areas was based on current OS mastermapping, buffered by 100m to allow for urban growth and because aggregate extraction is unlikely to be permitted in close proximity to such areas.
- 2.3.2 The two study areas comprise:
- **Study Area 1:** This area comprised all **aggregate on drift geology**, such as river gravels, sand, and alluvium, which has the potential to produce aggregate. Its spatial distribution follows the river valleys. Alluvial deposits adjacent to river terrace deposits were included, as well as larger areas of riverine alluvium. The Chew Valley Lake west of Bishops Sutton in the western part of the Project Area was included as although it is unlikely any quarrying will take place there it is possible that quarrying may take place along the edges of the lake. The study area was buffered by 100m for reasons outlined in section 2.2.1.
 - **Study Area 2:** This area comprised all **past and present aggregate extraction sites on hard geology**, based on location information obtained from the British Pit database and the BANES council minerals planning data, with each quarry buffered by 100m. Hard stone extraction can include

crushed aggregate as a by-product, and because the nature of the resource differs considerably from the drift geologies, they are considered separately. The assessment does not include all hard stone geologies because, given the depth of these resources, future extraction is likely to remain localised in the immediate vicinity of existing and possibly past quarries (which have been buffered by 100m for this reason). The past and current extraction sites are located between the river valleys. Study Area 2 includes the two active quarries in the District (see para. 3.4.10).

2.4 HER enhancement

Introduction

- 2.4.1 The BANES Historic Environment Record (HER) is a computerised database of designated and non-designated historic assets (sites of archaeological and historic interest), maintained by BANES Council. It is a primary repository of all historic environment information in the area, and includes information from past investigations, local knowledge, findspots, and documentary, cartographic and photographic sources. As part of the project, the BANES HER was enhanced with additional data from the National Record of the Historic Environment (NRHE) and the National Mapping Programme (NMP), and was subsequently refined by applying a consistent chronological date, and asset type, with grouping or splitting of some HER monument records as necessary. This was carried out in order to produce period specific Asset Density figures for the two study areas. The project has enabled, for the first time, a spatial overview of the nature and distribution of human activity over time within the BANES aggregate areas.
- 2.4.2 The reliance on the HER data means that has not been possible within the scope of the project to take account of changing views as a result of recent academic research, whilst the limitations of a rigid chronological framework imposed by electronic databases is noted (Nick Corcos pers. comm.).
- 2.4.1 The BANES HER enhancement took place in accordance with national guidelines and HER recording practice and in consultation with the BANES HER.
- 2.4.2 Section 12 is a gazetteer of assets within the study areas. Each has a unique project ID number. The entry includes the asset type and asset date range as assigned under the project.

National Record of the Historic Environment (NRHE)

- 2.4.1 A copy of the BANES HER database of the known assets within the two study areas was obtained by MOLA and enhanced with data from the NRHE. This national database is maintained separately by English Heritage and whilst generally not as comprehensive as the county HERs, can occasionally contain additional information from surveys and observations that for reasons unknown were not feed back to the district HER.
- 2.4.2 All NRHE monuments and events data was obtained digitally in GIS and PDF format and incorporated into the MOLA GIS project database. The data was then compared alongside the HER data within the MOLA GIS in order to identify discrepancies and omissions. Those NRHE monuments and events which did not relate to any existing HER assets were then incorporated into the project MOLA GIS project. The different datasets were found to be largely consistent, although in general, the HER entry was more accurate based on the evidence within each record. For this reason, where it was unclear which record was more accurate (examining original source data was outside the scope of the project), the HER was assumed to be correct. NRHE records that were missing from the HER mostly comprised Modern, particularly Second World War, features.

National Mapping Programme (NMP)

- 2.4.3 The NMP is funded and managed by English Heritage and is ongoing. The aim of the project is to plot digitally all archaeological cropmarks and soilmarks visible on aerial photography and Environment Agency LiDAR data, in order 'to enhance our understanding about past human settlement, by providing information and syntheses for all archaeological sites and landscapes from the Neolithic period to the twentieth century' (Bewley 2001, 78).
- 2.4.4 In 2005, an NMP survey was carried out of the Mendip Hills AONB which extends into the eastern edge of the BANES (Truscoe 2005), and into both study areas (Fig 4). The results of the survey were analysed and published in 2009 (Priest and Dickson 2009). The NMP Survey covers around 53 sq. kms of BANES, representing some 15% of BANES; c 25% of Study Area 1 and c 5% of Study Area 2. It should be noted that the area affected in Study Area 1 as includes Lake Chew which in effect covers nearly half of Study Area 1 in the NMP Survey area. The very limited coverage of Study Area 2 is not unexpected given that Study Area 2 only represents some 4% of total BANES area.
- 2.4.5 Following the same procedure used for the comparison and addition of NRHE records, those archaeological features identified by the NMP Mendip Hills survey not identified within the Study Area HER databases were incorporated into the project database. The result being that a very small number of Medieval, Post-medieval and Modern assets were added to the MOLA GIS project. It is assumed that these will eventually be incorporated into the HER when the MOLA GIS database is returned to the HER. Although limited, these 'new' records add to our understanding of these periods within the Study Areas.

Refining dating

- 2.4.6 An additional data field for 'chronological period' was added to each HER record, with the aim of applying dating information consistency for the purposes of creating asset distribution maps by period across the study areas.
- 2.4.7 Although the HER data contains date information for assets, due to the organic nature in which the HER has developed and been maintained over time, i.e. with input from paid staff, volunteers and students, there has been little consistency in the application of date ranges. Thus they cannot be interrogated and used in GIS in order to create distribution maps with any great level of reliability.
- 2.4.8 The chronological period date ranges are those used by both the HER and English Heritage. However, it should be noted that these periods were developed in the 19th century and the date ranges (in particular the prehistoric) are naturally under constant revision (Barry Cunliffe and Timothy Darvill, pers. comm.). The ranges have been used to ensure continuity with other ALSF reports, the NRHE and the HER. They have also been given a cut-off date that whilst, appearing spurious, avoids overlapping chronological periods in order to allow period based searches of the data in GIS. For example the early medieval period ends in AD 1065 rather than 1066, which is the start of the later medieval.
- 2.4.9 The period date ranges are as follows:
- Palaeolithic (700,000 BC –10,001 BC)
 - Mesolithic (10,000 BC – 4001 BC)
 - Neolithic (4000 BC – 2001 BC)
 - Bronze Age (2000 BC – 751 BC)
 - Iron Age (750 BC – AD 42)
 - Roman (AD 43 –410)
 - Early medieval / Saxon (AD 411 –1065)
 - Later Medieval (AD 1066 – 1540)

- Post-medieval (AD 1541 –1900)
- Modern (AD 1901 – present)
- Unknown/undated

2.4.10 Dates assigned to assets in this project are based entirely on the HER entry and no additional level of interpretation was added as part of the project. There were a number of assets in the HER which could not be dated due to the limited descriptive information within the HER. In such cases, Unknown was entered into the date range. A number of prehistoric assets could not be assigned to a particular prehistoric period and these have been termed as Undated Prehistoric.

Adding an 'Asset Type' field

2.4.11 An additional data field for 'asset type' was added to each HER record, in order to apply this data consistently and facilitate the querying of the GIS project for the period based resource assessments.

2.4.12 The asset types conformed to the glossary of the NRHE Monument Class descriptors, and are top level / general categories:

- Agriculture and subsistence
- Civil
- Commemorative
- Commercial
- Communications
- Defence
- Domestic
- Education
- Findspot
- Gardens and parks
- Health and welfare
- Industrial
- Recreation
- Religious, ritual or funerary
- Transport
- Unassigned
- Water and drainage

2.4.13 As with the date range, the asset type assigned to each asset was based entirely on the HER entry and no additional level of interpretation was added as part of the project. For a number of assets, it was not possible to assign an asset type, and these were categorised as 'unassigned'.

Grouping and separating entries

2.4.14 Separate HER entries for individual finds or features that were clearly of the same period and asset type at a single location were grouped together within a single monument entry, in order to better reflect a single area of activity in the GIS asset distribution and GIS analysis. Multi-period HER records were separated into individual chronological periods, for the purposes of GIS asset distribution and data analysis.

Built heritage

2.4.15 Designated built heritage assets, ie listed buildings, have been excluded from the data set as these would be a subset of the publicly accessible primary English

Heritage data base and are already protected by the very fact of their inclusion in such list.

- 2.4.16 Undesignated buildings recorded as assets on the HER have been included as they have no formal protection and are therefore more likely to be overlooked during planning. The inclusion of them as assets in this project will at least ensure that they are considered during planning.

2.5 Data analysis

Asset density maps

- 2.5.1 Once the HER database had been validated and enhanced, the database was queried within GIS to determine the number, type, and distribution of assets of each chronological period within both study areas, and a series of asset density figures produced (Fig 5 to Fig 19). Using GIS technology, this was the first time that such overview of assets within the aggregate producing areas of BANES has been possible. The strength of GIS is the ability to interpret and analyse the relationship of sites and finds against various other datasets, including topography and geology.
- 2.5.2 The data interrogation and asset density figures were analysed and the results used to produce the archaeological resource assessment for each study area (Sections 6 and 7).
- 2.5.3 Asset density tables provide the numbers of all assets of each chronological period within each of the two study areas. The results were extracted by queries of the GIS data which identified any asset which fell within or partly within a given period. Thus an asset dated from the Neolithic to Post-Medieval period would appear in the figures for all periods from the Neolithic to the Post-medieval period. As a result of this process a degree of overlap was expected between the different periods. In some cases this reflects continuity of occupation/use, but in most it reflects the uncertainty of the dating and the use of broad date ranges for assets of uncertain date.
- 2.5.4 It is important to note the limitations the asset density figures in that they are based entirely on (enhanced) HER data, and reflect the limitations inherent within that data. To a large extent the HER is a record of archaeological investigations that has produced archaeological information (ie archaeological evaluations and excavations in advance of gravel extraction), rather than representing a true record of the geographical distribution of past human activity.
- 2.5.5 The asset density maps are a simplified representation of the nature and distribution of human activity, attempting to model the asset density by data collection and by identifying key variables and/or patterns. The density maps show assets as individual points in order to provide an overview of the distribution of human activity: they do not reflect the density of features or activity at each location. A single point on an asset density maps could comprise a larger number of individual finds or features for a particular period, or an isolated single feature or find.

Period summaries

- 2.5.6 The assessment used the enhanced HER and GIS asset density analysis to produce an archaeological resource assessment for each study area, which discusses the nature and distribution of past human activity and identifies whether there are any patterns in the data. The assessments were reviewed by Richard Sermon and the period experts, and their comments have been incorporated into the assessment.
- 2.5.7 The archaeological resource assessment contributed to the consideration of research agenda and strategy for archaeological remains (Section 8), by highlighting important areas where further research is necessary in relation to assets that may be affected by future aggregate extraction. The assessment and strategy helped define appropriate archaeological mitigation strategies used in

areas of aggregates extraction (Section 9).

2.6 Dissemination

- 2.6.1 The draft report was reviewed by Richard Sermon of BANES and period Specialists. Comments were included in the report prior to dissemination of the draft to stakeholders and English Heritage for comment.
- 2.6.2 On completion of the Assessment the ARCGIS database will be forwarded to BANES HER for its integration back into the HER. CD copies of the report will be disseminated to English Heritage, BANES HER and Planning teams. A version will be sent to the Archaeological Data Service (ADS) website. The results of the project could be used as the basis for a future seminar, which would ideally engage various stakeholder groups, including the archaeological community, curators, planners and minerals extraction companies.

3 Description of the aggregates resource

3.1 Introduction

3.1.1 The region is one of the most varied districts of Britain with almost every geological system exposed at the surface geology (Green 1992, 1). Aggregate minerals have been extracted across the Project Area from a range of source rocks and can be divided into the two broad types:

- Solid (bedrock) aggregate deposits – limestone and sandstone extracted for building stone and waste crushed to produce aggregate products. This comprises approximately 71% of the Project Area.
- Superficial (drift) aggregate deposits – quaternary sand and gravel deposits with Palaeolithic archaeological potential. This comprises approximately 8% of the Project Area.

3.2 Bedrock geology

3.2.1 Limestone is the primary material quarried within the Project Area. Quarries fall mainly in the east of the zone with sandstone exploited locally in the west. There is a general paucity of aggregates in the west of the Project Area, which lies primarily on Mudstone.

3.2.2 Bath is the type area for the Middle Jurassic Great Oolite (or Chalfield Oolite) where it gives rise to the bold scarps and wide plateaux characteristic of the district. The Great Oolite has been quarried for limestone freestone (building stone) but all the limestone formations are used for hardcore, roadstone and concrete aggregate. In the Bath area the Great Oolite comprises three distinct freestone horizons: the Combe Down Oolite, Twinhoe Beds and Bath Oolite. It is generally cream-coloured and cross bedded with massive oolites that have provided the famous Bath Stone and is exposed in many quarries, though few remain in work today (Green 1992).

3.2.3 Great Oolite quarry sites can be seen to cluster to the south of Bath in the locale of the Combe Down and Odd Down mines. Several quarries also arise on a Great Oolite outcrop to the north around Lansdown.

3.2.4 A sequence of shallow-water marine limestones of the Middle Jurassic called the Inferior Oolite Group follows the edge of the Chalfield Oolitic outcrop to the south of Bath. Quarrying of this material is recorded in the south of the project area around Peasedown St John.

3.2.5 Limestone has been quarried from the Langport Member (or White Lias) that outcrops in a wide strip across the centre of the Project Area where it is interbedded with Charmouth mudstone and Lower Jurassic Blue Lias. White Lias, a Lower Carboniferous deposit, has been widely quarried for building stone. The cluster of quarries around Midsomer Norton exploit this geology, which is described as a pale grey and cream limestone with mudstone partings.

3.2.6 A group of quarries near Northend in the north east of the study area focus on Lower and Middle Jurassic deposits of undifferentiated, interbedded Limestone and mudstone.

3.2.7 The majority of the west of the Project Area lies on Mercia Mudstone that is devoid of quarrying activity. However, quarries are found dotted along seams of the Langport Member limestone on the north bank of the Chew leading to Keynsham where it outcrops in a more pure form.

3.2.8 Sandstones quarries group around Temple Cloud on an outcrop of the Mangotsfield Member (Upper Carboniferous) with further quarries south of Stanton Drew.

3.3 Late Quaternary drift

3.3.1 Quaternary deposits or 'drift' formed over the last 2 million years. The deposits are

sometimes metres thick over solid bedrock, and can give an important insight into the events of the most recent geological past.

3.3.2 In the wider region they comprise varied unconsolidated beds including glacial, fluvial, littoral and estuarine deposits and a mixed group of periglacial deposits known as ‘Head’. However, erosion has dominated the Quaternary history and few deposit types remain. These comprise river gravels, Head and alluvium related to the rivers Avon and the Chew, a south bank tributary of the Avon that confluences at Keynsham. The majority of gravel quarry sites therefore lie along the Avon and the Chew. Table 1 provides a chronology of the Late Quaternary deposits, which are described in more detail below.

Table 1 Chronological table for the late Quaternary

Chronological table for the Late Quaternary								
Marine Isotope Stage (MIS)	Approximate date (thousands of years ago)	Epoch	Stage name		British archaeological period	Climate		
1	0.5	Holocene	Late	Historic	post medieval	warm	Interglacial	
	1				Medieval			
	2				Roman			
	3		Prehistoric	Iron Age				
	4			Bronze Age				
	6			Neolithic				
12	Early	Mesolithic						
2	13	Late Pleistocene	Late	Devensian 'Lateglacial'	Loch Lomond stadial	cold	Glacial (last cold stage)	
	14				Windemere interstadial	warmer		
	20				Dimlington stadial (late glacial maximum)	cold		
3	58		Middle	Upton Warren interstadial	warmer			
4	75		Devensian	Early	Brimpton interstadial	cold		
	79					warmer		
	96					cold		
	103					warmer		
	115					cold		
5e	125		Ipswichian		warmer	Interglacial		
6	190		Late Middle Pleistocene			cold		glacial
7	220					Aveley interglacial		warmer
8	315					cold	glacial	
9	325	Purfleet interglacial				warmer	interglacial	
10	390					cold	glacial	
11	400	Hoxnian					warmer	interglacial
12	475	Anglian					cold	glacial
							Lower Palaeolithic	

River terrace gravels

3.3.3 Fluvial sands and gravels have been used for thousands of years, from the first tools made from local flint to the present day where they form a valuable source of

- aggregates for the civil engineering and construction industries. Gravels have been quarried from the south banks of the Avon and have provided access to the terrace deposits that can be a key source of Palaeolithic deposits and artefacts.
- 3.3.4 The main river system within the Project Area is the River Avon, which rises on the southern Cotswolds near Chipping Sodbury on Middle Jurassic Limestone. It runs an east before turning south through Wiltshire and flows through Bath. Then it follows a north westerly direction cutting a course through Lower Jurassic rocks until it meets a gorge at Hanham cut through Pennant Sandstone (Kellaway and Welch 1993). Finally it runs west across low lying Triassic rocks to central Bristol before entering the gorge at Clifton cut through carboniferous limestone. It meets a confluence with the Severn at Avonmouth.
- 3.3.5 As with many British lowland rivers the Avon preserves a series of Pleistocene terraces which are often found to contain a rich assemblage of faunal, floral and archaeological remains. Within Bath three terraces (1st, 2nd and 3rd) are mapped by the BGS, preserved in the bend of the Avon. The other patches of gravel, mainly to the north east of Keynsham, are mapped as the 1st or 2nd terrace.
- 3.3.6 The terraces are associated with the Quaternary climate cycles (glacials and interglacials). River sands and gravels, deposited by glacial meltwater, represent cold climates when ice sheets spread across most of northern Britain, with steppe and open tundra beyond the ice limits. During these cold stages low sea levels caused rivers to downcut, leaving a gravel terrace flanking the valley side. In temperate periods forests regenerated and river systems became more stable with well-developed alluvial floodplains and are typically represented in the sedimentary sequence by fine-grained deposits.
- 3.3.7 Terraces of different age are distinguished from one another by sediment type (lithology) and altitude (height above ordnance datum) as older terraces lie at higher altitudes due to on-going crustal uplift. Fossil fauna (usually mammals, molluscs and insects) within fine-grained material and archaeology (stone tools) within the gravels also facilitate the dating of river deposits.
- 3.3.8 The Avon was created by a reversal of the drainage into the Severn basin during the Anglian glaciation (c. 500 thousand years ago) and a number of dating schemes for the Avon terraces have been proposed. The framework presently used by the BGS (Kellaway and Welch 1993) includes three terraces that roughly correlate with the Ipswichian, Middle Devensian and Late Devensian periods. However, the present understanding of Quaternary uplift and tectonics, and the models currently accepted to explain gravel aggradation and terrace formation has undermined this proposed system (Bridgland 2000; Maddy 1997). The understanding of the chronology and terrace formation is hampered by two gorges present in the Avon's reach that make correlation between different spreads of gravel difficult, and suggests terrace formation may not have occurred under the same influences as other lowland rivers.
- 3.3.9 The most recent framework was proposed by Campbell *et al* (1999) who identified three distinct members associated with the 'Avon formation'. The proposed dating for this scheme is considerably older than previously suggested. The three formations were identified between the mouth of the Avon and Bathampton and are known as the Ham Green Member, the Stidham Member and the Bathampton Member.
- 3.3.10 The Ham Green member consists of 3-4 metres of gravel with an elevation 30m above the present valley base. They have been found to contain large mammal remains (Winwood 1889; Davies and Fry 1929) as well as sand deposits containing warm stage mollusc remains (Winwood 1875). The formation is thought to correlate with Marine Isotope Stage (MIS) 12 as shown on Table 1 (Campbell 1999).
- 3.3.11 The Stidham member consists of 2m of trough cross bedded gravel (indicating a series of depositional and erosional episodes within the ancient Avon) with a basal lag (pebble layer at base of the channel fill) containing mammoth remains (Woodward 1876; Davies and Fry 1929). A correlation with MIS 8 (see Table 1) has

been suggested for this formation.

- 3.3.12 The Bathampton member consists of 3m of trough cross bedded gravels containing cold climate mollusc fauna (Weston 1850; Woodward 1876; Hunt 1998). They are overlain by interglacial palaeosoils and cover sands. These deposits are thought to correlate with MIS 6 (see Table 1).
- 3.3.13 There is a general consensus that the terrace sequence post-dates the last major glaciation of the area during MIS 16 but there remains debate as to whether the three terraces represent a long (500,000 years duration) or short (130,000 years) chronology. The longer chronology is supported by the artefactual material found within the gravel units and similarities have been drawn between these and the artefacts recovered from parts of the Thames terrace sequence.
- 3.3.14 In addition to the Avon recording a long history of Pleistocene terrace formation and climatic change, evidence of channels possibly dating to the Late Glacial has been noted (15–10 000 years ago).
- 3.3.15 Thus, the terraces in Bath are likely to correspond to MIS 12, MIS 8 and MIS 6 with Devensian gravels on the present floodplain. Palaeolithic findspots are not extensive, with some hand-axes found on the surface of bedrock at Keynsham and eight hand-axes from what is mapped as Head at St Anne's Estate on the east side of Bristol (Wymer 1999). However, the deposits may contain important Lower and Middle Palaeolithic (Acheulian and Levallois) remains and ecofacts that would contribute to current understanding of the date and nature of the deposits. Late Glacial channels and gravels of the 1st terrace have potential for Upper Palaeolithic remains.

Head

- 3.3.16 'Head' is the term for a group deposits including colluvium (or hillwash), mudflow and landslip usually formed under periglacial conditions (in the zone bordering an ice sheet). Head accumulates at the break of slope on valley sides and caps gravel terraces and consequently has to be removed prior to gravel quarrying. Head is characterised by mixed sediments with a variety of sizes of rock fragments that have been eroded and transported downslope by gravity or surface wash. These slope processes are exacerbated when iced hillsides thaw and material 'sludges' downslope (solifluction).
- 3.3.17 The presence of large ice sheets in the vicinity during the late Devensian created widespread periglacial climatic conditions in the region. Local snow-caps developed and, during the short seasonal thaws, torrents of meltwater carried away rock debris and frozen mud to be deposited in great fans of gravel (Green 1992). Within the Project Area, Head is preserved locally at the bend in the Avon in the Keynsham area. It mainly relates to the Devensian (MIS 2-4) but may date to an earlier stage and has potential for Palaeolithic archaeology (as at the previously mentioned St Anne's estate site).
- 3.3.18 Large spreads of Head are also mapped around the Chew Valley Lake in the western part of the Project Area. These border the slopes of the headwaters of the Chew and are likely to be colluviated debris also relating to the Devensian.

Alluvium

- 3.3.19 Alluvium lining the river valleys is the most extensive of the drift sediments. Alluvium is a broad term referring to fine-grained and well-sorted material deposited in a river channel or floodplain and is characteristic of the Holocene (the last 10,000 years). Over the Holocene river valleys have gradually filled up with silt and clay alluvium due to a warmer climate, calmer environmental conditions and river level rise. Alluvium is archaeologically important as it may be rich in remains such as molluscs, pollen, plant macrofossils that provide information on past environments. Sediments are often laminated with visible bedding and alluvial sequences can provide excellent conditions for the preservation of information on environmental and

landscape change as well as archaeological structures and sites.

3.4 Aggregate extraction

- 3.4.1 Aggregate resources can be divided into those which are commercially viable for extraction and those for which extraction would currently be uneconomic. The commercial viability of any given aggregate resource is likely to vary with time due to changes in demand, changes in use, development of new extraction methods, and the varying cost and availability of alternative aggregate resources. The sections below provide an overview of past quarrying within the Project Area, and briefly describe the active and dormant quarry sites and potential extraction areas.

Past quarrying

- 3.4.2 BANES has a long history of stone quarrying, including the production of crushed rock for aggregate and some aggregates extraction. The BGS British Pits database records 248 past and present limestone quarries; 26 sandstone quarries; 10 sites producing sand and gravel and two sites producing sand.
- 3.4.3 The aggregate extraction in BANES is today dominated by Limestone quarrying, but in the past the region was home to a range of extractive industries. Silver and lead was mined from the Mendip Hills by the Romans, who also extracted iron at Syndercombe and elsewhere on the Brendon Hills. It should be noted that the evidence for the latter is not conclusive as so much has been destroyed by later workings. Mention is made by a Roman writer of the use of Somerset coal upon the altar of Sul Minerva at Bath, and evidence has also been found in Somerset villa sites of coal from outcrop workings which have long ago been destroyed by later mining (Gould 1996). However, stone for building was much more readily exploited, and was clearly more significant economically. The higher quality stone sources in the region, notably Purbeck, Ham Hill, Chilmark stone, Lias limestones and Oolitic limestone from the Cotswolds and the Bath area, were all fully exploited from early in the Roman period, as building material and architectural and other details on both public and domestic buildings clearly testify. Although Oolitic limestone was exported, generally usage was local to the quarries for most building stones, due to transport costs (SWARF 2008, 155).
- 3.4.4 In the later medieval period, stone from the area of Monkton Combe and Combe Down in the western part of BANES was used to build Bath Abbey and the Chapel of King Henry VII in Westminster Abbey.
- 3.4.5 In the 18th century, the potential of the stone was seen by Ralph Allen who bought considerable areas of land around Monkton Combe and extensively exploited the stone for the construction of early Georgian (early to mid-18th century) Bath. The subsequent popularity of 'Bath Stone' throughout the Regency (late 18th/early 19th century) and later Georgian (to 1840) periods saw its use at Brighton Pavilion (monktoncombe.com). The stone used for Buckingham Palace during the Regency period came from Drewes Quarry at Monkton Farleigh.
- 3.4.6 In 1799, following a career as a surveyor and an interest in geological strata, William Smith published his geological map of the area around Bath. This was the first geological map ever produced and used principles still followed by the BGS. During the early 19th century, Smith operated a quarry on Combe Down which extracted the high quality Bath Stone. The 'Combe Down Stone Mines' are situated about 2km south of the City of Bath, and include Upper Lawn Quarry. The stone was largely quarried between 1730 and 1860. The Combe Down area was served by the Somerset Coal Canal, which provided access from the quarry areas to the Kennet and Avon Canal and thence to London and Bristol. The quarry has been investigated by the Bath and Camerton Archaeological Society and the Combe Down Heritage Society in 2009 (CASCDHS 2009) and has also been subject to a programme of recording focusing on industrial heritage carried out by Oxford Archaeology in the last 10–15 years (Oxford 2011). The main mine complex falls

within the City of Bath Scheduled Monument and only parts of it are included in the current assessment.

- 3.4.7 Limestone was also extensively quarried at Midsomer Norton, in the centre of the southern edge of the Project Area, and at Northend, to the north-east of Bath at the eastern edge of the Project Area. Quarries are thinly scattered across the central belt of limestone-rich geology.
- 3.4.8 The production of building stone from the quarries resulted in considerable waste and it is likely that the crushed rock by-product was used locally for aggregate from at least the 18th-century onwards. Similarly, waste materials from sandstone quarries are likely to have been exploited as aggregate. From the 20th century sands and gravels aggregate had begun to be extracted on a large scale through mechanical means, to meet the demands of modern urban expansion/roads, largely along the river valleys such as the Avon in the north-east of the Project Area and in the Yeo valley, and the river Chew. Small clusters of sandstone quarries are recorded near Temple Cloud and south of Stanton Drew.
- 3.4.9 The identification and digitisation of past quarries within the Project Area indicate that aggregate has been extracted in many areas. Limestone was the principal commercial mineral worked in the District. The past extraction sites mapped from historic OS maps comprises just fewer than 300 quarries scattered across BANES.

Active sites

- 3.4.10 Whilst historically aggregate extraction in the District has been extensive, current aggregate extraction revolves around just two active quarries. These are shown on Fig 3 and comprise:
- **Upper Lawn Quarry** to the south of Bath in the eastern part of the Project Area. This is a surface working which produces small quantities of high quality Bath Stone mainly for building refurbishment and restoration projects in Bath.
 - **Hayes Wood** to the south of Bath in the south-eastern part of the Project Area. This is an underground mine which produces high quality Bath Stone in larger quantities for new building and renovation projects (BANES 2009, 4)
- 3.4.11 **Stowey Quarry** near Bishop Sutton in the western part of the Project Area was closed in 2007/8 but there remains an extant permission for mineral extraction and aggregate recycling.

Dormant sites

- 3.4.12 There are two dormant extraction sites within the District where extant planning permissions have been registered with the Council. The dormant sites (see Fig XX) are Queen Charlton Quarry, a dormant limestone quarry near Keynsham, which has not been worked since the 1950s, and Mount Pleasant Quarry, a dormant Bath stone quarry in Bath, which has not worked since the late 1980s (BANES 2009, 6).
- 3.4.13 These sites cannot re-open unless a scheme of full modern working and restoration conditions has been submitted to and approved by the Council. No such proposals have yet been submitted and the likelihood of these sites ever re-opening is considered to be extremely low (BANES 2009, 6).

Potential quarrying

- 3.4.14 Superficial aggregate deposits represent some 8% (c 29km sq.) of the total area of BANES. However, the actual area quarried of this resource is only c 1.09km sq. representing some 4% of the superficial aggregate area and only 0.31% of the total area of BANES. Thus c 96% of this resource would potentially be available for extraction. It should be noted though that the Chew Valley Lake, the city of Bath and town of Keynsham overlies sections of the resource and effectively limit access.

4 Archaeological and historical overview

4.1 Introduction

4.1.1 A chronological overview of archaeological knowledge for each period for the Project Area is also reported in this section, ahead of the archaeological resource assessments for both study areas (Sections 6 and 7), in order to provide background context. It includes a discussion of past archaeological investigations on aggregate geologies.

4.1.2 There is no recent synthesis focusing specifically on the current state of knowledge of the archaeology of BANES, although BANES is included in the South West Archaeological Research Framework report (SWARF 2008). The bulk of background information summarised here has been drawn from that report and incorporate comments from the period specialists.

4.2 Overview of past archaeological investigation on aggregate geologies

4.2.1 The aggregates extraction has occurred in an area of rich archaeological heritage, from the industrial archaeology of the Combe Down and similar quarries to Roman villas and medieval villages and abbeys. The spatial distribution of Roman and later sites and their relationship with Bath can provide information on the operation of smaller settlements and non-site activities around an important regional centre. The relationship of Bath and North East Somerset's prehistoric sites with larger centres in Somerset and Wiltshire is also of interest.

4.2.2 It was not within the scope of the current project to include a 'Backlogs' component, assessing the levels of dissemination of the results of archaeological investigations carried out in relation to aggregate extraction. Therefore, only a brief overview of fieldwork undertaken in the Project Area is presented here.

4.2.3 Prior to the *Town and Country Planning Act of 1947*, no planning permission was required to open a quarry or to extract aggregate resources. There was no requirement to undertake any archaeological investigation prior to the extraction, thus quarries were opened, and ultimately closed, without any archaeological information being recorded. Where archaeological investigations were carried out, they were small scale and undertaken by local associations and/or local enthusiasts without funding, as 'rescue excavations' (ie rapid recording carried out as archaeological remains were exposed during quarrying). Where archives do survive, it is not always clear if the excavation was undertaken as a result of quarrying or some other development.

4.2.4 With the introduction of the *Town and Country Planning Act of 1947*, planning permission was required to open a quarry and extract aggregates. The process did not however make provisions for the protection of cultural heritage, and consequently, the number of archaeological investigations remained relatively low, and continued to comprise mostly 'rescue' excavations.

4.2.5 After the *Town and Country Planning Act of 1971*, the number of archaeological interventions in England generally increase, reflecting the beginnings of a more organised and professional approach to archaeology following the consolidation of the previous Act of 1947 and the provisions of the *Mines (Working Facilities and Support) Act* of 1966. Interventions were still being carried out by local groups or societies, although there is the emergence of professional archaeological units carrying out some of the excavations.

4.2.6 With the introduction of Planning Policy Guidance note 16 (PPG16) in 1990 (recently replaced by PPS5 in 2010 and subsequently by the National Planning Policy Framework in 2012) archaeology became a material consideration in the planning process. Under this national and local planning framework, there has been

a proliferation of archaeological projects undertaken by professional archaeological contractors as part of aggregate extraction permissions.

4.2.7 Regardless of the various legislative and planning changes, the number of archaeological investigations in quarry sites has remained very low in BANES: of 115 archaeological events (both HER and NMR recorded) only three can be firmly identified as being associated with aggregate extraction (c 2.6% of the total). This should not necessarily be taken to indicate a lack of recording in more recent times but instead probably reflects the limited level of extraction in BANES.

4.2.8 Table 2 below lists the archaeological investigations at the only active (and recently closed but with extant permissions) quarry sites and their surrounding consultation zones (ie areas of potential future expansion). Both Hayes Wood and Stowey Quarry have yielded considerable archaeological remains and any future extraction in these areas should take into account the potential for further remains. The details of these assets can be found in the period summaries.

Table 2 Past archaeological investigations and known heritage assets in active quarry sites

Quarry	Archaeological Intervention	Category	Period	HER/NRHE no.
Hayes Wood	Trial excavations in 1934	Findspot	Late Neolithic to Early Bronze Age	1826
	Ordnance Survey Archaeological Record	Religion, Ritual, or Funerary	Bronze Age	1623
	Trial excavations in 1934	Unassigned	Iron Age	1828
	Trial excavations in 1934	Findspot	Roman	1812
		Religion, Ritual, or Funerary	Roman	1622
		Transport	Roman	1626
		Agriculture and Subsistence	Medieval	1831
			1830	
			11147	
	11149			
	11152			
	Survey in 1966 and 1982	Domestic	Medieval	1829
	Survey in 1983	Industrial	Post Medieval	3437
				3436
	Quarry survey in 1983	Industrial	Post Medieval	3438
The Defence of Britain Multidisciplinary Project (1995–2002)	Defence	Modern	1422892	
			1429410	
			1422895	
			1422893	
			1428112	
			1422896	
			1030155	
			1429410	
Stowey Quarry		Findspot	Mesolithic	1097
		Religion, Ritual, or Funerary	Bronze Age	6073
	Desktop survey and fieldwalking project in 2000	Domestic	Roman	11826
		Findspot	Roman	1098
	Transport	Roman	1338304	

Quarry	Archaeological Intervention	Category	Period	HER/NRHE no.
	Survey in 1991	Agriculture and Subsistence	Medieval	7867
	Historic Landscape Survey in 1988	Religious, Ritual, or Funerary	Medieval	7667
		Agriculture and Subsistence	Medieval, Post Medieval, Modern	1131
		Industrial	Post Medieval	4066
				4067
				4070
			5960	
	Historic Landscape Survey in 1988	Agriculture and Subsistence	Post Medieval	7648
	Historic Landscape Survey in 1992	Unassigned	Post Medieval	11751
	Mendip Hills AONB NMP	Agriculture and Subsistence	Post Medieval	1496263
	Mendip Hills AONB NMP	Agriculture and Subsistence	Post Medieval	1496268
Upper Lawn Quarry	None	None known	None known	None

Chew Valley Excavations

- 4.2.9 The Chew Valley excavations (conducted between 1953 and 1955) represent a major source of information on the archaeology not just of Study Area 1 of this assessment, but of BANES in general. “Rahtz memorably described excavating on an island that grew smaller each day as the water rose in the newly-constructed reservoir” (Webster and Mayberry eds 2007, 14). “The history of the valley was virtually a blank before that [1953] and written off as archaeologically barren. It was in fact a wonderful sample of everything from about 10,000 BC onwards.” (Rahtz, quoted in Sandon et al, 2004, 7).
- 4.2.10 Eight archaeological sites were excavated within the lake area: Chew Park, Herriot’s Bridge, Ben Bridge, Moreton, St Cross Nunnery, Stratford Mill, Stratford Lane, and Denny Moat. Other sites were also excavated in the vicinity as part of the reservoir scheme, such as the Roman villa at Gold’s Cross, and other sites along the routes of various pipelines. The most important sites for the period from 10,000 BC to the 4th century AD were at Chew Park, Herriot’s Bridge and Ben Bridge (Sandon *et al* 2004, 9). The excavations found stone implements dating to the Upper Palaeolithic and Mesolithic periods, which were similar to those from the Mendip Caves. There was no direct evidence of settlement, but humans were clearly exploiting the naturally available resources. Evidence of Neolithic (possibly seasonal) occupation was found at Chew Park. Chew Park and Ben Bridge, which also revealed evidence of Bronze Age occupation, while Iron Age evidence came from Chew Park and other sites in the valley. Excavations in the Chew Valley indicate that the transition to the Roman period was gradual. Two main sites were identified at Chew Park and Herriott’s Bridge. The Roman villa at Chew Park was located on a sandy promontory as close to the river as possible (Sandon *et al* 2004, 10). Local stone from the quarry at Denny Moat was used for its construction. The valley provided very fertile land and the resources were supplied to the Mendip lead mines, via the Stratford Lane Roman road (*ibid*, 11).

4.3 Palaeolithic (700,000–10,001 BC)

- 4.3.1 Palaeolithic archaeology is the study of the Pleistocene geological epoch and is loosely linked with geological and palaeoenvironmental studies (Quaternary Science). The Palaeolithic period is traditionally divided into Lower, Middle and Upper Palaeolithic on the basis of the material culture. The Lower (700,000–250,000 BC) and Middle (250,000–40,000 BC) Palaeolithic is characterised by the presence of hand axes and flint tools or flakes, whilst the Upper Palaeolithic period is characterised by blade-based lithic industries with evidence of a more developed form of social organisation (MoLAS 2000, 30).
- 4.3.2 Lower/Middle Palaeolithic remains are typically found within Pleistocene geological deposits and usually comprise stone tools, faunal remains and palaeoenvironmental data. Structural remains of this date are not found, and human remains are very rare. Lower/Middle Palaeolithic assets are often residual (i.e. located outside the deposit or layer in which they were originally deposited) and *in situ* sites of tool manufacture or butchery are consequently very important.
- 4.3.3 The present river systems, including the Avon Valley, ‘a gateway for the movement of human populations since approximately 500,000 years ago’, developed during the Anglian (c 450,000 years ago) and the Devensian (c 20,000 years ago) glacial periods and intervening warm episodes (BANES 2003). Pleistocene deposits along the River Avon have received some attention in recent times (Bates 2003); nonetheless, Palaeolithic archaeology of the South West is generally ‘poorly known, reflecting an absence of robust geochronological frameworks, the predominance of research into a handful of cave and open sites over the lithic scatter resource ... and the absence of any major syntheses’ (SWARF 2008, 23).
- 4.3.4 The only known assets dating to the Lower Palaeolithic period within both study areas are findspots. Palaeolithic assets are sparse, a situation which reflects that in the South West area in general. The majority of finds comprise flint tools and hand axes which are found along river valleys. In fact, the potential for Palaeolithic remains in BANES along the river terraces, and particularly the River Avon, is well recognised (Bates and Wenban-Smith 2006, Bridgland 2010). In addition, evidence from fluvial sediments provides “a useful template for the chronology of early human cultural development ... based on lithic tool industries” (Bridgland 2010, 441).
- 4.3.5 Nonetheless, beyond the preference for river valleys, the limited evidence available makes it difficult to establish distinct activity patterns within the two study areas. Deposits do survive in BANES and future aggregates extraction work has the potential to add to the knowledge of this period in Britain. The HER data provides a limited indication of areas with a higher probability to contain important and/or currently unknown assets. These are in general areas associated with the river valley (Study Area 1), especially the River Avon, which acted as a focus for hominid and human activity. In general, assets are potentially present within any Pleistocene geology, particularly gravel deposits. Key known sites are typically located on River Terrace Gravels. Mechanised gravel extraction is a main factor in the discovery of Palaeolithic artefacts, but the artefacts recovered lack any stratigraphical information and any evidence of context is generally removed during the process.

4.4 Mesolithic (10,000–4001 BC)

- 4.4.1 Following the Last Glacial Maximum (c 18,000 BC), the environment of the Project Area was probably open arctic-alpine tundra landscape until c 10,000–9500 BC. Then, with the climatic improvement at the end of the last glaciation (Devensian), this tundra was superseded by forest (Rackham and Sidell 2000, 20–2). This period of climatic change created a new environment and mobile hunter-gatherer communities exploited this in a completely different manner. This led to the development of new exploitation strategies and thus different tools, including axes and tiny projectile points or microliths. Evidence of human activity is largely characterised by finds of flint tools and waste rather than structural remains. Traces

of Mesolithic sites usually only survive in valley floor or flood plain edge locations and are often not in a stratified contexts.

- 4.4.2 The Mendip Hills have some of the most significant Mesolithic and Neolithic cave deposits in the country, but none are known in either study area of this assessment. In fact, Mesolithic material is not particularly well represented in BANES. The range of tool types associated with this period indicates hunting and food processing by small groups. The finds are not within fully stratified contexts and the majority of evidence dating to this period within the region comprises isolated finds. However, this lack of evidence should not necessarily be taken to mean a lack of activity in the study area. Over the last couple of decades, new evidence of dwellings, pit clusters and monumental architecture has come to light from a number of different sites across gravel extraction areas across England (Timothy Darvill pers. comm). Such discoveries suggest an unrealised potential within the Project Area for similar finds, in particular along the Avon valley which was a key natural route into the interior heartlands of Southern Britain from the Severn Estuary (ibid.)
- 4.4.3 Recent archaeological work by Paul Davies (Davies 2011 quoted by Nick Crocos pers. comm.) in the valley of the Wellow Brook between Ston Easton and Midsomer Norton in the centre of the southern edge of the Project Area (Study Area 1) has established a relationship between naturally-deposited tufa (a calcium carbonate precipitate up to 5m thick, which is likely to occur in Chalk or Limestone river valleys), and evidence of human activity in the form of lithic assemblages largely dating to the Mesolithic. The most notable recent flint assemblage was recovered from Langley's Lane, near Midsomer Norton on the southern boundary of the study area towards the centre, which included a sphere of tufa which had been worked by hand and deposited in a small pit, suggesting ritual practice. Tufa itself can hold important palaeoenvironmental information offering opportunity for Holocene environmental reconstruction (Nick Crocos pers. comm.).

4.5 Neolithic (4000–2351 BC)

- 4.5.1 The Neolithic period is traditionally seen as the time when hunter-gathering gave way to farming and settled communities, and forest clearance occurred for the cultivation of crops and the construction of communal monuments. It is likely that hunting and gathering still continued. Pollen records indicate small scale forest clearance in western Britain during this period, with extensive clearance across other parts of Britain in the second millennium BC (Timothy Darvill pers. comm.). Evidence of communal activity in the fourth millennium BC is represented by long barrows and causewayed enclosures, replaced in the third millennium BC by henges, stone circles and ceremonial centres.
- 4.5.2 Evidence of Neolithic settlement within the study areas is extremely rare, primarily due to the great age and ephemeral nature of the cultural remains (eg friable pottery and organic remains). The only possible domestic site noted in the HER data is a round timber-framed structure excavated at Chew Park Farm in the 1950s (see Study Area 1). However, as for the Mesolithic, the lack of data should not be taken to necessarily mean absence of activity. The number of recorded settlement sites from this period has increased in recent years as a result of improved understanding of site location, for example, the discovery of an early Neolithic house in the gravel extraction site of Kingsmead Quarry at Horton in Berkshire in 2008. The recognition of and publication of such features provides comparative data which can improve understanding and lead to increased recognition similar features in future archaeological investigations. This could eventually lead to a reassessment of current understanding of the Neolithic in Britain.
- 4.5.3 Communal/ritual activity in the form of megalithic structures and barrows does survive. Stone monuments focusing on the intervisibility of landscape features began to be erected during this period, as seen at Stanton Drew (north-east of the Chew Valley Lake, in the western part of the Project Area) and Stony Littleton (southern part of the Project Area). The Stanton Drew stone circles of the late

Neolithic/early Bronze Age, first mentioned by John Aubrey in 1664, are a scheduled monument. The Neolithic long barrow (burial chamber) of Stony Littleton, also scheduled, is another example of a monument located in a prominent position, on a ridge overlooking the Cam Valley, and possibly deliberately sited to be viewed from surrounding hill-tops and ridges. Other monuments include an earth bank and timber enclosure sited by the River Chew, clearly visible from the surrounding hills (BANES 2003).

4.6 Bronze Age (2350–751 BC)

- 4.6.1 The Bronze Age is characterised by technological change, with copper and then bronze eventually replacing flint and stone as the main material for everyday tools. It is seen as a period of increasing social complexity and organised landscapes, probably brought on by growing pressure on available resources. The construction of round barrows is associated with the appearance of a particular ceramic form, known as a 'beaker'. In the later Bronze Age, burial practice takes the form of cremated remains in pottery urns. One such 'beaker grave' was excavated in 1953 at Ben Bridge by Rahtz, on the western edge of the Chew Valley Lake. Rahtz also identified several probable Bronze Age hearths, indicating a possible settlement at Chew Park.
- 4.6.2 Religious, Ritual or Funerary assets make up the bulk of the record for both study areas. They include key sites such as the Stanton Drew stone circles (see para. 4.5.2). A number of Bronze Age barrows are recorded on the HER and several were used to define parish boundaries in the later medieval period.
- 4.6.3 The archaeological record for both study areas is also rich in remains of Bronze Age agricultural fields, trackways, and to a lesser extent settlement enclosures. Direct evidence of domestic activity is limited (BANES 2003). The development of boundaries, initially to separate animal from crop and later to define 'ownership', became a prominent feature in the Bronze Age (ibid.).
- 4.6.4 The results of archaeological investigations in gravel extraction sites elsewhere outside the Project Area, particularly in the Thames Valley, have contributed to a reassessment of the Bronze Age. Current evidence suggests that from around 1600 BC the archaeological record fundamentally changes character as settlements come into prominence, the subsistence base expands to include formal field systems, traditional ceremonial monuments are abandoned, and burial practices focus on cremations in flat cemeteries (Timothy Darvill pers. comm.). Although presently lacking, there is the potential for future sites within the aggregate areas of BANES to contribute to the understanding of the Bronze Age across Britain.

4.7 Iron Age (750BC–AD 42)

- 4.7.1 During the Iron Age, the climate deteriorated with colder weather and more rainfall. The period is characterised by expanding population, which necessitated the intensification of agricultural practices and the utilisation of marginal land. Hilltop enclosures (eg, Bathampton Camp, north-east of Bath), early hillforts (eg, Solsbury, north of Bath) and developed hillforts, which appear to be for both domestic and defensive purposes and linked to tribal land ownership, are a distinctive feature of this period. Remains of field systems, enclosures, round houses, and other agricultural features of Iron Age date occur where current and past land use has allowed remains to survive (ie not deep ploughing, quarrying or other development). There is little evidence of contact with continental Europe in BANES in this period, with few imported coins and mainly British copies of imports, and no imported pottery (Barry Cunliffe pers. comm).

4.8 Roman period (AD 43–409)

- 4.8.1 The Roman period is dated traditionally from AD 43 to 410. Whilst there is apparently no evidence of Romans in the South West before the conquest (Barry

Cunliffe pers. comm.), there is increasing evidence of Roman influence in the region before this date (SWARF 2008, 151). The end of the period, as with most transitional periods, is also hard to define.

- 4.8.2 There appears to be continuity in settlement and field systems from the Iron Age into the Roman period in the North Somerset and Avon region. Rahtz and Greenfield (1977, 15) stated that there is no clear archaeologically visible distinction between the two periods in Somerset, except changes in the pottery (Priest and Dickson 2009, 33).
- 4.8.3 Following the invasion, the Romans founded *civitates*, urban and administrative centres, supporting a framework of regional government (SWARF 2008, 158), along with an extensive road network. Despite its importance, Bath was not one of the five *civitas* capitals in the South West, which also contained one *colonia* (Gloucester, or *Glevum*). Bath was instead the site of an important sanctuary that subsequently developed into a market centre (SWARF 2008, 153; Cunliffe 2000).
- 4.8.4 In the Roman period, Oolitic limestone was extensively exploited, along with lias for building material and pennant grit for roofing (Barry Cunliffe pers. comm.). The high quality Oolitic limestone from the Bath area proved attractive for building material and architectural detail (SWARF 2008, 155).
- 4.8.5 There are many cemeteries and burials of the Roman period within the South West, including BANES. The NRHE provided a more extensive record of Roman roads in BANES when compared to the HER. The precise route of these roads is often conjectural; though some portions of the roads have been excavated over the years.
- 4.8.6 Generally speaking, there has been a clear bias towards the excavation of high status settlements, principally villas (SWARF 2008, 152). The distribution of Roman villas and the large estates they controlled suggests that many of these estate boundaries survive today as parish boundaries (BANES 2003). Less is known about minor farmsteads within the rural landscape. Nonetheless, development-led excavation of rural sites is reversing this trend and leading to greater understanding of agricultural, social and economic life, which is shedding light on the transition from the Iron Age to Roman period and on the early post-Roman period (SWARF 2008, 152).

4.9 Early medieval period (AD 410–1065)

- 4.9.1 Following the withdrawal of the Roman army from England in the early 5th century AD, much of the country fell into an extended period of socio-economic decline. The overall impression in the South West/West however is one of continuity from the Roman into the medieval period, as opposed to considerable change (Webster 2001b, 79).
- 4.9.2 It is now generally accepted that from about 400 at least to 650, an independent, sub-Roman culture continued and flourished in the South West, even when Anglo-Saxon political hegemony extended through Somerset in the second half of the 7th century (Nick Corcos, pers. comm.). English-speaking people would probably have made up only a minority of the population. Continuity in the region is suggested by a Dorset pottery industry producing Black Burnished Ware and other forms and fabrics well into the 5th century (Gerrard 2004; 2010 quoted by Nick Corcos pers. comm.). Romano-British field systems recorded in Somerset appear to have continued in use with little evidence of change until the 7th and 8th centuries (Davey 2005 quoted by Nick Corcos pers. comm.). The Roman temple site on Pagans Hill, Chew Stoke, continued in use well into the 7th and 8th centuries. There was also continuity from the Roman period in terms of burial practice (Gerrard 2005).
- 4.9.3 Settlement was one of dispersed farmsteads and hamlet-type occupation. By the 11th and 12th centuries the local parochial system replaced the earlier Saxon Minster system, with formal areas of land centred on villages served by a parish church. This occurred later than across South East England (Peter Davenport pers. comm.), which saw such change throughout the 9th and 10th centuries, although

much of the rural settlement in the South West remained isolated homesteads.

- 4.9.4 The earthwork known as 'Wansdyke', in the centre of the southern half of the Project Area, possibly defined the western limit of the West Saxon territory. There are two main sections, separated by the London to Bath Roman road, comprising an eastern dyke between Savernake Forest and Morgan's Hill in Wiltshire, and a western dyke from Monkton Combe (south-east of Bath) to Maes Knoll (south of Bristol on the northern edge of Project Area). The process of conquest and settlement is poorly understood in this area and the purpose of the Wansdyke is uncertain (Peter Davenport pers. comm.), although it is likely to have been defensive in nature, and could be entirely British or Saxon, although the latter seems unlikely (ibid).
- 4.9.5 Documentary evidence indicates that Bath was a pre-Conquest (1066) burh (defended settlement), one of several in Somerset. There were other settlements of possibly urban status, judging from the presence of mints, and later Domesday markets and burgesses (SWARF 2008, 201). However, archaeological evidence for this period is limited and none of the documented urban and royal centres have produced any archaeological evidence (Webster 2000b, 82).

4.10 Later medieval period (AD 1066–1540)

- 4.10.1 The Project Area possibly lay within a central province and straddling two sub-provinces (West Wessex and the Cotswold Scarp and the Vale) as identified by a study in 2000 (Roberts and Wrathmell 2000, quoted by Peter Davenport pers. comm.). Domesday Book (AD 1086) mentions Chew Magna and Banwell as the centre of large estates of over 30 hides (one hide is the equivalent of around 120 acres) and 30 ploughlands (Costen 1988, 36–37).
- 4.10.2 Aston (1988, 69–70) has suggested continuity of settlement sites from the Roman period, in that the Roman settlement pattern is similar to the historic settlement, in many cases using the same sites. Archaeological excavations in the Chew Valley support the argument of cultural continuity, including the settlement (Kemp 1984, 37). At Moreton, the excavations in advance of the flooding of Chew Lake revealed a Roman settlement underneath the medieval village (Rahtz & Greenfield 1977, 108–14, mentioned in Priest and Dickson 2009, 34). The Roman road network probably continued to be used, although the roads were probably not maintained.
- 4.10.3 Evidence suggests that the settlement pattern was perhaps more complex than originally believed. Until at least the 14th century was predominantly one of isolated farmsteads and small hamlets rather than villages (Aston 1988, 67, 69–71; BANES 2003), although substantial medieval settlements did develop and many of the villages in the present landscape probably derived from such (Peter Davenport pers. comm.).
- 4.10.4 The limitation of using entries in Domesday Book (AD 1086) as evidence for settlement should be noted. A number of BANES HER entries have used the records of estates and holdings in the Domesday survey to extrapolate the presence of a hamlet, village or mill, when the link is tenuous and not evidence based. It was however outside the scope of the present study to include a critical review of HER data, and where the HER notes the presence of a medieval settlement it has been incorporated into the asset densities as such.
- 4.10.5 The archaeology of Project Area is rich the earthwork remains of the abandoned or shrunken medieval hamlets (BANES 2003). Other earthworks, such as prehistoric round barrows, were sometimes used to define parish boundaries, as is the case for the four parishes of Ubley, Compton Martin, West and East Harptree.

4.11 Post-medieval period (1540–1900)

- 4.11.1 The archaeological record from the Chew Valley provides good insight into this period. The area from Keynsham to Chew Magna, in the north/north-west of the

study area, had several large fulling mills, some of which survive today (with later alterations). Of particular note is Tucking Mill, which originally was a fulling mill and which was converted to a stone saw-mill by William Smith, a pioneer of the use of the newly established canal network to transport processed stone to London (Irving 2009). Mills and their associated features of leats, weirs, millponds and stream diversions were prominent features of the landscape. By the 16th century, wool was the dominant industry, necessitating large areas of pasture (BANES 2003).

- 4.11.2 The 18th and 19th centuries saw settlement growth and the development of a road, rail, and canal network linking urban and rural areas. The Somersetshire Coal Canal was constructed between 1795 and 1801 to link the North Somerset coalfields with the Kennet and Avon Canal. Its branches were eventually replaced by railways: the Somerset and Dorset Railway opened in 1872 and ran until 1966; while another line ran from Limpley Stoke to Camerton until 1951 (BANES 2003). The new railway and canal networks also contributed to the boom in use of Bath stone. In 1810, the final stretch of the Kennet and Avon Canal was completed, enabling the transport of Bath stone direct to London for the first time (Richard Irving pers. comm.). William Smith was one of the first to exploit this, transporting stone from his quarry at Kingham Field to his mill at Tucking by railway, and then moving the processed stone to London by canal. In the mid-1820s, the Combe Down quarry master and stone mason/builder of national renown, Philip Nowell, used the canals to ship Bath stone to Windsor for work on the castle and also later to Pimlico, where he had established a wharf (Willies, Redevers-Higgins and Wain 2011 quoted by Richard Irving pers. comm.)
- 4.11.3 Along with improvements to the transport network, industrialisation, especially coal exploitation, was also responsible for much of the development of the area. Small villages became major coal production and distribution centres. Wealthy entrepreneurs created country estates and landscaped parks, such as Prior Park, which is associated with the stone mining industry on the outskirts of Bath (BANES 2003).
- 4.11.4 The Combe Down mines (Oolitic Limestone) were exploited mainly during the 18th and 19th centuries as a result of the rapid expansion of Bath. Bath stone was worked by the 'pillar and stall method', leaving chambers with pillars of un-mined stone between them to support the roof. The mines have been recently stabilised (avonhpgp.co.uk/timp/cdhs/combedown/mines.html) and a programme of detailed recording of the mines, using laser scanning, detailed photographic survey and video recording has been undertaken. Graffiti scribed into the mine walls and pillars provide valuable insight into the social context in which the miners worked. The work identified six main phases, including those carried out in the lifetime of Ralph Allen, who was responsible for the first large scale exploitation of the mines (Willies, Redevers-Higgins and Wain 2011). William Smith, 'the Father of English Geology', developed his ideas about geology and quarrying from his studies in the area (Irving 2009).

4.12 Modern period (1901–present)

- 4.12.1 The modern period covers the span of time from 1901 until the present day. This period encompassed enormous social, political and industrial change including universal suffrage, the Welfare State and two World Wars.
- 4.12.2 Modern occupation patterns are evident in 20th century Ordnance Survey mapping and a large amount of material is available on changing patterns of land use and activity. Consequently this period is very well understood. The BANES HER provides a record of those modern assets considered to be of particular historic interest (e.g. wartime batteries and important buildings) and those which might otherwise be mistaken for earlier and more significant remains (e.g. earthworks associated with golf courses).
- 4.12.3 In modern times, the creation of Chew Lake and Blagdon Lake (located on the

western boundary of BANES) was a major change to the landscape. The Chew Lake was opened by Queen Elizabeth II in 1956 and is the fifth-largest artificial lake in the United Kingdom.

- 4.12.4 As part of the current project, the HER was enhanced with the addition of a number of modern defence assets associated with the Second World War which were listed in the NRHE. These assets are significant for our understanding of the physical aspects of the war and complement the large number of documentary sources and synthetic histories. Second World War military activity has left its mark in the landscape. These wartime features were recorded as part of the Defence of Britain survey. As a category, they are under-represented in the BANES HER, which is missing several assets, especially in the area of Hog Wood, which was part of the General Headquarters 'Line Green', a defensive loop around the Bristol area against attack from the south.

5 Asset density overview

5.1 Introduction

- 5.1.1 This section provides an overview of the density of assets per square kilometre by period within each study area.
- 5.1.2 There were a total of 869 assets across the two study areas, including 69 assets of unknown date. The density across the entire aggregates resource (i.e. both study areas combined) is 13.96 assets per km². Graph 1 shows the asset densities for each chronological period for Study Areas 1 and 2. The majority of known assets (585 assets) are located in Study Area 1, which is also the larger of the two areas, at 46.6 km². Study Area 2 contains 279 known assets within an area of 15.4 km².
- 5.1.3 As might be expected, the early prehistoric period (from the Palaeolithic to the Neolithic) has the lowest asset density. The density of assets remains generally low until the Bronze Age and rising in the Roman period. There is a drop in assets during the early medieval period before the density goes up again significantly particularly during the post-medieval period. The low density of assets dated to the Modern period is likely to reflect HER recording practice and recognition of what constitutes an asset of heritage interest.

5.1 Study Area 1

- 5.1.1 There are 585 assets in this study area, including 48 assets of unknown date (this includes Undated Prehistoric and Unknown). The density across this study area is 12.59 assets per sq. km. Asset densities and types for the Palaeolithic to the Iron Age are shown in Graph 2; and those for the Roman to the Modern period in Graph 3.

5.2 Study Area 2

- 5.2.1 There are 284 known assets in this study area, including 21 assets of unknown date (this includes Undated Prehistoric and Unknown). The density is 18.09 assets per sq. km. Asset densities and types for the Palaeolithic to the Iron Age are shown in Graph 4; and those for the Roman to the Modern period in Graph 5.

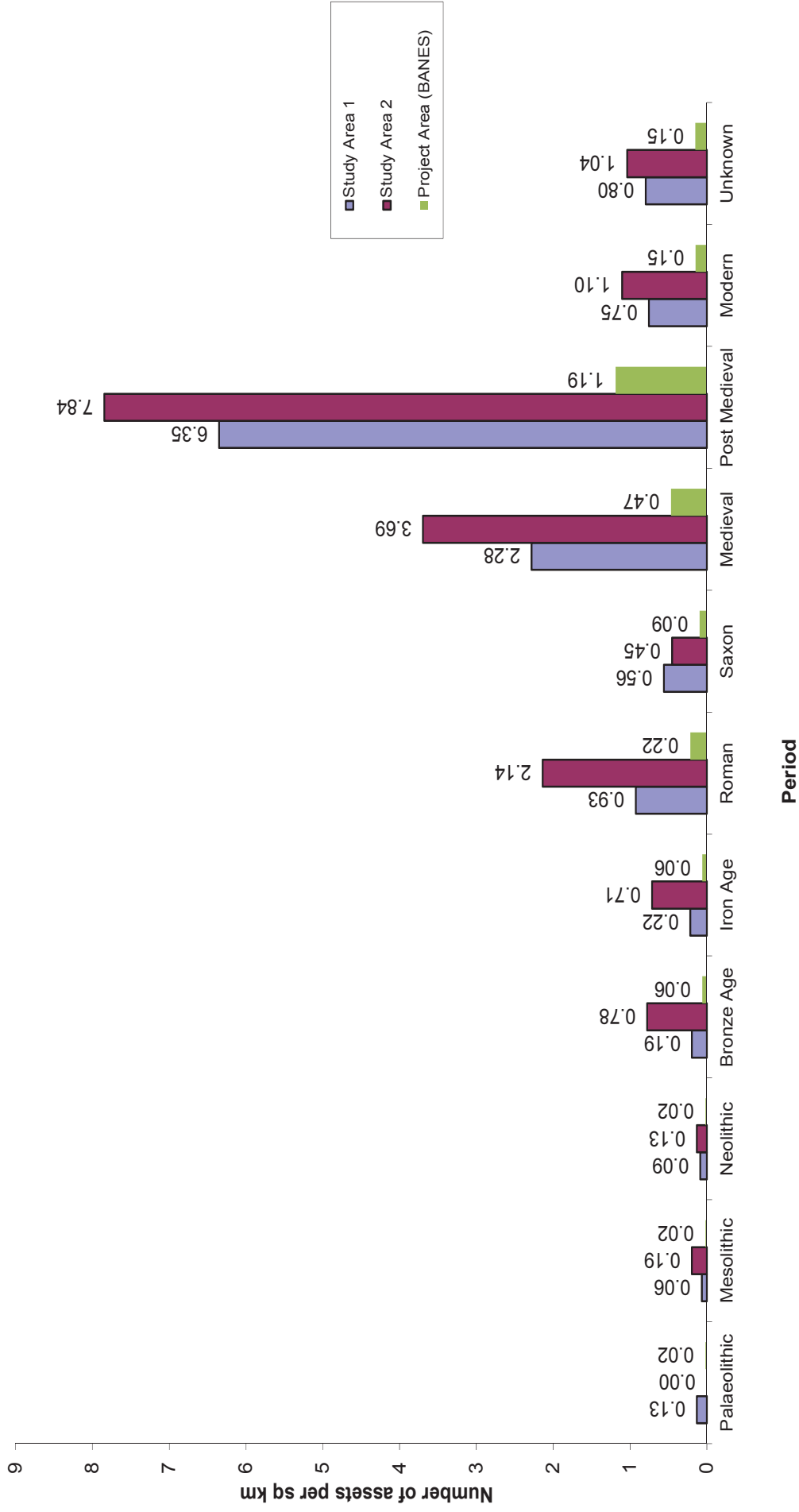
5.3 Project Area

- 5.3.1 There are 3542 known assets in the Project Area of BANES, including 285 of unknown date. The density of assets across the whole region is 10.19 assets per sq. km. The data set represents assets recorded in the HER as of December 2012 but is not enhanced and thus does not include assets noted in the NHRE. The percentage that assets from Study Areas 1 and 2 represent of the total of assets within the Project Area is shown in Table 3.

Table 3 Comparison of totals of assets by period and Study Area as percentages of total assets for Project Area

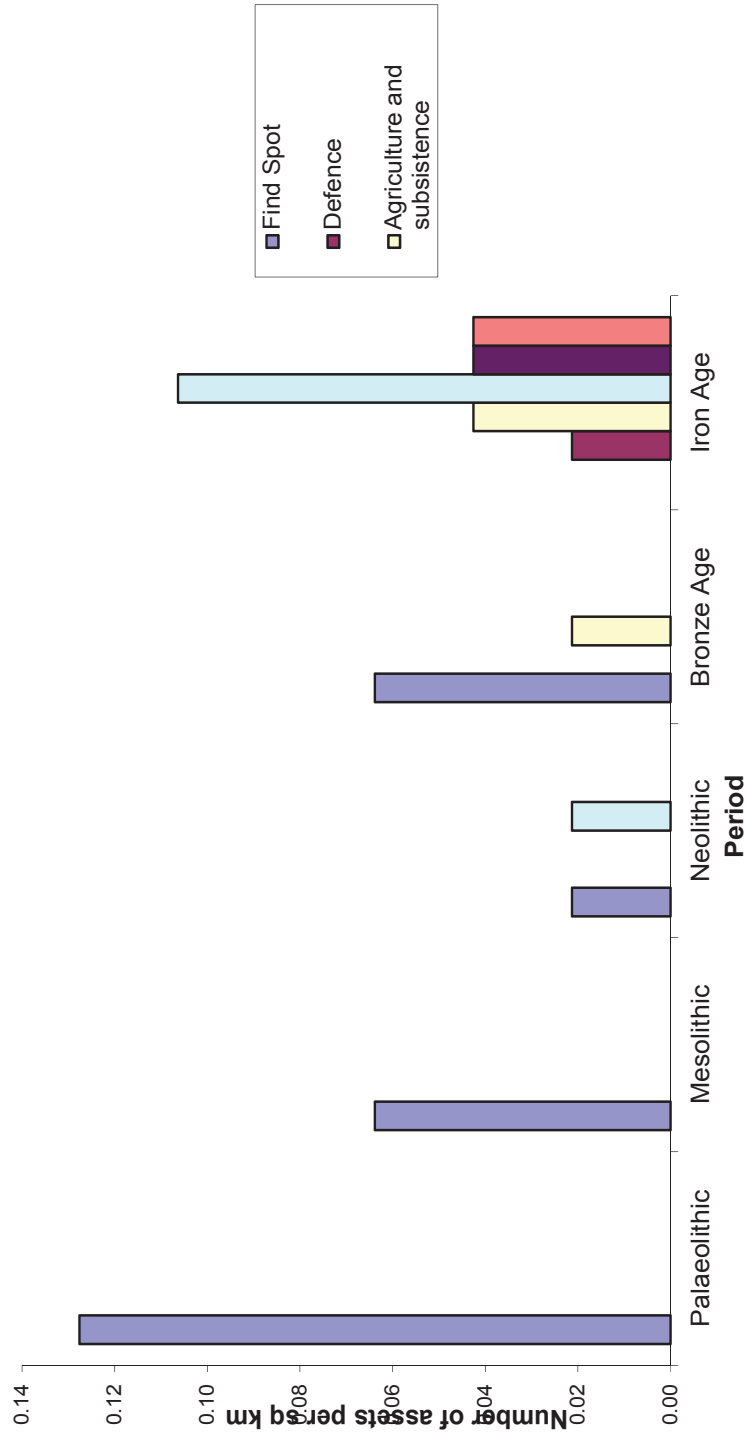
Period	Study Area 1	% of Total number of Assets	Study Area 2	% of Total number of Assets	Total of SA 1 and SA 2	% of Total number of Assets	Project Area (BANES)
Palaeolithic	6	6%	0	0%	6	6%	97
Mesolithic	3	14%	3	14%	6	29%	21
Neolithic	4	14%	2	7%	6	21%	28
Bronze Age	9	7%	12	9%	21	16%	128
Iron Age	10	12%	11	14%	21	26%	81
Roman	43	8%	33	7%	76	15%	507
Saxon	26	18%	7	5%	33	23%	143
Medieval	106	18%	57	10%	163	28%	584
Post Medieval	295	19%	121	8%	416	27%	1542
Modern	35	28%	17	13%	52	41%	126
Unknown	48	17%	21	7%	69	24%	285
Total	585	17%	284	8%	869	25%	3542

Graph 1 Asset densities by chronological period within Study Areas and the whole Project Area



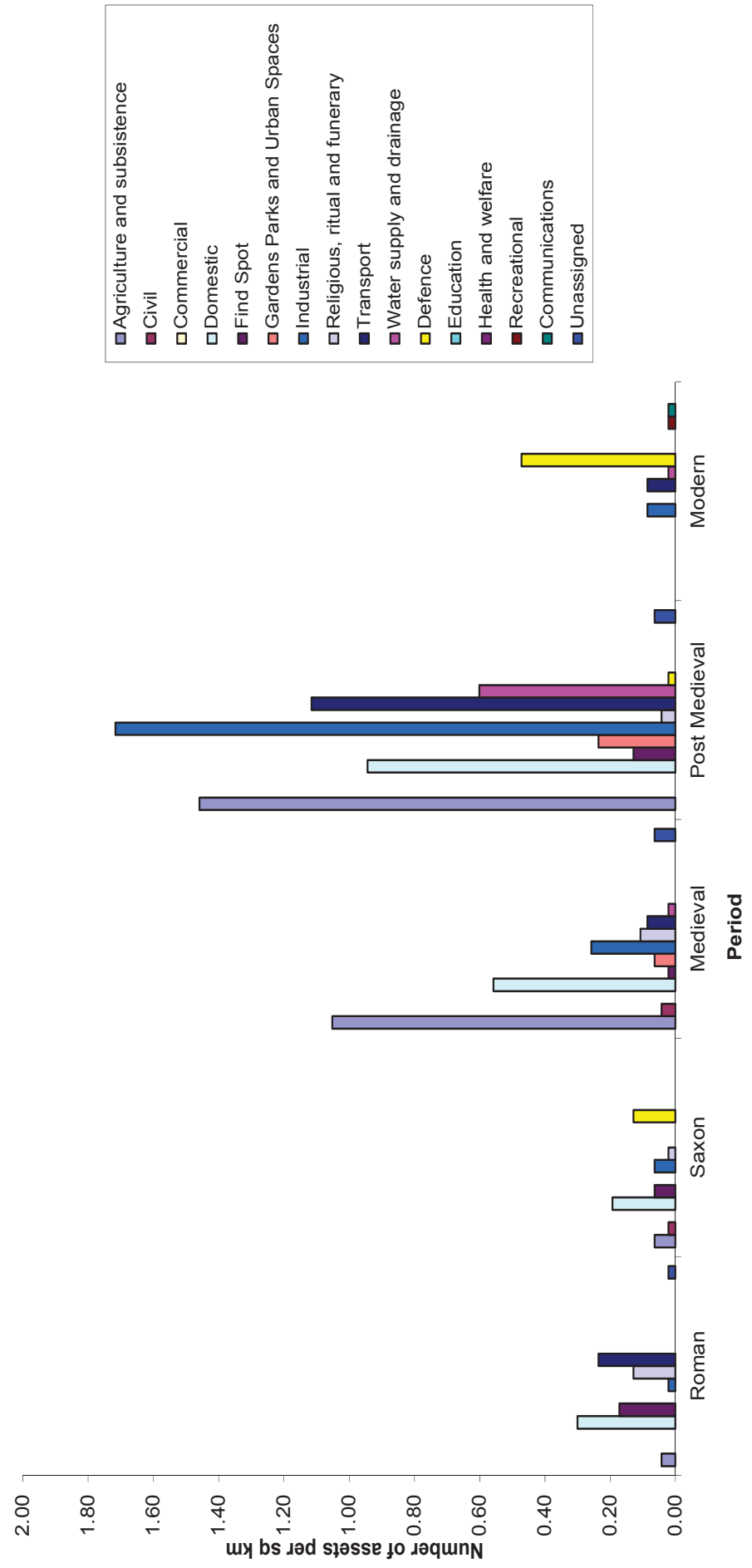
Graph 2 Study Area 1: Asset density and types for the Palaeolithic to the Iron Age

Area 1 - Asset Densities Palaeolithic to Iron Age



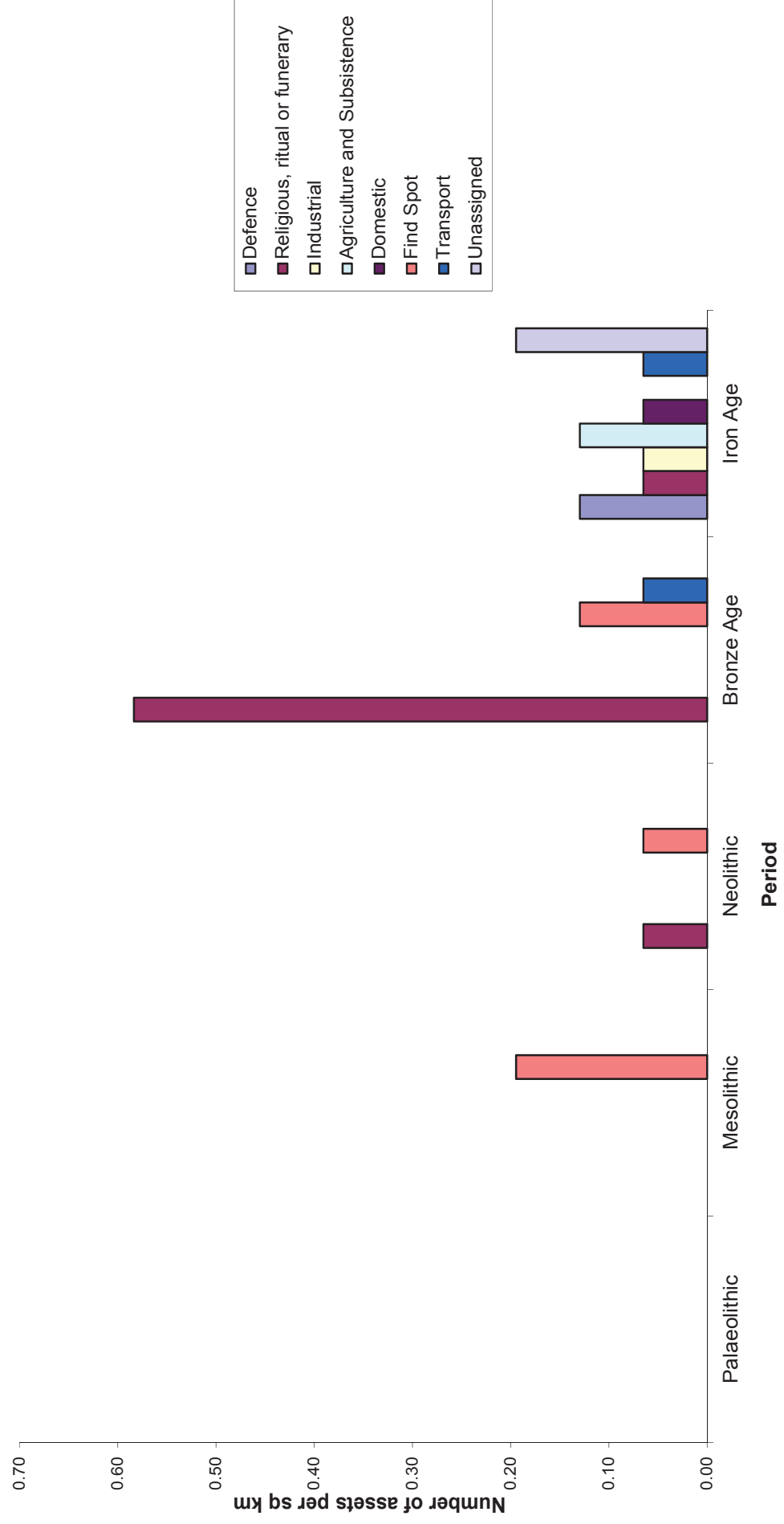
Graph 3 Study Area 1: Asset density and types for the Roman to the Modern period

Area 1 - Asset Density Roman to Modern period



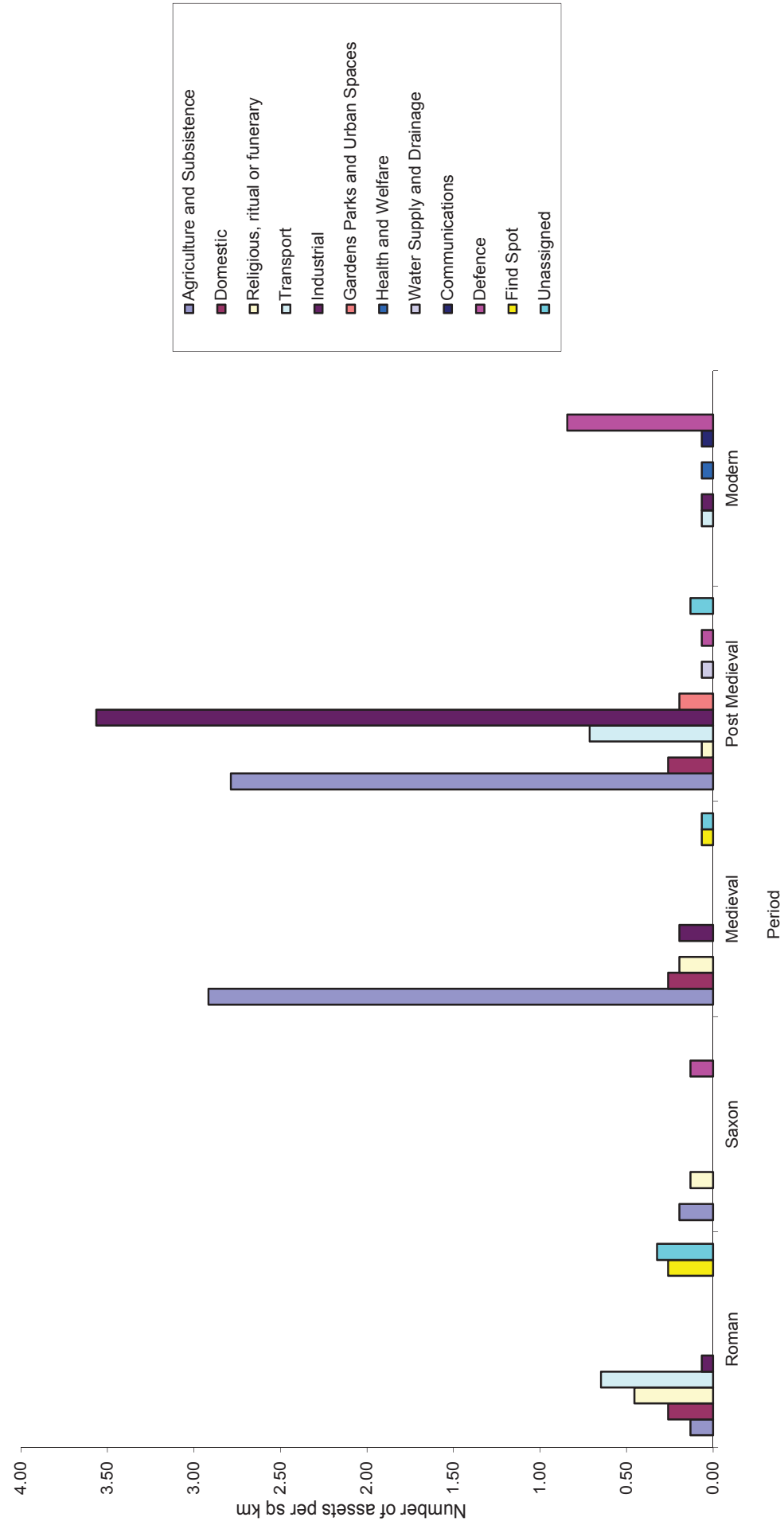
Graph 4 Study Area 2: Asset density and types for the Palaeolithic to the Iron Age

Area 2 - Palaeolithic to Iron Age asset density



Graph 5 Study Area 2: Asset density and types for the Roman to the Modern period

Area 2 - Roman to Modern asset density



5.3.2 Table 3 Comparison of totals of assets by period and Study Area as percentages of total assets for Project Area

Table 4 Study Area 1: asset type and density by chronological period

Study Area 1	Agric and subsist	Civil	Commercial	Comm-unic	Domes-tic	Defenc-e	Educat-ion	Findsp-ot	Gard, Parks Urban	Health and welfare	Industr-ial	Recrea-tional	Relig, ritual funer	Transp-ort	Water supply	Unass.	Total	Density
Palaeo	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	3	0.13
Meso	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0.06
Neo	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0	0	4	0.09
BA	1	0	0	0	0	0	0	3	0	0	0	0	5	0	0	0	9	0.19
IA	2	0	0	0	5	1	0	0	0	0	0	0	0	0	0	2	10	0.22
Roman	2	0	0	0	14	0	0	8	0	0	1	0	6	11	0	1	43	0.93
Saxon	3	1	0	0	9	6	0	3	0	0	3	0	1	0	0	0	26	0.56
Med	49	2	0	0	26	0	0	1	3	0	12	0	5	4	1	3	106	2.28
Post Med	68	0	0	0	44	1	0	6	11	0	80	0	2	52	28	3	295	6.35
Modern	0	0	0	1	2	22	0	0	0	0	4	1	0	4	1	0	35	0.75
Unknown																	48	1.03
Total	125	3	0	1	101	30	0	42	14	0	100	1	21	71	30	9	585	12.59

Table 5 Study Area 2: asset type and density by chronological period

Study Area 2	Agric and subsist	Civil	Commercial	Comm-unic	Domes-tic	Defenc-e	Educat-ion	Findsp-ot	Gard, Parks Urban	Health and welfare	Industr-ial	Recrea-tional	Relig, ritual funer	Transp-ort	Water supply	Unass.	Total	Density
Palaeo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Meso	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0.19
Neo	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	0.13
BA	0	0	0	0	0	0	0	2	0	0	0	0	9	1	0	0	12	0.78
IA	2	0	0	0	1	2	0	0	0	0	1	0	1	1	0	3	11	0.71
Roman	2	0	0	0	4	0	0	4	0	0	1	0	7	10	0	5	33	2.14
Saxon	3	0	0	0	0	2	0	0	0	0	0	0	2	0	0	2	7	0.45
Med	45	0	0	0	4	0	0	1	0	0	3	0	3	0	0	1	57	3.69
Post Med	43	0	0	0	4	1	0	0	3	0	55	0	1	11	1	2	121	7.84
Modern	0	0	0	1	0	13	0	0	0	1	1	0	0	1	0	0	17	1.10
Unknown																	21	1.36

Study Area 2	Agric and subsist	Civil	Comm-ercial	Comm-unic	Domes-tic	Defenc-e	Educat-ion	Findsp-ot	Gard, Parks Urban	Health and welfare	Industr-ial	Recrea-tional	Relig, ritual funer	Transp-ort	Water supply	Unass.	Total	Density
Total	95	0	0	1	13	18	0	11	3	1	61	0	24	24	1	11	279	18.09

5.4 Spatial Trends

- 5.4.1 The main themes in any analysis of spatial trends in past human activity typically include geology, topography and water resources (ie spring lines, river systems and coastal areas). Geology is a big influence on distributions of early occupation, in providing fertile and well-drained soils, conducive to early settlement and agriculture, or heavy Clay prone to dense woodland and soils difficult to work with the early plough. It can also provide opportunities for economic exploitation (ceramic building material and pottery from clay, flint, iron, and other minerals). Topography can provide natural communication and transport corridors; strategic benefits (defensible positions, commanding views), natural territorial boundaries (ridgelines), and ground conditions suitable for settlement (ie flat vs. slopes). Water resources influence occupation by providing predictable water supply, along with food from fishing and game, and craft materials (eg reeds). As the current study is restricted to the aggregate geologies, one of the main themes available for comparing spatial trends has been removed, and the analysis is thus largely limited to topography and water systems.
- 5.4.2 The distribution of assets across the two study areas is clearly different. The asset densities per sq. km are listed in Table 6, below. Overall, Study Area 2 displays a higher density of assets per sq. km compared to Area 1. This is especially the case for the Bronze Age, Iron Age, and Roman period. The asset density for Area 1 is consistently lower than for Study Area 2, except for the Palaeolithic period. The density of the post-medieval period is very similar in both Areas. The density of Saxon assets is higher in Study Area 1.
- 5.4.3 Study Area 1 demonstrates generally similar densities until the Roman period when the density of assets doubles. The figures suggest that for the Palaeolithic and Mesolithic, at least, there is a continuity of habitation. Two main areas of finds have been identified, one around the Hanham Lock area, lying between Kingswood and Keynsham, in the north of the study area, and the other within Chew Valley Lake, in the west of the study area. These locations remain important during the Neolithic and Bronze Age but assets from these periods identified along the valley of the Wellow Brook in the south-east of the region indicate the movement of later prehistoric people's throughout the region. There is a slightly different pattern for the Iron Age. Although the main concentrations of artefacts are identified at the Hanham Lock and Chew Valley Lake areas, assets were also identified to the north-east of Bath and at Highbury Hill near the village of Temple Cloud in the south of the region.
- 5.4.4 A different pattern is identified for the Roman period. Two distinct areas asset areas can be seen, one in the Chew Valley Lake, suggesting some continuity with the previous periods, the other along the Avon River Valley, which would include Bath. Assets are noted in other valleys but in very small numbers. Although there are only a small number of Saxon assets, they are spread more widely across the valleys within the region, which becomes the pattern for the rest of the periods as the density of assets increased greatly.
- 5.4.5 It is more difficult to certain about the distribution patterns for Study Area 2 as this represents individual unconnected extraction operations rather than a linked area which includes past extraction. However, what the distribution figures suggest potential for prehistoric, Roman and Saxon periods to be recovered from across the whole area. The figures indicate that there was Palaeolithic, Mesolithic and Neolithic in the south-east and east of the region as well; Bronze activity across the whole region although Iron Age patterns tends to mirror those of the early prehistoric periods. Saxon assets are so small in number, that it is impossible to identify any pattern.
- 5.4.6 Study Area 1 corresponds to the river valleys and although representing environments favourable to all human activity, the valleys also contain deep layers of alluvial deposits. Thus evidence from the earlier periods, particularly the Palaeolithic and the Mesolithic, would potentially lie at great depths, under the

alluvium. In most cases, natural processes such as gravel erosion, as opposed to targeted archaeological investigations, are responsible for uncovering Palaeolithic artefacts. It is possible that the general scarcity of assets in Study Area 1 for other periods relates to lack of archaeological investigation at these locations rather than being an actual representation of the archaeological record. Conversely, the higher density observed in Study Area 2 may reflect more recent archaeological interest related to gravel extraction in the area, as opposed to a genuine concentration of ancient activity.

- 5.4.7 A comparison of the two Study Area data sets to the total asset data base for the project area of BANES clearly shows that the study areas represent only 25% of the total number of assets and have relatively low asset densities for the region.

Table 6 Comparison of asset densities per sq km in each study area and combined for both Areas

Period	Study Area 1 (total surface area: 46.45 sq. km)	Study Area 2 (total surface area: 15.42 sq. km)	Study Area 1 + 2 (total surface area: 61.88 sq. km)	Project Area (total surface area: 350 sq. km)
Palaeolithic	0.13	0.00	0.02	0.00
Mesolithic	0.06	0.19	0.01	0.02
Neolithic	0.09	0.13	0.01	0.02
Bronze Age	0.19	0.78	0.03	0.06
Iron Age	0.22	0.71	0.03	0.06
Roman	0.93	2.14	0.12	0.22
Saxon	0.56	0.45	0.07	0.09
Medieval	2.28	3.69	0.30	0.47
Post-Medieval	6.35	7.84	0.84	1.19
Modern	0.75	1.10	0.10	0.15
Unknown	0.80	1.04	1.02	0.15

6 Resource assessment: Study Area 1

6.1 Introduction

- 6.1.1 The archaeological resource assessment describes the state of archaeological understanding within Study Area 1 (drift aggregates geology) by period in order to provide a basis for the research agenda and strategy and future resource management. The data has been analysed using GIS in order to determine the density and distribution of assets and this can be used as a predictive tool for identifying distribution patterns of early human activity which may assist in future asset management.
- 6.1.2 The discussion will focus primarily on those assets which have been precisely dated to the relevant periods, and the key sites for each period. Each period summary also indicates the number of assets of uncertain date which could possibly originate from that period.
- 6.1.3 Fig 5–Fig 10 show the distribution of assets within Study Area 1. Each asset has a unique RA (resource assessment) identifier number, which is referred to in the text, the gazetteer (Section 12) and shown on the figures.

6.2 Undated prehistoric (700,000–AD 43)

Asset density

- 6.2.1 There are 11 known assets on the HER of prehistoric origin but for which a date has not been established in the HER entry. These comprise findspots. The asset density is 0.24 per km². Their distribution is shown on Fig 5.
- 6.2.2 The asset density for this period category across the whole of the BANES Project Area is 0.02 per km², which is much lower than the density within Study Area 1.

Findspots

- 6.2.3 Five undated prehistoric lithic finds were found in the Chew Valley in the western part of the study area. They comprise one stone axe and four clusters of flints which are classified as generally 'prehistoric'. They are reported by Greenfield in the 'Chew Valley Lake excavation report 1953–5'. These objects were located along the River Chew, and were retrieved prior to the creating of the artificial lake (Fig 5; RA 7, 13–16).
- 6.2.4 Five undated prehistoric flint finds were found in the far north of BANES at Hanham Lock and west of Fox's Wood, along the River Avon, during a watching brief by the Avon Archaeological Unit along the Avon Ring Road 4a Durley Hill to Marsham Way (Cross 1993) (Fig 5; RA 8–12).
- 6.2.5 The HER reports a flint scatter comprising artefacts dated broadly from the Early Mesolithic to Late Bronze (flakes, broken blades, cores and one scraper) at Moorledge, along the River Chew (Fig 5; RA). The significance of this scatter is unclear but it suggests exploitation of resources associated with the river.

6.3 Palaeolithic (700,000–10,001 BC)

Asset density

- 6.3.1 There are six known assets dating to this period, all of which are findspots from the Lower Palaeolithic. There are no known assets dated to the Middle or Upper Palaeolithic. The asset density within Study Area 1 is 0.13 per km². Their distribution is shown on Fig 5. It is possible that undated prehistoric worked flint noted in Section 6.2 above date to this period.

- 6.3.2 The asset density for this period category across the whole of the BANES Project Area is 0.01 per km², which is much lower than the density within Study Area 1.

Findspots

- 6.3.3 The finds spots comprise flint flakes and worked flints found in the far north of BANES at Hanham Lock and west of Fox's Wood, along the River Avon, during a watching brief by the Avon Archaeological Unit along the Avon Ring Road 4a Durley Hill to Marsham Way (Cross 1993) (Fig 5; RA 1–6).
- 6.3.4 The number of Palaeolithic assets recorded on the HER within Study Area 1 suggests limited activity in this period. However, Palaeolithic finds are rare and evidence for the Lower and Middle Palaeolithic is typically buried within Middle Pleistocene fluvial gravels, sometimes towards the base of the gravels and thus would only be exposed during deep excavations such as aggregates extraction, and only then they are likely to be retrieved if the work was carried out under archaeological observation.
- 6.3.5 Evidence for the Upper Palaeolithic (35,000–10,000 BC) would lie on or close to the surface of Devensian gravels and may potentially be lost during the initial surface strip for any development taking place on the gravel.
- 6.3.6 On current evidence there is low potential for the recovery of Palaeolithic assets within Study Area 1, although this is based on the limited evidence base that currently exists within the HER.

6.4 Mesolithic (10,000–4001 BC)

Asset density

- 6.4.1 There are three known assets dating to the Mesolithic, all of which are findspots. The asset density within Study Area 1 is 0.06 per km². Their distribution is shown on Fig 5. It is possible that undated prehistoric worked flint noted in Section 6.2 above date to this period.
- 6.4.2 The asset density for this period category across the whole of the BANES Project Area is 0.01 per km², which is lower than the density within Study Area 1.

Findspots

- 6.4.3 The HER reports a collection of flints was retrieved west of Moorledge Farm from chalk and one or more pieces of Broom chert (Fig 5; RA). Although the cluster contained no obvious implements, according to the HER, it could indicate a Mesolithic site at this location or nearby. More finds were retrieved along the River Chew at Moreton prior to the creation of the Chew Lake reservoir. They include a perforated sandstone mace head from gravel (apparently not associated with occupation) (Rahtz and Greenfield 1977) (Fig 5; RA 3). A Mesolithic mace was found south of Herons Green during the excavation of a deserted medieval settlement in 1953–4 by Rahtz, also in the Chew Valley (Fig 5; RA 4). The excavation revealed signs of prehistoric occupation although the mace head was derived from gravel and not from any archaeological features on the site.
- 6.4.4 Although Mesolithic activity may have been seasonal, such peoples often returned to the same site again and again over many years. Mesolithic sites can be represented by their horizontal depth not vertical spread. Within river valleys, sites of this period often lie under several metres of alluvium and peat areas and may well have been missed by previous excavation or archaeological investigation. On the terrace edges, sites of this period often lie close to the surface and could be lost during the initial surface strip.

6.5 Neolithic (4100–1701 BC)

Asset density

- 6.5.1 There are four known assets dating to the Neolithic. The asset density within Study Area 1 is 0.09 per km². Their distribution is shown on Fig 5. It is possible that undated prehistoric worked flint noted in Section 6.2 above date to this period.
- 6.5.2 The asset density for this period category across the whole of the BANES Project Area is 0.01 per km², which is much lower than the density within Study Area 1.
- 6.5.3 The asset types comprise:
- Domestic - 1 asset
 - Findspot - 1 asset
 - Religious, Ritual or Funerary - 2 assets
- 6.5.4 The increase in the range of asset types is probably a reflection of the ephemeral nature and rarity of structural remains or cut features predating this period, but could also support the traditional view of the domestication of the landscape that occurred during the Neolithic.

Domestic

- 6.5.5 In 1953–4, Rahtz examined two acres of Chew Park before flooding. During his excavations, he identified a posthole structure 12 feet by 10 feet (possibly the inner framework of a larger one) with an entrance on the south side (Fig 5; RA 1). One leaf shaped arrowhead and one pot sherd ('Windmill Hill' culture) were found within a pit (Rahtz and Greenfield 1977). This is the only known domestic Neolithic site within either study area and represents an extremely rare survival of high significance.

Findspot

- 6.5.6 The NRHE reports that a surface collection of Neolithic implements was found in a field about a quarter of a mile from the Stanton Drew monument complex (see Bronze Age assets, in Section 6.6) by RH Fitzjames (Fig 5; RA 4). However, the precise location is not available from Museum records. The asset has been incorporated into the enhanced HER dataset as part of this project.

Religious, Funerary or Ritual

- 6.5.7 Two chambered tombs are located in the south-east of the Project Area east of Wellow Brook (Fig 5; RA 2 and 3). They are referred to as the "Giant's Graves" and comprise the remains of two burial chambers or stone cists found by Skinner in 1821. The HER reports that the chamber tombs have since been removed and that the site was identified through Skinner's sketches.

6.6 Bronze Age (2000–751 BC)

Asset density

- 6.6.1 There are nine known assets dating to the Bronze Age. The asset density within Study Area 1 is 0.19 per km². Their distribution is shown on Fig 6. It is possible that undated prehistoric worked flint noted in Section 6.2 above date to this period.
- 6.6.2 The asset density for this period category across the whole of the BANES Project Area is 0.03 per km², which is much lower than the density within Study Area 1.
- 6.6.3 The asset types comprise:
- Agriculture and Subsistence - 1 asset
 - Findspots - 3 assets

- Religious, Funerary or Ritual assets - 5 assets

6.6.4 The increase in monumental/funerary monuments support the traditional view of what was happening in the landscape during the early Bronze Age, with the establishment of round barrows in prominent locations, that possibly served as territorial markers.

Agriculture and Subsistence

6.6.5 The HER records a group of earthworks within a field Manor Farm, Stoney Littleton (Fig 6, RA 1). These are undated but are of possible Bronze Age (or later) date. They are mentioned here and in other period summaries. The earthworks represent at least two phases of land use. The earthworks in the eastern half of the field comprise a network of low banks in varying states of preservation delimiting similar-sized rectangular parcels. In the western part of the field, a sub-rectangular or possibly circular enclosure is associated with two linear antenna earthworks. The earthworks appear to represent the remains of a field system rather than an area of settlement.

Findspot

6.6.6 The HER records the find of that a hoard of Bronze Age implements during drain digging below the hills at Compton Martin. A single surviving palstave from this hoard was given to R. Road "a few years after the war" and presented to him by the University of Bristol Spelaeology Society Museum (Fig 6, RA 2). A middle Bronze Age socketed spearhead of the Acton Park/Taunton phase was also later found in the nearby vicinity at Midford Viaduct, Southstoke (Fig 6 RA 3).

Religious, Funerary or Ritual

6.6.7 The main evidence for this period within the study area is from the Religious, Funerary or Ritual category. The Stanton Drew Stone Circles are situated immediately east of the village of Stanton Drew (Fig 6; RAs no's 21 and 22). There are three stone circles, two of which have stone avenues extending eastwards from them, a 'cove', and a single recumbent stone known as Hautville's Quoit, and are scheduled monuments. The three elements are thought to be contemporary (2000–1400 BC). The stones used in the stone circles are Oolite, probably from Dundry, about 5km to the north, while Hautville's Quoit and possibly others may be sarsen.

6.6.8 The Great Circle at Stanton Drew comprises a stone circle within a circular ditched henge enclosure, and containing nine concentric circles, probably made up of closely spaced pits or post holes (source: NRHE) (Fig 6; RA 21.). Geophysical survey by English Heritage in 1997 and 2000 indicated that the henge ditch is an almost perfect circle with an outer diameter of c 135m, and a width of 5–7m. The stone circle itself comprises up to 26 extant upright stones, and may originally have comprised as many as 30. The henge ditch of the Great Circle has a large gap or probable entrance on the north-east side.

6.6.9 The smaller, nearby, North-East Circle (Fig 6, RA 22) comprises a circle of standing stones c 30m in diameter and contains eight upright stones. The surveys undertaken by English Heritage also revealed concentric rings of pit-like anomalies that are generally regarded as postholes. The two monuments are linked by an avenue of eight extant standing stones.

6.6.10 The only find reported from Stanton Drew was made about the middle of the 17th century. Referring to the Great Circle at Stanton Drew, the anonymous author of a work entitled "A Fool's Bolt soon shott at Stonage [sic]" (c 1666) stated that 'one of the stones being lately fallen, in the Pitt, in which it stood were found the crumbes of a man's bones, and a round bell, like a large horse-bell, with a skrew as the stemme of it'. If the bell can be discounted, the find of the skeleton may be accepted in view of similar discoveries at the foot of some of the stones at Avebury (source: NRHE).

- 6.6.11 The monuments at Stanton Drew were first mentioned by John Aubrey, who visited the site in 1664, at a time when the area was under barley. William Stukeley visited and sketched the monuments in 1723. The full history of antiquarian and archaeological interest in the monuments is summarised by Leslie Grinsell, who also provides considerable detail on folklore attached to the Stanton Drew monuments. The significance of this complex to its landscape cannot be underestimated.
- 6.6.12 HER reports a Bronze Age barrow (Fig 6; RA 18), located in the far south of the Project Area, to the north-east of a disused quarry at Fox Hills, Radstock: "On the hill above Radstock Church is a tumulus, 40 paces in circumference and 1.5 metres high, in which was found a small oval cist of unwrought stones covered by a flat lid about 18" long and containing a large quantity of burnt bones. No weapons or ornaments were discovered." The HER also reports a deep indentation in the centre and that the north-eastern side shows signs of earlier (antiquarian) excavation. The asset is noted in Section 7.6.8 as it also part overlies Study Area 2.
- 6.6.13 The HER also reports a Bronze Age cremation with grave goods at Chew Park (Fig 6; RA 19). "The grave was a pit, roughly circular, 3ft in diameter and 1ft deep. In the pit was about one-third of the cremated skeleton of an adult male, who died probably in his middle thirties." (Source: HER). A number of sherds of pottery and flint tools were recovered.
- 6.6.14 Excavations in 1953 at Ben Bridge by Rahtz (Fig 6; RA 20), on the western edge of the Chew Valley Lake, uncovered a small pit, three feet in diameter, closely resembling a Beaker grave at Chew Park and containing a perforated wrist guard and a number of flint tools and cores. A probable storage pit containing several sherds of Grooved Ware was also found and an Early Bronze Age/Middle Bronze Age cremation burial.

6.7 Iron Age (750BC–AD 44)

Asset density

- 6.7.1 There are 10 known assets dating to the Iron Age. The asset density within Study Area 1 is 0.22 per km². Their distribution is shown on Fig 6.
- 6.7.2 The asset density for this period category across the whole of the BANES Project Area is 0.03 per km², which is much lower than the density within Study Area 1.
- 6.7.3 The asset types comprise:
- Agriculture and Subsistence - 2 assets
 - Domestic - 5 assets
 - Defence - 1 asset;
 - Unassigned – 2 assets.
- 6.7.4 The increase in domestic, agriculture and defence reflect the traditional view of Iron Age land use, with an expanding population along the river valleys, which necessitated the intensification of agricultural practices and the utilisation of marginal land, and the construction of hill forts linked to tribal land ownership.

Agriculture and subsistence

- 6.7.5 There is evidence for this activity from two known assets located at opposite ends of the Project Area. To the far north, at Keynsham, the NRHE report a 'Celtic' field system noted just below a medieval building found in 1976 (Fig 6; RA 21).
- 6.7.6 Within a field at Manor Farm, Stoney Littleton, along the Wellow Brook, to the far south of the Project Area, are the earthwork remains of a field system possibly dating to the Iron Age (Fig 6; RA 1), although according to the HER their date is uncertain and they may well be of earlier or later origin (ie Bronze Age, Roman or later medieval). The earthworks represent at least two phases of land use, comprising a network of low banks in varying states of preservation delimiting

similar-sized rectangular parcels, and a sub-rectangular or possibly circular enclosure is associated with two linear antenna earthworks. The earthworks appear to represent the remains of a field system rather than an area of settlement.

Domestic

- 6.7.7 Remains of Iron Age roundhouse were found at Bathampton Meadows in the north-east of the Project Area (Fig 6; RA 2). The remains were subsequently enclosed by a late Roman dwelling. The roundhouse consists of an enclosing drainage ditch, earth floor and foundations. Excavations also uncovered stone filled post holes. The roundhouse lay within a series of enclosures, which may represent the paddocks of a small farm.
- 6.7.8 The three domestic assets (RA 4–6) are located in the Chew Valley area and all were identified during the rescue excavations by Rahtz in 1953–4 before flooding to create the reservoir. Rahtz uncovered evidence for Iron age occupation east of Herons Green (Fig 6; RA 4), which he attributed to three phases: Phase I corresponded to primary occupation as indicated by ditches, postholes, possible storage pits and Iron age "A" sherds; Phase II consisted of two overlapping circular ditches representing successive houses with 60–70 sherds of late Iron Age pottery; and Phase III, a possible granary represented by postholes, and other postholes which could have been of buildings or fences. Rahtz also noted land drainage ditches over much of the area (source: HER).
- 6.7.9 Located c 1km to the south of Herons Green, now within the reservoir but originally at Herriott's Bridge along the course of the River Chew, is an Iron Age/Romano-British settlement of 15 acres settlement excavated in 1953–55 by E. Greenfield. A complex system of drainage ditches was uncovered (domestic and agricultural in use), as well as many postholes thought to be supports for corn drying racks, but no obvious houses. Two enclosures were found in the south-western half of the site. Occupation was continuous from the Iron Age until the late 1st -early 2nd century, with a decline in the 3rd century.
- 6.7.10 The third settlement was excavated at Moreton (1953–4) by Rahtz, who identified evidence of a small occupation site (Fig 6; RA 5).

Defence

- 6.7.11 Located in the southern part of the Project Area at Highbury Hill, are the earthwork remains of an Iron Age univallate hillfort (i.e. bound by a single line of rampart) (Fig 6; RA 20). The site occupies an area of woodland about 3ha at the south-eastern end of a narrow ridge with precipitous slopes to the south-west and south-east, and a steep slope on the north-east, being univallate except on the north-west. Here a continuous outer bank, 8m by 0.5m high and a ditch 10m by 0.2m deep, crosses the ridge. The main 'rampart', superficially a stone bank, is about 5m wide by 0.5m high, though larger by the only apparent original entrance, now damaged, at the south-east corner. An accompanying ditch exists only on the north-eastern side of the hill, lying about 10m below the rampart, with an outer bank. It is about 8m wide and becomes a terraced track at the north but is clearly defined at the south where it stops just short of the entrance. No relevant archaeological features were noted internally by Fowler's investigations in the 1970s.

Unassigned

- 6.7.12 Two unassigned assets, both located in the western side of the Chew Valley Lake, comprise a pit containing an almost complete cup-like vessel and three ditches which may represent three sides of an enclosure. The latter yielded late Iron Age pottery of sufficient size to suggest habitation close by but not located during the excavations (Fig 6; RA nos. 18 and 19).

6.8 Roman period (AD 43–410)

Asset density

- 6.8.1 There are 43 known assets dating to the Iron Age. The asset density within Study Area 1 is 0.93 per km². Their distribution is shown on Fig 7.
- 6.8.2 The asset density for this period category across the whole of the BANES Project Area is 0.12 per km², which is much lower than the density within Study Area 1.
- 6.8.3 The types of assets comprise:
- Agriculture and Subsistence - 2 assets;
 - Domestic - 14 assets
 - Findspots - 8 assets
 - Industrial - 1 asset
 - Religious, Ritual or Funerary - 6 assets
 - Transport - 11 assets
 - Unassigned – 1 asset
- 6.8.4 The resource assessment shows a substantial increase in the number assets over each of the individual previous periods, and an increase of c 2.3% of the combined assets. The increase in domestic assets suggests further growth of settlement within the river valleys, whilst the increase of industrial and transport assets is due to cultural change brought about by the Roman influence. The number of assets might reflect the use of more durable construction materials such as stone and tile, along with robust pottery types, which means that archaeological evidence is more likely to survive.

Agriculture and subsistence

- 6.8.5 The HER reports a Roman field bank located north of the railway in Bathampton Meadows in the north-east of the Project Area (Fig 7; RA 1). It was associated with a late Roman dwelling (Fig 7; RA 10), and thought to date from c AD 300.
- 6.8.6 The HER also reports earthworks of banks and lynchets within a field at Stoney Littleton, along the Wellow Brook (Fig 7; RA 2). The earthworks are discussed under the Iron Age (see para. 6.7.6) but may date to this period.

Domestic

- 6.8.7 A number of domestic assets are located in the Chew Valley Lake, in the western part of the Project Area, and were uncovered as a result of the rescue excavations. There are further assets located along the River Avon, in the northern part of the study area and in the eastern part of the study area, and an isolated asset was found at the disused quarry at Fox Hill in the southern part of the study area.
- 6.8.8 In the northern part of the study area, along the River Avon, the HER reports a significant Romano-British settlement (Fig 7; RA 11), just to the north of Keynsham. Finds of Romano-British material have been made at many sites within this area during the 20th century, including a Romano-British building, well and burials, pottery, a small building incorporating a bath suite and possible temple (see below) excavated in 1922 and destroyed during levelling works in 1990 (Fig 7; RA 4), another building and associated structures during evaluation excavation, and a huge complex of cropmarks are commonly visible on both the upper levels and the floodplain in hot weather. The very high concentration of Romano-British structures and deposits in this area suggests that this is probably the site of *Traiectus*, a Roman settlement recorded in this area in the Antonine Itinerary, a 4th-century Roman document. This is borne out by the very high quality of the finds, which include imported pottery, column bases, fine metalwork, making this a site of national, if not international importance, and according to the HER of schedulable

- quality.
- 6.8.9 Also in the northern part of the study area, the HER reports another Romano-British farm building at Avon Valley Country Park, near Keynsham (Fig 7; RA 5). Remains of a possible small late 3rd/early 4th-century farm building were found during an archaeological evaluation, with evidence of metal working. Evidence for flooding before the 4th century was noted.
- 6.8.10 In the Chew Valley area in the west of the study area, a key asset in this category is the Chew Park Roman Villa (Fig 7; RA 16). In its initial phase (late 1st-early 2nd century), it comprised a timber house 38 feet by 15 feet with a porch and entrance on the east-north-east. In this period, occupation extended over a wide area and debris in several drainage ditches suggested nearby hut sites. In the 3rd century (Phase II), there was a period of industrial activity, as shown by two iron smelting depressions and a working hut. A lime kiln of late 3rd/4th century consisted of a square pit with a stoking chamber, flue and drain, and is the only one of its type found in Britain (Fig 7; RA15). The hollow was reused for lime kilns in medieval times. In Phase III, a stone-built six-roomed farmhouse was constructed, of corridor type with projecting wings and a room between, leaving a probably open courtyard. Only two rooms had plastered walls. The roof was of the usual hexagonal pennant tiles with Bath Stone coping. Finds giving a date for the villa ranged from the late 3rd century to the late 4th century, when it was deserted. They included one infant burial, four ovens, numerous bronze, bone and iron objects, pottery and coins. A corn drying oven located 35 feet south east of the house frontage was a 30 feet deep well which originally had a free stone well head. The well produced a wealth of material from about AD 290 to 350, including pottery, coins, metal objects, pewter and copper vessels, leather shoes and fragments of writing tablets with ink inscriptions. The latter are the only examples found in Britain.
- 6.8.11 A Roman villa (Fig 7; RA 6) was partly uncovered about 1837 at Newton St. Loe during the construction of the Great Western Railway, near the point where the Bath road crosses the railway and on the south side of the road. Two distinct buildings were traced, and one ordinary corridor type villa was excavated and found to be 55 feet by 102 feet. Mosaics, hypocausts, painted wall plaster were found besides coins of Macrinus, Constans, Valentinian and Honorius. The site of the building was confirmed during road widening in 1968. An extensive scatter of oyster shells was noted when the field was ploughed. This is probably the midden of a Roman villa, to the east, and if so, that building was more extensive than was thought (source: HER).
- 6.8.12 In the south of the study area, the HER reports evidence for Roman occupation (Fig 7; RA 3) at the disused quarry at Fox Hill (Fig 10; RA 159). This asset is more fully detailed in Section 7.8.10, Study Area 2 as the asset primarily overlies Solid Aggregate.
- 6.8.13 Possible Romano-British buildings west of Mill Farm in the northern part of the study area (Fig 7; RA 9) were uncovered in 1975, when rough paving was noted during the digging of a drainage ditch. In 1979, the landowner carried out land improvements and mapped features uncovered and informed the Bath Museums Service. Roman coins and pottery collected from the plough soil in the field west of Park Farm cowshed in 1975. Unstratified stray finds, possibly representing 4th century buildings, one maybe a bath-suite or underfloor flues for heating.
- 6.8.14 In the eastern part of the study area, excavations in the area near the ancient village of Bathampton uncovered remains of late Roman dwelling possibly in existence for a century or less at Bathampton Meadows (Fig 7; RA 10). They consisted of rough stone slab floors. The remains were set in the middle of a Roman enclosure with earlier, Iron Age, origins (Peter Davenport, pers. comm).
- 6.8.15 Remains of a hypocaust and pavement, part of a Roman building, were found in a field called Horseland at Bathford, in the eastern part of the study area, in 1691–2 (Fig 7; RA 7). Two altars and an urn of coins are also recorded from this site.

According to the HER, the published location on a steep west slope (Skrine 1885, 66) cannot be substantiated by ground inspection and appears very doubtful. The field "Horselands" is bisected by a road which follows the edge of the escarpment and the area to the road is comparatively level. It seems more likely that any Roman building or habitation would have been in this area. The original description of location was in a "field near Horselands". Since Roman pottery has been found in the gardens between Bradford Road and the church, this is the most probable location.

- 6.8.16 A room and pavements of a Roman villa (Fig 7; RA 8) were found at Warleigh, Bathford, in 1655. In the late 18th century, a Roman capital was found at the site and in the 19th century a stone coffin and tiles and pipes are recorded. Banks and terraces of old field boundaries are visible at the site. However, the HER reports that the original Ordnance Survey sighting cannot be confirmed by current ground observation. The area is low lying and probably liable to flooding. Archaeological remains may extend into the next field called Mumford's Mead.

Findspots

- 6.8.17 The HER reports a number of Roman findspots. Some of these are likely to be associated to nearby Roman sites (discussed separately), although in most cases their significance is unclear and their distribution is a result of accidental discoveries.
- 6.8.18 In the north of the Project Area, along the River Avon, Roman coins and tiles were found near St Nicholas Church, Kelston (Fig 7; RA 17). The coins included two bronze coins of Constantine I and Valentinian II. Pieces of Roman fluted tile were located under the floor of the chancel of the church.
- 6.8.19 Romano-British finds (Fig 7; RA 18) were found at the Water Purification Works on the bank of the River Avon at Newton St Loe. Roman coin of Constantius (337–361) was found west of Inglescombe Nursery by a Mr R. Sage of Timsbury in 1951 when working in his garden. Roman Pottery north-west of Stidham Farm in Keynsham comprised ten or so sherds found in an east-west pipeline in 1980. This was presumably an archaeological monitoring of the pipeline, but the HER has no record of this.
- 6.8.20 In the west, excavations at Chew Valley Lake (Fig 7; RA 22) by Rahtz and Greenfield in 1954, before flooding, revealed about 25 sherds of Roman pottery. The HER also reports a single Roman coin, about AD 240, found by the River Chew in the village of Chew Magna.
- 6.8.21 In the eastern part of the Project Area, a Roman coin hoard containing "many thousands" of coins was unearthed in 1875 (Fig 7; RA 20), of which 732 were reported to have been saved. They were located in 'the suburb of Easton, on the line of the Roman Road leading to Bath' (Dobson 1931) (Roman Road 5c).
- 6.8.22 In the far north of the Project Area, on the Brislington estate, a total of 23 Roman coins dated to the 3rd and 4th century were found in a metallic urn along with pottery sherds, 2km east of a significant Romano-British settlement (Fig 7; RA 11). Some of the finds were presented to the Bristol Philosophical Institution by Dr Fox of Brislington in 1829, and later passed to Bristol Museum.

Industrial

- 6.8.23 In 1953–55, a late 3rd/early 4th century quarry known as Denny Moat at Chew Valley Lake (Fig 7; RA 34) was excavated, prior to flooding. It appeared as an irregular shallow earthwork that had partially been built on by a house in the 18th century. Finds included flints, late Roman, medieval and post-medieval pottery. The stone quarried was an outcrop of keuper sandstone and this type was used in small amounts at Chew Park villa and exclusively at the Golds Cross Roman building. Rahtz also suggested that the quarry was also used in medieval times (Rahtz and Greenfield 1977).

Religious, ritual or funerary

- 6.8.24 Excavations by Rahtz at Moreton between 1953 and 1954 uncovered a complex of three 2nd/3rd century cremation enclosures surrounding four cremations and two roughly parallel ditches, the southern containing 3rd/4th century pottery. The cemetery was located close to a small settlement (Fig 7; RA 26).
- 6.8.25 A Roman coffin (Fig 7; RA 28) was found in a field called Broads Close, Kelston, in 1975 during the digging of a drainage ditch. It was orientated east-west, suggesting a Christian burial, probably from the second half of the 4th century AD. A few sherds of 4th century pottery were retrieved from the burial pit. The HER records a Romano-British coffin and pottery scatter (Fig 7; RA 29) in the field to the north-west, c 170m south of possible Romano-British buildings beside Mill Farm (Fig 7; RA 9).
- 6.8.26 Evidence for Roman burial, associated with a small settlement at the same location, was uncovered at a disused quarry at Fox Hill (Fig 7; RA 27). The asset is more fully described in 7.8.22 as it primarily overlies Solid Aggregate.
- 6.8.27 Burials (Fig 7; RA 24) in the form of two inhumations in coffins and two cremation urns were discovered during building of a factory at Somerdale in 1922. Domestic evidence (villa or bath house) was also found at the same location. The HER notes the apparent discovery of an altar dedicated to Silvanus (and fragments of one other uninscribed, although the latter may also be interpreted as stone blocks for hypocaust floor); a flat stone block with a carved head of figure (that could be either a grave or an altar) and a piece of a pillar with snakes entwined around, which could be a Romano-Celtic altar. Two small 'egg cup' type vases in orange ware, normally associated with temple sites, were among the pottery finds.

Transport

- 6.8.28 The NRHE includes nine Roman roads crossing Study Area 1. These have been incorporated into the HER as part of the project enhancement. The HER originally included another two entries.
- 6.8.29 The paths of the roads are taken from a number of sources: Margary's study of Roman roads in Britain (Margary 1967); archaeological investigation; air photographs and maps, but the exact course for most sections of the roads shown on Fig 7 is conjectural. The road descriptions from the NRHE and HER are summarised in Table 7 below.

Table 7 Roman roads

RA no.	Description	NRHE Identifier	HER No.
RA 34	This Roman road runs from Wickham to Batheaston. It can be seen in places as sections of fine agger and by a striking alignment of hedgerows usually followed by a parish boundary. Margary (1967) Roman road no. 53.	Scheduled Monument 28108 1030069	
RA 35	Conjectural routes of a Roman road running from Bath to Kingston Deverill with the agger surviving in some places. Margary (1967) Roman road no. 52.	LINEAR 555 1166109	
RA 36	A possible Roman road running from Bath to Street.	LINEAR 676 1326622	
RA 37	A possible Roman road running from Bristol to Bath.	LINEAR 671 1326595	
RA 38	Roman road from Bitton to the Mendip Hills (Compton Martin). Margary (1967) Roman road no. 540.	LINEAR 601 1325732	
RA 39	Possible Roman Road running from Bristol to Farrington Gurney. Margary (1967) Roman road no. 546.	LINEAR 706 1338304	

RA no.	Description	NRHE Identifier	HER No.
RA 40	FOSS WAY: Roman road running from Bath to Cirencester, extending for 29.5 miles, visible as an agger in places 33 feet wide and 4 feet high. Four sections of the road surface have been recorded from aerial photographs as cropmarks as part of the Cotswold Hills National Mapping Programme (1517244, 1417248, 1517252 and 1517256). Margary (1967) Roman road no. 5c.	LINEAR 537 1164946	
RA 42	The Roman road running from Bath (Aquae Sulis) to Sea Mills (Abonae) is on the course of modern roads and noted in section to be 12 feet wide and 8 inches thick. Margary (1967) Roman road no. 54.	LINEAR 556 1166116	
RA 41	FOSS WAY. Roman road running from Silchester to Bath extending for 30 miles, surviving in places as an agger 8 feet high and 16 feet wide and on line with modern roads. Margary (1967) Roman road no. 5b.	LINEAR 536 1164943	
RA 30	Agger runs straight north east from 500 m towards the Avon, where it is crossed by embankment of LMS line. Flat top 5-6m wide and 0.7m high. It is possibly connected to Newton St. Loe villa (MBN1661).		MBN24 18
RA 31	Newton Meadows: possible Roman road identified by EK Tratman in 1965. Site consisted of numerous oyster shells. Runs in SW to NE trajectory in the direction of New Bridge. Railway crosses over it. Possibly associated with the nearby Newton St. Loe villa Roman villa (MBN1661).		MBN11 357

6.8.30 It should be noted that as these roads pass through areas of Solid geology, they have also been noted in the Roman section of Study Area 2 (para. 7.8.23).

Unassigned

6.8.31 One asset belongs to this group and is located in the north of BANES, c 500 to the west of Keynsham. It comprises a scatter of Romano-British pottery, iron and lead slag; some undressed limestone was also noted in the area. No further details were recorded with the HER to determine the possible function of the site (Fig 7; RA no. 32)

6.9 Saxon period (AD 411–1065)

Asset density

6.9.1 There are 26 known assets dating from this period in Study Area 1. The asset density within Study Area 1 is 0.56 per km². Their distribution is shown on Fig 8.

6.9.2 The asset density for this period category across the whole of the BANES Project Area is 0.07 per km², which is lower than the density within Study Area 1.

6.9.3 The assets fall in the following categories:

- Agriculture and Subsistence - 3 assets
- Civil - 1 asset
- Defence - 6 assets
- Domestic - 9 assets
- Findspots - 3 assets
- Industrial - 3 assets
- Religious, Ritual or Funerary - 1 asset

6.9.4 The asset density for this period has declined markedly from the Roman period.

Other than the excavations in the Chew Valley in the western part of the study area, few assets are the result of archaeological interventions, but rather noted from documentary references or evident as landscape features such as earthworks. The fall in number of assets might reflect the social and cultural change in this period, but also the ephemeral nature of the material remains (eg, timber structures and friable pottery), which might mean that features of this period are missed during archaeological investigation, undated, or are incorrectly ascribed to other periods.

Agriculture and Subsistence

- 6.9.5 The HER records a field system (Fig 8; RA 18) at Littleton Falls in the north-west of the Project Area. The fields are generally small and irregular in shape, suggesting piecemeal enclosure (eg assarting), creating a generally enclosed landscape with deep lanes and hedges containing high species diversity. This suggests that, in certain areas, the usual medieval open field or strip system of cultivation was not adopted. Instead, a more piecemeal pattern of enclosed fields was favoured, probably at a very early stage. Convertible husbandry (the system where the distinction between permanent arable and permanent grass is broken, ie arable land rotates around the farm (Overton 1996, 116-7)) was probably practised in these areas.
- 6.9.6 The HER identifies Meadow Farm (Fig 8; RA 19), c 250m west of the medieval settlement of Bathampton, as a Saxon farm on land once owned by Ralph Allen. It is situated on a southern terrace of the River Avon, within flood meadows. The southern edge of the site has a build-up of material to form an embankment for an access track and the eastern edge has a track cut into the field.
- 6.9.7 The earthworks along the Wellow Brook at Stoney Littleton (Fig 8; RA 1), mentioned in the previous period sections (see 6.6.5; 6.7.6; 6.8.6) possibly date to this period.

Civil

- 6.9.8 There is a substantial boundary bank (Fig 8; RA 2) between the River Avon and the top of Bathford Hill, above Gully Wood. Warleigh and Bathford were separate manors in 1086 and accordingly this may be a Saxon boundary. It is in three sections: the western part is straight and in good condition, the central section followed the dog leg in field boundaries between Warleigh Lane and Bathford Road and was ploughed out in the spring of 1985, the eastern section runs up the hill from Bradford Road to the county boundary.

Defence

- 6.9.9 Within Area 1, the HER reports six sections of the West Wansdyke in the area of Compton Dando, in the centre of the Project Area. This followed the boundary along the Bristol Avon, which divided the Hwicce from the people of Somerset and later divided Wessex from Mercia (Webster ed. 2008, 178), lying on the south false crest of the Avon Valley. Although the exact purpose of the feature is uncertain, it has been categorised for the purposes of this assessment under defence, as this is a likely function.
- 6.9.10 The westernmost stretch of the Wansdyke in Study Area 1 is the Fairy Hill section (Fig 8; RA 3) revealed by trial excavation on the line of the West Wansdyke noted on an Ordnance Survey map of 1921. It comprised a bank c 0.5m high by 10.5m wide. No associated ditch was identified.
- 6.9.11 Further east, the Wansdyke section east of Pepper Shells (Fig 8; RA 20), is noted as c 300' long, 2' high, and 75' wide. It lies in pasture occasionally cultivated to improve grass crop. The land slopes steeply from the western to eastern end of monument which extends into woodland.
- 6.9.12 Two well-preserved sections of the Wansdyke survive between the River Chew at Compton Dando and Bathford Brook Large. The first section (Fig 8; RA 21) is a

double bank parallel with the road. It starts in the orchard of New Farm on the edge of the alluvium, where the ditch is eroded. Across the pasture and arable fields, the Wansdyke has been slightly ploughed down, but it is well preserved in the copses on either side of Bathford Brook. The second, western, section (Fig 8; RA 17) is 500m-long. The condition of the large double bank is good apart from some erosion of the bank's north face by cattle or horses.

- 6.9.13 Following the same northwest to south-east alignment as the previous sections, the stretch of Wansdyke west of Goss Plantation (Fig 8; RA 22) is not marked on modern OS maps. This parcel contains a well preserved bank (5m wide and 1.5m high) and ditch (5m by 2m) with a terminal at the west and a possible counterscarp bank to the north, although the dense undergrowth makes definite identification difficult.
- 6.9.14 Some 5.5km to the east, the section of the Wansdyke north-west of Manor Farm (Fig 8; RA 23) is almost 1 mile long and, for the most part, well-preserved. The section from the Newton Brook to the hedgerow just north-west of the farm displays a south-facing bank rising c 3m above the ditch bottom, and a counterscarp bank, about 1m high. Nearer the brook, the ditch is silted-up and the earthwork no longer visible. Between the hedgerow and Englishcombe village the earthwork is less well preserved. Small patches of erosion by cattle are visible here and there.

Domestic

- 6.9.15 The HER gives the approximate location of a number of early medieval settlements, shown on Fig 8. In most cases, they have not been archaeologically investigated and their location is approximate, either derived from historic records, the location of later settlements, or the presence of earthworks, which await proper investigation. Some of the HER entries for settlement are based solely on a Domesday Book (AD 1086) entry, although this survey was concerned with land ownership, estates and holdings and their associated resources, which include settlements and people who live in them, rather than a literal description of occupation sites.
- 6.9.16 Approximate locations are given for the settlement of Hallatrow (Fig 8; RA 6, Kelston (Fig 8; RA 9), Compton Dando (Fig 8; RA 8), and Woollard (Fig 8; RA 7). There has been an excavation at Hallatrow, which identified a late Saxon settlement site (Peter Davenport, pers. comm), but at the time of writing the details of this excavation had not been incorporated into the HER. The location of the other possible settlements is largely speculative (see para 6.9.15 above).
- 6.9.17 Domesday Book (AD 1086) records a manorial estate of Stoney Littleton (Fig 8; RA 5), and this is likely to have had an associated settlement, which the HER locates along the Wellow Brook in the south of the study area. According to the HER, the earthworks of a small deserted medieval village are visible and well preserved in pasture, including possible house platforms and crofts. Additional earthworks are located in a field to the south-west of Stoney Littleton farm. Historical documents record the existence of the site between the 11th and 14th centuries and from the 19th-century to the present day. Domesday describes it as follows: "Osmund holds Littleton from the bishop. Godwin held it before 1066; it paid tax for two hides. Land for two ploughs; which are there, in lordship, with one smallholder and six slaves. A mill which pays six shillings; meadow, 2 acres, pasture six acres, 1 riding horse, 5 cattle, 15 swine, 200 sheep. Value 40 shillings, when he acquired it 30 shillings." The location of the mill has yet to be found. Whilst the later medieval remains are not proof that this was the site of the earlier, Saxon settlement, in all likelihood it was located on or within the immediate vicinity.
- 6.9.18 The HER uses the 1842 Tithe map to give the approximate area of the Bathampton settlement (Fig 8; RA 25). The earliest mention of the village is in a charter of King Eadwig, dated to AD 956 (Peter Davenport, pers. comm). Domesday Book notes that the manor (estate) was in the possession of the church at Bath. The settlement is mentioned again in a charter of c 1293 which grants free warren of the Bishop of

Bath's lands at Bathampton. Archaeological excavations in the area near Bathampton have uncovered the remains of late Roman to Saxon dwelling possibly in existence for a century or less (Fig 8; RA 10).

- 6.9.19 In the Chew Valley, Rahtz and Greenfield (1977) excavated a long narrow, slightly raised platform containing pits, hearths and ditches associated with 12th or earlier pottery up to 13th century (Fig 8; RA 4). This is probably a dwelling site but there is no clear plan of a building.
- 6.9.20 Moreton hamlet (Fig 8; RA 24) was originally a Domesday settlement. It was submerged in 1953 for the creation of Chew Lake. It consisted of three or four small farms, numbering two or three dozen inhabitants. The hamlet was centred round a sharp bend in the modern road, formerly a junction of four roads, probably all of medieval origin; two were those forming the modern road, the other two led down to the river at Moreton Mill and to the vicinity of St Cross Nunnery (Northfield Lane). Apart from the river, there was water-supply from a substantial spring. All the ground was very wet in winter, and not much less so in summer; local drainage ditches were a feature of every excavated site (Rahtz and Greenfield 1977).

Industrial

- 6.9.21 Domesday Book records a number of mills in the study area, attached to manorial estates. It is not possible to locate these based solely on the documentary evidence, although the HER has noted possible locations based on the positions of later mills known from historic maps and other sources. The reliability of being able to suggest that a later mill site was also the site of an earlier mill is questionable, as rivers and streams can change their course and become silted up. It is also likely that at least a proportion of mills recorded in Domesday Book were not water mills but powered instead by animals (Nick Corcos, pers. comm.). Early mills could have been relatively ephemeral structures that did not need extensive water-engineering management for effective operation, especially if they were horizontal wheels which used small streams with low flow rates (ibid.)
- 6.9.22 Two mills (Fig 8; RA 13) are recorded at Englishcombe in the centre of the study area. The HER locates their possible location along Newton Brook. At one of the sites, at Manor Farm, a later waterwheel pit, pond and dam survive (HER MBN3446). As noted above, the evidence for the presence of Domesday mills at these locations is, without archaeological evidence, entirely speculative.
- 6.9.23 Two mills (Fig 8; RA 14) are recorded in 'Hantone'. Their exact location is unknown, but the HER notes their possible position on a bend of the River Frome in the far south-eastern part of the study area.
- 6.9.24 The HER notes a possible Domesday watermill on Wellow Brook, the location speculated entirely from the site of a later mill marked on the 1843 Tithe map to the west of Stoney Littleton in the south-eastern part of the study area (Fig 8; RA 15). The post-medieval mill was demolished in 1904. The mill race survives as an earthwork, and there are masonry remains of the later mill building and sluice structure.

Religious, ritual or funerary

- 6.9.25 At least six inhumation burials were found in about 1936 in a quarry pit close to Avon Farm, Saltford (Fig 8; RA 16). They lay approximately east–west and one contained an iron knife of Saxon date. The site of this gravel pit is now filled in.

6.10 Medieval period (AD 1066–1484)

Asset density

- 6.10.1 There are 106 known medieval assets within Study Area 1, with a density of 2.28 assets per km². Their distribution is shown on Fig 9.

- 6.10.2 The asset density for this period category across the whole of the BANES Project Area is 0.30 per km², which is much lower than the density within Study Area 1.
- 6.10.3 The assets fall into the following categories:
- Agriculture and Subsistence - 49 assets
 - Civil - 2 assets
 - Domestic - 26 assets
 - Findspot – 1 asset
 - Gardens Parks and Urban Spaces - 3 asset
 - Industrial -12 assets
 - Religious, ritual or funerary - 5 assets
 - Transport - 4 assets
 - Water Supply and Drainage category - 1 asset
 - Unassigned - 3 assets
- 6.10.4 There is a significant increase in the number and the type of assets recorded on the HER for this period. This is likely a reflection of the availability of documentary sources and the greater understanding of the nature and distribution of human activity, along with the greater chance of surviving remains, for example in the built environment. During the medieval greater pressure on land resources lead to assarting (piecemeal expansion into intractable land) and attempts to drain and reclaim areas prone to flooding in order to enhance the economic use of the land. Within alluvial floodplains near urban centres, there is potential for drainage ditches and consolidation material, with medieval remains potentially at the top of the alluvial sequence.

Agriculture and Subsistence

- 6.10.5 This category comprises the largest number of assets (49) within the study area. These take the form of ancient woodland, field systems, earthwork banks, lynchets (bank of earth that builds up on the downslope of a field ploughed over time), deer parks, farm houses and barns. The majority of these assets have been identified across the study area from documentary sources (i.e. the ancient woodland etc) or are recorded elements in existing features (i.e. structural elements within barns). One of these assets (RA 74) overlies a part of Study Area 2 (RA 33)

Civil

- 6.10.6 There are two known medieval civil assets within Study Area 1. A parish bank and hedge is recorded between Burnett and Keynsham (Fig 9; RA 10) and a set of stocks in the churchyard to the west of Batheaston (Fig 9; RA 11).

Domestic

- 6.10.7 The majority of the domestic assets are located in the Chew Valley in the western part of the study area, and were identified as a result of archaeological fieldwork undertaken in here in the 1950s ahead of the creation of the reservoir. A 'shrunken village' (Fig 9; RA 31) was recorded on the reservoir edge, on the east side of the road between New Manor Farm and Widcombe Farm, with a number of buildings, which no longer exist, scattered along the road eastward from New Manor Farm. Widcombe was documented from AD 1283, and Wydcombe Place, the forerunner of the 19th-century New Manor Farm (Fig 9; RA 35), from AD 1462. The sites of the buildings along both roads appear to be relatively undisturbed by later ploughing and according to the HER should be carefully preserved. Wydcombe Place probably functioned as the manor house of the area of North Widcombe.
- 6.10.8 A number of assets fall within Moreton hamlet (Heron's Green Bay) (Fig 9; RA 80; also discussed in the Saxon summary, para 6.9.20). They comprise the medieval

manor house (Fig 8; RA 31), a mill house (Fig 9; RA 23), four 12th to 15th-century houses (Fig 9; RA 24 to 27), and a chapel (Fig 9; RA 49). Footings of a substantial house, possibly the manor house (RA 31), were found by Rahtz and Greenfield (1977) through excavation and are now preserved under pasture. Although the evidence was relatively sparse, the excavators maintained that the structure was clearly medieval and in view of its construction could well be one of the principle manor houses. A large moated enclosure surrounding the remains of a medieval single roomed house with outbuildings (Fig 9; RA 23) was also identified, along with evidence of intensive occupation in the 13th and 14th centuries, including the remains of three bread ovens, probably not in use at the same time. Earlier 12th-century occupation was suggested by 200–300 sherds of pottery and some pits and post holes but no definable house. The mill house was re-built in the late-16th century and part demolished and converted to two cottages in 1920. The remains of three bread ovens were removed.

- 6.10.9 The HER reports a deserted settlement (Fig 9; RAs 13 and 17) east of Saltford and west of Kelston in the northern part of the study area. A deserted settlement is one that has been abandoned for a variety of reasons (eg plague, famine, resettlement, economic reasons), typically leaving no trace apart from earthworks or cropmarks. In the paddock immediately west of Manor Farm are earthwork enclosures and platforms marking the sites of two or three homesteads. An estate map of 1743 shows a single house here. There are further, less distinct, earthworks in the field to the west.
- 6.10.10 A deserted settlement (Fig 9; RA 18) has been identified between Whiteway and Newton St Loe, in the central part of the study area. The field name Brightwick suggests an early settlement somewhere near Newton Brook and the old road from Mendip to Bath. It has been linked to a reference to the 'land and free close at Bruneforde in the Manor of Twerton' which appears in deeds between the 13th and 16th centuries. There is an embankment or holloway (a sunken lane which has over time fallen significantly lower than the land on either side) on this site which may be associated with a building, and there may also be a connection with the mill which once stood in Brinsford Mead (Chapman 1994).
- 6.10.11 In 2007, medieval occupation in the form of the footings of a wall, possibly part of a domestic structure, and a number of sherds of pottery, stone tiles, iron nails and animal bones showing evidence of butchery was uncovered during an archaeological watching brief along the River Avon at Warleigh, in the eastern part of the study area.
- 6.10.12 A shrunken (partially deserted) village is indicated by the presence of earthworks in the fields to the south and east of Upper Church Farm and All Saints Church (north of Peasedown St John, in the south of the study area). They consist of two holloways and platform features 0.5–1.0m high. To the south are the remains of a field system associated with the settlement.
- 6.10.13 Earthworks of a medieval settlement on the eastern outskirts of Midsomer Norton, in the southern part of the study area, are recorded by the NRHE and have been incorporated into the HER as part of this study (Fig 9; RA 92). The site consists of a west-east holloway, with two house platforms on the north side, and an enclosure to the south.
- 6.10.14 The HER speculates that a number of these medieval settlements were located on or in the immediate vicinity of earlier, Saxon settlements suggested by Domesday Book estate entries, such as at Stoney Littleton (Fig 9; RA 12), Hallatrow (Fig 9; RAs 14 and 62), Woollard (Fig 9; RA 15), Compton Dando (Fig 9; RA 17), Kelston (Fig 9; RA 17). This continuity of occupation has yet to be confirmed archaeologically.

Findspot

- 6.10.15 The HER records one findspot; an area of pottery scatter, about 30m in diameter, was found in Potterne Meadon the northern side of the road to Priston Mill (Fig 9;

RA 35). The pottery was of 13/14th century date, but despite the fieldname, there was little evidence of occupation and none of medieval pot kilns. This site was fieldwalked only after sowing and rolling.

Gardens, Parks and Urban Spaces

- 6.10.16 The HER records three known assets in this category: Kelston Manor Garden (Fig 9; RA 35), the 1841 tithe map recorded several 'park' fieldnames north and west of the present Park Copse in the north of BANES, towards the centre (Fig 9; RA 35) and in an area west of Englishcombe, towards the centre of BANES, includes several fields with 'park' names (Fig 9; RA36)

Industrial

- 6.10.17 There are 12 known medieval industrial assets within the study area, largely comprising mills.
- 6.10.18 Three assets are now under the Chew Valley Lake and comprise a 15th-century corn mill known as Herriot's Mill (Fig 9; RA 42), a quarry known as Denny Moat (Fig 9; RA 47), and three lime kilns (Fig 9; RA 41) dated to the 12th century.
- 6.10.19 South of Woollard, in the central part of the study area, is the 16th-century tucking mill, known as Woodborough Mill (Fig 9; RA 46), at Lord's Wood.
- 6.10.20 Along the Newton Brook, in the central part of the study area, Priston watermill (Fig 9; RA 39) is referred to in Domesday Book. There was probably a mill here throughout this period. The present mill structure dates to the 18th century. Two mills (Fig 9; RA 44) are recorded in Englishcombe at the time of Domesday Book, and there may have been mills in the parish in this period.
- 6.10.21 Bathampton weir (Fig 9; RA 48) dates to the refurbishment and partial rebuilding in 1818 (source: HER), but was probably at the site of a Medieval mill.
- 6.10.22 Two mills (Fig 9; RA 45) are recorded as paying a rent in the Hantone manor at the time of Domesday Book. Their exact location is unknown. Hantone is now part of Bathampton parish it is likely that they are within the vicinity of the main settlement (Peter Davenport pers. com.).
- 6.10.23 Domesday Book records a mill within the Stoney Littleton estate. The 1843 Tithe map shows a watermill west of Stony Littleton, and it is likely that there was a mill here in this period (Fig 9; RA 40). The mill, weir and leat (Fig 8; RA 43) at Claverton pumping station and shown on Greenwood's 1822 map of Somerset might also potentially be on the site of a mill mentioned in Domesday.
- 6.10.24 The NRHE records Hanham Mills, a medieval fulling mill in use as a corn mill by the 1790s. Masonry remains of the mill survive at the end of a weir. It is supposedly one of oldest mill sites in Kingswood (Fig 9; RA 82).

Religious, ritual or funerary

- 6.10.25 There are five known medieval religious, ritual or funerary assets within the study area.
- 6.10.26 A moated site containing a complex of medieval buildings (Fig 9; RA 51) was excavated in 1954, prior to flooding, along the western edge of the Chew Valley. The excavation site was in fields known as "Nunnery Fields" which seem to coincide with "St. Cross" on a map of 1762. The site was consequently called "St. Cross Nunnery". A reference is made by Collinson (1791, v2, 121) to cells for four nuns on the land owned by Elizabeth de Sancta Cruce near Chew Stoke. However, no evidence of it being a nunnery emerged from the excavation and instead it may have been a manor or grange owned by the Santa Cruce family. The 13th century was probably the main period of occupation and the site was abandoned by the late 14th century.
- 6.10.27 Also uncovered during the same excavations was a double enclosure at Moreton

Hamlet. It contained a building with stone footings, post holes and pits. A freestone capital was also found on the site, and the excavators suggested that this is the medieval chapel of St James (Fig 9; RA 52), known to have been built before AD 1332 (Rahtz and Greenfield 1977).

- 6.10.1 The HER records the location of a possible religious building, although no surface indications survived today. In 1830 a road junction at this location was known as 'St Georges Cross' and it has been argued that the cross-head now in Widcombe Manor came from this site (Fig 9; 54).
- 6.10.2 The NRHE reports the site of the Hinton Charterhouse Friary (Fig 9; RA 124). The site, which was absent in the HER, is thought to correspond to the lower house of the Carthusian monastery at Hinton, in the far south-eastern part of the study area. A RCHME field investigation took place in May 1995, entailing a survey of the site as part of the Carthusian Monasteries Project. The site occupies gently rising ground in a clearing in Friary Wood on the west bank of the river Frome. Few earthworks survive at the Friary site; however, within Chapel Field is a rectangular enclosure c 50x30m defined by a scarp c 0.1m high. The orientation of this enclosure suggests that it formerly extended on the west side and incorporated the wall of a medieval cottage. Further east, on the bank of the river, are the remains of what is thought to have been a mill.
- 6.10.3 A 13th century chapel has been identified Hallatrow during an archaeological excavation (Peter Davenport, pers. comm). At the time of writing the details of the excavation had not been incorporated into the HER.

Transport

- 6.10.4 The HER records three bridges and a road within the study area. It is likely that a number of roads across the study area have medieval (or earlier) origins. There has been no systematic study of the medieval road network between known medieval settlements, eg through documentary and later cartographic sources, and this is reflected in the lack of entries in the HER.
- 6.10.5 A medieval bridge with three pointed arches and double arch-ribs (Fig 9; RA 55) is recorded at Woolland, in the northern part of the study area.
- 6.10.6 Park Bridge (Fig 9; RA 56), located west of Englishcombe in the central part of the study area, is a narrow limestone bridge used as footbridge, too small for wheeled traffic and more like a 'packhorse' style of bridge. It is marked on a 1792 map and named Park Bridge. It provides access from Duchy of Cornwall land to land that had been non-Duchy land. The bridge is probably older than 1792 but whether it is a medieval structure originally is difficult to determine (RA 56).
- 6.10.7 Two assets are now buried under the Chew Valley Lake: Herriott's Bridge (Fig 9; RA 54) was mentioned at this site in 1611, and the road bridge survived until the 1950s, when it was removed as part of the construction of the Chew Valley Lake. Withy Lane (Fig 9; RA 57), recorded on the 1793 plan of Widcombe, but probably earlier, as it gave access to a group of fields which were assarted in the medieval period. It is now completely overgrown.

Water supply and drainage

- 6.10.8 A leat conveys water to Publow Mill (Fig 9; RA 61). The River Chew is dammed by a weir in the river under Publow Bridge, raising the level so water flowed into a leat conveying eastwards across the field to Publow Mill (now Church Farm). The leat is still fairly intact and exists as an earthwork (HER entry MBN8709).

Unassigned

- 6.10.9 Three assets belong to this group. They have not been investigated and it is not possible to assign them to a specific category.
- 6.10.10 A triple bank and hedge west of Lays Farm (Fig 9; RA 58) lies on a section of the

parish boundary between Keynsham and Compton Dando. It is possibly of medieval origin.

- 6.10.11 Medieval ditches were recorded at Bathampton Meadows (Fig 9; RA 60), north of railway, during an archaeological excavation by Bath Archaeological Trust in 1994. The results have yet to be published and incorporated into the HER. Pottery kiln waste recovered was primarily of 13th and 14th date, but also included Saxo/Norman pottery (Peter Davenport pers. comm.). Although no function has yet been ascribed to the ditches, it is possible that they are associated with manor house of the Bishops of Bath and Wells. The area is crisscrossed by lanes leading from the manor house and mill to the village.
- 6.10.12 Air photos show a series of earthworks (Fig 9; RA 59) in the fields to the north-east and west of Moat Farm. These comprise a south-facing lynchet parallel to the lane bordering a rectangular area of low earthworks, and a wide gully parallel to the north-west boundary of the site, which may have formed an outflow from the moat, or the remnant of an earlier water system (eg fish ponds).

6.11 Post-medieval period (1485–1900)

Asset density

- 6.11.1 There are 295 known assets in Study Area 1, with an asset density of 6.35 per km². Their distribution is shown in Figs 10a, 10b and 10c.
- 6.11.2 The asset density for this period category across the whole of the BANES Project Area is 1.02 per km², which is much lower than the density within Study Area 1.
- 6.11.3 The asset types comprise:
- Agriculture and subsistence - 68 assets
 - Defence - 1 asset
 - Domestic – 44 assets
 - Education - 1 asset
 - Findspots - 6 assets
 - Gardens, Parks and Urban Spaces - 11 assets
 - Industrial - 80 assets
 - Religious, Ritual or Funerary - 2 assets
 - Transport - 52 assets
 - Water Supply and Drainage - 28 assets
 - Unassigned - 3 assets
- 6.11.4 The post-medieval period has the highest number of assets of all the periods, with almost a threefold increase from the medieval period. It also has the greatest number of asset types. This is likely a reflection of the availability of documentary and cartographic sources along with extant remains as part of the built environment. The majority of the assets on the HER have been identified from either documentary sources or are standing structures. Few assets have been identified from archaeological investigations. A systematic survey of the post-medieval landscape as evident on historic maps and documentary sources has not been carried out by the HER, but rather piecemeal incorporation of known assets into the HER. The assets therefore reflect the data captured by the HER to date, rather than representing a complete picture of the nature, extent and distribution of post-medieval activity.

Agriculture and subsistence

- 6.11.5 There are 68 known assets within this category, reflecting the rural character of the area. These take the form of ancient woodland, field systems, earthwork banks, lynchets (bank of earth that builds up on the downslope of a field ploughed over

time), farms and barns. The majority of these assets have been identified across the study area from documentary sources (i.e. the ancient woodland etc) or are recorded elements in existing features (i.e. structural elements within barns etc). Although possibly dating back to the medieval period many have continued to be used into the post-medieval period (Fig 10a; RAs 24, 12, 13 and 15).

Defence

- 6.11.6 One asset of this type has been recorded in the study area. This comprises a set Civil War Defences at Ham Meadow, between Claverton and Warleigh, on the eastern boundary of the study area (Fig 10b; RA 50). The earthworks were erected by Parliamentary troops in 1643 to protect a temporary bridge crossing. A nearby skirmish led to the battle of Lansdown (Wroughton 1992).

Domestic

- 6.11.7 There are 44 assets in this category, ranging from single homestead - cottages and manor houses to shrunken villages. At least six domestic assets are believed to have medieval origins. Some 15 assets are now submerged under the Chew Valley Lake.
- 6.11.8 The site of Kelston manor house (Fig 10b; RA 56) is located east of St Nicholas' Church. It was built by Sir John Harington in the mid-16th century and demolished around 1764, when Kelston House and Park were built for Sir Caesar Hawkins. The manor house was surrounded on all sides, except the west (churchyard) by an elaborate terraced garden (see Fig 10; RA 100 below). The site is now grass. There are no known pictorial representations of the house. The date 1567 on a fountain at Kelston suggests that the formal gardens for the house were laid out at this time.

Findspots

- 6.11.9 Six findspots assets have been recorded in the study area for this period. Five relate to a series of rubbish pits that comprised a mixture of 18th and 19th century pottery, glass and/or coal waste was found in 1993 during rescue excavations ahead of the construction of the Avon Ring Road 4a, Durley Hill to Marsham Way in the north of the study area, just south of Bristol (Fig 10a; RAs 94–98).
- 6.11.10 In May 2005 two test pits were observed as part of investigations of the stability of the walls at the former Parish House on Fosse Lane Batheaston by Richard Sermon, archaeological officer (Fig 10; RA 99) in the north of the study area, just south of Bristol. Three pieces of post-medieval pottery (17th/18th century possibly) were recovered from the spoil heap.

Gardens Parks and Urban Spaces

- 6.11.11 There are 11 known assets in this category in the study area. Four features are associated with Kelston Manor House, including the garden, park, walled garden, and summerhouse.
- 6.11.12 Kelston manor house was surrounded on all sides except the west by an elaborate terraced garden (Fig 10a; RA 100), thought to have medieval origins. It survives mainly as earthworks with a square walled garden (Fig 10a; RA 284) to the south, and is a Grade II* Registered Garden. The gardens are distinct from Kelston Park to the south, which was landscaped by Capability Brown in the 1760s (Fig 10a; RA 285).

Industrial

- 6.11.13 This category includes 80 assets, among which are; collieries, historic quarries, mills, lime kilns, a brewery and chemical works. Although the study area is primarily agricultural in nature, there is a notable industrial element in parts of the landscape.
- 6.11.14 A quarry at Durley Park (Fig 10c; RA 179), Keynsham, along the River Avon, in the

far north of the study area is described by the HER as an abandoned Pennant stone quarry under woodland. The site was known as 'Rubble heap from railway' in the Keynsham Tithe Map of 1842, suggesting no quarry then existed. In 1885, the western half of the quarry was active, with two sets of rails, one running out by the river to the west, and up an inclined plane to join the Great Western Railway, while a second ran to a wharf at the nearside. A crane was also recorded on the OS 1st edition map of 1885. The stone structure of the wharf was fairly intact in 1989, with a stone-built tipping platform at the end of the western rail line. The quarry is now mainly woodland (source: HER).

- 6.11.15 There are over 20 known collieries within the study area. Collieries have been active in BANES for over five centuries, even though it is a predominantly agrarian area (Gould 1996, 16). Shaft mining and stall workings were widespread in the 15th and 16th centuries, while the 17th century saw the introduction of the cog and run, and later the horse gin. The introduction of the steam engine in the early 18th century for pumping water gave access to ever deeper seams. The surface features of a 19th-century colliery typically included two stone-built beam engine houses, for pumping and winding, a wooded headgear, and ancillary buildings (ibid, 16). The colliery was part of a broad socioeconomic landscape which included housing, shops, churches, chapels and municipal public buildings. The discovery of coal gave these settlements a unique character linked to their industrial architecture, in contrast to traditional farming settlements (ibid, 23).

Religious, ritual or funerary

- 6.11.16 There are two assets in this category.
- 6.11.17 The HER notes from the 1951 1:2500 scale Ordnance Survey map the location of a mortuary chapel and associated cemetery, no further details are given includes a late 15th to 16th century chapel at Woollard, in the northern central part of the study area (Fig 10a; RA 183).
- 6.11.18 The Bathford 1839 Tithe Award map denotes a small enclosed plot as "Quaker Burial Ground", which lies within a field called "Paradise" (Fig 10a; RA 184).

Transport

- 6.11.19 The industrial revolution led to a massive expansion of the country's transport network, including railways, canals, and maintained roads, along with associated transport infrastructure. The most represented assets in this category are bridges, railway stations and railways. The development of the railways was in many cases spurred on by the exploitation of the collieries.
- 6.11.20 The Bristol and North Somerset Railway (Fig 10c; RA 287) opened in 1873 from Bristol to Radstock to serve the collieries of the North Somerset coalfield. Passengers ceased to be carried in 1959, and shortly after 1966, mineral traffic ceased and the line was dismantled. The railway extends from north to south across the middle of the study area.
- 6.11.21 The Somerset and Dorset Railway (Fig 10c; RA 288), now dismantled, opened in 1854. It was a broad gauge line; the only major branch line built was that to Bath, while a Bristol link was never realised. In 1870, a bill for extending the line from Evercreech Junction to Bath was passed, and work commenced in 1872. Part of the Somerset Coal Canal Tramway between Radstock and Midford was purchased and formed part of the route, which opened to passengers in 1874.
- 6.11.22 The Midland Railway branch from Mangotsfield to a temporary terminus in Bath was opened in 1869 (Fig 10c; RA 289). The line closed in 1966.
- 6.11.23 The Great Western Railway (GWR) branch line to Bradford from Staverton (Fig 10c; RA 290) on the Wiltshire, Somerset and Weymouth line was authorised in 1845. The line from Staverton was nearly completed in 1848, Bradford station was ready, and only the rails needed to be laid, when labour was suddenly. In 1854, the GWR

asked for powers to extend the route through to Bathampton, and this was completed in 1857 as a single track railway.

- 6.11.24 Camerton and Limpley Stoke Branch Line (Fig 10c; RA 291), now dismantled railway, comprised 3 1/4 miles of track between Hallatrow and Camerton. It opened in 1882 as a branch of the Bristol and North Somerset railway. It was extended to Dunkerton Colliery in 1907 and Limpley Stoke on the Bradford and Bathampton branch line in 1910. Part of the 20th-century colliery works used the Somersetshire Coal Canal route. Primarily built as a mineral railway for the local coalfields, passenger traffic was never economical and passenger services were withdrawn in 1915. These were restored under local pressure in 1923, but again withdrawn in 1925. Dunkerton Colliery closed in 1950 and Camerton followed shortly later. The last general goods train ran in 1951, and the track was taken up in 1958.
- 6.11.25 The Frome to Radstock Railway (Fig 10c; RA 290) was built by the Wiltshire, Somerset and Weymouth Railway (WS and WR), following an Act in 1845. The GWR took over the company in 1850 and gave a high priority to the construction because of the potential colliery traffic. The line was opened in 1854 as a broad gauge mineral line with a station at Mells Junction. The line was converted to standard gauge in 1874 and through passenger trains ran from Bristol to Frome from 1875 until 1959. Most of the line was closed in 1966 but some colliery traffic continued until 1973. Tack-beds with rails and sleepers survive in places (RA 291).

Water supply and drainage

- 6.11.26 There are 28 known assets in this category, 20 of which are located along the Cam Brook, which crosses the study area in an east-west direction. The remainder are located along the River Avon, where it follows the eastern boundary of the study area, and along the River Chew and the Conygre Brook in the north and western parts of the study area.
- 6.11.27 The assets include aqueducts, canals and associated features, such as canal locks, wharfs, and lock-keeper's cottages, along with watermeadows, ponds, dams, and a pumping station.
- 6.11.28 The Somerset Coal Canal Stony Littleton Aqueduct comprises two sections (Fig 10c; RAs 257 and 258). The first section is 25 yards long, 30ft wide, single arch, lias rubble except for the parapets (now missing) which were probably of Bath Stone. The canal bed is now filled in and overgrown. The HER describes it as "one of the few important engineering features on the Radstock Line which has survived in good condition". The second, c 2190 yards long, of the Radstock Line from the aqueduct near Stony Littleton running westward along the north side of Wellow Valley to the entrance of Peglynch Farm. Built 1795–1800, opened 1804, it was disused by 1814 when the canal was replaced by a tramway along the towpath. After 1872, sections of the tramway were replaced by the Somerset & Dorset Railway.

Unassigned

- 6.11.29 Three unassigned assets have been noted in the study area. One is the location of a possible mill site in the south of the study area, just south of Temple Cloud (Fig 10a; RA 229). An aerial photograph shows a building site in the middle of a field on the south bank of the Cam eastward from Temple Bridge. The building is shown on 1841 Tithe award map but is not present on the OS 1st edition 6" map of 1888.
- 6.11.30 Approximately 620m to the north-east of abandoned colliery of Camerton (Fig 10a; RA 111) in the south of the study area is the Camerton spoil heap in valley bottom (Fig 10a; RA 230). Historical sources mention several pits in this area, from example "Old Pit" and "New Pit". This spoil heap is probably associated to one of them (Buchanan and Cossons 1969)
- 6.11.31 The third represents a boundary stone which was recorded in 1904 (Fig 10a; RA 231). However, nothing of the stone was visible at the site in 1984 and it is likely that

it been removed during 20th century renovations to the bridge.

6.12 Modern period (1901–present)

Asset density

- 6.12.1 There are 35 recorded assets in Study Area 1, with a density of 0.75 assets per km². Their distribution is shown on Fig 11.
- 6.12.2 The asset density for this period category across the whole of the BANES Project Area is 0.10 per km², which is much lower than the density within Study Area 1.
- 6.12.3 The asset types are as follows:
- Communications – 1 asset
 - Defence – 22 assets
 - Domestic – 2 assets
 - Industrial – 4 Assets
 - Recreational – 1 asset
 - Transport - 4 assets
 - Water and Drainage – 1 asset
- 6.12.4 The assessment shows a decline in the number and types of assets in this period. This is probably a reflection of how Modern period assets are perceived in terms of their heritage interest. It is only relatively recently that HERs have begun to include Modern period assets, some of which are still extant or have available documentary and photographic records.

Communications

- 6.12.5 The HER records the location of a K6 telephone booth (Fig 11; RA 13) in the village of Combe Hay in the south-east of the study area. The K6 was designed by Giles Gilbert Scott in 1935 for the General Post Office, on the occasion of King George V's Silver Jubilee. The K6 was a development from his earlier highly successful K2 telephone kiosk design of 1924, of Neo-classical inspiration. The K6 was more streamlined aesthetically, more compact and more cost-effective to mass produce.

Defence

- 6.12.6 All the assets in this category are dated to the Second World War. Most of the records came from the NRHE rather than the HER. The majority are pillboxes and tank traps.
- 6.12.7 Among the assets is the site of a Royal Observer Corps monitoring post (Fig 11; RA 23) in the Fox Hills area of Radstock, in the south of the study area. At the time of the Defence of Britain survey (1995–2002) this site was in a poor condition. The majority of monitoring posts were built between 1956 and 1964, although their construction began after 1925 and continued into the early 1970s.
- 6.12.8 The site of an auxiliary unit operational base (Fig 11; RA 26) is located in a mine shaft at Pennyquick Bridge, east of Newton St. Loe. The base was established in 1940 and abandoned in 1941.
- 6.12.9 The site of an antitank ditch (Fig 11; RA 27) is recorded by the NRHE in the south-east of the study area. The ditch ran from Wellow Brook east-south-east to Hang Wood, in Midford Valley. It was constructed in 1940–41 and formed part of GHQ Line Green which formed a loop around the Bristol area and served as the outer defence against attack from the south. It was infilled sometime between 1946 and 1950.

Domestic

- 6.12.10 Two domestic assets have been recorded in the study area and are represented by modern villages that had roots in the Saxon period (Fig 11; RAs 5 and 6), however, one, Moreton Hamlet, was depopulated in 1953 when it was flooded by the creation of the Chew Valley Lake.

Industrial

- 6.12.11 The four assets in this category dating to the modern period. It includes the Somerdale chocolate factory now owned by Cadburys (Fig 11; RAs 7 and 32) which was used as a munitions factory (Fig 11; RA 8) during the Second World War.
- 6.12.12 The chocolate factory complex (Fig 11; RAs 7 and 32) (As above) was built in Keynsham for JS Fry and Sons, dating from 1928–1931, 1931–8 and 1964. The construction is of steel and concrete frames clad in red brick, with flat roofs, concrete lintels and steel-framed windows. Fry's of Bristol were the first company in Britain to produce chocolate slabs on a large scale, having run a family business since the late 1700s; they also produced a cream-filled stick of chocolate on an industrial scale, bringing chocolate to the masses and causing the Fry business to flourish. The business remained in the Fry family until in 1919 it merged with Cadbury Brothers. By then, it was necessary to find a location for a new, integrated factory complex. The area chosen was a previously undeveloped site to the north of the town of Keynsham, defined by the course of the River Avon to the north and east, and by the Keynsham railway line to the south; the area was named Somerdale. In keeping with Quaker spirit, the factory offered social facilities, including playing fields and a large recreational sports ground. It had its own power station and railway, with connection to the Great Western Railway via sidings at Keynsham railway station. A spur of the railway was created running northwards through the site to allow raw materials to be brought directly into the plant, and manufactured goods to be taken away. During the Second World War, the factory was taken over to produce munitions and Merlin engines by Rolls Royce.

Recreational

- 6.12.13 One asset has been noted in this category for this period and represents the first and only appearance of this type in the study area (Fig 11; RA 10). It denotes the location of the Stockvale Golf Course between Stockwood and Keynsham in the north of the study area. An archaeological desk-based study of an area proposed as an extension to the existing golf course was undertaken in 1995 but revealed no evidence for archaeological sites within the area proposed for development.

Transport,

- 6.12.14 This category includes four assets, which represent passenger stations constructed in the early decades of the 20th century but all of which went of use in the 1920s (Fig 11; RAs 11, 12, 33 and 34). All of the railway lines recorded in this group are no longer in use; most ceased function in the 1950s/60s, the rest much earlier. In all cases, the asset has been removed and HER record denotes its original location.

Water and Drainage

- 6.12.15 The one asset noted in this category represents the Chew Valley Lake (Fig 11; RA 35). The reservoir was constructed by the T&C Hawkesley Company in 1956 for the Bristol Waterworks. One of the last puddle-core dams, and the largest man-made lake in Britain when built.

6.13 Unknown Date (700,000 to Modern)

- 6.13.1 There are 37 assets of unknown date within the study area, an asset density of 0.80 per km². The asset density for this period category across the whole of the BANES

Project Area is 0.11 per km², which is much lower than the density within Study Area 1.

- 6.13.2 Undated assets have insufficient information on the HER to assign to a specific period. The potential date range is from the early prehistoric period to the modern period. The group includes a number of possible sub-surface archaeological features visible as cropmarks on air photographs. The gravel geology is conducive to the formation of cropmarks, which are dependent on variations in moisture conditions caused by subsurface features. Cropmarks can be a valuable method of identifying areas of archaeological potential within possible gravel extraction sites, although site-specific investigation on the ground is often necessary in order to determine the nature, date, survival and significance of the remains.

7 Resource Assessment: Study Area 2

7.1 Introduction

- 7.1.1 The archaeological resource assessment describes the state of archaeological understanding within Study Area 2 (hard aggregates geology) by period in order to provide a basis for the research agenda and strategy and future resource management. The data has been analysed using GIS in order to determine the density and distribution of assets and this can be used as a predictive tool for identifying distribution patterns of early human activity which may assist in future asset management.
- 7.1.2 The discussion will focus primarily on those assets which have been precisely dated to the relevant periods, and the key sites for each period. Each period summary also indicates the number of assets of uncertain date which could possibly originate from that period.
- 7.1.3 Fig 12–Fig 18 show the distribution of assets within Study Area 2. Each asset has a unique RA (resource assessment) identifier number, which is referred to in the text, the gazetteer (Section 12) and shown on the figures.
- 7.1.4 The study area is highly fragmented, comprising localised buffered zones of past hard stone geology, spread across the whole Project Area. The nature of the study area is therefore likely to present a disjointed picture of the nature and extent of activity within each chronological period, and largely reflects the locations of past quarrying and investigations.

7.2 Undated prehistoric

Asset density

- 7.2.1 There are five known assets on the HER of prehistoric origin but for which a more specific date has not been established in the HER entry. These comprise four findspots and one unassigned, ie a feature for which a date can be given but has no readily discernible function. The density of these assets is low, at 0.32 per km² within Study Area 2. Their distribution is shown on Fig 12.
- 7.2.2 The asset density for this period category across the whole of the BANES Project Area is 0.01 per km², which is much lower than the density within Study Area 2.

Findspots

- 7.2.3 A flint scatter (Fig 12; RA 1) is recorded at South Stoke, in the central eastern part of the study area. It is described as “one of a number of sites in a large area” from which surface flints have been collected, though no other such scatters are reported by the HER. Typology dates the artefacts to the Late Upper Palaeolithic/Mesolithic through to the Neolithic and Bronze Age at Kelston Round Hill, Charlcombe, in the north-central part of the study area.
- 7.2.4 Two handaxes, possibly Abbevillian or Lower Palaeolithic, were recovered on the slope of Little Solsbury Hill northeast of Bath, in 1913 (Fig 12; RA 2).
- 7.2.5 In 1978 during a watching brief by the Committee for Rescue Archaeology in Avon Gloucestershire and Somerset (CRAAG) over the excavation of a trench for a sewer pipeline, a flint scraper and flint flakes were found (Fig 12; RA 3).
- 7.2.6 A lithic scatter of flint artefacts (Fig 12; RA 1) is recorded by the NRHE (but not the HER) in an area to the east of Kelston and to the west of Kelston Round Hill, to the north-west of Bath. The implements range in date from the Palaeolithic through to the Bronze Age and include flakes, cores, scrapers and knives.

Unassigned

- 7.2.7 During an archaeological excavation at quarry to the west of Camberton Farm in 1926 of an Anglo-Saxon cemetery (Fig 15; RA 1), a pit containing a number of pottery sherds, which Piggott examined and thought that they could be either Neolithic or Iron Age, was found (Fig 12; 5).

7.3 Palaeolithic

- 7.3.1 There have been no finds of assets of possible Palaeolithic recorded in Study Area 2.

7.4 Mesolithic

Asset density

- 7.4.1 There are three known Mesolithic assets, with an asset density of 0.19 assets per km². Their distribution is shown on Fig 12. They are all Findspots.
- 7.4.2 The asset density for this period category across the whole of the BANES Project Area is 0.01 per km², which is much lower than the density within Study Area 2.

Findspots

- 7.4.3 A Mesolithic axe hammer, 7"x 3.3" with hour glass perforation, was found during drainage construction to the west of Slaite Farm in west of the study area in 1927 (Fig 12; RA 6).
- 7.4.4 The NRHE records two findspots listed by JJ Wymer and Bonsall (1977). These comprise the discovery a Mesolithic core (Fig 12; RA 7) found north of Shockerwick Wood, in the far north-eastern part of the study area; and Mesolithic flints, including a tranche axe, cores, a graver and microlith, found on the surface at Bannerdown, Batheaston, in the north-east of the study area (Fig 12; RA 8).

7.5 Neolithic

Asset density

- 7.5.1 There are two known Neolithic assets, within an asset density of 0.13 assets per km². Their distribution is shown Fig 12.
- 7.5.2 The asset density for this period category across the whole of the BANES Project Area is 0.01 per km², which is much lower than the density within Study Area 2.
- 7.5.3 The asset types comprise:
- Findspots - 1 assets
 - Religious, Ritual or Burial - 1 asset

Findspots

- 7.5.4 Four flint scrapers, one triangular point and a blade together with several unidentifiable flakes were recovered during an archaeological evaluation at Hayes Wood enclosure, in the south-east of the study area, in 1934 (Fig 12; RA 6). The HER suggests that the finds date to the Late Neolithic/Early Bronze Age. Two sherds of coarse shell tempered pottery was also recovered and tentatively dated to the Late Neolithic (Stone and Wick 1935).

Ritual, religious, or funerary

- 7.5.5 The HER identifies the possible location of a long barrow known as Bannerdown (Fig 12; RA 7), in the north-east of the study area. A 'sepulchre' on Bannerdown, shown in an unpublished sketch by Aubrey, in the Bodleian Library, appears to be a long barrow. There are no traces above ground.

7.6 Bronze Age

Asset density

- 7.6.1 There are 12 known Bronze Age assets, with an asset density of 0.78 assets per km². Their distribution is shown on Fig 13.
- 7.6.2 The asset density for this period category across the whole of the BANES Project Area is 0.03 per km², which is much lower than the density within Study Area 2.
- 7.6.3 The asset types comprise:
- Findspots - 2 assets
 - Religious, Ritual or Funerary - 9 assets
 - Transport - 1 asset
- 7.6.4 The assessment shows an increase in the number and density of assets, primarily the burial monuments. Their distribution is similar to that of the Neolithic but extends into the middle of the study area.

Findspots

- 7.6.5 A Late Bronze Age chisel found at Wood Lea, Clandown, in the southern central part of the study area (Fig 13; RA 6).
- 7.6.6 Four flint scrapers, one triangular point and a blade together with several unidentifiable flakes were recovered during an archaeological evaluation at Hayes Wood enclosure, in the south-east of the study area, in 1934 (Fig 13; RA 7). The HER suggests that the finds date to the Late Neolithic/Early Bronze Age. However, two sherds of coarse shell tempered pottery was also recovered which were tentatively dated to the Late Neolithic and thus suggest that the whole group is of the Late Neolithic rather than the Early Bronze Age (Stone and Wick 1935).

Religious, ritual or funerary

- 7.6.7 A round earthen mound (Fig 13; RA 16) 7m in diameter and 0.4m high, with signs of an outer ditch, is reported by the HER at Dowling's Wood, in the west of the study area. This might be a Bronze Age round barrow, although it is rather small.
- 7.6.8 A Bronze Age barrow is located north-east of a disused quarry, Fox Hills, Radstock (Fig 13; RA 8), in the central southern part of the study area. This asset is described in Section 6.6.12 as it part overlies Study Area 1.
- 7.6.9 A cist burial (Fig 13; RA 9) without mound or perimeter ditch was discovered in the Corston Lime Kiln Quarry, in the north-central area of the study area, in 1931. The burial comprised a crouched inhumation accompanied by a beaker and other grave goods, since lost. A second cist burial (RA 10) was found in 1940, in the face of the quarry, not far from the 1931 discovery (RA 9). Three crouched skeletons were found with a beaker. There was no trace of a mound or a ditch. The quarry is now disused and has been backfilled.
- 7.6.10 The HER records a number of round barrows within the study area, which are thought to be of Bronze Age date. Two round barrows have been recorded at Midford Hill, in the eastern part of the study area. One is described as a 0.9m high mound in a pasture. There is no trace of a ditch (Fig 13; RA 11). A second possible round barrow is reported by the Ordnance Survey at Hay Woo, c 600m east of the previous one (RA 14).
- 7.6.11 A round barrow is recorded south of Priston in the central part of the study area, (Fig 13; RA 12). It was excavated for material for road construction in 1827, and has also been damaged by nearby lime production. This activity uncovered a stone cist containing burnt bones. Skinner notes that a second barrow was located nearby, although there is no further information on the HER.
- 7.6.12 Round barrows are recorded in the north-eastern part of the study area to the south

of Emden (RA 13) and at Charlcombe (RA 15).

Transport

- 7.6.13 The NRHE records a section of the Jurassic Way (Fig 13; RA 17) crossing the north-eastern part of the study area, and leading into Bath. The entry speculates that this served as a major natural transport / communications corridor between Yorkshire and Somerset, possibly dating from the Early Bronze Age.

7.7 Iron Age

Asset density

- 7.7.1 There are 11 known Iron Age assets, within an asset density of 0.71 assets per km². Their distribution is shown on Fig 13.
- 7.7.2 The asset density for this period category across the whole of the BANES Project Area is 0.03 per km², which is much lower than the density within Study Area 2.
- 7.7.3 The asset types comprise:
- Agriculture and Subsistence - 2 asset
 - Defence - 2 assets
 - Domestic - 1 asset
 - Industrial - 1 asset
 - Religious, Ritual or Funerary - 1 asset
 - Transport - 1 asset
 - Unassigned - 3 assets
- 7.7.4 As with Study Area 1, there is a noticeable increase in the range of asset types, notably including domestic and defence, possibly reflecting an increasing population with pressure on land ownership, characteristic of this period. There is a decline in Religious Ritual and Funerary assets, reflecting social change in terms of burial practices, with a change from monumental burial earthworks to burials within a compound close to or within a settlement.

Agriculture and Subsistence

- 7.7.5 The supposed site of an Iron Age or Romano-British field system (Fig 13; RA 16) is reported by the NRHE but not the HER at on Claverton Down in the eastern part of the study area. The area has for many years been regularly ploughed and there are no visible remains of a field system (source NRHE).
- 7.7.6 Another possible Iron Age/Romano-British field system has been recorded at Amesbury Hill in the south of the study area, towards the middle (Fig 13; RA 6). The fields in which the site is located have been regularly worked, so the surviving evidence is now very slight.

Defence

- 7.7.7 Solsbury Hill Camp, a Scheduled Monument (no. BA62), (Fig 13; RA 13) is a univallate (single rampart) hillfort in the north-east of the study area. Flint implements were found on the surface by J Evans in 1866, and subsequent reports of surface finds from 1896 to 1904, included a spindle whorl, worked bone and horn and pottery sherds (some decorated), pieces of bronze, and numerous iron artefacts. The site was excavated in the 1950s, which recorded a 3ft-high single rampart faced with a dry-stone wall, with vestiges of a bank on the north. The inturned entrance on the north-western side was formed of two walls infilled with earth and loose stone. Small-scale quarrying has taken place all around the earthwork and the scarp has been cut into on the western side. After the collapse or probable destruction of the rampart, occupation continued until c 150 BC in stone

huts. The site was completely abandoned before the Roman period c 100–50 BC.

- 7.7.8 A possible hillfort has been identified to the south-west of North End Farm, north of Clutton towards the centre of the study area (Fig 13; RA 7). This has been identified from cropmarks on an aerial photograph (AP RAF. 1946. CPE-1869-4242).

Domestic

- 7.7.9 Archaeological excavations in 1934–6 uncovered an Iron Age occupation site to the west of Wood Lea and to the north of Radstock in the south of the study area (Fig 13; RA 8). This comprised a circular gully surrounding what was probably a wattle and daub hut with a central hearth and roof supported by an inner circle of posts. Finds included pottery, some of which was dated to the end of the 2nd century BC, human and animal bones, an ornamented spindle whorl, an iron dagger, bronze and bone needles and a quantity of daub with wattle imprints. The occupation site overlay an earlier Iron Age V-shaped ditch, which probably from part of a larger defensive enclosure. The ditch extended into Seven Acre Field and to the north of the field, on the opposite of the Fosse Way in the corner of Langlands Field.

Industrial

- 7.7.10 The archaeological investigations at Solsbury Hill Camp identified a small iron working area in the form of a small platform with evidence of ironworking and smelting in the north-west of the camp, probably within the defences (Fig 13; RA 9).

Religious, Ritual or Funerary

- 7.7.11 In 1902, investigations at Solsbury Hill Camp (Fig 13; RA 10) in the north-east of the study area, revealed a shallow cist enclosing two skeletons (Collins and Cantrill 1908, 284).

Transport

- 7.7.12 The NRHE includes a section of the Jurassic Way (Fig 13; RA 15) crossing the north-eastern part of the study area, and leading into Bath. The entry speculates that this served as a major natural transport / communications corridor between Yorkshire and Somerset throughout this period (and earlier; see para 7.6.13 above).

Unassigned

- 7.7.13 Bathampton Camp (Fig 13; RA 12) is a scheduled monument. The earthwork consists of a single scarp on the north and south, with an outer ditch on the west. The earth banks can be traced along the whole of northern, western and eastern sides, but the southern side is less clear. The bank and outer ditch was originally misidentified by Winwood in 1904–5 as being part of the Wansdyke. Winwood found human and animal remains, potsherds, iron ore and slag, flint scraper and flakes. The exact nature of the monument is uncertain. Its location suggests a defensive function, ie a hillfort, based on its strategic defensive position on the flat top of Bathampton Down, protected on three sides by naturally steep slopes with a level southern approach. EG Wainwright carried out a small excavation in 1965 and established the date of the earthwork as Early Iron Age. Wainwright believed it to be a stock enclosure. Others have interpreted it as early Iron Age univallate hillfort (possibly it served as both). Hut circles are shown on 19th-century survey plans. However, more recent archaeological excavations showed that the rampart encompassed some 80 acres, lacking internal buildings, which would seem to support the idea of a stock enclosure. The interior and enclosure banks are crossed by low banks, originally dry stone walls which create individual enclosures of 1 to 8 acres each. A 1924 air photograph shows a stone structure below the surface that resembles Romano-Celtic temple. The site is now part of Bathampton Down golf course.

- 7.7.14 Hayes Wood Enclosure is located at Freshford, in the south-east of the study area (Fig 13; RA 14). It is a roughly quadrilateral shaped enclosure, with rounded corners, an external bank and presumed single entrance on the east side. It was first recognised by Skinner in the 18th century. Trial excavations were conducted by Stone and Wicks in 1934. Four trenches were investigated, three across the ditch and bank and one in the interior. Dating is on the basis of pottery sherds found in ditch fill and within the interior. Romano-British pottery (grey ware predominantly) was found in association with a small quantity of early to late Iron Age sherds.
- 7.7.15 The HER records the location of an Iron Age/Roman enclosure which was no longer visible in 1981 (Fig 13: RA 11). The enclosure has been destroyed by the construction of the World War II RAF airfield of Charmy Down. The airfield is located approximately 3 miles (4.8 km) north-northeast of Bath. Opened in 1941, it was used by both the Royal Air Force and United States Army Air Force. During the war it was used primarily as night fighter interceptor airfield. After the war it was closed in 1945 and today the remains of the airfield are located on private property being used as agricultural fields.

7.8 Roman

Asset density

- 7.8.1 There are 33 known Roman assets, with an asset density of 2.14 assets per km². Their distribution is shown on Fig 14.
- 7.8.2 The asset density for this period category across the whole of the BANES Project Area is 0.09 per km², which is much lower than the density within Study Area 2.
- 7.8.3 The asset types comprise:
- Agriculture and Subsistence – 2 asset
 - Domestic - 4 assets
 - Findspots - 4 assets
 - Industrial - 1 asset
 - Religious, Ritual or Funerary - 7 assets
 - Transport - 10 assets
 - Unassigned – 5 assets
- 7.8.4 The resource assessment shows an increase in the number of assets, and although this is not a marked as compared to Study Area 1.

Agriculture and Subsistence

- 7.8.5 The supposed site of an Iron Age/Romano-British field system (Fig 13; RA 30) is reported by the NRHE at Claverton Down in the eastern part of the study area. The area has for many years been regularly ploughed and there are no visible remains of a field system (source NRHE) (added possible reference by BAT on Claverton Down).
- 7.8.6 Another possible Iron Age/Romano-British field system has been recorded at Amesbury Hill in the south of the study area towards the middle (Fig 14; RA 6). Like the above, the fields in which the site is located have been regularly worked, so the surviving evidence is now very slight.

Domestic

- 7.8.7 TS Bush excavated an open Romano-British settlement in open land east of Sir Bevil Grenville's monument, in the north-east of the study area, between 1904 and 1912 (Fig 14; RA 4). The area lies on the east spur of Lansdown and is defined on the north-east and south-east sides by the scarp approximating to the 200m contour. The investigations, which Bush referred to as the Lansdown Explorations,

revealed extensive remains of a number of Roman buildings spread over two fields. During the period of investigation Bush uncovered six Roman buildings which were extensively excavated. Finds included a great number of coins of the 3rd and 4th centuries. The western field has been regularly ploughed but also produced a dense concentration of Roman pottery. In the field to the east, pen-like earthworks were identified.

- 7.8.8 The presence of a Roman domestic site near Stowey Quarry, Bishops Sutton, in the west part of the study area (Fig 14; RA 3) is suggested by the finds recovered during fieldwalking in a field immediately to the south of the quarry in 2000. The finds span the whole of the Roman period and there are indications of stone buildings, roof materials and the possible western limits of the settlement. The size of the area and the spread of material indicate the presence of an extensive settlement.
- 7.8.9 The site of a Roman domestic site (Fig 14; RA 24) is suggested by finds of scored tile and a single tessera, observed by J.P.E. Falconer in 1927 on Claverton Down "about 300yds north of the barrow", which lies outside the study area. Roman pottery including Samian and New Forest ware was also found at this location and the site extended c 100m in diameter. Other finds include green glass and jet beads.
- 7.8.10 An occupation site (Fig 14; RA 2) has been identified at a disused quarry at Fox Hill (Fig 17; RA 51) in the south of the study area. The material was retrieved when the quarry was opened in the late 19th century. A circular pit was discovered by workmen in Kilmersden Quarry in 1898. It yielded much pottery, bronze implements (tweezers, armlet etc), a bar of lead, a bone pin and a coin. Burial evidence was found associated to the occupation site (see below). Nearby, V-shaped filled-in trenches may be part of a defensive system of which the nearby earthworks are part. Currently, however, there is no sign of the ditches or of any Romano-British material in the ploughed fields surrounding the quarry and nothing is visible in the quarry face. This asset primarily overlies Solid Aggregate but as a small section extends of Superficial Aggregate it has been included in the Study Area 1 (6.8.12).

Findspots

- 7.8.11 In 1953 a scatter of Roman pottery was found by a Mr Wedlake when a field, to the east of Stowey Quarry in the west of the study area, was ploughed (Fig 14; RA 5). No building debris was discovered and there are no significant surface features.
- 7.8.12 Six sherds of Romano-British pottery, oyster shell and some medieval pottery were found in a field along a footpath to the east of Newton St Loe, to the west of Bath, about 20m from the field entrance gate (Fig 14; RA 6).
- 7.8.13 During an archaeological investigation in 1934 of the encampment at Hayes Wood (Fig 14; RA 7) (see 7.7.14 above). Although the HER notes 'An isolated Romano-British cooking pot of 3rd Century AD was found during excavations in 1934 at the Iron Age enclosure' the full excavation report actually identified a range of Romano-British pottery sherds were recorded dating from the 1st through to the 3rd centuries AD (Stone and Wick, 1935)
- 7.8.14 A Roman coin, "probably of Maximinus", was found on a path through Bathampton Golf Course (see 7.7.13 above) near Green 5 found by a Mr Jacob, July 6th 1964 (Fig 14; RA 8). The coin was donated to Bath Museum.

Industrial

- 7.8.15 Excavations on the Lansdown spur in 1904–12 (see 7.8.7) and later in 1962–3, (Fig 14; RA 9) revealed evidence of iron smelting and several moulds and iron slag indicating industrial activity.

Religious, ritual or funerary

- 7.8.16 Roman stone coffins (Fig 14; RA 10) were noted by Skinner, near White Cross Farm

in Cheshills Field, Hallatrow, in the south of the study area.

- 7.8.17 A Roman stone coffin (Fig 14; RA 11), containing part of a male skeleton, was found during ploughing on Midford Hill Farm, in the south-east of the study area in 1917. According to the HER the field is now under pasture.
- 7.8.18 The archaeological excavations by Bush in 1904–12 on the Lansdown spur (see 7.8.7) revealed seven stone coffins (Fig 14; RA 16).
- 7.8.19 Two Roman coffins were found near Burnt house Turnpike Gate, Englishcombe east of Vernham Wood to the south-west of Bath in the north-east of the study area, in 1822 (Fig 14; RA 13).
- 7.8.20 In the 1930s, a Roman stone coffin (Fig 14; RA 13) was reportedly found close to a Saxon cemetery site (see Fig 15 RA 14, below) at the Camerton-Clandown crossroad, in the south of the study area (source: HER).
- 7.8.21 From 1869 onwards, human remains, associated with Roman coins, pottery, bronze articles etc, were recovered from Quarry Field on the high ground to the east of Home Farm and Newton St Loe village, to the west of Bath in the north-east of the study area (Fig 14; RA 12). The quarry has since been filled in.
- 7.8.22 Roman burials (Fig 14; RA 15) were found at the disused quarry at Fox Hill in the south of the study area (Fig 17; RA 50). Finds included Romano-British pot and three bronze fibulae. The burials are believed to be associated with an occupation site (7.8.10). Although this asset primarily overlies Solid Aggregate it has also been noted in Section 6.8.26 as some element of it extends over Superficial Aggregate. However, the HER record does not make clear exactly how much of the asset extends of the Study Area 1 geology.

Transport

- 7.8.23 The NRHE reports 10 Roman roads across Study Area 2. These have been incorporated into the HER as part of the project enhancement.
- 7.8.24 The roads are taken from Margary's study of Roman roads in Britain (Margary 1967). Some of the evidence for the roads is from archaeological investigation, air photographs and maps, but the exact course for most sections of the roads shown on Fig 7 is conjectural. The road descriptions from the NRHE and HER are summarised in the Table 9 below.

Table 9 Roman roads in Study Area 2

RA Number	Description	NRHE Number and Unique Identifier	HER Number
RA 26	Roman road running from Sea Mills to Hornblotton via Gatcombe.	LINEAR 243 1009123 (No 22)	
RA 28	Roman road running northward from Bath (Aquae Sulis) over Lansdown Hill to connect with the ancient Midland ridgeway known as the Jurassic Way. Margary (1967) Roman road no. RR 542	LINEAR 608 1325848 (No 24)	
RA 25	A possible Roman road running from Bath to Street. .	LINEAR 676 1326622 (No 21)	
RA 27	A possible Roman road running from Bristol to Bath.	LINEAR 671 1326595 (No 23)	
RA 29	Roman road from Bitton to the Mendip Hills (Compton Martin). Margary (1967) Roman road no. RR 540.	LINEAR 601 1325732 (No 25)	
RA 30	Possible Roman Road running from Bristol to Farrington Gurney. Margary (1967) Roman road no. RR 546.	LINEAR 706 1338304 (No 26)	
RA 31	Foss Way. Roman road running from Bath to Cirencester, extending for 29.5 miles, visible as an	LINEAR 537 1164946 (No	

RA Number	Description	NRHE Number and Unique Identifier	HER Number
	agger in places 33 feet wide and 4 feet high. Four sections of the road surface have been recorded from aerial photographs as cropmarks as part of the Cotswold Hills National Mapping Programme (1517244, 1417248, 1517252 and 1517256). Margary (1967) Roman road no. RR 5c.	27)	
RA 32	Foss Way. Roman road running from Silchester to Bath extending for 30 miles, surviving in places as an agger 8 feet high and 16 feet wide and on line with modern roads. Margary (1967) Roman road no. RR5b.	LINEAR 536 1164943 (No 28)	
RA 17	Stretch of Roman road which led from Bath to Poole Harbour and must have been an important trade route for the West Country. 720 yds. (677m) long, visible as two straight sunken ways.		MBN1626 (No 15)
RA 18	Stretch of Roman Road from Bannerdown, northwards.		MBN6055 (No 16)

7.8.25 It should be as these assets pass through areas of Superficial Geology they have also been included in the Study Area 1 (6.8.28).

Unassigned

- 7.8.26 In 1952, Wedlake carried out a number of exploratory archaeological evaluations in the south east of Longlands Field, on the north side of the A367 road, near Wood Lea, north of Radstock in the south of the study area (Fig 14: RA 19). The investigations followed excavations in 1934–6 on the opposite side of the road closer to Wood Lea which uncovered an Iron Age occupation site (Fig 13; RA 8). It is suggested that this may have been a temporary camp built immediately prior to the building of the Fosse Way, however, further investigations was not carried out. The excavation was across a series of small ditches, the filling of which contained part of a Roman brooch and pottery sherds, all of which dated to the 1st century AD. Nothing is now visible on aerial photographs and there are no surface features surviving.
- 7.8.27 In 1937 at Harris' quarry to the north of Farmborough in the centre of the study area, a pit was discovered (Fig 14: RA 20). A disturbed area about 6 feet wide & 2.5 feet deep was visible in the quarry face, with a band charcoal in it. It was subsequently investigated and found to contained animal bones, including antler, and Roman pottery. Its function was not discernible and was at one point argued to be a Roman kiln, but it was considered more likely to be either a refuse pit or ditch. The quarry is now disused and although the face is still exposed no archaeological material is visible. The pottery was apparently destroyed during the war.
- 7.8.28 The HER records the location of an Iron Age/Roman enclosure which was no longer visible in 1981 (Fig 14: RA 21). The enclosure has been destroyed by the construction of the World War II RAF airfield of Charmy Down. The airfield is located approximately 3 miles (4.8 km) north-northeast of Bath. Opened in 1941, it was used by both the Royal Air Force and United States Army Air Force. During the war it was used primarily as night fighter interceptor airfield. After the war it was closed in 1945 and today the remains of the airfield are located on private property being used as agricultural fields.
- 7.8.29 On Bannerdown, to the north-east of Batheaston in the north-east of the study area, an earthwork was shown and described as "camp". Colt Hoare in 1821 stated "On ... Banner Down... there are apparent vestiges of an old camp." (Fig 14: RA 22). Sections of the earthwork are still visible; it is 0.8m high and seems to be no more than a field boundary. Its south east side, complete and 50m long, is parallel to the line of the Fosse Way, which it seems to avoid. The north east side is traceable to the escarpment away from the Fosse. The south west side is traceable most of the

way to the escarpment, but nothing of the south east side could be seen. Dating is uncertain but probably Roman.

- 7.8.30 Another earthwork is noted on Bannerdown, to the north-east of Batheaston in the north-east of the study area (Fig 14: RA 33) and is either related to or possible is the camp discussed above in 7.8.29. Although heavily overgrown, it appears to be square, of about 30m per side, and lies alongside but not touching the Foss Way.

7.9 Saxon

Asset density

- 7.9.1 There are seven known Saxon assets, with an asset density of 0.45 assets per km². Their distribution is shown on Fig 15.
- 7.9.2 The asset density for this period category across the whole of the BANES Project Area is 0.02 per km², which is much lower than the density within Study Area 2.
- 7.9.3 The asset types comprise:
- Agriculture and Subsistence - 3 assets
 - Defence – 2 assets
 - Religious, Ritual or Funerary - 2 assets
- 7.9.4 The number of Saxon assets in Study Area 2 has declined markedly from the Roman period, along with the range in asset type. As noted in the Saxon period for Study Area 1 (see para 6.9.4), this might reflect social and cultural change but it is more likely that it is a result of the ephemeral nature of the material remains and difficulties in correct identification during archaeological investigation.
- 7.9.5 In more recent years, the understanding of the Saxon period has grown due to more focus investigations, although such projects have been outside either Study area. For example, a large scale research and rescue investigation was undertaken on the Domesday site of Eckweek (HER MBN2296), immediately east of Peasedown St John, and about 2.7km west of the Wellow Brook as it flows through Wellow. Eckweek was targeted for excavation as a result of the construction of the Peasedown bypass (now part of the A367) due to its relatively good survival potential. Excavation demonstrated extensive and high-quality archaeological survival of four farmsteads, comprising eight buildings in total, of late Anglo-Saxon and early post-Conquest date, perhaps with Roman antecedents. In this particular and rare instance, it may well prove possible, precisely because the site has been excavated, to link Domesday Book and later documentary evidence directly to the occupation site.

Agriculture and Subsistence

- 7.9.6 The HER identifies a Saxon field system close to the north-western boundary of the study area at North Wick (Fig 15; RA 4), Elton Farm (RA 5), and Nempnett Thrubwell (RA 66). These comprise small irregular fields created from piecemeal enclosure, with deep lanes and mature hedges. Convertible husbandry (the system where the distinction between permanent arable and permanent grass is broken, ie arable land rotates around the farm (Overton 1996, 116-7) was probably practised in these areas.

Defence

- 7.9.7 The HER records two possible sections of the Wansdyke earthwork.
- 7.9.8 A 400m-long section of earthwork is recorded by the HER within the southern edge of Vernham Wood, near Odd Down to the southwest of Bath (Fig 15, RA 3). It is difficult to see on the ground as the area is heavily wooded and has been affected by large scale fuller's earth mining. There are two or three terraces or footpaths parallel to the southern boundary of Vernham Wood, running along the contours, and

in places it could be possible to consider these as the bank and ditch and so identification with the Wansdyke would be very difficult.

- 7.9.9 The HER records a straight 1300m-long stretch of an earthwork bank formerly used as the parish boundary between Lyncombe and Widcombe and South Stoke (Fig 15, RA 7). The top of the bank is now a public footpath and on the north side are new council housing estates, the gardens of which have cut into the ditch adjacent the north side of the bank. In other locations along this stretch various developments, such as playing parks, school playing fields etc, and there is now nothing left of the ditch. Elsewhere the monument is overgrown and not threatened any further.

Religious, ritual or funerary

- 7.9.10 An Anglo-Saxon Cemetery (Fig 15; RA 1) was discovered in 1926 during quarrying operations in the north-west corner of the Camerton-Clandown crossroad. Excavations commenced and continued until 1932, and uncovered 109 shallow graves with 115 skeletons, orientated east-west, suggesting a Christian cemetery. Finds included blue glass beads (5th–early 6th century), 28 iron knives (some with traces of wood or bone handles), a bone comb, a small pair of spears, six Roman coins and three bronze discs of hanging bowl type. A gilt bracteate, the glass bezel of a ring and several silver rings were found some years before the excavation.
- 7.9.11 In 1922, a Saxon burial (Fig 15; RA 2) was uncovered east of Elm Farm, Burnett. Grave goods comprised a 6th or 7th-century Saxon gold pendant with some beads which crumbled on exposure and a few fragments of bone on the surface of recently moved earth by the side of the new road at Burnett about 100 yds. south of the crossroads.

7.10 Medieval

Asset density

- 7.10.1 There are 57 medieval assets, with an asset density of 3.69 assets per km². Their distribution is shown on Fig 16.
- 7.10.2 The asset density for this period category across the whole of the BANES Project Area is 0.16 per km², which is much lower than the density within Study Area 2.
- 7.10.3 The asset types comprise:
- Agriculture and Subsistence - 45 assets
 - Domestic - 4 assets
 - Findspot – 1 asset
 - Industrial - 3 assets
 - Religious, Ritual or Funerary - 3 assets
 - Unassigned – 1 asset
- 7.10.4 The majority of assets are from documentary references, with the greater part of these denoting areas of ancient woodland. The lack of assets recovered from archaeological investigation limits current understanding in respect of the chronological development of this period across the study area.

Agriculture and Subsistence

- 7.10.5 There are 45 known assets in this category, including 31 areas of ancient woodland, potentially of medieval origin. Several field systems have been identified from earthworks or through place name evidence, such as the field systems at Down Farm in the north-east part of the study area (Fig 16; RA 5), the Nimblett Fields at Whitecross, in the south-west part of the study area (Fig 16; RA 6), and the fields at Little Solsbury within Solsbury hillfort, also in the north-east part of the study area

(Fig 16; RA 1). The latter is a good example of how medieval stripfields used small stones marking the terminal points. The medieval strips of land within the enclosure are marked by a number of boundary stones, some inscribed with the initials of the holders.

- 7.10.6 The category includes rabbit warrens and pillow mounds (rectangular or circular earthwork, usually flat-topped, with a shallow surrounding ditch constructed as a habitation and breeding place for rabbits or hares). At Bathampton Warren, east of Bath (Fig 16; RA 4), ten mounds were discovered and partially excavated by Skinner in the early 19th century. Two possible pillow mounds (Fig 16; RAs 2 and 3) are reported by the HER to the west of Peipards Farm, in the south-east part of the study area.

Domestic

- 7.10.7 At Norton Hawkfield, in the northern part of the study area, earthworks and building platforms of the shrunken settlement (Fig 16; RA 7) lie to the west of the road. Two mill sites (Fig 16; RA 10 and 11) have also been discovered (Williams 1982). A free chapel (Fig 16; RA 13) within the settlement is discussed in para 6.10.25 below, together with the religious assets.
- 7.10.8 Earthworks and low stone walls on the south side of the A368 road towards the centre of the study area are the remains of roadside cottages (Fig 16; RA 8).
- 7.10.9 Earthworks of medieval settlement (Fig 16; RA 56) in the form of a west-east holloway with two house platforms on north side, and an enclosure to the south, have been identified at Norton Radstock in the south-east part of the study area.
- 7.10.10 At Peipard's Farm, in the south part of the study area, earthworks of possible medieval crofts and trackways associated with the deserted village of Woodwick were first identified in 1940 (Fig 16; RA 50). The village was served by a church and mills (discussed below). The rectangular fields here are bounded by lynchets and a scatter of stones. Woodwick is recorded in Domesday Book as *Undewiche*. It was relatively small and possibly shared a mill with Freshford.

Findspot

- 7.10.11 Several sherds of medieval pottery were found in a field along a footpath to the east of Newton St Loe, to the west of Bath, about 20m from the field entrance gate (Fig 16; RA 9).

Industrial

- 7.10.12 A medieval or post-medieval limestone quarry or extractive pit (Fig 16; RA 57) is reported by the NRHE at West Harptree in the south-west part of the study area. It is visible as earthworks on aerial photographs as rough, uneven ground.
- 7.10.13 Two mills (Fig 16: RAs 10 and 11) are recorded as part of the medieval earthworks that comprise the site of the medieval village of Norton Hawkfield (Fig 16: RA 7).

Religious, Ritual, or Funerary

- 7.10.14 The deserted medieval village at Peipard's Farm, in the south-east part of the study area, discussed above, included a church (Fig 16; RA 14). The field here is known as Little Church Poles and the field to the north as Great Church Poles. In the reign of Henry III (1216–72) there is reference to 'the road leading to Wodewych Church', which in the 14th century was held by a monk of Bath Priory (Peter Davenport pers. comm.).
- 7.10.15 A free chapel was built at Norton Hawkfield in around 1332 and was possibly demolished at the suppression of the chantries (Fig 16; RA 12). The Ordnance Survey notes the possible chapel site in a field that is now currently under pasture. There are no surface remains.

- 7.10.16 The 1611 perambulation of Widcombe runs ‘...along the Common way to the cross (ad crucem) called Whitecross...’ indicating that a medieval stone cross was still standing at the time (Fig 16; RA 13). It is not shown on any maps, and nothing of it appears to survive today.

Unassigned

- 7.10.17 The HER records a group of earthworks on the south side of road at Breach Hill on the west of the study area (Fig 16; RA 15). There are ponds and various amorphous earthworks. They may be elements of a deserted or shrunken medieval settlement or they could be the results of some post-medieval extraction activity and be mining spoil and the resulting mounds and ponds.

7.11 Post-medieval period

Asset density

- 7.11.1 There are 121 known post-medieval assets, with an asset density of 7.84 assets per km². Their distribution is shown on Fig 17.
- 7.11.2 The asset density for this period category across the whole of the BANES Project Area is 0.35 per km², which is much lower than the density within Study Area 2.
- 7.11.3 The asset types comprise:
- Agriculture and Subsistence - 43 assets
 - Defence - 1 asset
 - Domestic – 4 assets
 - Gardens, Parks and Urban Spaces – 4 assets
 - Industrial - 55 assets
 - Religious, Ritual and Funerary – 1 asset
 - Transport - 11 assets
 - Unassigned – 2 assets
 - Water Supply and Drainage – 1 asset
- 7.11.4 The resource assessment shows a substantial increase in the number of assets from the medieval period. The majority are either identified from documentary sources or are standing structures or extant ancient woodland.

Agriculture and Subsistence

- 7.11.5 There are 43 known assets within this category, which represents just over a third of all assets for this period (35%). Just over three-quarters of all the Agriculture and Subsistence (76%) relate to ancient woodland that survives into this period. Under a quarter of the assets of this group (22%) relate to evidence of agricultural activity, e.g. post-medieval ridge and furrow, which would appear to reflect the shift away from agriculture to industry during the latter part of this period.

Defence

- 7.11.6 The site of the Civil War Battle of Lansdown (Fig 17; RA 41) is located on Lansdown Hill, above Bath. Parliamentary forces under Sir William Waller met Royalist forces under Sir Ralph Hopton on the 5th of June 1643. It was an indecisive battle, although Sir Bevil Grenville, the commander of the Royalist Infantry, was killed.

Domestic

- 7.11.7 The HER records the location of a building in present use but which was probably built in the 17th century (Fig 17; RA 39). The building is presently unlisted.
- 7.11.8 At a quarry in Ubley Wood, on the western boundary of the study area, to the south-

west of Chew Lake, a bank to the west encloses a slightly levelled area, on which stands the west part of a rectangular structure (Fig 17; RA 40). It is uncertain whether the structure is related to the quarry but has been dated to the post-medieval period.

- 7.11.9 The HER has the record of an earth platform or scarp lying in the angle of the junction between Mill Lane, near Priston Mill cottages, and the way to Marksbury, overlooking Conygre Brook in the centre of the study area (Fig 17; RA 41). The top of the platform has been used for the storage of silage, and has been a dump for earth and rubble. The HER notes that James Thorpe's map of the Bath area (1742) shows a building at this junction, although map suggests that it could have been on the other side of the road. The building last appears on Day and Masters map of 1782.
- 7.11.10 The HER records a site alongside the A39 turnpike road at Hobb's Wall near Farmborough towards the centre of the study area, which appears to be of Post Medieval origin and is possibly related to quarrying (Fig 17; RA 42).

Gardens, Parks and Urban Spaces

- 7.11.11 The HER records the location of a ring of tree laid out to design by Sir Henry Strachey in the 1780s (Fig 17; RA43) in the west of the study area.
- 7.11.12 Towards the centre of the study area is located the ornamental park that was once the grounds of Hunstrete House, built in 1820 (Fig 17; RA 44). The house and grounds became disassociated and the area broken up. The Avon Historic Landscape Characterisation Survey, carried out in 1995 re-identified the area.
- 7.11.13 In the north east part of the study area, north of Bath, was the pleasure ground and ride created by William Beckford and Henry Edmund Goodridge in 1825-27 (Fig 17; RA 110). The ride extended for 2.4 kilometres and linked Beckford's garden at Lansdown Crescent and the pleasure ground which contained the folly, Beckford's Tower, a retreat and belvedere designed by Goodridge in 1827. The grounds were consecrated as a cemetery in 1848 (Fig 17; RA 93).

Industrial

- 7.11.14 The Combe Down complex is part of the City of Bath World Heritage Site and largely falls just outside of Study Area 2, although there are a number of adjacent quarries which do fall within the study area, and which are included in the assessment. These comprise Kingham Field quarry, Shaft Quarry and Mount Pleasant Quarry.
- 7.11.15 Kingham Field quarry (Fig 17; RA 56) was opened in 1813 by William Smith. The quarry was abandoned by 1819, possibly as early as 1814. The quarry comprises an open 30–40ft deep pit with an underground section extending northwards beneath the quarry waste tip, accessed from an entrance of un-mortared freestone blocks. The quarry was connected to the Somerset Coal Canal by a railway. The HER reports that "this quarry is of exceptional interest because of its association with William Smith and because it can be precisely dated, at the time of compiling it is the oldest accessible rail-connected Bath stone quarry".
- 7.11.16 Shaft Quarry is an underground Bath Stone quarry (Fig 17; RA 57) entered by a slope shaft in the garden of 'Greystones' on Shaft Road. It opened in 1850–75 and closed in the 1930s. In 1984, part of the quarry collapsed under Shaft Road and the adjacent Rugby ground.
- 7.11.17 The Mount Pleasant Quarry (Fig 17; RA 58) is an underground and open Bath Stone quarry.
- 7.11.18 Quarries elsewhere in the study area include an 18th-century quarry near Camerton Farm (Fig 17; RA 48). The quarry excavations truncated Iron Age enclosures identified by Wedlake in 1931, at which time the quarry had long since been abandoned and was overgrown with trees. Freshford Quarry, an underground Bath

Stone quarry (Fig 17; RA 60 and 61), was opened by Marsh, Son and Gibbs around 1889. A tramway is extant as well as much of the quarry equipment including three trolleys, four face cranes, and numerous tools and lamps. The quarry closed in 1940. According to the HER, this is “the only abandoned Bath Stone quarry to retain nearly all its working equipment” (Pollard 1984). Bathford Hill Limestone Quarries (Fig 17; RA 114) are located along the outcrop of the Great Oolitic Limestone on the West facing scarp of Bathford Hill, in the east part of the study area. Quarrying was largely underground with entries in the bases of the extant preliminary working face. The mines, which operated in the 18th and 19th centuries, were owned by Randell and Saunders during the 19th century. Most of the mine entrances have now been blocked.

- 7.11.19 Industrial assets represents the largest group of post-medieval assets, c 44% of the total post-medieval assets, which, alongside the lower proportion of Agriculture and Subsistence assets points to the general shift away from an agricultural economy that took place in the 18th and 19th centuries. Apart from a small number of assets which relate to spoil dumps, all the industrial assets refer to quarries of some sort; the majority being lime or hard stone quarries (73% of Industrial Assets) with collieries representing only 18% of Industrial Assets. The more notable quarry sites are; one south of Tudor Farm in East Harptree, in the southwest of the study area (Fig 17; RA 85); a quarry south-west of Conygre Farm (Fig 17; RA 92; discussed earlier); a quarry north-west of Hartley Farm beside the Gloucester Road, in the north-eastern part of the study area (Fig 17; RA 82). Kilmersden Quarry Fox Hills at Norton Radstock in the southern part of the study area (Fig 17; RA 46). The quarry opened in the late 19th century, and a Roman occupation site (Fig 14; RA 2) was discovered. Claverton Down Quarry (Fig 17; RA 45) was a large quarry, but has been converted into a caravan park (Whitaker R, 2000. Bathampton and Claverton Downs, Bath).
- 7.11.20 There are earthwork remains visible on air photographs of a post-medieval limestone quarry and associated spoil heap at Nempnett Thrubwell, in the west part of the study area (Fig 17; RA 116 and 117). The quarry is likely to have been dug to extract White and Blue lias limestone. Although it is suggested that these may be medieval in origin, given the material extracted it is unlikely.

Religious, Ritual and Funerary

- 7.11.21 The HER notes the location of Lansdown Cemetery, a Nationally Registered Park or Garden (No 1550) (Fig 17; RA 110). The land was originally donated by Beckford's daughter in 1847 to the rector of Walcot, who used the area as a parish cemetery. Beckford's own tomb was relocated to here in 1848. The entrance gates and walls were designed by H E Goodridge and are Grade I listed (Listed Entry no 1394446).

Transport

- 7.11.22 The Somerset Coal Canal (Fig 17; RA 119) was authorised by Parliament to transport coal from north Somerset coalfields. It opened in 1805 and comprised two branches - the main one along the Cam valley from Timsbury Landing to join Kennet and Avon, the other along Wellow valley. This was only partly completed and a tramway was laid. The canal was bought by the Great Western Railway in 1904.
- 7.11.23 The Somerset & Dorset Railway (Fig 17; RA 120) opened in 1854. The only major branch line built was that to Bath, the dream of a Bristol link having been baulked. In 1870. a bill for extending the line from Evercreech Junction to Bath was passed, and work commenced in 1872. Part of the Somerset Coal Canal Tramway between Radstock and Midford was purchased and formed part of the route, which opened to passengers in 1874. The line has been dismantled.
- 7.11.24 The Bristol and North Somerset Railway (Fig 17; RA 118) opened in 1873 from Bristol to Radstock to serve the collieries of the North Somerset coalfield. From 1959, the line was only used for minerals transportation and passenger traffic

cease. The line closed shortly after 1966 and the line was dismantled.

- 7.11.25 Camerton and Limpley Stoke branch line (Fig 17; RA 121) comprised 3 and 1/4 miles of track between Hallatrow and Camerton and was opened in 1882 as a branch of the Bristol and North Somerset Railway. It was extended to Dunkerton Colliery in 1907, and completed to Limpley Stoke on the Bradford and Bathampton branch line in 1910. Part of the 20th-century works used the Somersetshire Coal Canal route. Primarily built as a mineral railway for the local coalfields, passenger traffic was not economical and the passenger service was withdrawn in 1915. It was restored under local pressure in 1923, but again withdrawn in 1925. The Dunkerton Colliery closed in 1950 and Camerton followed shortly later. The last general goods train ran in 1951. The track was dismantled in 1958.

Unassigned

- 7.11.26 According to the HER, a set of 'remarkable and complicated' earthworks with remains of an old trackway are visible in the field beyond Park Farm towards the centre of the study area (Fig 17; RA 101). The "earthworks" illustrated by Burrow and Major are thought however to comprise of natural scarps and the remains of a post-medieval field system.
- 7.11.27 The HER records a group of earthworks on the south side of road at Breach Hill on the west of the study area (Fig 17; RA 102). There are ponds and various amorphous earthworks. They may be elements of a deserted or shrunken medieval settlement or they could be the results of some post-medieval extraction activity and be mining spoil and the resulting mounds and ponds.

Water Supply and Drainage

- 7.11.28 The HER notes the location of a well in the north-east of the study area, which although now covered by a concrete slab top, was recorded on the 1904 Ordnance Survey map of 1:2500 scale (Fig 17; RA 103).

7.12 Modern

Asset density

- 7.12.1 There are 17 recorded Modern assets, with an asset density of 1.10 assets per km². Their distribution is shown on Fig 18.
- 7.12.2 The asset density for this period category across the whole of the BANES Project Area is 0.05 per km², which is much lower than the density within Study Area 2.
- 7.12.3 The asset types comprise:
- Communications – 1 asset
 - Defence - 13 assets
 - Health and Welfare – 1 asset
 - Industrial – 1 assets
 - Transport – 1 assets
- 7.12.4 The resource assessment shows that there has been a decline in the asset density. The reasons for this are the same as those for Study Area 1, as detailed in Section 6.12.4.

Communication

- 7.12.5 The HER records the location of a K6 telephone booth (Fig 18; RA 5) in Burnett in the north of the study area. The K6 was designed by Giles Gilbert Scott in 1935 for the General Post Office, on the occasion of King George V's Silver Jubilee. The K6 was a development from his earlier highly successful K2 telephone kiosk design of 1924, of Neo-classical inspiration. The K6 was more streamlined aesthetically, more

compact and more cost-effective to mass produce.

Defence

- 7.12.6 This category is the largest group within the Modern period in Study Area 2, representing 76% of the total of Modern assets. The category primarily comprises assets that relate to the Second World War. This category, like many from this period (6.12.4) is under-represented.
- 7.12.7 Hog Wood Defence Area 32, in the south-east part of the study area, has been studied as part of the Defence of Britain Survey (2002). The area is bordered to the west by the B3110 road and to the east by the main A36 road, both running to Bath. The defences were part of the General Head Quarters Line Green which formed a loop around the Bristol area and served as the outer defence against attack from the south. The survey notes: “the most remarkable features of this defence area are the lengths of unfilled anti-tank ditch running at the edge of Hog Wood”. Some of the trenches have been back-filled but many are still visible. They include: an anti-tank ditch (Fig 18; RA 7) extending from the eastern side of Hog Wood constructed in 1940-41 and infilled sometime between 1946–1950; an anti-tank ditch (Fig 18; RA 15) along the southern boundary of Hog Wood and, in a report of 1999, parts of the ditch were described as extant; an anti-tank ditch (Fig 18; RA 14) identified from aerial photographs, running from the southern end of Hang Wood across the B3110 east to Hog Wood. Another anti-tank ditch (Fig 18; RA 13) extended from the eastern side of Hog Wood to east of the A36 road. The ditch was infilled sometime in 1946–1950. Also preserved within Hog Wood are an elaborate series of slit trenches running parallel with the eastern margins of the wood. The trenches (Fig 18; RA 16) supplied flanking fire to any crossing of the GHQ Line Green. A field visit in 1998 found the earthworks extant and in a fair condition (source: NRHE). Set at intervals along the anti-tank ditch, and within Hog Wood at its sharp-angled turns, are a number of infantry pillboxes (e.g. Fig 18; RAs 12, 10 and 8). These are primarily brick-shuttered hexagonal type 24s, but square type 26s were also constructed in this sector of the Line, of which one example survives at the south-west corner of the wood. The pillboxes are all overgrown, but there is no evidence of vandalism. According to the survey, this “fossilised defence landscape” is an “area is of major importance because of the preservation within Hog Wood of the earthwork elements of a Second World War stop line”.
- 7.12.8 Other Second World War defences include a shell-proof type 24 pillbox at Midford Hill, part of the GHQ Line Green east of the B3110 road, in the south-east part of the study area (Fig 18; RA 6). A Second World War auxiliary unit operational base is located in a hollow near the junction of footpaths near Claverton Manor in Bathampton Woods, in the north-east part of the study area (Fig 18; RA 11). The structure dates to 1940 and comprises corrugated iron, concrete and wood, and situated within old quarry tunnels, with its entrance in the side of Bath stone quarry.
- 7.12.9 The site of a Royal Observer Corps monitoring post located in the Fox Hills area of Radstock (Fig 18; RA 9), west of Church Street, overlies aggregates from both Study Areas and has been discussed in Section 6.12.7 (Fig 11; RA57).
- 7.12.10 Another Royal Observer Corps monitoring post (Fig 18; RA 17) was opened November 1961 as a part of an extensive network of posts designed to confirm and report hostile aircraft and nuclear attacks on the United Kingdom. It remained in use until September 1991 when it was closed. At the time of the Defence of Britain survey the site was found to be in a good condition. It is located underground, with its associated surface features, on the south side of a field boundary, 10 yards east of a public footpath running 150 yards north from an un-named minor road. According to the HER all surface features remain intact with the green paint in good condition.

Health and Welfare

- 7.12.11 A single Health and Welfare asset is recorded for the modern period towards the south of the study area (Fig 18; RA 2) at Upper Tunnel Farm. However, the location given for this Hospital appears incorrect as there is no such structure recorded on the any 20th century Ordnance Survey map. Apparently it was built between 1932 and 1952 and relates to the Combe Park Hospital but this lays c 6km to the north of the asset.

Industrial

- 7.12.12 A single industrial asset is noted for the Modern period. This is the abandoned Bath Stone quarry of St Winifred's Quarry, about 1 acre in extent (Fig 18; RA 3), at the entrance to the Combe Down Quarries complex (7.11.14).

Transport

- 7.12.13 One transport asset has been recorded for this period in Study Area 2. This is the Dunkerton Colliery Halt railway station on the Camberton and Limley Stoke branch line (see above) opened in October 1911 to serve new colliery, although it also served passenger traffic (Fig 18; RA 4). It closed to passengers in 1915, although forced by local pressure to reopen 1923. However, due to limited passenger traffic it was closed entirely to passengers in 1925.

7.13 Unknown Date (700,000 to Modern)

- 7.13.1 There are 16 assets of unknown date within the study area, an asset density of 0.80 per km². The asset density for this period category across the whole of the BANES Project Area is 0.05 per km², which is much lower than the density within Study Area 1.
- 7.13.2 Undated assets have insufficient information on the HER to assign to a specific period. The potential date range is from the early prehistoric period to the modern period. The group includes a number of possible sub-surface archaeological features visible as cropmarks on air photographs. The gravel geology is conducive to the formation of cropmarks, which are dependent on variations in moisture conditions caused by subsurface features. Cropmarks can be a valuable method of identifying areas of archaeological potential within possible gravel extraction sites, although site-specific investigation on the ground is often necessary in order to determine the nature, date, survival and significance of the remains.

8 Research Strategy & Agenda

8.1 Introduction

- 8.1.1 Both study areas for this project have the potential to contribute to local, regional and national research strategies, despite the difficulty in identifying distributions or patterns of human activity in the minerals producing areas, primarily a consequence of the nature of the archaeological record, which has evolved over many years from chance discoveries and a wide range of archaeological projects covering differing areas and with different methodologies.
- 8.1.2 Bath and North East Somerset itself is a modern administrative unit and has no spatial meaning in terms of past human activity and the historic environment, but is nevertheless encompassed within a broader research framework for the area, comprising the *South West Archaeological Research Framework* (SWARF). The sections below outline the research priorities of this framework, which are both topic-based and period-based. The first two parts of SWARF were published as *The Archaeology of South West England* in 2007 (Webster CJ (ed.) 2007). At the time of writing, the third, strategy, phase was being finalised.

8.2 South West Archaeological Research Framework

- 8.2.1 The SWARF project is a part English Heritage funded collaborative project which has involved academics, local authority archaeologists, local societies, the Council for British Archaeology and others. The aim of the project is to produce a research framework for South West England that will provide an academic basis for undertaking work, either as a result of development-related operations or to underpin future project research designs. The three phases of the project comprise resource assessment, which reviews current knowledge and understanding of the historic environment; research agenda, which identifies of the gaps in knowledge and potential research topics; and research strategy, which prioritises research objectives.
- 8.2.2 The SWARF research aims include the need for improved methodologies in addition to addressing questions about the past itself. It identifies the need for synthetic studies for most periods, building on the work on the Iron Age by Barry Cunliffe, and the national synthesis of “grey literature” for the Mesolithic/Neolithic transition to the Iron Age undertaken by Richard Bradley (SWARF 2007, 271).
- 8.2.3 The SWARF identifies over 60 research aims under five main themes, tabulated below. The rest of this section draws on the SWARF research aims (RAs) and outlines those which the present study has the potential to contribute.

Table 9: SWARF research aims

Research Aim (RA)	Theme description
Theme: Methodology	
RA 1	Extend the use of proven methodologies for site location and interpretation, and encourage the development of new techniques.
RA 2	Encourage works of synthesis within and across periods, settlements, monuments and areas.
RA 3	Address apparent “gaps” in our knowledge and assess whether they are meaningful or simply biases in current knowledge.
RA 4	Encourage wide involvement in archaeological research and present modern accounts of the past to the public.
RA 5	Encourage the study of artefact scatters using innovative methodologies both in the field and on previous collections.
RA 6	Encourage the accurate reporting and identification of metal-detected items in ways that

Research Aim (RA)	Theme description
	benefit archaeological research as a whole.
RA 7	Increase and develop the recording of the built environment and improve the recording of archaeological collections and other information sources.
RA 8	Utilise the survival of Medieval and later artefacts and buildings to their full extent.
RA 9	Prioritise a recording strategy for buildings related to Post-Medieval to Modern social provision.
RA 10	Address our lack of understanding of key transitional periods.
RA 11	Improve knowledge and study of under-utilised museum collections.
RA 12	Improve access to, and synthesis of, "Grey Literature".
RA 13	Identify and bring to publication key unpublished excavations.
RA 14	Widen our understanding of Later Bronze Age and Iron Age material culture
RA 15	Use innovative techniques and methodologies to ask sophisticated questions of Post-Medieval to Modern artefacts and buildings.
Theme: Science	
RA 16	Increase the use and improve the targeting scientific dating
RA 17	Improve the quality and quantity of environmental data and our understanding of what it represents.
RA 18	Target specific soil and sediment contexts for environmental information.
RA 19	Improve our understanding of wild and domestic animals in the past.
RA 20	Improve our understanding of wild and cultivated plants in the past.
RA 21	Improve our understanding of the environmental aspects of farming.
RA 22	Improve our understanding of insect faunas and what they can tell us about past environments.
RA 23	Improve our understanding of past climate and sea level changes together with their effects on people's relationships with landscapes and the sea.
RA 24	Improve our understanding of Pleistocene vertebrate faunas.
RA 25	Improve our understanding of Palaeolithic and Mesolithic landscapes.
RA 26	Investigate the changes in landscape and population at the end of the Roman period.
RA 27	Investigate the origins of free-threshing wheat
Theme: Settlement	
RA 28	Improve our understanding of Neolithic settlements and landscapes.
RA 29	Improve our understanding of non-villa Roman rural settlement.
RA 30	Develop and test methodologies to identify Early Medieval rural settlement.
RA 31	Address the long-running debates about Early Medieval landscapes and territories.
RA 32	Investigate and identify the locations of Early Medieval religious buildings, monuments and landscapes.
RA 33	Widen our understanding of the origins of villages.
RA 34	Improve our understanding of early Roman urban settlement.
RA 35	Develop our understanding of Early Medieval urban settlement
RA 36	Improve our understanding of Medieval and later urbanism
Theme: Production and Trade	
RA 37	Increase our knowledge of maritime archaeological sites.
RA 38	Widen our understanding of the extraction, processing and transportation of minerals, stone and aggregates.
RA 39	Understand better the relationships of Neolithic and Bronze Age people to plants and animals.
RA 40	Improve our understanding of agricultural intensification and diversification in later prehistory.
RA 41	Assess the impact of the Roman empire on farming.
RA 42	Improve our understanding of Medieval farming.
RA 43	Address the lack of knowledge of Post-Medieval to Modern food production.
RA 44	Develop an understanding and identification of Early Medieval technologies.
RA 45	Broaden our understanding of Post-Medieval to Modern technology and production.
RA 46	Assess the information for Roman ports.
RA 47	Assess the archaeological potential for studying Medieval economy, trade, technology and production.
RA 48	Widen our understanding of Post-Medieval and Modern transport and communications.

Research Aim (RA)	Theme description
Theme: Social Relations	
RA 49	Improve our knowledge of Neolithic and Early Bronze Age social life.
RA 50	Improve understanding of the effects of the Roman army on the local population.
RA 51	Utilise the high-quality evidence from the region to investigate Early Medieval ethnicities and identities.
RA 52	Use archaeological evidence to better understand identities, such as Cornish, through time.
RA 53	Increase our knowledge of the effects of colonialism on the region and the wider world
RA 54	Widen our understanding of monumentality in the Neolithic and Early Bronze Age.
RA 55	Improve our understanding of later Roman religion.
RA 56	Utilise surviving buildings and records to understand liturgical and social change in Post-Medieval to Modern places of worship and cemeteries.
RA 57	Widen our understanding of Neolithic and Early Bronze Age mortuary practice.
RA 58	Widen our understanding of Roman burial traditions.
RA 59	Utilise the potential for good evidence from Early Medieval burials to address research questions.
RA 60	Use the excavation of Medieval and Post-Medieval burials to study wider population and social issues.
RA 61	Address the lack of knowledge of Neolithic and Early Bronze Age conflict.
RA 62	Examine the evidence for Early Medieval defence and conflict sites across the region.
RA 63	Deepen our understanding of Medieval and later defence and conflict sites.
RA 64	Improve our understanding of the less-researched areas of Post-Medieval to Modern defence and warfare.

8.3 Research priorities

8.3.1 The following discussion of relevant research priorities has been developed in consideration of the results of the present project, and takes into account the SWARF research agenda. The priorities are divided into two distinct themes; non-period based research topics and period-based research topics. The former identifies research into existing data along with the usefulness of different techniques for investigation on the mineral geologies, which could have a positive impact upon the understanding of multiple periods across the whole South West. The later identifies a number of research priorities regarding the nature and distribution of past human activity, which pertain to the areas of minerals resource and which are of national, regional and local interest.

Non-period based research

Data re-assessment of selected assets

8.3.2 A large proportion of the assets within the BANES study areas were initially identified and excavated by antiquarian researchers. Despite the good quality of many of these investigations, some assets remain undated while others require re-assessment in view of modern developments in artefact typologies and developments in scientific dating. Such re-assessment could also be applied to archaeological excavations from the second half of the 20th century, as many have also not benefited from such developments. The SWARF includes several overarching research aims relating to enhancing the archaeological records, and this research topic would concord with SWARF Research Aims RA 1, 2, and 13.

Synthesis and Backlogs

8.3.3 Similarly to the rest of the South West region, BANES lacks works of synthesis within and across periods, settlements, monuments and areas. Such a synthesis, which should include a review of “Grey Literature”, would address apparent “gaps” in our knowledge of the archaeology of BANES, and assess whether they are meaningful or simply biases in current knowledge. This work would include

identifying and bringing to publication key unpublished excavations (“Backlogs”). Whilst the present study includes a brief overview of the entire HER dataset for BANES in terms of the spatial distribution of assets by period, a detailed chronological synthesis across the region would provide a more comprehensive baseline in which to compare the findings of the present study.

- 8.3.4 The extraction of aggregates has been responsible for the identification and recording of a number of heritage assets within BANES. These include those sites and finds recorded by interested antiquarians and those excavated by professional or voluntary archaeological groups in more recent times. In particular, much of the known Palaeolithic and Mesolithic material was recovered as a direct result of aggregates extraction. In many cases these past excavations and discoveries have been inadequately disseminated, either because of their age or as a result of the backlog in the publication of results by archaeological units or voluntary groups. In many cases the currently inaccessible information could transform our understanding of the Historic Environment, particularly in aggregates extraction areas.
- 8.3.5 A Backlogs project would seek to identify any archaeological investigation resulting from aggregate extraction and quantify its present status with regard to the completion of the investigation and the level of dissemination. This would reveal further information about the nature of past archaeological investigations and the type of archaeological remains likely to be encountered in aggregates extraction sites in BANES. It would also allow a strategy to be formulated in order to unlock the potential of incomplete or inadequately disseminated past investigations and projects. In order to achieve this, the backlogs project would include a search of relevant publications and consultations with curators and local community and archaeological groups to identify as far as possible any archaeological investigation resulting from aggregates extraction. The search would seek to identify where investigations have been completed and whether they are adequately disseminated.

Aerial Survey

- 8.3.6 The NMP currently covers the Mendip Hills in the western part of BANES, although it has not been incorporated into the BANES HER. A research priority would be to incorporate the findings from this important survey into the publicly accessible HER database. Aerial survey is an effective way of investigating extensive rural areas for archaeological features visible as cropmarks, parchmarks and earthworks; the digital plotting of such features in GIS and their incorporation into the HER is a valuable step in establishing archaeological potential, including within areas of potential minerals extraction. An associated research theme that could be developed is a study of the effectiveness of aerial survey in identifying archaeological features on differing minerals geology types. A blanket of alluvium over gravels singled for future extraction (eg within Study Area 1) may or may not prevent the formation of cropmarks and the identification of subsurface archaeological features; soil formation over hard stone geology may produce better results.
- 8.3.7 The use of LIDAR (Light Detection And Ranging) to identify archaeological features from the air, including subsurface features visible as cropmarks, and surface features through obscuring vegetation cover, is now well-established as a tool both of academic research (such as the Stonehenge Riverside Project), and within local authority archaeological sections for planning control purposes. Its use within the Study Areas appears to be limited, but could have future potential for the identification of archaeological assets within areas of potential minerals extraction. As with the NMP survey.

Period-based research

Palaeolithic

8.3.8 Understanding of the Palaeolithic period is limited by the very low density of Palaeolithic assets across the aggregates resource in either study area. Given the topographic nature of the Bath and North east Somerset region, the river valleys (the areas of soft aggregate) would have helped access through the region. The soft aggregate areas would have provided areas of relatively reliable resources, ie water and fish, and raw materials for maintenance of weapons etc. These landscape areas have in other regions, eg West Berkshire, the Thames Valley, provided a range of artefacts that have aided our understanding of the population of Britain during this period. The key research areas for the Palaeolithic period to which the present Resource Assessment could contribute are:

- The examination of the deposits earlier than the 10th millennium. The report highlights a current lack of Palaeolithic finds recovered from the gravel terraces. This period is of great importance both nationally and regionally and the data (or potential lack of data) from BANES has great potential to contribute to the examination of the use of the landscape and spread of population across not just the country but the also the region itself (T Darvill pers. com; SWARF Research Aim 25);
- To achieve the above a range of scientific methods could be used or tested, feeding into SWARF Research Aims 16, 17 and 18.

Mesolithic

8.3.9 As for the Palaeolithic, understanding of the Mesolithic period is also limited by the paucity of finds within the two study areas. Furthermore, in common with the previous period, settlement often congregated on the soft aggregates areas, making these central to our understanding of these early periods. Key topics to which the Resource Assessment could contribute include:

- Investigating Avon Valley Occupation from the 10th through to the 3rd millennium BC (T Darvill pers. com; SWARF Research Aim 25);
- As for the Palaeolithic the examination of recent advances of scientific methods would be crucial to advancing such understanding (SWARF Research Aims 16, 17 and 18);
- The development of predictive modelling for this period (which is equally applicable to the preceding and succeeding periods) (T Darvill pers. com.).

Neolithic

8.3.10 Particular research needs for the Neolithic period include:

- A study of the Stanton Drew ceremonial complex during the late 3rd/early 2nd millennia BC (T Darvill pers. comm). Investigation could be tied to a general widening our understanding of monumentality and mortuary practices during the Neolithic (SWARF Research Aims 54 and 57). Such examination may help better define these periods;
- Improving our understanding of Neolithic settlements and landscapes
- Understanding continuity in areas of activity between the late Mesolithic/early Neolithic and the late Neolithic/early Bronze periods (T Darvill pers. comm). Such investigation would also tie into a range of SWARF Research Aims, for example No's 28 and 49. It should be noted that there is a general lack of research aims in SWARF as set out above for the earlier prehistoric periods so any new work will enhance our understanding of these topics.

Bronze Age

8.3.11 Key research areas for the Bronze Age to which the Resource Assessment can contribute include:

- Widening our understanding of monumentality and mortuary practices during the Bronze Age, possibly examined in conjunction with the Neolithic (T Darvill pers. comm; SWARF Research Aims 54 and 57).
- Understand better the relationships of Bronze Age people to plants and animals (equally applicable to the Neolithic) (SWARF Research Aim 39).

Iron Age

8.3.12 Key themes for this period in which the Resource Assessment could contribute include:

- Widening our understanding of Later Bronze Age and Iron Age material culture (SWARF Research Aim 14)
- Investigation of processes of change and continuity between the Iron Age and Roman period when sites of this date are investigated (B Cunliffe pers. comm).
- Investigation into changes in the historic landscape between the Bronze Age and Iron Age, including territorial and settlement distribution and landscape management (This combines a number of SWARF Research Aims and points pick out by B Cunliffe and T Darvill).
- The establishment of more accurate chronology based upon pottery (B Cunliffe pers. comm).

Roman

8.3.13 There are a number of known Roman period assets within the study areas. Key areas of Roman research to which the Resource Assessment can contribute include:

- Improving our understanding of non-villa Roman rural settlement (SWARF Research Aim 29).
- Widen our understanding of the extraction, processing and transportation of minerals, stone and aggregates (B Cunliffe pers. comm; SWARF Research Aim 38).
- characterization of the “rural” cemeteries: their origins and social implications (B Cunliffe pers. comm)
- Assessing the impact of the Roman Empire on farming (SWARF Research Aim 41).
- Further investigation of smaller native sites to provide further information on the type, origin and duration of these assets (B Cunliffe pers. comm), possibly through increased use of non-invasive surveys.
- Investigation into the relationship between the Roman and migration periods, whether sites were generally abandoned at the end of the Roman period and if the sometimes violent abandon of the villas towards the end of the Roman period was mirrored in sites of other social status. (N Crocos pers. comm, SWARF Research Aims 29, 30, 33 and 35)
- Investigation into the relationship between the Roman and Iron Age including evidence for continuity and change in settlement and land-use (B Cunliffe pers. comm).

Saxon Period

8.3.14 This period is particularly underrepresented, in line with wider regional trends. Key

areas of migration and early medieval research to which the Resource Assessment can contribute include:

- Investigation into settlement patterns and the nature of early medieval settlements, with particular reference to disparities between archaeological and documentary evidence (N Crocos pers. comm; SWARF Research Aim 30, 33 and 35).
- Developing and testing methodologies to identify Early Medieval rural settlement (SWARF Research Aim 30).
- Address the long-running debates about Early Medieval landscapes and territories (N Crocos pers. comm; SWARF Research Aim 31).
- Develop an understanding and identification of Early Medieval technologies (SWARF Research Aim 44).
- Examine the evidence for Early Medieval defence and conflict sites across the region (SWARF Research Aim 62).

Medieval period

8.3.15 The Medieval period is better represented than all previous periods, primarily because of the availability of documentary resources with a clearer understanding of likely settlement patterns and land use. Key areas of medieval research to which the Resource Assessment can contribute include:

- Widen our understanding of the extraction, processing and transportation of minerals, stone and aggregates (SWARF Research Aim 38).
- Improve our understanding of Medieval farming (SWARF Research Aim 42).
- Assess the archaeological potential for studying Medieval economy, trade, technology and production (SWARF Research Aim 47).

Post-medieval period

8.3.16 The post-medieval period is well understood. Many buildings and features survive from this period and documentary and map evidence provides considerable information on settlement patterns and land use. However, a more integrated approach to the study of documents, maps, standing buildings and archaeological remains would greatly enhance our understanding of the period. Key areas of post-medieval research to which the Resource Assessment can contribute include:

- Dating structures and landscape features wherever possible.
- Further investigation of known parks and gardens.
- Investigation into the relationship between surviving listed buildings, demolished structures and other surviving remains in areas post-medieval activity to categorise and improve understanding of settlement morphology and relationships between what survives and what has been removed.

Modern period

8.3.17 The modern period is well understood, but asset densities are low because of questions of which modern remains should be considered heritage assets. For earlier periods heritage assets are typically 'those which have survived' but assigning heritage assets for the modern period requires identifying those 'which should be preserved' and is therefore a more complex issue. These include a number of defence assets, many from the Second World War, which are omitted by the HER but are listed and described in detail by the NRHE. It is important that work be undertaken to incorporate such assets into the BANES HER. Other assets include commemorative assets, such as war memorials, listed buildings, earthworks identified through NMP survey and significant religious buildings such as monasteries and chapels. Key areas of medieval research to which the Resource

Assessment can contribute include:

- Active preservation and investigation of Second World War assets as required by their level of deterioration. This could include the identification of previously unrecorded civilian defence assets, for example air raid shelters.
- Identification of non-Christian places of worship and religious sites and consideration of their significance (SWARF Research Aim 56).
- Recording of large and important structures which are still in use (e.g. breweries, industries and sites of scientific research) to provide evidence for the assets of the future.

9 Mitigation

9.1 Introduction

9.1.1 Minerals extraction typically results in the entire removal of any heritage assets located within, on top of, or cut into the deposit. This might include buried archaeological remains, above ground assets, such as standing buildings of heritage interest or elements of the historic landscape (i.e. woodland, earthworks, hedgerows and field systems). This impact derives from two main phases:

- *Preliminary topsoil strip prior to extraction activities* – this would include the areas of proposed extraction, but also associated access/haul routes, topsoil storage areas and work compounds. Archaeological deposits would potentially be located immediately beneath the topsoil. Removal of the topsoil exposes any archaeological remains that may be present immediately beneath the topsoil. Exposed remains may then be damaged by subsequent movement of vehicles and plant involved in construction activities (i.e. through rutting and compaction) and the construction of site offices, accommodation, processing plants etc. In addition, it is possible that topsoil removal without archaeological supervision may result in overstripping, which would have a direct impact upon archaeological remains located beneath the topsoil, or understripping, where archaeological features are concealed beneath a thin layer of topsoil but are then exposed and unprotected from subsequent activities.
- *Aggregate extraction* – the removal of minerals would entirely remove any surviving heritage assets, including archaeological remains, built heritage and historic landscape features where these were not removed by the preliminary topsoil strip.

9.1.2 Heritage assets, whether designated or not, are a material consideration in the planning decisions, including areas targeted for minerals extraction. Nationally significant heritage assets can be protected by law, for example scheduling or listing. Historic hedgerows that are considered ‘important’ (essentially over 20 metres in length, over 30 years old and delineating a historic boundary before 1850), are also protected under the *Hedgerow Regulations 1997*, and this may be a particular concern in rural areas proposed for minerals extraction.

9.1.3 In March 2012, the Government issued the National Planning Policy Framework (NPPF) (DCLG 2012). For minerals extraction, the NPPF states the following (relevant sections only quoted) in relation to the historic environment, providing protection within the planning regime for any heritage assets, whether designated or not:

Para: 144: When determining planning applications, local planning authorities should:

- as far as is practical, provide for the maintenance of landbanks of non-energy minerals from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites, Scheduled Monuments and Conservation Areas;
- ensure, in granting planning permission for mineral development, that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;
- ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties.

- consider how to meet any demand for small-scale extraction of building stone at, or close to, relic quarries needed for the repair of heritage assets, taking account of the need to protect designated sites.
- 9.1.4 There is currently a review as to whether the NPPF should be supported by additional guidance notes, but at the time of writing, the Planning Policy Statement 5: *Planning for the Historic Environment* guidance notes were still in effect, providing additional guidance on how archaeology should be dealt with within the planning framework. The NPPF also recognises the importance of the Planning Authorities Local Plan, in the case the Bath and North East Somerset Local Plan.
- 9.1.5 The NPPF establishes a presumption in favour of development, including minerals extraction, where it is socially, economically and environmentally sustainable. It notes that heritage assets of national (very high) significance (including statutorily protected sites and those of equivalent merit) should be preserved *in situ*, while sites of lesser significance should be subject to archaeological excavation and recording (*preservation by record*) at a level appropriate to asset significance, where the needs of the development/mineral extraction outweigh the need to conserve the heritage asset.
- 9.1.6 The process of archaeological investigation and mitigation within planning context is already firmly established. There are four main stages:
- *Historic environment desk-based assessment*. This report, variously referred to as an archaeological desktop or desk-based assessment, but here referred to as a historic environment assessment (HEA), examines a broad range of archaeological, documentary, cartographic and air photographic sources, along with a site visit, to assess the likelihood and significance of any heritage assets that might be present within the area of proposed development/extraction. It is typically required to support a planning application. The NPPF advises early pre-planning application consultation, and a preliminary risk assessment is recommended as part of the consideration of an area potentially targeted for minerals extraction.
 - *Evaluation*. Depending on the conclusions of the desk-based assessment, archaeological field evaluation, may be required pre- or post- determination of planning consent, in order to clarify potential and significance and determine mitigation strategy (if required). There are a range of techniques for field evaluation, discussed below.
 - *Mitigation*. Depending on the results of the desk-based assessment and/or any subsequent field evaluation, mitigation might comprise preservation *in situ* where nationally significant assets are potentially affected, or archaeological excavation and/or a watching brief for assets of lesser significance. Standing building recording is a likely mitigation requirement where historic buildings are to be altered or demolished.
 - *Analysis and dissemination*. There is a requirement in the NPPF to disseminate the results of any fieldwork, at a level appropriate to the significance of the findings, in order to enhance understanding of asset significance. This could range from a grey literature report deposited with the HER, through to a journal article or a full monograph for significant finds.
- 9.1.7 All archaeological work should be undertaken in consultation with the relevant planning authority and potentially other stakeholders such as English Heritage, and to the standards prescribed in English Heritage (2006; 2007), Institute for Archaeologists (IFA 2001a; 2001b; 2001c) and national and local guidance.
- 9.1.8 English Heritage published guidance on the application of planning policy to minerals and the historic environment in *Mineral Extraction and Archaeology: A Practice Guide* (Minerals and Historic Environment Forum (English Heritage 2008c)) and *Mineral Extraction and the Historic Environment* (English Heritage 2008b). These documents recognise the need to develop and improve dialogue between heritage professionals, minerals planners and the minerals industry. In order to

assist decision-making by mineral planning authorities and the minerals industry in formulating its proposals, it is argued that good-practice guidance needs to be developed by the heritage sector with other stakeholders for the use, restoration and after-use of mineral extraction sites. Any Guidance should adopt an integrated approach to the consideration of other economic, recreational and conservation opportunities (EH 2008b; 8–10).

- 9.1.9 Similarly the principal purpose of Mineral Extraction and Archaeology: A Practice Guide (EH 2008c) is to provide clear and practical guidance on the archaeological evaluation of mineral development sites, particularly for the determination of individual planning applications for minerals development. It recognises the requirement for accurate assessments of the presence and relative importance of archaeological remains in areas of proposed minerals extraction as a key requirement for developing appropriate and effective archaeological mitigation strategies for minerals extraction (2008c 4-9). The guide also provides some information on the mitigation techniques that could be employed (2008c, 17-28).
- 9.1.10 Any archaeological investigation, whether intrusive or non-intrusive, should take consideration of the research priorities discussed in the Research Strategy and Agenda of this project report and other relevant documents (e.g. SWARF) (EH 2008c 8). It should be noted that although both these have been replaced by the NPPF, and some of the references in either document may now be out-of-date, English Heritage believes that they do still contain useful advice, guidance and case studies).
- 9.1.11 The following sections provide detail on the four broad stages outlined above, with a focus on the application of techniques on minerals geologies.

9.2 Desk-based assessment

Introduction

- 9.2.1 The initial stage of archaeological investigation is a historic environment assessment (HEA) and is sometimes included in an Environmental Impact Assessment (EIA) where one is requested by the planning authority.
- 9.2.2 The HEA consults a broad range of sources and forms an initial stage of investigation of the area of proposed extraction and may be required as part of a planning submission in order for the local planning authority (LPA) to formulate an appropriate response in the light of the impact upon any known or likely heritage assets. These are parts of the historic environment which are considered to be significant because of their heritage interest, whether it derives from known or potential evidential, historic, artistic and/or communal values (as set out in English Heritage *Conservation Principles*, 2010). These might comprise below and above ground archaeological remains, buildings, monuments or heritage landscape within or immediately around the site (DCLG 2010, 1, 13).
- 9.2.3 An HEA would set the site into its full archaeological and historical context in order to determine the likely nature, extent, preservation and significance of any heritage assets that may be present within the area of proposed extraction or its immediate vicinity. It will assess the likely impacts from the proposed extraction upon any known or likely heritage assets and make recommendations as to whether site specific evaluation would be appropriate. Where understanding of the archaeological remains on the site is very good and can be determined to a high degree of certainty, it may be possible to undertake archaeological mitigation immediately without further initial investigation (eg. a watching brief). More usually the HEA will recommend further site-based investigation into the nature of the remains because the existing information is insufficient to determine precisely what is present on the site. This investigation may take the form of intrusive or non-intrusive procedures. The HEA may also include or recommend a survey of the buildings and historic research to identify relevant physical and historical aspects of

the building in order to make an assessment of the importance of the building, whether it should be retained and whether further recording would be appropriate.

Predicting archaeological remains

9.2.4 The current level of understanding across the aggregates resource within BANES will have a direct impact on the accuracy of any prediction in an HEA as to the nature, date and significance of any archaeological remains within that area. In general the greater the understanding, the greater the probability of predicting at the desk-based stage the nature and significance of the remains which are likely to be present. The following factors improve understanding of the archaeological resource within a given area and so enhance the probability of predicting the nature and significance of any anticipated remains at the desk-based stage:

- High asset density – the greater the number of assets around a potential quarry site, the more evidence there is as to what might be present on it.
- High number of past archaeological investigations – the greater the number of archaeological investigations around the potential quarry site, the more evidence there is as to what might be present within it. If archaeological investigations found no remains, this provides an indication that the absence of evidence reflects a genuine aspect of past occupation patterns and rather than an absence of investigation. Systematic fieldwalking and metal detecting surveys can provide a useful indication of areas with archaeological potential and areas without. Even the results of less systematic metal detecting can reveal possible archaeological sites where very high concentrations of assets have been recovered.
- NMP coverage – NMP identifies any archaeological remains of either earthwork or masonry type which are sufficiently large and shallow enough and to have had a visible impact upon the patterns of grass and crop growth. This will include most large and complex sites of most periods as well as diffuse assets such as field systems, enclosures and boundaries. Although NMP identifies all such sites visible in air photographs, further investigation is often required to confirm their date, nature and significance. NMP cannot normally identify deeply buried sites beneath alluvium or remains of the earliest prehistoric periods (Palaeolithic and Mesolithic) and particular types of sites (e.g. cemeteries without earthwork boundaries) may also be invisible. A qualified archaeological contractor would normally be able to view, interpret and plot aerial photographs, even if NMP had not been completed, but may not be able to access as wide a range of photographs as the NMP. This type of survey is particularly useful in across extensive open rural areas that might be targeted for minerals extraction.
- The availability of historical documentary and cartographic sources – for the prehistoric and Roman periods, and for much of the early medieval, the lack of these sources places a reliance on archaeological data and air photographic sources. Consequently assessing the potential for these periods within a solely desk-based study where there is little evidence base can be difficult. For the later medieval and post-medieval period, there is a greater understanding of the landscape and human activity within it, based on historic maps and known or likely settlement patterns, which can assist in predicting the likely presence of heritage assets of these periods.

9.2.5 It would therefore be easier to predict accurately the nature and significance of archaeological remains within the potential quarry sites which have high asset densities. Where a very high density study area has been subject to NMP mapping and has had a history of intensive investigation, desk-based predictions of the nature and significance of predicted archaeological remains are likely to have a greater accuracy still. However, this may not obviate the need for non-intrusive investigation or evaluation which may still be required.

- 9.2.6 In areas where understanding is low due to a low asset density, limited past investigation and an absence of NMP survey, initial non-intrusive investigation and evaluation are more likely to be required because the nature and significance of the remains are less predictable at the desk-based stage.
- 9.2.7 Desk-based studies must recognise the limitations of the data, and ensure that appropriate sources are consulted. For large open areas targeted for gravel extraction, analysing and reproducing information from the HER and historic maps is insufficient: air photographic evidence and a site walkover inspection is often necessary to identify possible, previously unrecorded remains visible on the surface in the form of cropmarks, earthworks (e.g. Scheduled Monuments, barrows), historic landscape features (field boundaries, historic hedgerows), standing buildings of heritage interest, and flint scatters. Features can be plotted on Ordnance Survey mapping using GPS equipment.

9.3 Evaluation

- 9.3.1 All archaeological investigations within potential quarry sites, irrespective of the nature and date of the remains, potentially benefit from a considered archaeological research objective(s) within the Written Scheme of Investigation/Method Statement/Project Design; documents that are normally produced in consultation with the relevant archaeological planning advisor prior to undertaking the work. Specific research objectives can assist in formulating an effective archaeological strategy, whether it is preliminary evaluation or mitigation, by establishing the background context and understanding of assets potentially affected, whilst considering specific research aims for the minerals areas as outlined in this document.

Non-intrusive methods

- 9.3.2 Non-intrusive techniques may be undertaken at the same time as desk-based assessment, providing a valuable enhancement that can help reduce the risk of unexpected discoveries. Such work may be carried out subsequent to the HEA, or as part of an intrusive field evaluation. Non-intrusive archaeological techniques require no or minimal ground disturbance and may be an appropriate initial stage of site based investigation, particularly if the potential quarry is very large in area or if understanding of the archaeology within it is very limited.

Topographical survey

- 9.3.3 Topographical survey can be undertaken to plot the exact location of archaeological, field boundaries and other up-standing components of the historic landscape following detailed historic map regression, so that the survey is informed by a clear understanding of the key landscape components. Survey will normally be undertaken using GPS equipment and drawings will be generated in CAD, such that the results can be incorporated directly into a digital scheme mapping. The purposes of the survey would be to plot the extent of particularly sensitive assets in order that they are avoided by proposed quarrying. Full earthwork surveys can be carried out as mitigation if the assets are to be removed.

Hedgerow survey

- 9.3.4 A hedgerow survey is recommended as part of an HEA, where there is a likelihood of important (protected) historic hedgerows being present within a proposed quarry site. This would comprise a historic map analysis to identify historic field boundaries, followed by a site walkover survey to record mature hedgerows. Stone/earth boundary banks without vegetation growth may also be considered to be a 'hedgerow'. Mature trees and woodland also form part of the historic landscape and may be protected by the local authority.

Aerial photographic survey

- 9.3.5 A survey of aerial photographs might be undertaken (indeed should be, if the quarry site is in open fields) as part of a desk-based assessment or an initial stage of a subsequent evaluation. If the site has been included in existing NMP survey, it should only be necessary to examine aerial photographs taken after the NMP was completed. Aerial photographs show two different kinds of feature:
- Cropmarks/parchmarks – buried features are visible as cropmarks or parchmarks because the different material within them causes differential growth of the crop or grass above.
 - Earthworks – The upstanding remains (either positive or negative) are visible from the air.
- 9.3.6 The following types of assets are unlikely to be identified within a proposed quarry site from aerial photographs:
- Deeply buried remains – As the remains have to be sufficiently shallow to have an impact on surface growth deeply buried remains are typically invisible. Typical deeply buried remains include:
 - o Palaeolithic (and sometimes Mesolithic) remains which may be within River Terrace Gravels.
 - o Prehistoric and some historic remains within or beneath alluvium.
 - o Remains beneath landfill or made ground.
 - Small remains – Even if relatively shallow, small features and artefact assemblages are unlikely to be seen because they are not normally large earthwork features and do not affect the water retention of a large area of plants.
 - Burials – Graves are normally refilled with the material dug out of them relatively soon after the initial grave digging. Consequently the grave fill is very similar in water holding properties to the surrounding area and little differential may be visible between the plants above the burial and the surrounding land.

Field artefact collection survey (Fieldwalking)

- 9.3.7 Surface artefact collection survey (fieldwalking) may be undertaken in fields under arable cultivation. Artefacts within the ground are disturbed by agricultural practices periodically brought to the surface by ploughing. Buried archaeological sites are detected by collecting artefacts from the ploughed field surface and plotting the distribution of different artefact types by period.
- 9.3.8 Fieldwalking is particularly effective for the following types of site:
- Sites with very ephemeral or non-existent sub-soil features
 - Sites rich in durable artefacts such as worked flint or Roman and later medieval pottery
- 9.3.9 Unlike geophysical survey, fieldwalking can determine the period of the site's use. Fieldwalking and geophysical survey may therefore be undertaken together in order to identify the main activity areas in an extensive rural proposed quarry site, but it is rarely cost-effective to use both methods purely for evaluation purposes.
- 9.3.10 Surveys are normally carried out using linear transects 10–20m apart. Fieldwalkers walk along each line, systematically collecting artefacts within a 2m wide sample transect. More intensive coverage can be applied over relatively small areas. Artefacts are then separated into categories and periods and artefact distribution plotted against the linear transects so that areas of artefact concentration are seen as 'hotspots'.
- 9.3.11 If geophysical survey (including metal-detecting) is to be carried out, it may be cost-effective to do such surveys at the same time as the fieldwalking, using the same

survey transects.

- 9.3.12 The results of fieldwalking should ideally be recorded spatially digitally, ideally for incorporation into the BANES HER, which could then allow comparison with other digital datasets such as the NMP and geophysical survey results, allowing predictive models of areas of archaeological potential within a proposed quarry site to be identified.

Geophysical survey

- 9.3.13 Available methods of geophysical survey include magnetometer survey, electromagnetic survey (including soil conductivity, magnetic susceptibility, magnetic viscosity, metal detecting and ground penetrating radar), and resistivity survey. The choice of method depends on the type of archaeology expected, the environment, ground conditions (including, drift and solid geology, depth of overburden above archaeological remains), survey objectives and cost. Detailed guidance on the selection of methods and sampling strategies can be found in the English Heritage (1995) guidance. The advice of a specialist is normally required before determining any geophysical survey strategy.
- 9.3.14 For extensive surveys in open fields, such as those targeted for minerals extraction, magnetometer survey is the most commonly used and effective method, usually using a fluxgate gradiometer. Extensive magnetometer survey is capable of revealing the layout of a site in remarkable detail under suitable (magnetically enhanced) soil conditions. Resistivity survey is more effective at detecting certain types of feature, including masonry and brick foundations and is also quite commonly used. Geophysical survey of any sort is rarely an option in urban environments, or for detecting sites covered with thick deposits of hillwash or alluvial deposits, although Ground Penetrating Radar has some applications.

Metal detector survey

- 9.3.15 Metal-detector survey can be very effectively used in conjunction with surface artefact collection survey (or in place of it where the land is under permanent pasture) and in the course of archaeological excavation. Concentrations of metal artefacts in the ploughsoil are often the first indication for the presence of complex archaeological sites (Roman and medieval settlements and industrial sites, for example). Some important Anglo-Saxon sites consist entirely of scatters of metal artefacts in the ploughsoil. The location of the artefacts should be plotted in a digital spatial GIS environment, with specialist artefact identification, conservation and reporting.

Place Name Survey

- 9.3.16 The study of field names has become a key component of modern historic landscape investigations, and can provide useful information regarding the potential for archaeological remains of the Anglo-Saxon to post-medieval periods. Research into field/place names is recommended as a standard part of any non-intrusive evaluation methodology, in particular the preliminary HEA. There are numerous examples of seminal studies in which field-name information has been used as the primary source to guide the subsequent application of more targeted techniques, most notably geophysics, fieldwalking and field evaluation (most notably Gerrard and Aston 2007).

Intrusive techniques of evaluation

Geoarchaeological techniques

- 9.3.17 Geoarchaeological boreholes and sampling techniques may be used as part of an evaluation or mitigation strategy to investigate geological deposits of archaeological interest, establish the geological sequence on the site, identify any geological

deposits with potential to contain archaeological remains and collect palaeoenvironmental and geoarchaeological samples. Where extraction of sub-alluvial River Terrace Deposits is required, geoarchaeological investigation of the alluvial sequence is likely to be required because of the archaeological and palaeoenvironmental potential of these deposits.

- 9.3.18 The identification and dating of geological deposits with archaeological potential and understanding of geological sequences is particularly important for aggregate extraction sites. Geoarchaeological techniques may be used to identify the potential for such deposits to be of archaeological significance (either through the remains they contain or the potential to improve understanding and dating of geoarchaeological sequences) and to mitigate the impacts of aggregate extraction.
- 9.3.19 Where geoarchaeological techniques are used as part of a mitigation strategy the aim is to develop an understanding of the geological sequence (including the date of significant deposits) and to excavate, record and analyse any archaeological remains within the geological sequence in order to improve understanding of the periods concerned.
- 9.3.20 The strategy for geoarchaeological investigation is likely to involve a combination of some or all of the following:
- Investigation and extraction of deposits (most frequently through the use of boreholes and test pits),
 - The extraction of samples (from boreholes, bulk sampling and monoliths)
 - Laboratory analysis and testing (including analysis of stratigraphic deposits, micro-artefact sieving, Optically Stimulated Luminescence dating, palaeoenvironmental analysis of pollen, insects and other environmental indicators) where appropriate.
 - Topographical modelling of the surface and subsurface deposits to inform understanding of past landscapes and areas of archaeological potential.
- 9.3.21 Stratigraphic information from individual logs can be entered into a specialist geological modelling program (eg Rockworks) in order to allow borehole cross-sections through the site to be generated and topographical projections of identified surfaces to be constructed (e.g. Pleistocene gravel surface topography). Information from individual boreholes and test pits is examined and the major stratigraphic units identified. Interpretation of the geological sequence at each stage will be informed by palaeoenvironmental data, as it becomes available.
- 9.3.22 It is recommended that geoarchaeological investigations include geomorphological assessment. Present understanding of the gravel terraces shows that there are often multiple phases of deposition, which may have resulted in a sequence of buried early (Lower/Middle/Upper Palaeolithic and later) landsurfaces. While geoarchaeological investigations will identify areas of gravel aggregate, and thus areas of potential human activity, they do not necessarily identify all the phases of gravel deposits. Geomorphological investigations can enable an understanding of this and the likely potential for human activity, which can help minimise the risks to future extraction operations.

Field Evaluation (trial trenches)

- 9.3.23 Following a HEA or initial non-intrusive investigation, archaeological evaluation may be requested to confirm the results of the earlier work. Site-specific field evaluation usually comprises a series of trial trenches across the site and possibly also geoarchaeological boreholes. Archaeological monitoring of geotechnical investigations may be included to provide information on the stratigraphic sequence and the potential for geoarchaeological and palaeoenvironmental information. The evaluation strategy, including the proportion of the site to be evaluated, would need to be agreed with BANES County Archaeologist. The location and distribution of the trial trenches would be expected to investigate possible heritage asset identified in

earlier stages and provide good coverage of the site to give the best opportunity for the identification of previously unidentified archaeological remains.

- 9.3.24 Field evaluation on proposed aggregate extraction sites is most likely to comprise extensive trenching, possibly a 4% sample or greater, of the total area of proposed impact. Made ground and topsoil is normally removed by machine. Further deposits may then be removed by machine until archaeological remains are identified. All machining is undertaken under archaeological supervision. Any archaeological remains are cleaned and recorded and may be sampled to obtain evidence for their date and significance.
- 9.3.25 The depth of the required evaluation trenches will depend upon the likely depth of any archaeological remains and the geology type. Across most aggregate geologies, archaeological remains are likely to be relatively shallow. Remains of the later prehistoric to modern periods are typically present above or cut into the top of the highest natural deposits whether these are the aggregate bearing geologies (e.g. River Terrace Deposits, Angular Flint Gravel, Chalk etc) or superficial non-aggregate geologies overlying them.
- 9.3.26 Certain geology types have the potential to contain archaeological remains at deeper levels. If the following geologies are present on the proposed extraction site, deeper evaluation trenches or test pits may be required:
- River Terrace Deposits, Angular Flint Gravels, Raised Marine Deposits and Blown Sand have the potential to contain Palaeolithic remains. Geoarchaeological investigation of these strata may be required to confirm the extent and date of these deposits and if any archaeological remains are present.
 - Alluvium (present above sub-alluvial River Terrace Deposits in river valleys, on floodplains, marshes or semi-inundated land) has potential for palaeoenvironmental remains and deeply buried *in situ* assets, potentially including well preserved waterlogged material. Investigation (through boreholes, test pits or deep trenches) of the archaeological and palaeoenvironmental potential of the alluvium would be required prior to any aggregate extraction

9.4 Mitigation

- 9.4.1 Following the completion of the evaluation phase, a historic environment mitigation strategy would be developed and agreed with the County Archaeologist. Mitigation may include any of all of the following:
- *Preservation in situ*: the area of proposed extraction may need to be revised to avoid any nationally significant remains (whether these have been statutorily protected or have been recently identified). Other significant remains that may need to be conserved could include elements of the historic landscape such as Ancient Woodland or protected Hedgerows.
 - *Preservation by record*: Archaeological investigations of those remains (above ground or buried) which are not of national significance and which do not warrant preservation *in situ*. Different excavation techniques may be suitable for different environments and types of remains and these are detailed below.

Excavation techniques

- 9.4.2 The precise form of mitigation will depend upon the significance, preservation, underlying geology and depth of the archaeological remains present on site. Sites on River Terrace Deposits may require geoarchaeological investigation to determine the date and extent of the River Terrace Deposits. Deeper trenches might also be required to excavate any *in situ* Palaeolithic remains within the River Terrace

Deposits.

9.4.3 Sites within the alluvium may require geoarchaeological and palaeoenvironmental investigation to provide answers to research questions about the past environment. Deeper trenches may be required to excavate *in situ* prehistoric deposits if present within the alluvium:

- 1) Where diffuse or dispersed archaeological remains (e.g. field systems with localised settlement or ritual landscapes) are likely to be located at shallow depth (i.e. most extraction sites and particularly on River Terrace Deposits) 'general excavation' (also known as 'strip, map and record') is likely to be most appropriate.
- 2) Where understanding of archaeological potential and significance is very good 'targeted excavation' may be most appropriate. Normally a thorough HEA, followed by non-intrusive investigation and/or field evaluation would be required to confirm that the targeted areas are of sufficient archaeological significance and whether other areas require 'general excavation' or 'watching brief'.
- 3) A watching brief may be appropriate if where a low potential for significant archaeological remains is anticipated.
- 4) Where archaeological potential has been identified within geological deposits (i.e. River Terrace Deposits, Angular Flint Gravel, Raised Marine Deposits or Blown Sand) or alluvium; deeper excavations, geoarchaeological tests pits and boreholes may be required to mitigate the impacts upon deeper remains. These could include localised areas of deeper excavation where higher archaeological potential has been identified. On alluvium, battered or stepped trenches up to 4m below ground level (mbgl), with further machine dug (and not manually accessible) test pits in the base may be required to reach deep remains.

General excavation

9.4.4 General excavation (also known as 'strip, map and record', or 'strip, map and sample') is particularly appropriate for large scale extraction sites with relatively shallow rural sequences and diffuse features. It should be undertaken according to a Method Statement agreed with the County Archaeologist and in accordance with the IfA guidelines (IfA 2001):

- Strip – The topsoil or made ground is removed by machine under archaeological supervision until the subsoil or first archaeological layer is reached.
- Map – Archaeological deposits are hand cleaned to define the edges of discrete features and a measured plan; photographic and written record is made of the visible features.
- Record (alternatively 'sample') – Visible artefacts are collected to assist in dating of features and deposits. Sections (of circular or linear features) and quadrants (of large circular or sub-circular features) of large or significant features are excavated to recover artefacts and record internal stratigraphy. Certain types of features (burials, hearths, stratified remains or significant features) are hand excavated in their entirety by the archaeologist and recorded. Palaeoenvironmental sampling of buried soil horizons and bulk sampling of certain deposits will be undertaken to retrieve additional evidence.

Targeted excavation

9.4.5 Targeted excavation is most suitable where the archaeological potential of the site is well understood and localised areas of interest with significant archaeological remains have been identified. Under these conditions, archaeological investigation

can focus on a particular area of archaeological remains rather than stripping a large area, including areas of no archaeological potential.

- 9.4.6 Should areas of complex and deeply stratified archaeological deposits be identified, 'single context excavation' may be appropriate. Such complex and stratified deposits are unlikely to occur outside an urban environment. Single context excavation excavates each feature in its entirety and records them individually in plan. This enables the stratigraphic sequence to be reconstructed at the post-excavation stage. A written record provides additional information on the nature of contexts.

Watching Brief

- 9.4.7 During a watching brief an archaeologist may be required to visit the site during or prior to specific works to ensure no previously unknown or unexpected remains are removed without record.
- 9.4.8 There are two forms of watching brief:
- General watching brief – an archaeologist visits the site at predetermined intervals to monitor archaeologically sensitive areas where no specific remains have been identified but where there is a risk that works may have an impact on previously unknown remains.
 - Targeted watching brief – an archaeologist observes certain specific locations or processes which have been identified as posing a potential risk to specific archaeological remains.
- 9.4.9 There may also be provision for the client to contact the archaeologist should archaeological remains be located. Should remains be identified provision would normally be required for the excavation and recording of such remains by the attending archaeologist and/or others.
- 9.4.10 The watching brief would need to be undertaken in accordance with IFA guidance (IFA 2001e) and the requirements of the County Archaeologist.

Standing building recording

- 9.4.11 Standing building recording may be applied to buildings and structures of heritage interested prior to demolition and clearance. The level of recording will be commensurate with the significance of the remains, and will be carried out in accordance with RCHME (1999a), English Heritage (2006a; 2006b; 2007b; 2007c and 2008) and IFA (2001b; 2001c) guidelines. The 19th and 20th century development of the site is as important as earlier phases. As minimum, digital records of buildings and other structures will be included in the Project digital mapping in layers illustrating the historic development of the site. Much of this information can be obtained from digital overlays of historic map information. However, particularly important standing structures may require more detailed recording.
- 9.4.12 In general, baseline recording of significant structures will be undertaken to RCHME Level 2. In summary, this is a descriptive record in which both the exterior and interior of the building is seen, described and photographed. The examination of the building will produce an analysis of its development and use and the record will include the conclusions reached, but will not discuss the evidence on which the analysis is based. A plan will be made and elevations may be appropriate in some circumstances.
- 9.4.13 Open fields targeted for proposed minerals extraction may contain archaeological earthworks, such as boundary banks, ditches, barrows, identified by the initial site walkover reconnaissance carried out as part of the HEA. Depending on their nature, extent and date, such earthworks can represent rare survival of heritage assets of high significance, and may be protected through scheduling. The level of detail recorded should be judged according to the nature of the remains. Recording levels appropriate for specific types of assets are defined by RCHME guidance (1999b).

English Heritage guidance (English Heritage 2007b) on recording archaeological landscape may also be appropriate.

9.5 Analysis and dissemination

- 9.5.1 Following completion of the fieldwork all site records, finds and samples are databased, processed, packaged and stored, to create an initial fieldwork archive. The data and artefacts recovered from the site would require 'post-excavation assessment'; this is the analysis of the information to determine its potential to enhance understanding of the heritage asset, along with the appropriate analytical techniques and the appropriate level of publication commensurate with the significance of the findings. Less important remains may merit no further work. This allows new research priorities to be set, so that only meaningful data that contributes to the revised research aims is worked on at the subsequent analysis and publication stage.
- 9.5.2 The results of the assessment would need to be presented to the local authority and the type of analysis and publication agreed with them. On completion of the project, the publication or client report would need to be included in the HER.
- 9.5.3 In the case of archaeological sites and results that do not advance understanding of the themes and objectives of the research framework, the minimum dissemination requirement is to submit a short summary of the results to the BANES HER and NMR (using the appropriate OASIS archaeological report form), and for publication in local and period-based archaeological journals as appropriate.
- 9.5.4 Where a clear potential has been identified, further analysis of the fieldwork archive is carried out with the aim of realising the objective of the mitigation strategy of preservation by record - to improve public understanding and appreciation of the past - dissemination of the archaeological results may range from technical volumes (thematic or period-based) to popular booklets, temporary exhibitions, work with schools, web-based initiatives etc.
- 9.5.5 The initial fieldwork archive plus the results, reports and data from subsequent analysis and publication are systematised into an ordered and retrievable final project archive suitable for public access for future research. It is then transferred to a nominated public receiving body (normally a local museum). This completes the planning requirements for preservation by record by placing all results into the public domain.

10 Conclusions

- 10.1.1 This project was undertaken by MOLA and Bath and North East Somerset Council, with funding from the ALSF administered by English Heritage with the aim of improve knowledge if the archaeological resource in aggregate producing areas of the BANES to facilitate strategic planning decision and the management of historic environment assets within them.
- 10.1.2 The project is based upon the methodology designed for *Archaeological Resource Assessment of the Aggregates on the Isle of Wight* (MOLA 2010), *The Aggregate Landscape of Gloucestershire; Predicting the Archaeological Resource* (Mullin 2004) and that of *Archaeology and Aggregates in Worcestershire* (Jackson and Dalwood 2006), in order to ensure the results were comparable with those of the *Isle of Wight* and other Resource Assessments employing the same methodology.
- 10.1.3 The project identified two study areas (areas of past and present extraction, and areas of potential future extraction) from BGS mapping, historic maps, British Pits database and current minerals permissions. Project data was managed by means of a geographical information system (GIS).
- 10.1.4 The results of the Mendip Hills NMP survey are yet to be incorporated into the HER but were included in the current assessment. A few assets, mostly Second World War features, were listed by the NRHE and had to be added to the HER dataset. The enhanced and updated project database was then used to generate asset density figures for an archaeological resource assessment. This considered the density of types of assets (e.g. domestic, ritual, agricultural etc) across the aggregates resource, divided by period and study area, and how this reflects past occupation and activity and the history of archaeological investigation. It should be noted, however, that there is a disparity between the two study areas. Study Area 1 represents a coherent 'entity', it represent the areas of river valley gravels, thus a connected area of continuity. Study Area 2, on the other hand, represents areas of disconnected locations of mineral extraction. As a result the Study Area is more an agglomeration of extraction sites and thus simply a body of assets identified during the either mineral extraction or any associated archaeological investigation. Yet, this does mean that the results are meaningless or that the material should not be included into any synthetic work of the region. Far from it, the locating and displaying of such data will aid in understanding distributions of material across the whole region.
- 10.1.5 The Resource Assessment revealed some trends and intriguing differences in the asset densities of different periods. Tables ** and ** in Section ** set out percentages of asset types within each Area per period by total per asset type and total of asset type per period respectively. However, a number of the interesting differences are outlined below:
- The asset density remains overall low until the beginning of the Bronze Age.
 - The low density of early medieval assets reflects current limited understanding of this period.
 - The two study zones show little overlap in activity for the prehistoric periods, that is where Study Zone 2 sites appear to be close to Study Zone 1 there are no assets within them of corresponding date.
 - The most significant rise in asset density occurs during the between the Saxon and medieval periods. Although post-medieval assets represent the greatest elements in both Areas (nearly 38% for Area 2 and 50% for Area 1), there is an eight-fold increase for Area 2 and double for Area 1 in the number of medieval assets over Saxon assets.
 - For the Saxon period, Defence and Civil assets were absent from Area 2 but represented quite significant elements in Area 1 of this period (23% of all

Saxon Assets and 20% of all Defence Assets and 3.8% and 20% for Civil for Area 1).

- Modern Civil, Commercial, Findspot, Religious and Unassigned assets were absent from Area 1 (an even wider range of assets was absent from Area 2) an point which would need further examination.
- Study Area 2, which comprises historic gravel extraction sites, has the higher asset density. Although this should not be particularly surprising as Area 2 represents a much smaller total area (being the location of individual extraction sites without any linking area)

10.1.6 The asset densities and accompanying archaeological Resource Assessment provided the baseline with which to investigate the existing research agenda for the region. Section 8 sets out the research topics, both specific and general, to which the Resource Assessment could contribute. The topics have been suggested with the guidance of a number of regional specialists. The Assessment a number of general research priorities, which would have an impact on the asset densities of all periods across the aggregates resource:

- Extension of the NMP survey across the rest of the District.
- Use of LIDAR across the region
- Re-assessment of assets recovered by antiquarians (where possible) to reflect modern typologies and development in scientific dating.
- Targeted investigation of assets of uncertain date or nature (including some identified by NMP)

10.1.7 It is a research aim of the South West Archaeological Research Framework to improve the use of grey literature (unpublished reports from archaeological investigations) (RA 12) from the region. However, upon consultation with the period experts it is suggested that this should be widened to encompass all results from all archaeological events. Producing works of synthesis drawing on “Grey Literature” would distort conclusions as much as not including them. It is suggested that greater emphasis is placed upon including them in all synthetic research undertaken in the future.

10.1.8 Paragraphs 9.3.7 to 9.3.10 of Section 9.3 outlined the use of Field walking as an important technique as it can identify sites that now only exist in the topsoil. For fieldwalking to be a generally applicable technique the period of time between assessment and development needs to be considerable longer than is generally the case. However, the results of such work can be used in a range of ways. An example of this is the digitisation of the Lower Kennet Valley Survey undertaken as part of the West Berkshire Resource Assessment. The survey took place between 1976 and 1989 but remained as a paper database. It now rest with the West Berkshire HER as a digital database in an ARCGIS format. It comprises all field walked and includes all primary finds data. The database allows the end user the ability to interrogate the data in a range of ways but principally enables the user to see the whole data recovered across the Lower Kennet Valley for different periods. The data set is also easily added to so that new walking projects could be undertaken to fill in the areas not walked and thus update any maps produced.

10.1.9 Such work could be undertaken in association with local archaeological societies. Furthermore, with relatively little training, the results could also be entered into a GIS data base by the same societies, thereby maintaining the database, increasing its usage and providing greater incentives for local engagement.

10.1.10 Given the potential impact on the historic environment that normally results from extraction, it is likely that any proposals for aggregate extraction would require archaeological investigation of the area of impact. Confirmation of the precise procedures required for particular sites would need to be agreed with the local authority, but the process of historic environment assessment, evaluation (either invasive or non-invasive) and mitigation of any impacts was outlined in the report. In

general it was noted that the identification of possible assets and impacts through historic environment assessment is likely to be most effective in high density study areas, while site-based invasive or non-invasive field investigation would almost certainly be required in lower density areas.

- 10.1.11 Early intervention is always beneficial, and would be particularly useful at the prospection stage to allow better archaeological interpretation of geotechnical results. More work is needed to identify lower Palaeolithic sites, ideally based on information obtained from geotechnical data.
- 10.1.12 Trial trenching need to be done at a relevant sample rate in order to better identify the presence of significant remains. Observation of topsoil stripping during the normal working of a quarry carries is likely to remain a significant strand in the strategy for the mitigation of extraction during the normal working of a quarry. But archaeological features can be much harder to identify, particularly in the context of a working quarry, and when it is identified there can be a time pressure which may reduce the quality of the information obtained. Known sites can also be lost due to misunderstandings.
- 10.1.13 Open area excavations can miss significant elements of a site. The advantage of the observation of topsoil removal on quarry sites is that the entire area to be destroyed can be observed, and often important satellite features can be found which would be missed in defined excavation areas. Also, the extent and alignments of features are often lost in defined excavation areas but can be traced across the whole of the extraction area.
- 10.1.14 The results of the project, including this project report and changes to the HER, will be used to facilitate management of the impacts of aggregate extraction on archaeological remains. The report has provided a summary of the current understanding of archaeological remains and indicated those areas of BANES where a greater density of archaeological remains would be at risk from aggregate extraction or where understanding is limited and the impacts of any proposed extraction cannot be determined without further field investigation. It also provides a research agenda and strategy for any further archaeological work associated with aggregates extraction and an indication of the position of archaeological within the planning process and the possible investigation and mitigation strategies which may be employed to determine and mitigate the impacts of extraction on archaeological remains. The report will be circulated widely to members of BANES Council employed in archaeology and minerals planning, to English Heritage and the minerals industry.

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12 Gazetteer of assets

12.1 Study Area 1

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
Palaeolithic	1	MBN8621_a		Find Spot		-50000	-150001
	2	MBN8099_a		Find Spot		-50000	-150001
	3	MBN8100_b		Find Spot		-50000	-150001
	4	MBN8100_a		Find Spot		-50000	-150001
	5	MBN8441_a		Find Spot		-50000	-150001
	6	MBN1406		Find Spot	A number of prehistoric hand axes and implements of Greensand chert were found on the surface of a ploughed field in 1930.	-50000	-150001
Mesolithic	1	MBN723		Find Spot		-10000	-4001
	2	MBN3157		Find Spot		-10000	-4001
	3	MBN11779		Find Spot	Perforated mace head from gravel - not associated with occupation	-10000	-4001
Neolithic	1	MBN602		Domestic	Neolithic occupation at Chew Park	-4000	-2351
	2	MBN2318		Relig, rit, funerary	Giant's Grave, E of Wellow Brook	-4000	-2351
	3	MBN2321		Relig, rit, funerary	Giants' Grave Burial Chamber	-4000	-2351
	18		201228	Find Spot	A surface collection of Neolithic implements found in a field about a quarter of a mile from the Stanton Drew monument complex (see SU 66 SW 2).	-4000	-2351
					Earthworks of banks and lynchets forming small enclosures.	-2500	1539
Bronze Age	1	MBN11026_b		Agric and subsist		-1600	-1001
	2	MBN11021		Findspot	A middle Bronze Age socketed spearhead was found at Midford Viaduct, Southstoke. Now in Ulster Museum.	-1600	-1001
	3	MBN7118		Findspot	A Middle Bronze Age bronze spearhead found at Midford Viaduct, is in Ulster Museum.	-1600	-1001
	4	MBN598		Findspot		-2350	-751
	18	MBN1177		Relig, rit, funerary	On the hill above Radstock Church is a tumulus, in which was found a small oval cist of unwrought stones covered by a flat lid about 18" long & containing a large quantity of burnt bones. No weapons or ornaments were discovered.	-2350	-751
	19	MBN3174		Relig, rit, funerary	Cremation with grave goods.	-2350	-1501
	20	MBN596		Relig, rit, funerary		-2350	-751
	21		201201	Relig, rit, funerary	The Great Circle at Stanton Drew is a stone circle shown by geophysical survey to be contained within a circular ditched henge enclosure, and to contain 9 concentric circles, probably made up of closely spaced pits or post holes.	-2000	-1400
	22		1097243	Relig, rit, funerary	A circle of standing stones, one of a group of such monuments at Stanton Drew. The circle is some 30 metres in diameter and contains 8 upright stones.	-2000	-1400
					Earthworks of banks and lynchets forming small enclosures.	-2500	1539
Iron Age	1	MBN11026_b		Agric and subsist		-750	42
	2	MBN10449_a		Domestic	Roman dwelling remains	-750	42
	3	MBN11350		Domestic	Iron Age roundhouse remains	-750	409
	4	MBN3156		Domestic	Iron age material south of Herons Green	-750	42
	5	MBN603		Domestic	Iron age occupation east of Herons green	-750	42
	6	MBN605		Domestic	Iron Age - Romano-British settlement Herriotts Bridge	-750	409
	18	MBN11778		Unassigned	Pit containing an almost complete cup-like vessel.	-100	42
	19	MBN11782		Unassigned	3 ditches which may represent three sides of an enclosure.	-100	42

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	20		200574	Defence	Earthwork remains of an Iron Age univallate hillfort. It was re-discovered by Fowler after reference to Skinner. It occupies an area of woodland about 3ha at the SE end of a narrow ridge with precipitous slopes to SW and SE, and a steep slope on the NE	-750	42
	21		201077	Agric and subsist	'Celtic' field system.	-750	42
	1	MBN11351		Agric and subsist	Late Roman Field Bank, Bathampton Meadows	43	409
	2	MBN11026_b		Agric and subsist	Earthworks of banks and lynchets forming small enclosures.	-2500	1539
	3	MBN11350		Defence	Iron Age - Romano-British settlement Herriotts Bridge	-750	409
	4	MBN1178_a		Domestic	Roman Occupation, disused quarry, Fox Hill	43	409
	5	MBN1214_b		Domestic	A small Roman building incorporating a bath suite was excavated in 1922 at Somerdale, after 2 inhumations burials in coffins & Roman material had been discovered during building factory.	43	409
	6	MBN11813		Domestic	Remains of a building found in one trench, with possible associated buried soils and rubble spread in other 4 trenches.	43	409
	7	MBN1661		Domestic	A Roman villa was partly uncovered about 1837 at Newton St. Loe during the construction of the Great Western Railway, near the point where the Bath road crosses the railway and on the south side of the road.	43	409
	8	MBN1739		Domestic	Remains of a hypocaust and pavement, part of a Roman building, were found in 1691/2 at Bathford. The exact location has not been proven but the grid reference is based on reasonable archaeological assumption.	43	409
	9	MBN1742		Domestic	A room and pavements of a Roman villa were found at Warleigh, Bathford in 1655. In the late 18th Century a Roman capital was found at the site and in the 19th Century a stone coffin and tiles and pipes are recorded.	43	409
	10	MBN4562		Domestic	Romano-British (?) buildings west of Mill Farm	43	409
	11	MBN10449_b		Domestic	Roman dwelling remains	43	409
	12	MBN9706		Domestic	Romano-British Settlement (Traiectus?)	43	409
	13	MBN7615		Domestic	Romano-British buildings	43	409
	14	MBN11783		Domestic	Early Roman possible round house and associated postholes, ditches and hearth. Also later 2nd to 4th occupation .	43	409
	15	MBN595_a		Domestic	Romano-British, south of Heron's Green Bay	43	409
	16	MBN604		Domestic	Chew Park Roman villa	275	350
	17	MBN605		Domestic	Iron Age - Romano-British settlement Herriotts Bridge	-750	409
	18	MBN1261		Find Spot	Roman Coins and tiles Found near St. Nicholas, Kelston	43	409
	19	MBN1660		Find Spot	ROMANO-BRITISH finds, West of Water Purification Work	43	409
	20	MBN1768		Find Spot	Roman coin west of Inglescombe Nursery	43	409
	21	MBN4613		Find Spot	Roman coin hoard	43	409
	22	MBN5712		Find Spot	Roman Pottery NW of Stidham Farm	43	409
	23	MBN725		Find Spot	Roman pottery Chew Valley Lake	43	409
	24	MBN728		Find Spot	Roman coin near the River Chew	43	409
	25	MBN1214_a		Relig, rit, funerary	A small Roman building incorporating a bath suite was excavated in 1922 at Somerdale, after 2 inhumations burials in coffins & Roman material had been discovered during building factory.	43	409
	26	MBN1283		Relig, rit, funerary	A Roman sculptured stone is built into the N buttress at the E end of the church at Compton Dando	43	409
	29	MBN2598		Relig, rit, funerary	Roman coffin north of Manor Farm	43	409
	28	MBN1178_b		Relig, rit, funerary	Roman Occupation, disused quarry, Fox Hill	43	409
	27	MBN595_b		Relig, rit, funerary	Romano-British, south of Heron's Green Bay	43	409
	30	MBN5984		Relig, rit, funerary	Roman finds and burial	43	409
	31	MBN2418		Transport	Agger	43	409

Roman

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	32	MBN11357		Transport	Newton Meadows	43	409
	33	MBN4926		Unassigned	Roman site Charlton Bottom	43	409
	34	MBN713		Industrial	Roman quarry Chew Valley Lake	43	409
	35		1030069	Transport	Roman road running from Wickham to Bathaston. It can be seen in places as sections of fine agger and by a striking alignment of hedgerows usually followed by a parish boundary.	43	409
	36		1166109	Transport	Conjectural routes of a Roman road running from Bath to Kingston Deverill with the agger surviving in some places.	43	409
	37		1326622	Transport	A possible Roman road running from Bath to Street.	43	409
	38		1326595	Transport	A possible Roman road running from Bristol to Bath.	43	409
	39		1325732	Transport	Roman road from Bitton to the Mendip Hills (Compton Martin).	43	409
	40		1338304	Transport	Possible Roman Road RR546 running from Bristol to Farrington Gurney.	43	409
	41		1164946	Transport	Roman road running from Bath to Cirencester, extending for 29.5 miles, visible as an agger in places 33 feet wide and 4 feet high. Four sections of the road surface have been recorded from aerial photographs as cropmarks as part of the Cotswold Hills AONB.	43	409
	42		1164943	Transport	Roman road running from Ilchester to Bath extending for 30 miles, surviving in places as an agger 8 feet high and 16 feet wide and on line with modern roads.	43	409
	43		1166116	Transport	The Roman road running from Bath (Aquea Sulis) to Sea Mills (Abonae) is on the course of modern roads and noted in section to be 12 feet wide and 8 inches thick.	43	409
	44		201403	Find Spot	Twenty-three 3rd and 4th cent Roman coins, part of the metallic urn in which they were found, and six pieces of RB pottery, were presented to the Bristol Philosophical Institution in 1829 by Dr Fox of Brislington, and later passed to Bristol Museum.	43	409
	1	MBN11026_b		Agric and subsist	Earthworks of banks and lynchets forming small enclosures.	-2500	1539
	2	MBN4433		Civil	Manorial boundary of Warleigh & Bathford	410	1065
	3	MBN7409		Defence	Trial excavation on the line of the West Wansdyke (no ditch) noted on 1921 OS map revealed a bank c0.5m high x 10.5m wide, obscured by modern tipping.	410	1065
	4	MBN11780		Domestic	Long narrow, slightly raised platform containing pits, hearths and ditches associated with 12th or earlier pottery up to 13th century.	1000	1400
	5	MBN1609		Domestic	Hamlet with mill mentioned in Domesday, 1086	410	1900
	6	MBN9504		Domestic	Medieval Settlement of Hallatrow	410	1539
	7	MBN9505		Domestic	Medieval Settlement of Woollard	410	1539
	8	MBN9586		Domestic	Medieval Settlement of Compton Dando	410	1539
	9	MBN9748		Domestic	Medieval Settlement of	410	1539
	10	MBN10449_c		Domestic	Roman dwelling remains	410	1065
	11	MBN1284		Find Spot	A fragment of pre-conquest cross shaft, under a pump in the stableyard of the Parsonage, Compton Dando was sketched and described by the Rev Skinner in 1826. It was ornamented by interlaced work on 2 sides. Skinner suggested that it had come from a church	410	1065
	12	MBN4502		Find Spot	Cross fragment St Nicholas Church	410	1065
	13	MBN5655		Industrial	Domesday mills	1001	1100
	14	MBN5659		Industrial	Mills (2)	1001	1100
	15	MBN5829		Industrial	Watermill marked on early maps to the W of Stony Littleton. Mill also recorded in Domesday.	410	1900
	16	MBN1248		Relig, rit, funerary	At least 6 inhumation burials were found in about 1936 in a general pit close to Avon Farm, Saltford.	410	1065
	17	MBN6013		Defence	Large double bank parallel with road	410	1065
Saxon							

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	18	MBN11284		Agric and subsist	Medieval or earlier irregular enclosed fields.	410	2050
	19	MBN11711		Agric and subsist	Meadow Farm	410	1065
	20	MBN6009		Defence	5100m length of Wansdyke survives in pasture field	410	1065
	21	MBN6010		Defence	Wansdyke Section from Compton Dando to East of Bathford Brook.	410	1065
	22	MBN6014		Defence	Stretch of Wansdyke not marked on modern OS maps, west of Goss Plantation.	410	1065
	23	MBN6028		Defence	Wansdyke Section NW of Manor Farm	410	1065
	24	MBN597		Domestic	Domesday settlement deserted in 1953 for the creation of Chew Lake.	410	2050
	25	MBN9714		Domestic	Approximate area of medieval settlement based on c.1842 Tithe map.	410	2050
	26		201245	Find Spot	Saxon coffin lid	410	1065
	1	MBN8040		Agric and subsist	Lynchets group above Priston Mill Farm	1066	1539
	2	MBN8195		Agric and subsist	Church Farm	1066	1800
	3	MBN8196		Agric and subsist	Court Farm	1066	1900
	4	MBN8712		Agric and subsist	Farmstead N of Publow Church	1066	1900
	5	MBN11026_b		Agric and subsist	Earthworks of banks and lynchets forming small enclosures.	-2500	1539
	6	MBN11026_c		Agric and subsist	Earthworks of banks and lynchets forming small enclosures.	1066	1539
	7	MBN3047		Agric and subsist	Strip lynchets North West of Haycombe Farm	1066	1539
	8	MBN1767		Agric and subsist	Celtic fields, Newton Brook Valley	1066	1539
	9	MBN5669		Agric and subsist	Fishponds W of Kelston Manor	1066	1539
	10	MBN1711		Civil	Stocks in the churchyard	1066	1539
	11	MBN3989		Civil	Parish bank & hedge, between Burnett & Keynsham	1066	1539
	12	MBN1609		Domestic	Hamlet with mill mentioned in Domesday, 1086	410	1900
	13	MBN4579		Domestic	Settlement remains, West of Manor Far	1066	1539
	14	MBN9504		Domestic	Location needs checking.	410	1539
	15	MBN9505		Domestic	Medieval Settlement of Woollard	410	1539
	16	MBN9586		Domestic	Medieval Settlement of Compton Dando	410	1539
	17	MBN9748		Domestic	Medieval Settlement of	410	1539
	18	MBN9993		Domestic	settlement (?) site west of Ingles	1066	1539
	19	MBN2629		Domestic	Earthworks near all Saints Church	1066	1900
	20	MBN30282		Domestic	Medieval occupation remains	1066	1539
	21	MBN2615		Domestic	Bell Inn	1066	1900
	30	MBN5690		Domestic	15th Century pottery Monksilver	1066	1539
	33	MBN11774		Domestic	Building found through excavation and now preserved under pasture	1066	1539
	24	MBN11775		Domestic	Medieval and post medieval mill house now under Chew Lake.	1100	1880
	25	MBN11777		Domestic	Medieval house c. 12th to 14th century comprising stone footings, pits and postholes.	1066	1539
	26	MBN11780		Domestic	Long narrow, slightly raised platform containing pits, hearths and ditches associated with 12th or earlier pottery up to 13th century.	1000	1400
	27	MBN11781		Domestic	Traces of a medieval house.	1100	1400
	28	MBN11785		Domestic	House platform on which were excavated the remains of a medieval house.	1066	1539
	29	MBN11786		Domestic	A very well defined and dark occupation layer was found in 5 test pits probably associated with the medieval Stratford Mill.	1066	1539
	22	MBN1599		Domestic	Writhlington Manor house site near the Church	1066	1539

Medieval

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	31	MBN5692		Domestic	Shrunken Settlement	1066	1900
	32	MBN592		Domestic	Moat Farm, Bickfield	1401	1500
	33	MBN6568		Domestic	Present building built c1730, rebuilt on the E & S sides in 1755,	1066	1800
	34	MBN724_a		Domestic	Moated site containing a complex of medieval buildings.	1066	1539
	35	MBN7666		Domestic	New Manor Farm	1401	1900
	36	MBN8056		Find Spot	Medieval pottery scatter at Pottern	1201	1400
	37	MBN4218		Gardens, Parks	Kelston Manor Garden	1501	1600
	38	MBN3344		Gardens, Parks	medieval deer park (?) west of Compton Dando	1066	1539
	39	MBN3351		Gardens, Parks	Medieval deer park (?), west of Englishcombe	1066	1539
	40	MBN11880		Industrial	Circular earthworks with depressions in the centre	1066	1900
	41	MBN1320		Industrial	Priston Watermill, South of Priston Mill Farm	1066	1900
	42	MBN5829		Industrial	Watermill marked on early maps to the W of Stony Littleton. Mill also recorded in Domesday.	410	1900
	43	MBN600		Industrial	Medieval lime kilns east of Herons Green	1101	1200
	44	MBN4062		Industrial	Herriot's Mill, North of Lower Gurney Far	1066	1900
	45	MBN4565		Industrial	Mill site, Claverton Pumping Station	1066	1900
	46	MBN5655		Industrial	Domesday mills	1001	1100
	47	MBN5659		Industrial	Mills (2)	1001	1100
	48	MBN2250		Industrial	16th Century tucking mill. 1736 Brass battery mill. 1790 Derelict. Later used as tannery, then a grist mill until World War 2. Now a farm building.	1501	2000
	49	MBN3190		Industrial	Medieval quarry Chew Valley Lake	1066	1539
	50	MBN10310		Industrial	Bathampton Weir	1066	1900
	51	MBN724_b		Relig, rit, funerary	Moated site containing a complex of medieval buildings.	1066	1539
	52	MBN11776		Relig, rit, funerary	Excavated remains of medieval chapel.	1200	1539
	53	MBN7588		Relig, rit, funerary	St Georges Cross (site of)	1066	1539
	54	MBN7698		Transport	Herriotts bridge	1066	1539
	55	MBN8751		Transport	A medieval bridge with three pointed arches and double arch-ribs.	1066	1539
	56	MBN11251		Transport	Narrow limestone bridge used as footbridge.	1066	1900
	57	MBN7691		Transport	Withy Lane	1066	1539
	58	MBN9400		Unassigned	This triple earthwork bank lies on a section of the parish boundary between Keynsham and Compton Dando. It is probably medieval in date.	1066	1539
	59	MBN9418		Unassigned	Earthworks at Moat Farm	1066	1539
	60	MBN11352		Unassigned	Medieval ditches north of railway	1066	1539
	61	MBN8709		Water and drainage	Leat conveying water to Publow Mill	1066	1539
	62	MBN11718		Domestic	land in Hallatrow that is part of Medieval settlement	1066	1539
	63	MBN11105		Agric and subsist	Tennant's Wood	1066	2050
	64	MBN11106		Agric and subsist	Kelston Park Wood	1066	2050
	65	MBN11108		Agric and subsist	East/Foxes Woods	1066	2050
	66	MBN11109		Agric and subsist	Pepper Shells	1066	2050
	67	MBN11110		Agric and subsist	Park Copse	1066	2050
	68	MBN11111		Agric and subsist	Catsley Wood	1066	2050
	69	MBN11113		Agric and subsist	Lord's Wood	1066	2050

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	70	MBN11126		Agric and subsist	Long Dole Wood	1066	2050
	71	MBN11139		Agric and subsist	Bengrove Wood	1066	2050
	72	MBN11143		Agric and subsist	Prestick Wood	1066	2050
	73	MBN11144		Agric and subsist	Cleaves Wood	1066	2050
	74	MBN11151		Agric and subsist	Friary Wood	1066	2050
	75	MBN11153		Agric and subsist	Avoncliff Wood	1066	2050
	76	MBN11157		Agric and subsist	Dunnyham Brake	1066	2050
	77	MBN11158		Agric and subsist	Dunnyham Brake	1066	2050
	78	MBN11173		Agric and subsist	Warleigh Wood	1066	2050
	79	MBN11191		Agric and subsist	Hankley Wood	1066	2050
	80	MBN11284		Agric and subsist	Littleton Falls field system	410	2050
	81	MBN597		Domestic	Domesday settlement deserted in 1953 for the creation of Chew Lake.	410	2050
	82	MBN9714		Domestic	Approximate area of medieval settlement based on c.1842 Tithe map.	410	2050
	83		201434	Industrial	HANHAM MILLS: A Medieval fulling mill, in use as a corn mill by the 1790s. Some derelict masonry remains at the end of a weir.	1066	1539
	84		1496280	Agric and subsist	A small area of medieval and/or post medieval ridge and furrow is visible as earthworks on aerial photographs. The ridge and furrow is located to the north of West Harptree and south of Easton. The ridge and furrow has been plough levelled on aerial pho	1066	1900
	85		1496282	Agric and subsist	A block of medieval and/or post medieval ridge and furrow is visible as cropmarks on aerial photographs taken in 1946. The ridge and furrow is located 390m southwest of Lower Gurney Farm covers and area that measures 104m NE-SW by 68m NW-SE.	1066	1900
	86		200557	Agric and subsist	Medieval field system consisting of extensive earthworks of rectangular enclosures, strip fields and strip lynchets, visible on air photographs.	1066	1539
	88		1497217	Agric and subsist	Four Medieval or Post Medieval field boundaries or lynchets are visible as earthworks on aerial photographs and lidar. The site extends over an area which measures 162 metres east-west and 230 metres north-south. The site comprises three field boundaries	1066	1900
	89		203016	Agric and subsist	Medieval field system with low lying earthworks.	1066	1539
	90		1496275	Agric and subsist	A diffuse area of medieval and/or post medieval ridge and furrow is visible as earthworks on aerial photographs. The ridge and furrow is located around the hamlet of North Widcombe. The majority of the ridge and furrow is still visible as earthworks on	1066	1900
	91		203676	Agric and subsist	Extensive Medieval Field System with lynchets and terraces across the lower slopes of Dean Hill.	1066	1539
	92		1496283	Agric and subsist	Two blocks of medieval and/or post medieval ridge and furrow are visible as earthworks on aerial photographs. The ridge and furrow is located north of Molly Brook and covers an area that measures 165m NE-SW by 69m NW-SE. The ridge and furrow has subseque	1066	1900
	93		1447387	Domestic	Earthworks of medieval settlement. The site consists of a west-east hollow way, with two house platforms on north side, and an enclosure to the south.	1066	1539
	94		1497338	Agric and subsist		1066	1900
	95		1497217	Agric and subsist		1066	1900
	96		1497217	Agric and subsist		1066	1900
	97		1495947	Agric and subsist		1066	1900
	98		1496283	Agric and subsist		1066	1900

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
Post-Medieval	99		1496282	Agric and subsist		1066	1900
	100		1496277	Agric and subsist		1066	1900
	101		1496277	Agric and subsist		1066	1900
	102		1496275	Agric and subsist		1066	1900
	103		1496275	Agric and subsist		1066	1900
	104		1496275	Agric and subsist		1066	1900
	105		1496275	Agric and subsist		1066	1900
	106		1496275	Agric and subsist		1066	1900
	107		1496280	Agric and subsist		1066	1900
	108		1030135	Agric and subsist	Friary is the probable site of the lower house, or corrie, of the Carthusian monastery at Hinton.	1066	1539
		1	MBN11740	Agric and subsist	Moorledge Farm	1540	1900
		2	MBN3987	Agric and subsist	Pound SE of school.	1540	1900
		3	MBN4168	Agric and subsist	Pound, North of Belle Vu	1801	1900
		4	MBN4869	Agric and subsist	Parish Pound	1801	1900
		5	MBN5645	Agric and subsist	Pound	1540	1900
		6	MBN7804	Agric and subsist	Earthworks and Derelict Buildings	1540	1900
		7	MBN7812	Agric and subsist	Earthworks and Ruined Structures	1540	1900
		8	MBN8055	Agric and subsist	barn and cottage site at Pottern	1701	1900
		9	MBN8653	Agric and subsist	pound (early) - site of	1540	1900
		10	MBN8712	Agric and subsist	Farmstead N of Publow Church	1066	1900
		11	MBN9274	Agric and subsist	farmstead site	1540	1900
		12	MBN9725	Agric and subsist	Barn at Avon Farmhouse	1701	1800
		13	MBN2639	Agric and subsist	Pound	1540	1900
		14	MBN2670	Agric and subsist	Upper North End Farmhouse	1601	1700
		15	MBN30135	Agric and subsist	Harts Lane, Hallatrow	1540	2050
		16	MBN30135	Agric and subsist	Harts Lane, Hallatrow	1540	2050
		17	MBN3392	Agric and subsist	Warren	1540	1900
		18	MBN3444	Agric and subsist	Old Stable (Powder house?) Midford Basin	1801	1900
		19	MBN3445	Agric and subsist	Malthouse Midford Hill Farm	1801	1900
		20	MBN5665	Agric and subsist	Tait Farm (site of)	1540	1900
	21	MBN5668	Agric and subsist	Warren (?) at Kelston Park	1701	1800	
	22	MBN5670	Agric and subsist	Pound	1701	1800	
	23	MBN5936	Agric and subsist	Rabbit Warren west of Pristonmill	1540	1900	
	24	MBN6694	Agric and subsist	Deserted Farm Site	1540	1900	
	25	MBN7299	Agric and subsist	Barn No2	1540	1900	
	26	MBN7650	Agric and subsist	farm site north of 'Monksilver'	1601	1700	
	27	MBN7652	Agric and subsist	Earthworks of Parsons Farm	1540	1900	
	28	MBN7656	Agric and subsist	building site	1540	1900	
	29	MBN7661	Agric and subsist	Widcombe Farm	1801	1900	
	30	MBN7662	Agric and subsist	Manorial pound (remains)	1540	1900	

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	31	MBN7668		Agric and subsist	barn site at Widcombe Common	1801	1900
	32	MBN11105		Agric and subsist	Tennant's Wood	1066	2050
	33	MBN11106		Agric and subsist	Kelston Park Wood	1066	2050
	34	MBN11108		Agric and subsist	East/Foxes Woods	1066	2050
	35	MBN11109		Agric and subsist	Pepper Shells	1066	2050
	36	MBN11110		Agric and subsist	Park Copse	1066	2050
	37	MBN11111		Agric and subsist	Catsley Wood	1066	2050
	38	MBN11113		Agric and subsist	Lord's Wood	1066	2050
	39	MBN11126		Agric and subsist	Long Dole Wood	1066	2050
	40	MBN11139		Agric and subsist	Bengrove Wood	1066	2050
	41	MBN11143		Agric and subsist	Prestick Wood	1066	2050
	424	MBN11144		Agric and subsist	Cleaves Wood	1066	2050
	43	MBN11151		Agric and subsist	Friary Wood	1066	2050
	44	MBN11153		Agric and subsist	Avoncliff Wood	1066	2050
	45	MBN11157		Agric and subsist	Dunnyham Brake	1066	2050
	46	MBN11158		Agric and subsist	Dunnyham Brake	1066	2050
	47	MBN11173		Agric and subsist	Warleigh Wood	1066	2050
	48	MBN11191		Agric and subsist	Hankley Wood	1066	2050
	49	MBN11284		Agric and subsist	Littleton Falls field system	410	2050
	50	MBN9889		Defence	Civil War Defences Ham Meadow	1642	1646
	51	MBN2405		Domestic	Avon Farmhouse	1801	1900
	52	MBN2589		Domestic	The Grange	1669	2050
	53	MBN2629		Domestic	Earthworks near all Saints Church	1066	1900
	54	MBN1100		Domestic	Shrunken Settlement, N of Court Farm	1540	1900
	55	MBN11775		Domestic	Medieval and post medieval mill house now under Chew Lake.	1100	1880
	56	MBN1609		Domestic	Hamlet with mill mentioned in Domesday, 1086	410	1900
	57	MBN7696		Domestic	building site	1701	1800
	58	MBN7862		Domestic	Ruined Agricultural Building	1540	1900
	59	MBN8042		Domestic	House platform	1701	1800
	60	MBN8652		Domestic	house site at Punlow Bridge	1540	1900
	61	MBN8664		Domestic	cottage site at Nunney Farm	1801	1900
	62	MBN8674		Domestic	building site at Publow wood	1701	1800
	63	MBN8702		Domestic	house site	1701	1800
	64	MBN8703		Domestic	cottage site south of Woollard	1701	1900
	65	MBN8704		Domestic	cottage site SW of Yew Tree Cottages	1701	1800
	66	MBN8708		Domestic	Cottage site SW of Church Farm	1540	1900
	67	MBN8711		Domestic	House and Yard North of Publow Church	1701	1900
	68	MBN8713		Domestic	Mill Cottage & yard	1801	1900
	69	MBN8719		Domestic	cottage sites at road junction north of Publow	1701	1800
	70	MBN8720		Domestic	cottage site at road junction north of Publow	1701	1900

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	71	MBN8724		Domestic	building site east of Publow Farm	1701	1800
	72	MBN8725		Domestic	cottage site	1701	1900
	73	MBN8750		Domestic	Woodland House Woodland	1701	1800
	74	MBN5692		Domestic	Shrunken Settlement	1066	1900
	75	MBN5693		Domestic	Warren house" S of Widcombe Far	1540	1900
	76	MBN5695		Domestic	Earthworks and site of building	1540	1900
	77	MBN6208		Domestic	Somerset Coal Canal Feeder cut	1801	1900
	78	MBN7644		Domestic	house site at New Manor Farm	1540	1900
	79	MBN7645		Domestic	house site at Nine Elms	1540	1900
	80	MBN7651		Domestic	house site	1701	1800
	81	MBN7653		Domestic	building site	1701	1800
	82	MBN7654		Domestic	building site northwest of Widcombe	1540	1900
	83	MBN7655		Domestic	building site west of Widcombe Farm	1701	1800
	84	MBN7657		Domestic	Building remains and earthworks near	1701	1800
	85	MBN7666		Domestic	New Manor Farm	1401	1900
	86	MBN1609		Domestic	Hamlet with mill mentioned in Domesday, 1086	410	1900
	87	MBN8195		Domestic	Church Farm	1066	1800
	88	MBN8196		Domestic	Court Farm	1066	1900
	89	MBN2610		Domestic	Manor Farmhouse	1601	1700
	90	MBN2671		Domestic	Radford Farmhouse	1601	1700
	91	MBN7694		Domestic	Tudor Farm	1701	1800
	92	MBN597		Domestic	Domesday settlement deserted in 1953 for the creation of Chew Lake.	410	2050
	93	MBN9714		Domestic	Approximate area of medieval settlement based on c.1842 Tithe map.	410	2050
	94	MBN8095		Find Spot	C19 Finds	1801	1900
	95	MBN8099_b		Find Spot	Prehistoric & Post Medieval Finds	1540	1900
	96	MBN30296		Find Spot	Post medieval pottery from the former Parish House	1540	1900
	97	MBN8100_c		Find Spot	Prehistoric & Post Medieval Finds	1540	1900
	98	MBN8621_b		Find Spot	Prehistoric and C19 Finds	1540	1900
	99	MBN8441_b		Find Spot	Prehistoric & Post Medieval Finds	1540	1900
	100	MBN4218		Gardens, Parks	Kelston Manor Garden	1501	1600
	101	MBN4221		Gardens, Parks	Batheaston House garden	1701	1800
	102	MBN4319		Gardens, Parks	Chewton Place Garden	1801	1900
	103	MBN5649		Gardens, Parks	Ice House Combe Hay Manor	1540	1900
	104	MBN9622		Gardens, Parks	Kelston Park Park	1701	1900
	105	MBN9623		Gardens, Parks	Walled garden NW of Kelston Park House	1701	1800
	106	MBN9731		Gardens, Parks	Folly to the west of Chewton place	1801	1900
	107	MBN5672		Gardens, Parks	Summerhouse Kelston Park	1701	1800
	108	MBN11277		Gardens, Parks	Hunstrete House Park	1540	1900
	109	MBN4134		Industrial	Old Shaft Stephens Wood	1540	1900
	110	MBN4162		Industrial	Limekiln ,North of Brass Work	1540	1900

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	111	MBN4432		Industrial	Old Limekiln, North Dairy Hill	1540	1900
	112	MBN4743		Industrial	Paper mill, South of Gordon Bungalow	1540	1900
	113	MBN4881		Industrial	Disused shaft	1540	1900
	114	MBN4892		Industrial	Brick kiln	1540	1900
	115	MBN5189		Industrial	Old Pit	1540	1900
	116	MBN5190		Industrial	Redhill Pit	1540	1900
	117	MBN5335		Industrial	Grist or Gunpowder mill Ashcombe Farm	1540	1900
	118	MBN5457		Industrial	Chemical Works	1540	1900
	119	MBN5650		Industrial	Mill	1701	1800
	120	MBN5654		Industrial	Grist Mill	1540	1900
	121	MBN5658		Industrial	Mill Site at Newton Brook	1540	1900
	122	MBN10258		Industrial	Mill adjacent to Bathampton Weir	1701	1800
	123	MBN10310		Industrial	Bathampton Weir	1066	1900
	124	MBN1155		Industrial	Carlingcott Watermill, W of Stoneage Farm	1540	1900
	125	MBN1120		Industrial	Brass & Iron Foundry	1540	1900
	126	MBN1134		Industrial	Radford Mill, Radford	1540	1900
	127	MBN11880		Industrial	Lords Wood coal workings. Circular earthworks with depressions in the centre	1066	1900
	128	MBN1259		Industrial	Kelston Brass Mills, South of Sewage Works	1701	1800
	129	MBN1280		Industrial	Walls of white lias stand to ground floor level and in places to the full extent of the gable ends, but there is no roof. Tall pillars rise from the stone walls. The site is beside the river near Old Tannery Farm	1540	1900
	130	MBN1282		Industrial	At the NW corner of the churchyard there stands a mill and millhouse which are C18 or possibly earlier	1540	1900
	131	MBN2192		Industrial	Littleton Mill	1540	1900
	132	MBN2218		Industrial	Temple Cloud Mill	1540	1900
	133	MBN3463		Industrial	Paulton Bottom Colliery	1801	1900
	134	MBN4062		Industrial	Herriot's Mill, North of Lower Gurney Far	1066	1900
	135	MBN4063		Industrial	Herriots Mill	1540	1954
	136	MBN4065		Industrial	Moreton Mill	1540	1900
	137	MBN4125		Industrial	Cloud Hill Mill, Cloud Hill	1540	1900
	138	MBN8057		Industrial	colliery site north of Conygre Brake	1701	1800
	139	MBN8058		Industrial	coal pit (remains of) south of Priston New	1701	1800
	140	MBN8059		Industrial	limekiln site and quarry west of Po	1701	1800
	141	MBN8082		Industrial	Quarry & Crane	1540	1900
	142	MBN8364		Industrial	Paulton Engine Colliery N of Hanham Lane	1701	1800
	142	MBN8365		Industrial	Goosard Pit SE of Goosard Bridge Paulton	1701	1800
	144	MBN8696		Industrial	Mining remains in Lords Wood	1540	1900
	145	MBN8701		Industrial	New Mill Publow	1701	1800
	146	MBN8726		Industrial	Building and tannery pits (site)	1701	1800
	147	MBN9300		Industrial	The remains of a tannery building survive as a ruin in the back garden of the house at this NGR	1540	1900
	148	MBN9835		Industrial	Coal mine	1701	1800
	149	MBN9836		Industrial	Coal mine	1701	1800

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	150	MBN9862		Industrial	Soilmarks indicating presence of coalmine	1801	1900
	151	MBN9991		Industrial	Old Coal Shaft (remains of)	1801	1900
	152	MBN2240		Industrial	Chewton Place Mill	1540	1900
	153	MBN2241		Industrial	The Old Leather Mill	1701	1800
	154	MBN2250		Industrial	16th Century tucking mill. 1736 Brass battery mill. 1790 Derelict. Later used as tannery, then a grist mill until World War 2. Now a farm building.	1501	2000
	155	MBN2252		Industrial	Woollard Mill Millhouse	1730	1860
	156	MBN2252		Industrial	Woollard Mill Millhouse	1730	1860
	157	MBN2252		Industrial	Woollard Mill Millhouse	1730	1860
	158	MBN2252		Industrial	Woollard Mill Millhouse	1730	1860
	159	MBN2254		Industrial	Bye (Belton) Mills, Bye Mills Farm, West of Pensford	1668	1885
	160	MBN2326		Industrial	Coal mine	1701	1800
	161	MBN2328		Industrial	Paper Mill	1540	1900
	162	MBN2330		Industrial	Mill St. Catherine's Brook	1540	1900
	163	MBN2331		Industrial	Bathampton mill (Destroyed)	1540	1900
	164	MBN2341		Industrial	Tuckingmill Midford	1801	1978
	165	MBN2701		Industrial	Gunpowder Mill Ashcombe Farm	1540	1900
	166	MBN2702		Industrial	Gunpowder mill, later corn mill abandoned in the late 19th century.	1540	1900
	167	MBN3447		Industrial	Brewery at "The Viaduct" Brassnocker Hi	1801	1900
	168	MBN5824		Industrial	Water mill	1701	1900
	169	MBN5825		Industrial	Mill	1801	1900
	170	MBN5829		Industrial	Watermill marked on early maps to the W of Stony Littleton. Mill also recorded in Domesday.	410	1900
	171	MBN5836		Industrial	Midford Cliff Grist Mill	1701	1800
	172	MBN5837		Industrial	Dunkerton Mill	1701	1800
	173	MBN5848		Industrial	Stratford Mill was built in the late 18th century and other buildings added at a later date. In 1954 the mill was dismantled and re-erected in the grounds of the Folk Museum at Blaise Castle.	1760	1954
	174	MBN5859		Industrial	Mill (site of) Red House Farm	1701	1800
	175	MBN5983		Industrial	Limekiln (possible)	1540	1900
	176	MBN5985		Industrial	Coalmines?	1540	1900
	177	MBN6179		Industrial	Limekiln; NW of Dog Kennel Farm	1540	1900
	178	MBN6237		Industrial	Shoscombe Colliery	1801	1900
	179	MBN7107_a		Industrial	Quarry at Durley Park Keynsham	1801	1900
	180	MBN8723		Industrial	tannery (?) south east of Publow farm	1701	1900
	181	MBN9304		Industrial	gunpowder mill (former)	1701	1800
	182	MBN2226		Industrial	This prominent spoil heap belonged to Withy Mills Colliery which opened in 1815 and closed by 1877. There is a shaft mound on the west side of the heap, possibly an earlier work, but the main pit area stood at the northern end at NGR 6625 5794	1801	1900
	183	MBN10032		Relig. rit, funerary	A mortuary chapel and associated cemetery	1801	1900
	184	MBN4868		Relig. rit, funerary	Quaker Burial Ground	1801	1900
	185	MBN10345		Transport	Turnpike Road (former course of)	1701	1800
	186	MBN10346		Transport	Twerton Sidings	1801	1900

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	187	MBN11251		Transport	Narrow limestone bridge used as footbridge.	1066	1900
	188	MBN11707		Transport	Brick and steel bridge over the former Camerton to Limpley Stoke branch line.	1540	1900
	189	MBN11870		Transport	Small single arch stone bridge with set cobble surface.	1540	1900
	190	MBN1602		Transport	Limpley Stoke Railway Viaduct north of the village	1540	1900
	191	MBN1737		Transport	Bathford Bridge	1601	1700
	192	MBN4577		Transport	Midford viaduct near the Pumping Station	1801	1900
	193	MBN5075		Transport	Camerton Railway-Station	1801	1900
	194	MBN5082		Transport	Kelston Station	1801	1900
	195	MBN5106		Transport	Opened in 1857, it closed to goods in 1963 and closed entirely on the 3rd October 1966	1857	1966
	196	MBN5112		Transport	Midford Station	1801	1900
	197	MBN5460		Transport	Canal tunnel	1540	1900
	198	MBN7699		Transport	Highmore Bridge	1540	1900
	199	MBN7722		Transport	Stone stile and foot bridge	1540	1900
	200	MBN7820		Transport	Stone Stile	1540	1900
	201	MBN7822		Transport	Stone Stile	1540	1900
	202	MBN7823		Transport	Ruins of Footpath Bridge	1540	1900
	203	MBN7824		Transport	Footpath Bridge	1540	1900
	204	MBN7860		Transport	Stone Buildings (6)	1540	1900
	205	MBN7865		Transport	Yorkmead Bridge Widcombe	1540	1900
	206	MBN7866		Transport	Shrowl bridge	1540	1900
	207	MBN8037		Transport	Bulford Bridge	1701	1800
	208	MBN8176		Transport	Stone field bridge east of Whitecross Farm	1540	1900
	209	MBN8177		Transport	Stone field bridge east of Whitecross Farm	1540	1900
	210	MBN8179		Transport	Stone field bridge northeast of	1540	1900
	211	MBN8180		Transport	Stone field bridge east of	1540	1900
	212	MBN8181		Transport	Collapsed bridge in stream	1540	1900
	213	MBN8197		Transport	Stone slab bridge West of Red House Farm	1540	1900
	214	MBN8224		Transport	Stone slab bridge Paradise	1540	1900
	215	MBN8498		Transport	Railway bridge at Clutton	1801	1900
	216	MBN9120		Transport	Tramway from lower engine pit to Somerset Coal Canal	1701	1800
	217	MBN9352		Transport	Bridge across the river Chew	1701	1800
	218	MBN9988		Transport	Old Pennyquick Bridge, Pennyquick, site of	1701	1800
	219	MBN30291		Transport	Site of the former Radstock or Marcroft Wagon Works	1540	1900
	220	MBN7107_b		Transport	Quarry at Durlley Park Keynsham	1801	1900
	221	MBN6219		Transport	Tramway Somerset Coal Canal Terminus to Paulton	1801	1900
	222	MBN6226		Transport	Tramway Midford Basin to Lower Twinhoe	1801	1900
	223	MBN7669		Transport	flood hatches site south of Widcombe	1801	1900
	224	MBN7670		Transport	flood hatches site at Widcombe Common	1801	1900
	225	MBN7671		Transport	flood hatches site	1801	1900
	226	MBN11822		Transport	The Wiltshire, Somerset and Weymouth Railway obtained an Act for the construction of the railway in 1845. The	1540	1900

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	227	MBN11018		Transport	Great Western Railway took over the W&SandWR in 1850 and gave a high priority to the construction because of the potential colliery traffic. The	1800	1900
	228	MBN11796		Transport	Tramway from Welton Old Colliery and Welton Hill Colliery to Radstock canal Basin constructed in c.1804	1793	1853
	229	MBN5290		Unassigned	Tramroad connecting Radford Colliery to the Somerset Coal Canal.	1540	1900
	230	MBN2230		Unassigned	Site of building	1801	1900
	231	MBN7675		Unassigned	Camerton Colliery spoil heap	1540	1900
	232	MBN30118		Water and drainage	boundary stone site	1801	1801
	233	MBN11645		Water and drainage	Somerset Coal Canal, Stoneage Bridge	1796	1800
	234	MBN1808		Water and drainage	Caisson Lock was an experimental lock invented and built by Robert Weldon in 1796, consisting of a large stone-lined chamber or cistern in which a watertight wooden box (the 'caisson') was suspended.	1701	1800
	235	MBN5446		Water and drainage	Midford Aqueduct	1540	1900
	236	MBN5497		Water and drainage	Aqueduct	1540	1900
	237	MBN8151		Water and drainage	Sydney Wharf	1701	1800
	238	MBN8353		Water and drainage	Canal locks at the bulls nose	1801	1900
	239	MBN8359		Water and drainage	Somerset Coal Canal Aqueduct	1540	1900
	240	MBN8675		Water and drainage	Somerset Coal Canal and Terminal	1540	1900
	241	MBN8700		Water and drainage	"Duckpools" fieldname	1540	1900
	242	MBN6202		Water and drainage	Water supply to C18 wire mill at Publow	1701	1800
	243	MBN6203		Water and drainage	Somerset Coal Canal Dundas Aqueduct to Limpl	1801	1900
	244	MBN6204		Water and drainage	Somerset Coal Canal Limpley Stoke Viaduct to	1801	1900
	245	MBN6205		Water and drainage	Somerset Coal Canal Monkton Combe to Tucking	1801	1900
	246	MBN6206		Water and drainage	Somerset Coal Canal Tucking Mill to Midford	1801	1900
	247	MBN6207		Water and drainage	Somerset Coal Canal Midford to Upper Midford	1801	1900
	248	MBN6209		Water and drainage	Somerset Coal Canal Upper Midford to Upper T	1801	1900
	249	MBN6212		Water and drainage	Somerset Coal Canal Flight of Locks nr. Cais	1801	1900
	250	MBN6213		Water and drainage	Somerset Coal Canal Combe Hay Tunnel to the	1801	1900
	251	MBN6215		Water and drainage	Somerset Coal Canal Aqueduct & site of Wharf	1801	1900
	252	MBN6216		Water and drainage	Somerset Coal Canal, Withy Ditch to Bengrove	1801	1900
	253	MBN6217		Water and drainage	Somerset Coal Canal Bengrove Wood to Radford	1801	1900
	254	MBN6218		Water and drainage	Somerset Coal Canal Radford Bridge to Paulton	1801	1900
	255	MBN6220		Water and drainage	Somerset Coal Canal Terminus nr. Goosard Bridge	1801	1900
	256	MBN6225		Water and drainage	Tramway Somerset Coal Canal Terminus to Hayes	1801	1900
	257	MBN6230		Water and drainage	Somerset Coal Canal Midford Basin	1801	1900
	258	MBN6231		Water and drainage	Somerset Coal Canal Stony Littleton Aqueduct	1801	1900
	259		1496280	Water and drainage	Somerset Coal Canal Stony Littleton Aqueduct	1801	1900
				Agric and subsist	A small area of medieval and/or post medieval ridge and furrow is visible as earthworks on aerial photographs. The ridge and furrow is located to the north of West Harptree and south of Easton. The ridge and furrow has been plough levelled on aerial pho	1066	1900
	260		1496282	Agric and subsist	A block of medieval and/or post medieval ridge and furrow is visible as cropmarks on aerial photographs taken in 1946. The ridge and furrow is located 390m southwest of Lower Gurney Farm covers and area that measures 104m NE-SW by 68m NW-SE.	1066	1900

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	261		1497217	Agric and subsist	Four Medieval or Post Medieval field boundaries or lynchets are visible as earthworks on aerial photographs and lidar. The site extends over an area which measures 162 metres east-west and 230 metres north-south. The site comprises three field boundaries	1066	1900
	262		1496275	Agric and subsist	A diffuse area of medieval and/or post medieval ridge and furrow is visible as earthworks on aerial photographs. The ridge and furrow is located around the hamlet of North Widcombe. The majority of the ridge and furrow is still visible as earthworks on	1066	1900
	263		1496283	Agric and subsist	Two blocks of medieval and/or post medieval ridge and furrow are visible as earthworks on aerial photographs. The ridge and furrow is located north of Molly Brook and covers an area that measures 165m NE-SW by 69m NW-SE.	1066	1900
	264		1497338	Agric and subsist		1066	1900
	265		1497217	Agric and subsist		1066	1900
	266		1497217	Agric and subsist		1066	1900
	267		1495947	Agric and subsist		1066	1900
	268		1496283	Agric and subsist		1066	1900
	269		1496282	Agric and subsist		1066	1900
	270		1496277	Agric and subsist		1066	1900
	271		1496277	Agric and subsist		1066	1900
	272		1496275	Agric and subsist		1066	1900
	273		1496275	Agric and subsist		1066	1900
	274		1496275	Agric and subsist		1066	1900
	275		1496275	Agric and subsist		1066	1900
	276		1496275	Agric and subsist		1066	1900
	277		1496280	Agric and subsist		1066	1900
	278		544431	Domestic	A house built in the early 17th century and altered subsequently and extended in the early 20th century.	1540	1900
	279		1304696	Gardens parks and urban spaces	Former orangery to Warleigh Manor, now a house. The orangery was built in the early-mid 19th century of ashlar with a hipped slate roof with an embattled parapet and cornice. The building has four square-headed tall windows with two-stage Gothic buttresse	1800	2050
	280		618982	Gardens parks and urban spaces	Landscape park and gardens to Iford Manor. The grounds include a formal terraced garden designed by Harold Ainsworth Peto from 1899 and completed by 1907. However, work in the gardens continued until 1917. The gardens were restored during the late 1960s	1777	2050
	281		203091	Industrial	Last mine in the Somerset coal field to close in 1974. Shortly after all traces of the mine were removed.	1540	2050
	282		1078493	Industrial	A Post Medieval Gun Powder works, the earliest reference to which was in the late 18th century, confirmed by its depiction on the 1st edition map as powder mill. Closed shortly after 1820. The site now lies submerged beneath Chew Valley Lake.	1540	1900
	283		204780	Industrial	Water mill at Brinsford Mead mentioned in 1611. Possible earthwork remains noted.	1540	1900
	284		1305210	Industrial	3-storeyed rubble stone building with tiled roof, probably built in the early-mid 19th century. The mill has now been converted to a house with modern windows on the south gable- end. The building was observed from a distance only.	1850	2050
	285		1305518	Industrial	A relatively large complex of stone-built mill buildings, mainly mid-late 19th century but possibly with some earlier structures. The site was water powered, with related the landscape features. Most of the buildings shown on the late 19th century 25" pl	1850	1900
	286		203093	Industrial	Former colliery begun in 1840. An incline was built to take the coal down to the Somerset Coal Canal ttrroad in 1855. The line remained in use until 1874, when it was replaced by a 2 foot 6-inch gauge edge railway incline to exchange	1840	1970

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
	287		200631	Transport	sidings and screens Bristol And North Somerset Railway, opened in 1873 from Bristol to Radstock to serve the collieries of the North Somerset coalfield. Passengers ceased to be carried in 1959, and shortly after 1966, mineral traffic ceased and the line was dismantled.	1873	1966
	288		867808	Transport	The Somerset & Dorset Railway. Dismantled railway. Course of former Somerset and Dorset Joint Railway, the first sections of which were opened in 1854. The earliest section the Glastonbury - Highbridge line, was built by the Somerset Central Railway. In	1854	1900
	289		201361	Transport	1869, Closed 1966	1869	1966
	290		1359734	Transport	The branch line to Bradford from Staverton on the Wilts, Somerset and Weymouth line was originally authorised in 1845 as part of that scheme. The line from Staverton was nearly completed in 1848, Bradford station was ready, and only the rails needed to be	1845	1900
	291		200630	Transport	Dismantled railway. The 3 1/4 miles of track between Hallatrow and Camerton was opened in 1882 as a branch of the Bristol and North Somerset railway. It was extended to Dunkerton Colliery in 1907, and completed to Limpley Stoke on the Bradford and Bathamp	1882	1950
	292		1480430	Transport	Prior to 1891 a 75 metre siding and embankment extending north-eastwards was built. It was connected to the GWR [AMIE NMR number 499421, ST 66 NE 76] mainline via a turntable. In 1928 this was replaced by a 1.3 km long siding.	1890	1980
	293		499424	Transport	Site of railway station on the Evercreech - Bath branch of the Somerset and Dorset Junction Railway, opened in 1874 and closed in 1966.	1874	1966
	294		499444	Transport	Site of railway station on the Evercreech - Bath branch of the Somerset and Dorset Junction Railway, opened in 1874 and closed in 1966.	1874	1966
	295		1497484	Water and drainage	A probable Post Medieval pond is visible as an earthwork on aerial photographs taken in 1946, though the pond has been levelled on aerial photographs taken in 1989. The site extends over an area which measures 15 metres in diameter. The site comprises an	1540	1900
	1	MBN11022		Defence	Brick built military 'pill box'.	1939	1945
	2	MBN11023		Defence	Concrete pillbox. Type 22.	1939	1945
	3	MBN11024		Defence	Anti-tank blocks that seem to be in-situ alongside the Wellow Brook	1939	1945
	4	MBN11030		Defence	World War II brick Type 24 Pill-Box	1939	1945
	5	MBN597		Domestic	Domesday settlement deserted in 1953 for the creation of Chew Lake.	410	2050
	6	MBN9714		Domestic	Medieval Settlement of Bathampton, approximate area of medieval settlement based on c.1842 Tithe map.	410	2050
	7	MBN10600		Industrial	Munitions Factory	1939	1945
	8	MBN9383		Industrial	chocolate factory owned by JS Fry and now Cadbury-Schweppes that was used to manufacture Cadbury's brand chocolate. The area has primarily been turned into a sports complex.	1901	2000
	9	MBN30330		Industrial	Windpump	1901	2050
	10	MBN10525		Recreational	Stockwood Vale Golf Course	1901	2050
	11	MBN5073		Transport	Paulton Halt Station opened 5.1.1914, closed to passengers 23.3.1915, reopened 9.7.1923, closed entirely 21.9.1925.	1066	1800
	12	MBN5107		Transport	Bathford Halt Station opened 18.3.1929, closed entirely on 4.1.1965.	1066	1539
	13		1496213	Communications	A K6 or Jubilee telephone kiosk.	1901	2050
	14		1186656	Defence	Second World War Pillbox, forming part of a stop line along the length of the Kennet and Avon Canal.	1939	1945
	15		1420268	Defence	A Second World War tank trap located northeast of the bridge crossing Wellow Brook at Stony Littleton. The tank trap was constructed in 1940 and comprises three reinforced concrete anti-tank 'pyramids'. A field visit in 1998 found the structures extant	1939	1945
	16		1422903	Defence	A Second World War shell-proof type 24 pillbox located on the west bank of the River Avon, near Freshford Railway	1939	1945

Modern

Period	RA Number	HER ID	NMR ID	Asset type	Comment	Early Date	Late Date
					Bridge. The pillbox was constructed in 1940-41 and built of reinforced concrete. Extant in 1999.		
	17		1186655	Defence	Second World War Pillbox, forming part of a stop line designed to protect Bristol.	1939	1945
	18		1186659	Defence	Second World War Pillbox, forming part of a stop line along the length of the Kennet and Avon Canal.	1939	1945
	19		1422882	Defence	A Second World War shell-proof type 24 pillbox located at Church Farm, Wellow. The pillbox was constructed in 1940-41 and built of reinforced concrete. In 1999 the structure was reported as extant but condition uncertain.	1939	1945
	20		1422890	Defence	A Second World War shell-proof type 24 pillbox located to the east of Wellow Brook, Midford Valley. The pillbox was constructed in 1940-41 and built of reinforced concrete. In a report of 1999 the structure was recorded as extant.	1939	1945
	21		1422889	Defence	A Second World War type 26 pillbox located east of Wellow Brook at the north end of Poorfield Wood, Midford Valley. The pillbox was constructed in 1940-41 and built of brick and reinforced concrete. Extant in 1999.	1939	1945
	22		1422883	Defence	A Second World War type 26 pillbox located at Ford Road Bridge, Hinton Hill, south of Wellow Brook. The pillbox was constructed in 1940-41 and built of with brick and reinforced concrete.	1939	1945
	23		1414199	Defence	The site of a Royal Observer Corps monitoring post. The site is located in the Fox Hills area of Radstock, west of Church Street. The majority of these sites were built between 1956 and 1964, although their construction began after 1925 and continued int	1901	2050
	24		1428111	Defence	A Second World War anti-tank trap recorded at Stony Littleton. The tank trap was constructed in 1940-41 and comprises five concrete blocks. A field visit in 1998 found the structure extant.	1939	1945
	25		1428109	Defence	A Second World War pillbox located at Lower Writhlington Colliery. The pillbox was described as a type 29 by the recorder but it is almost certainly a shell-proof type 24. It was constructed in 1940-41 and built of reinforced concrete.	1939	1945
	26		1429086	Defence	Site of a Second World War auxiliary unit operational base recorded in a mine shaft at Pennyquick Bridge, east of Newton St. Loe. The base was established in 1940 but was abandoned in 1941.	1939	1945
	27		1429406	Defence	Site of a Second World War anti-tank ditch running from Wellow Brook east-south-east to Hang Wood, Midford Valley. The anti-tank was constructed in 1940-41 and formed part of GHQ Line Green which formed a loop around the Bristol area and served as the ou	1939	1945
	28		1420259	Defence	A Second World War type 24 variant pillbox located on the north bank of Wellow Brook and to the south of Church Farm, northwest of Norton Lane Farm and southeast of Wellow village. The pillbox was constructed in 1940 and built of brick and reinforced concrete.	1939	1945
	29		1420258	Defence	A Second World War type 24 variant pillbox located just west of the bridge to the east of Wellow village, on the north bank of Wellow Brook on Hinton Hill. The pillbox was constructed of brick and reinforced concrete, and built in 1940.	1939	1945
	30		1422887	Defence	A Second World War shell-proof type 24 pillbox located on the west bank of Wellow Brook, Twinhoeferd. The pillbox was constructed in 1940-41 and built of reinforced concrete. Extant in 1999.	1939	1945
	31		1422884	Defence	A Second World War shell-proof type 24 pillbox located on the north bank of Wellow Brook at Hankley Bottom. The pillbox was constructed in 1940-41 and built of reinforced concrete. Extant in 1999.	1939	1945
	32	CADBURY FACTORY	1480416	Industrial	Cadbury Factory. A chocolate factory complex for J S Fry and Sons, dating fomr 1928-1931, 193-8 and circa 1964 (Fry's became a wholly owned subsidiary of Cadbury in 1935) Some buildings were demolished in the 1980s.		
	33	COMBE HAY HALT	500040	Transport	Site of railway station on the Camerton and Limpley Stoke branch line, opened in 1907 and closed in 1925.	1907	1925
	34	MONKTON COMBE STATION	499426	Transport	Site of railway station on the Camerton and Limpley Stoke branch line, opened in 1907, closed to passengers in 1925 and wholly in 1951.	1907	1951
	35	CHEW VALLEY RESERVOIR	1463194	Water and drainage	Reservoir by the T&C Hawkesley Company in 1956 for the Bristol Waterworks. One of the last puddle-core dams, and the largest man-made lake in Britain when built. Associated pumping station to the North. The reservoir is formed by three main dams.	1956	2050

12.2 Study Area 2

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date	
Mesolithic	6	MBN1097		Find Spot	Mesolithic Axe Hammer, W of Slatte Farm	- 10000	- 4001	
	7		863876	Find Spot	Mesolithic core found north of Shockerwick Wood	- 10000	- 4001	
	8		203354	Find Spot	Mesolithic flints including a tranchet axe, cores, a graver and microlith were found on the surface at Banner Down.	- 10000	- 4001	
Neolithic	6	MBN1826		Domestic	Neolithic and Bronze Age finds at Hayes Wood enclosure	- -3000	- 1501	
	7	MBN1744		Relig, rit, funerary	Alleged site of a long barrow on Banner Down	-3000	- 1501	
Bronze Age	6	MBN1158		Find Spot	Chisel west of Wood Lea, Clandown	-1000	-701	
	7	MBN1826		Find Spot	Neolithic and Bronze Age finds at Hayes Wood enclosure	-3000	- 1501	
	8	MBN1177		Relig, rit, funerary	Bronze Age Barrow, NE of disused quarry, Fox Hills, Radstock	-2350	-751	
	9	MBN1310		Relig, rit, funerary	Bronze Age cist burial, East of Corston Field	-2350	-751	
	10	MBN1311		Relig, rit, funerary	Cist burial, E of Corston field	-2350	-751	
	11	MBN1623		Relig, rit, funerary	Round barrow Midford Hill	-2350	-751	
	12	MBN2257_a		Relig, rit, funerary	Round Barrows	-2350	-751	
	13	MBN4500		Relig, rit, funerary	Barrow, south of Emden	-2350	-751	
	14	MBN4591		Relig, rit, funerary	round barrow (?) at Hay Woo	-2350	-751	
	15	MBN5270		Relig, rit, funerary	Round barrow?	-2350	-751	
	16	MBN6073		Relig, rit, funerary	Mound	-4000	42	
	17		1035203	Transport	Lincoln to Stamford section of prehistoric route linking Yorkshire and Somerset. Partly utilised by Roman roads.	-2350	42	
	Iron Age	6	MBN1118		Agric and subsist	Pre-Medieval Field System, Amesbury Hill	-750	409
		7	MBN1278		Defence	hillfort (possible), SW of North End Farm	-750	42
8		MBN1157		Domestic	Iron Age Occupation, West of Wood Lea	-750	42	
9		MBN4975		Industrial	Iron Working area Little Solsbury	-750	42	
10		MBN1717		Relig, rit, funerary	In 1902 a shallow cist was found enclosing two skeletons.	-750	42	
11		MBN1697		Unassigned	Iron age - Romano-British enclosure	-750	409	
12		MBN1735		Unassigned	Bathampton Camp	-750	42	
13		MBN1717		Defence	Solsbury Hill is a univallate hillfort of IRON AGE "A" date. Excavations in 1955, 1956 and 1958 show that the site was first occupied by post hole huts possibly for the IRON AGE "A" builders of the rampart of the hillfort.	-750	42	
14		MBN1828		Unassigned	A roughly quadrilateral shaped enclosure, with rounded corners, an external bank and presumed single entrance on the east side at Hayes Wood, Freshford, was first recognised by the Reverend John Skinner in the 18th century. Trial excavations were conduc	-750	42	
15			1035203	Transport	Lincoln to Stamford section of prehistoric route linking Yorkshire and Somerset. Partly utilised by Roman roads.	-2350	42	
16		204033	Agric and subsist	The supposed site of an Iron Age/Romano-British field system; nothing now visible. Site of a Roman building indicated by	-750	409		

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
					finds of scored tile and a single tesserae. Roman pottery including samian and New Forest ware were also found. Other finds include		
	1	MBN1118		Agric and subsist	Pre-Medieval Field System, Amesbury Hill	-750	409
	2	MBN1178_a		Domestic	Roman Occupation, disused quarry, Fox Hill	43	409
	3	MBN11826		Domestic	A site of Roman occupation is suggested by the finds recovered during fieldwalking in a field immediately to the south of Stowey Quarry undertaken by Keith Faxon on behalf of Charles and Nancy Hollinrake.	43	409
	4	MBN2008		Domestic	Romano-British Settlement east of Sir Bevil Grenville's monument, excavated in 1905-8 by TS Bush.	43	409
	5	MBN1098		Find Spot	Roman Pottery, West of Slaite Farm	43	409
	6	MBN1762		Find Spot	Roman pottery Pennyquick	43	409
	7	MBN1812		Find Spot	Roman pot from Hayes Wood Iron age enclosure	43	409
	8	MBN4609		Find Spot	Roman coin "probably of Maximinus" found by Mr Jacob on a path near "green 5" in 1964.	235	409
	9	MBN2008		Industrial	Romano-British Settlement east of Sir Bevil Grenville's monument, excavated in 1905-8 by TS Bush.	43	409
	10	MBN1106		Relig, rit, funerary	Roman stone coffins, near White Cross Farm	43	409
	11	MBN1622		Relig, rit, funerary	Roman coffin Midford Hill	43	409
	12	MBN1761		Relig, rit, funerary	Roman burials, East of Home Farm	43	409
	13	MBN1790		Relig, rit, funerary	Roman coffins east of Vernham Wood	43	409
	14	MBN926		Relig, rit, funerary	Roman stone coffin close to Saxon cemetery	43	409
	15	MBN1178_b		Relig, rit, funerary	Roman Occupation, disused quarry, Fox Hill	43	409
	16	MBN2008		Relig, rit, funerary	Romano-British Settlement east of Sir Bevil Grenville's monument, excavated in 1905-8 by TS Bush.	43	409
	17	MBN1626		Transport	Roman Road 720 yds (677m) long N of Abbey	43	409
	18	MBN6055		Transport	Fosseway	43	409
	19	MBN1156		Unassigned	Roman Occupation, West of Wood Lea	43	409
	20	MBN1299		Unassigned	Roman pit, W of Hungerford Bottom	43	409
	21	MBN1697		Unassigned	Iron age - Romano-British enclosure	-750	409
	22	MBN1745		Unassigned	Bank alleged camp. Banner Down	43	409
	23		204033	Agric and subsist	The supposed site of an Iron Age/Romano-British field system; nothing now visible. Site of a Roman building indicated by finds of scored tile and a single tesserae. Roman pottery including samian and New Forest ware were also found.	-750	409
	24		204033	Domestic	The supposed site of an Iron Age/Romano-British field system; nothing now visible. Site of a Roman building indicated by finds of scored tile and a single tesserae. Roman pottery including samian and New Forest ware were also found.	-750	409
	25		1326622	Transport	A possible Roman road running from Bath to Street.	43	409
	26		1009123	Transport	Roman road running from Sea Mills to Hornblotton via Gatcombe.	43	409
	27		1326595	Transport	A possible Roman road running from Bristol to Bath.	43	409
	28		1325848	Transport	Roman road running northward from Bath (Aquae Sulis) over Lansdown Hill to connect with the ancient Midland ridgeway known as the Jurassic Way.	43	409
	29		1325732	Transport	Roman road from Bitton to the Mendip Hills (Compton Martin).	43	409
	30		1338304	Transport	Possible Roman Road RR546 running from Bristol to Farrington Gurney.	43	409
	31		1164946	Transport	Roman road running from Bath to Cirencester, extending for 29.5 miles, visible as an agger in places 33 feet wide and 4 feet high. Four sections of the road surface have been recorded from aerial photographs as cropmarks as part of the Cotswold Hills National Park.	43	409
	32		1164943	Transport	Roman road running from Ilchester to Bath extending for 30 miles, surviving in places as an agger 8 feet high and 16 feet	43	409

Roman

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
	33		203347	Unassigned	wide and on line with modern roads.		
	1	MBN1145		Relig, rit, funerary	A square enclosure - possible Roman Earthwork.	43	409
	2	MBN1236		Relig, rit, funerary	Anglo-Saxon Cemetery, West of Camerton Farm	410	1065
					Saxon burial E of Elm Farm, Burnett: A C6 or C7 saxon gold pendant was found in 1922 with some beads which crumbled on exposure and a few fragments of bone on the surface of recently moved earth by the side of the new road at Burnett about 100 yds S of the crossroads.	410	1065
Saxon	3	MBN6033		Unassigned	Wansdyke Vernham Wood	410	1065
	4	MBN11280		Agric and subsist	North Wick field system	410	2050
	5	MBN11282		Agric and subsist	Elton Farm field system	410	2050
	6	MBN11286		Agric and subsist	Nempnett Thrubwell field system	410	2050
	7	MBN6035		Agric and subsist	Wansdyke Section 1,230yds (1.120m) E from Burnt House	410	1065
	1	MBN1716		Agric and subsist	Medieval fields (?) with markers Little Solisbury	1066	1800
	2	MBN1830		Agric and subsist	pillow mound (?) west of Peipards Farm	1066	1539
	3	MBN1831		Agric and subsist	pillow mound (?) west of Peipards Farm	1066	1539
	4	MBN4537		Agric and subsist	Bathampton Warren Bathampton Down Golf C	1066	1539
	5	MBN7375		Agric and subsist	Field system at Down Farm	1066	1539
	6	MBN7867		Agric and subsist	Nimblett field names at Whitecross	1066	1539
	7	MBN4914		Domestic	Deserted settlement near Norton Hawkfield	1066	1539
	8	MBN4550		Domestic	Settlement remains, South side of A36	1066	1539
	9	MBN4567		Find Spot	Medieval pottery Pennyquick	1066	1539
	10	MBN4196		Industrial	One of two mills discovered at the site of the deserted Medieval village of Norton Hawkfield	1066	1539
	11	MBN4915		Industrial	One of two mills discovered at the site of the deserted Medieval village of Norton Hawkfield	1066	1539
	12	MBN717		Relig, rit, funerary	Church (?) site north of Hawkfield	1066	1539
	13	MBN7667		Relig, rit, funerary	medieval stone cross site	1066	1539
	14	MBN1829		Relig, rit, funerary	Peipards Farm earthworks. Earthworks of possible medieval crofts and trackways that may be associated with the deserted village of Woodwick. Includes potential elements of medieval church.	1066	1539
	15	MBN7709		Unassigned	Earthworks	1066	1900
	16	MBN11086		Agric and subsist	Charlcombe/Soper's Woods	1066	2050
	17	MBN11088		Agric and subsist	Brockham/Pipleys Woods	1066	2050
	18	MBN11089		Agric and subsist	Brockham/Pipleys Woods	1066	2050
	19	MBN11105		Agric and subsist	Tennant's Wood	1066	2050
	20	MBN11111		Agric and subsist	Catsley Wood	1066	2050
	21	MBN11117		Agric and subsist	Ubley Wood	1066	2050
	22	MBN11123		Agric and subsist	Lady/Buckley Wood	1066	2050
	23	MBN11124		Agric and subsist	Lady/Buckley Wood	1066	2050
	24	MBN11131		Agric and subsist	Dowling's Wood	1066	2050
	25	MBN11132		Agric and subsist	Folly Wood	1066	2050
	26	MBN11133		Agric and subsist	Folly Wood	1066	2050
	27	MBN11134		Agric and subsist	Honey Gaston	1066	2050
	28	MBN11138		Agric and subsist	Camerton Wood	1066	2050
Medieval							

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
	29	MBN11144		Agric and subsist	Cleaves Wood	1066	2050
	38	MBN11146		Agric and subsist	Orchards Cleaves	1066	2050
	41	MBN11147		Agric and subsist	Midford Hill Wood	1066	2050
	32	MBN11149		Agric and subsist	Hog Wood	1066	2050
	33	MBN11151		Agric and subsist	Friary Wood	1066	2050
	34	MBN11152		Agric and subsist	Hayes Wood	1066	2050
	35	MBN11159		Agric and subsist	Week Wood	1066	2050
	36	MBN11163		Agric and subsist	Shockerwick/Tennygrove+	1066	2050
	37	MBN11165		Agric and subsist	Shockerwick/Tennygrove+	1066	2050
	30	MBN11166		Agric and subsist	Ashley Wood	1066	2050
	39	MBN11167		Agric and subsist	Prigley/Mountain Wood	1066	2050
	40	MBN11173		Agric and subsist	Warleigh Wood	1066	2050
	31	MBN11176		Agric and subsist	Bathampton/Hengrove Woods	1066	2050
	42	MBN11177		Agric and subsist	Bathampton/Hengrove Woods	1066	2050
	43	MBN11190		Agric and subsist	Blackmoor Wood	1066	2050
	44	MBN11195		Agric and subsist	Vernham Wood	1066	1900
	45	MBN11196		Agric and subsist	Middle Wood	1066	1900
	46	MBN11199		Agric and subsist	Curl's Wood	1066	2050
	47	MBN11280		Agric and subsist	North Wick field system. Medieval or earlier irregular enclosed fields.	410	2050
	48	MBN11282		Agric and subsist	Elton Farm field system. Medieval or earlier irregular enclosed fields.	410	2050
	49	MBN11286		Agric and subsist	Nempnett Thrubwell field system. Medieval or earlier irregular enclosed fields.	410	2050
	50	MBN1829		Agric and subsist	Peipards Farm earthworks. Earthworks of possible medieval crofts and trackways that may be associated with the deserted village of Woodwick.	1066	1539
	51		203047	Agric and subsist	Field system, possibly Medieval, with banks and lynchets up to 1m high.	1066	1539
	52		1495858	Agric and subsist	Ten Medieval or Post Medieval lynchets or field boundaries are visible as earthworks on aerial photographs and lidar. The site extends over an area which covers 340 metres east-west and 270 metres north-south. The site comprises seven lynchets which are defined by scarps and three field boundaries which are defined by banks. The lynchets typically measure between 2.5 and 4 metres wide, and between 20 and 120 metres long. At least eight cultivation terraces or fields are defined, which range between 15 and 48 metres wide, and up to 120 metres long. Six of these lynchets and field boundaries form a coaxial system, with the main axes extending NNE-SSE and WNW-ESE. The field system may be related to a Medieval or Post Medieval field system which is located a minimum distance of 140 metres to the west (see ST 56 SW 67).	1066	1539
	53		1495858	Agric and subsist	Ten Medieval or Post Medieval lynchets or field boundaries are visible as earthworks on aerial photographs and lidar. The site extends over an area which covers 340 metres east-west and 270 metres north-south. The site comprises seven lynchets which are defined by scarps and three field boundaries which are defined by banks. The lynchets typically measure between 2.5 and 4 metres wide, and between 20 and 120 metres long. At least eight cultivation terraces or fields are defined, which range between 15 and 48 metres wide, and up to 120 metres long. Six of these lynchets and field boundaries form a coaxial system, with the main axes extending NNE-SSE and WNW-ESE. The field system may be related to a Medieval or Post Medieval field system which is located a minimum distance of 140 metres to the west (see ST 56 SW 67).	1066	1539
	54		1495858	Agric and subsist	Ten Medieval or Post Medieval lynchets or field boundaries are visible as earthworks on aerial photographs and lidar. The	1066	1539

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
	55		1496290	Agric and subsist	site extends over an area which covers 340 metres east-west and 270 metres north-south. The site comprises seven lynchets which are defined by scarps and three field boundaries which are defined by banks. The lynchets typically measure between 2.5 and 4 metres wide, and between 20 and 120 metres long. At least eight cultivation terraces or fields are defined, which range between 15 and 48 metres wide, and up to 120 metres long. Six of these lynchets and field boundaries form a coaxial system, with the main axes extending NNE-SSE and WNW-ESE. The field system may be related to a Medieval or Post Medieval field system which is located a minimum distance of 140 metres to the west (see ST 56 SW 67).	1066	1539
	56		1443787	Domestic	Two blocks of medieval and/or post medieval ridge and furrow is visible as earthworks on aerial photographs. The ridge and furrow is located to the southwest of Home Farm. The ridge and furrow has been disturbed in places by a post medieval quarry and access track to the southwest. The ridge and furrow is still visible as slight earthworks on aerial photographs taken in 2000.	1066	1539
	57		1496604	Industrial	Earthworks of medieval settlement. The site consists of a west-east hollow way, with two house platforms on north side, and an enclosure to the south. A probably Medieval or Post Medieval limestone quarry or extractive pit is visible as earthworks on aerial photographs. The site is amorphous in shape and measures 55 metres east-west and 25 metres north-south. The area is defined by rough, uneven ground	1066	1539
	1	MBN11741		Agric and subsist	Curlis Farm and Cottage	1540	1900
	2	MBN1716		Agric and subsist	Medieval fields (?) with markers Little Solsbury	1066	1800
	3	MBN5668		Agric and subsist	Warren (?) at Kelston Park	1701	1800
	4	MBN7648		Agric and subsist	Agricultural building at Widcombe Hill	1701	1800
	5	MBN11086		Agric and subsist	Charlcombe/Soper's Woods	1066	2050
	6	MBN11088		Agric and subsist	Brockham/Pipley Woods	1066	2050
	7	MBN11089		Agric and subsist	Brockham/Pipley Woods	1066	2050
	8	MBN11111		Agric and subsist	Catsley Wood	1066	2050
	9	MBN11117		Agric and subsist	Ubley Wood	1066	2050
	10	MBN11123		Agric and subsist	Lady/Buckley Wood	1066	2050
	11	MBN11124		Agric and subsist	Lady/Buckley Wood	1066	2050
	12	MBN11131		Agric and subsist	Dowling's Wood	1066	2050
	13	MBN11132		Agric and subsist	Folly Wood	1066	2050
	14	MBN11133		Agric and subsist	Folly Wood	1066	2050
	15	MBN11134		Agric and subsist	Honey Gaston	1066	2050
	16	MBN11138		Agric and subsist	Camerton Wood	1066	2050
	17	MBN11144		Agric and subsist	Cleaves Wood	1066	2050
	18	MBN11146		Agric and subsist	Orchards Cleaves	1066	2050
	19	MBN11147		Agric and subsist	Midford Hill Wood	1066	2050
	20	MBN11149		Agric and subsist	Hog Wood	1066	2050
	21	MBN11151		Agric and subsist	Friary Wood	1066	2050
	22	MBN11152		Agric and subsist	Hayes Wood	1066	2050
	23	MBN11159		Agric and subsist	Week Wood	1066	2050
	24	MBN11163		Agric and subsist	Shockerwick/Tennygrove+	1066	2050

Post-Medieval

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
	25	MBN11165		Agric and subsist	Shockerwick/Tennygrove+	1066	2050
	26	MBN11166		Agric and subsist	Ashley Wood	1066	2050
	27	MBN11167		Agric and subsist	Prigley/Mountain Wood	1066	2050
	28	MBN11173		Agric and subsist	Warleigh Wood	1066	2050
	29	MBN11176		Agric and subsist	Bathampton/Hengrove Woods	1066	2050
	30	MBN11177		Agric and subsist	Bathampton/Hengrove Woods	1066	2050
	31	MBN11190		Agric and subsist	Blackmoor Wood	1066	2050
	32	MBN11195		Agric and subsist	Vernham Wood	1066	1900
	33	MBN11196		Agric and subsist	Middle Wood	1066	1900
	34	MBN11199		Agric and subsist	Curl's Wood	1066	2050
	35	MBN11280		Agric and subsist	North Wick field system	410	2050
	36	MBN11282		Agric and subsist	Elton Farm field system	410	2050
	37	MBN11286		Agric and subsist	Nempnett Thrubwell field system	410	2050
	38	MBN9647		Defence	Site of an indecisive civil war battle known as Battle of Lansdown	1643	1643
	39	MBN4958		Domestic	Pear Tree Cottage	1601	1700
	40	MBN7728		Domestic	Industrial site	1540	1900
	41	MBN8042		Domestic	House platform	1701	1800
	42	MBN9605		Domestic	Settlement at Hobb's Wall Farnborough	1540	1900
	43	MBN11751		Gardens, Parks	South Hill	1540	1900
	44	MBN11277		Gardens, Parks	Hunstrete House Park	1540	1900
	45	MBN10097		Industrial	Claverton Down Quarry	1540	1900
	46	MBN10536		Industrial	Kilmersden Quarry Fox Hills	1540	1900
	47	MBN11749		Industrial	Folly Farm Limekiln	1540	1900
	48	MBN11867		Industrial	Quarry of possible 18th century date shown on 1880s OS. Quarry near Camerton Farm	1540	1900
	49	MBN1597		Industrial	Braysdown Colliery	1540	1900
	50	MBN1598		Industrial	Writhlington (Lower) Colliery, NE of Church	1540	1900
	51	MBN2229		Industrial	Spoil heap Lower Conygre Pit	1801	1900
	52	MBN2236		Industrial	Spoil heap and remains of an engine shed. 1 mile W of Keynsham. Coalmine Charlton Bottom	1540	1900
	53	MBN2238		Industrial	Small spoil heap of pit. Disused shaft nearby. Colliery Chewton Keynsham	1540	1900
	54	MBN2246		Industrial	Pensford Colliery (a.k.a Broadoak Colliery)	1801	1900
	55	MBN2257_b		Industrial	One was pillaged in 1827 to get road metal and for limekiln remains of which adjoin. In the course of this work a stone cist containing burnt bones was found. Skinner mentioned that a second barrow was near.	1540	1900
	56	MBN3427		Industrial	Kingham Quarry	1801	1900
	57	MBN3432		Industrial	Shaft Quarry, "Greyston	1801	1900
	58	MBN3433		Industrial	Mount Pleasant Quarry Mount Pleasant	1801	1900
	59	MBN3436		Industrial	Hayes Wood quarry Ginny Ring	1801	1900
	60	MBN3437		Industrial	Freshford Quarry ginny ring	1801	1900
	61	MBN3438		Industrial	Freshford Quarry	1801	1900
	62	MBN3452		Industrial	Limekiln third mile S of Manor Farm	1801	1900
	63	MBN4032		Industrial	Clay pits	1540	1900

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
	64	MBN4060		Industrial	Limekiln. North of Wells Way Inn	1540	1900
	65	MBN4066		Industrial	Limekiln, E of White Cross	1540	1900
	66	MBN4067		Industrial	Limekiln	1540	1900
	67	MBN4069		Industrial	Site of limekilns associated with adjacent quarry.	1540	1900
	68	MBN4070		Industrial	Limekiln	1540	1900
	69	MBN4109		Industrial	Limekiln	1540	1900
	70	MBN4136		Industrial	Clay Pit nr Broadway Cottages	1540	1900
	71	MBN4138		Industrial	Dunkerton Collieries, North Splott Villa	1540	1900
	72	MBN4142		Industrial	Old Shaft NE Amesbury Hill	1540	1900
	73	MBN4143		Industrial	Old Shaft Mearns Hill	1540	1900
	74	MBN4144		Industrial	Old Shafts Mearns Hill	1540	1900
	75	MBN4172		Industrial	Old Shaft, Heath Cottage	1540	1900
	76	MBN4173		Industrial	Old Limekiln, South Hillside Far	1540	1900
	77	MBN5651		Industrial	Limekiln E of Fosse Farm	1540	1900
	78	MBN5763		Industrial	Limekiln & quarry SW of Conygre Farm	1540	1900
	79	MBN5960		Industrial	Limekiln	1801	1900
	80	MBN6179		Industrial	Limekiln; NW of Dog Kennel Farm	1540	1900
	81	MBN6194		Industrial	Limekiln, East of Hammerhill Woo	1801	1900
	82	MBN7367		Industrial	Quarry northwest of Hartley Farm	1540	1900
	83	MBN7376		Industrial	Quarry at Down Farm	1540	1900
	84	MBN7379		Industrial	Quarry southwest of Down Farm	1540	1900
	85	MBN7672		Industrial	quarry site south of Tudor Farm	1540	1900
	86	MBN7729		Industrial	Lime Kiln	1540	1900
	87	MBN7954		Industrial	Quarry earthworks & access track at Cole	1801	1900
	88	MBN8041		Industrial	quarry and limekiln site	1801	1900
	89	MBN8350		Industrial	Meadgate Brickworks Red Hill Camerton	1801	1900
	90	MBN8358		Industrial	Limekiln	1540	1900
	91	MBN8363		Industrial	New Tynning Colliery The Tynning Timsbury	1701	1800
	92	MBN9439		Industrial	Quarry SW of Conygre Farm	1801	1900
	93	MBN10085		Relig, rit, funerary	Lansdown Cemetery	1801	1900
	94	MBN11645		Transport	Caisson Lock was an experimental lock invented and built by Robert Weldon in 1796, consisting of a large stone-lined chamber or cistern in which a watertight wooden box (the 'caisson') was suspended.	1796	1800
	95	MBN2332		Transport	Bathampton Down inclined plane	1801	1900
	96	MBN3425		Transport	Tramway east flank of Hampton Down leading	1701	1800
	97	MBN5460		Transport	Canal tunnel	1540	1900
	98	MBN5667		Transport	Toll house & gate	1801	1900
	99	MBN6212		Transport	Somerset Coal Canal Combe Hay Tunnel to the	1801	1900
	100	MBN7722		Transport	Stone stile and foot bridge	1540	1900
	101	MBN1764		Unassigned	Earthworks	1540	1900
	102	MBN7709		Unassigned	Earthworks	1066	1900

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
	103	MBN7366		Water and drainage	Well by Gloucester Road	1540	1900
	104		1496263	Agric and subsist	Two blocks of post medieval ridge and furrow are visible as earthworks on aerial photographs. The ridge and furrow is located to the northeast of Hill View House and is defined by straight narrow ridges. The blocks cover an area that measures 283m by 10	1540	1900
	105		1495858	Agric and subsist	Ten Medieval or Post Medieval lynchets or field boundaries are visible as earthworks on aerial photographs and lidar. The site extends over an area which covers 340 metres east-west and 270 metres north-south. The site comprises seven lynchets which are	1066	1900
	106		1495858	Agric and subsist	Ten Medieval or Post Medieval lynchets or field boundaries are visible as earthworks on aerial photographs and lidar. The site extends over an area which covers 340 metres east-west and 270 metres north-south. The site comprises seven lynchets which are	1066	1900
	107		1495858	Agric and subsist	Ten Medieval or Post Medieval lynchets or field boundaries are visible as earthworks on aerial photographs and lidar. The site extends over an area which covers 340 metres east-west and 270 metres north-south. The site comprises seven lynchets which are	1066	1900
	108		1496268	Agric and subsist	Two blocks of post medieval ridge and furrow is visible as earthworks on aerial photographs. The ridge and furrow is located to the west and south of The Gables. The ridge and furrow is defined by straight narrow ridges and covers an area that measures	1540	1900
	109		1496290	Agric and subsist	Two blocks of medieval and/or post medieval ridge and furrow is visible as earthworks on aerial photographs. The ridge and furrow is located to the southwest of Home Farm. The ridge and furrow has been disturbed in places by a post medieval quarry	1066	1900
	110		1086894	Gardens, Parks	A pleasure ground and ride created by William Beckford and Henry Edmund Goodridge in 1825-27. The ride extended for 2.4 kilometres and linked Beckford's garden at Lansdown Crescent and the pleasure ground with Beckford's Tower.	1825	1848
	111		200636	Industrial	Farrington Colliery. Most of the colliery has disappeared; only the offices, now a residence, and some of the spoil heap remain. An industrial estate is situated on the spoil heap.	1540	1971
	112		1496604	Industrial	A probably Medieval or Post Medieval limestone quarry or extractive pit is visible as earthworks on aerial photographs. The site is amorphous in shape and measures 55 metres east-west and 25 metres north-south. The area is defined by rough, uneven ground.	1066	1900
	113		200562	Industrial	Lower Conygrie Colliery. The pithead has been levelled and tipped upon. Only part of a wall within wooded area remains.	1540	1900
	114		1466518	Industrial	Series of quarries along the outcrop of the Great Oolitic Limestone on the West facing scarp of Bathford Hill. Quarrying was largely underground with entries in the bases of the extant preliminary working face.	1700	1900
	115		200634	Industrial	The first mention of coal mining in Clutton parish was in a survey of 1610. Three pits were recorded, two near widow Blackers house and one at Heighgrove Farm: all were closed by 1836. Disused coalmines are visible on aerial photographs.	1610	1836
	116		1495863	Industrial	A Medieval or Post Medieval limestone quarry or extractive pit and an associated spoil heap are visible as earthworks on aerial photographs. The site is amorphous in shape and measures 65 metres long and 31 metres wide at its maximum dimensions.	1066	1900
	117		1495863	Industrial	A Medieval or Post Medieval limestone quarry or extractive pit and an associated spoil heap are visible as earthworks on aerial photographs. The site is amorphous in shape and measures 65 metres long and 31 metres wide at its maximum dimensions.	1066	1900
	118		200631	Transport	Bristol And North Somerset Railway, opened in 1873 from Bristol to Radstock to serve the collieries of the North Somerset coalfield. Passengers ceased to be carried in 1959. After 1966, mineral traffic ceased and the line was dismantled.	1873	1966
	119		1046640	Transport	Authorised by acts of 1794, 1796 and 1802 for transport of coal from north Somerset coalfields. The canal opened in 1805. Two branches - main one along Cam valley from Timsbury Landing to join Kennet and Avon, the other along Wellow valley.	1805	1904

Period	RA Number	HER reference ID	NMR reference ID	Asset type	Comment	Early Date	Late Date
	120		867808	Transport	The Somerset & Dorset Railway. Dismantled railway. Course of former Somerset and Dorset Joint Railway, the first sections of which opened in 1854. The earliest section- the Glastonbury - Highbridge line, was built by Somerset Central Railway.	1854	1966
	121		200630	Transport	Camerton and Limply Stock Branch Line. Dismantled railway. The 3 1/4 miles of track between Hallatrow and Camerton was opened in 1882 as a branch of the Bristol and North Somerset railway. It was extended to Dunkerton Colliery in 1907, and completed to Limply Stoke on the Bradford and Bathamp	1882	1958
	1	MBN9931		Defence	WWI Pill Box? attached to lime kiln	1901	2050
	2	MBN10107		Health and Welfare	Hospital	1901	2000
	3	MBN3434		Industrial	St Winifreds Quarry	1901	2000
	4	MBN5076		Transport	Dunkerton Colliery Halt	1901	2000
	5		1495626	Communications	A K6 or Jubilee telephone kiosk.	1901	2050
	6		1422892	Defence	A Second World War shell-proof type 24 pillbox located at Midford Hill, east of the B3110. The pillbox was constructed in 1940-41, built of reinforced concrete and formed part of part of the GHQ Line Green. This line formed a loop around the Bristol area	1939	1945
	7		1429410	Defence	Site of a Second World War anti-tank ditch extending from the eastern side of Hog Wood near Hinton Abbey, Freshford, to east of the A36 road. The ditch was constructed in 1940-41 and formed part of the GHQ Line Green which formed a loop around the Bristol area.	1939	1945
	8		1422894	Defence	A Second World War shell-proof type 24 pillbox situated at the southern central corner of Hog Wood. The pillbox was constructed in 1940-41, built of reinforced concrete and formed part of GHQ Line Green. This line formed a loop around the Bristol area.	1939	1945
	9		1414199	Defence	The site of a Royal Observer Corps monitoring post. The site is located in the Fox Hills area of Radstock, west of Church Street. The majority of these sites were built between 1956 and 1964, although their construction began after 1925 and continued int	1925	1964
	10		1422895	Defence	A Second World War type 24 pillbox situated at the eastern central corner of Hog Wood. The pillbox was constructed in 1940-41, of brick and concrete and formed part of the GHQ Line Green. This line formed a loop around the Bristol area.	1939	1945
	11		1419029	Defence	A Second World War auxiliary unit operational base located in a hollow near the junction of footpaths near Claverton Manor in Bathampton Woods. The operational unit was constructed in 1940, built of corrugated iron, concrete and wood.	1939	1945
	12		1422893	Defence	A Second World War type 26 pillbox situated at the western corner of Hog Wood. The pillbox was constructed in 1940-41, built of reinforced concrete and formed part of the GHQ Line Green. This line formed a loop around the Bristol area.	1939	1945
	13		1429410	Defence	Site of a Second World War anti-tank ditch extending from the eastern side of Hog Wood near Hinton Abbey, Freshford, to east of the A36 road. The ditch was constructed in 1940-41 and formed part of the GHQ Line Green which formed a loop around the Bristol area.	1939	1945
	14		1030155	Defence	Site of a Second World War anti-tank ditch identified from aerial photographs, running from the southern end of Hang Wood across the B3110 east to Hog Wood. The ditch was constructed in 1940-41 and infilled between 1946 and 1950.	1939	1945
	15		1422896	Defence	A Second World War anti-tank ditch running along the southern boundary of Hog Wood. The anti-tank ditch was constructed in 1940-41 and formed part of the GHQ Line Green, which formed a loop around the Bristol area.	1939	1945
	16		1428112	Defence	Second World War infantry slit trenches recorded in the eastern margins of Hog Wood. The trenches were constructed in 1940-41 and their position at the edge of the wood was to supply flanking fire to any crossing of the GHQ Green Line.	1939	1945
	17		1411343	Defence	A Royal Observer Corps monitoring post. The site was built as part of an extensive network of posts designed to confirm and report hostile aircraft and nuclear attacks on the United Kingdom. It was opened during November 1961 and closed in September 1991	1961	1991
Modern							

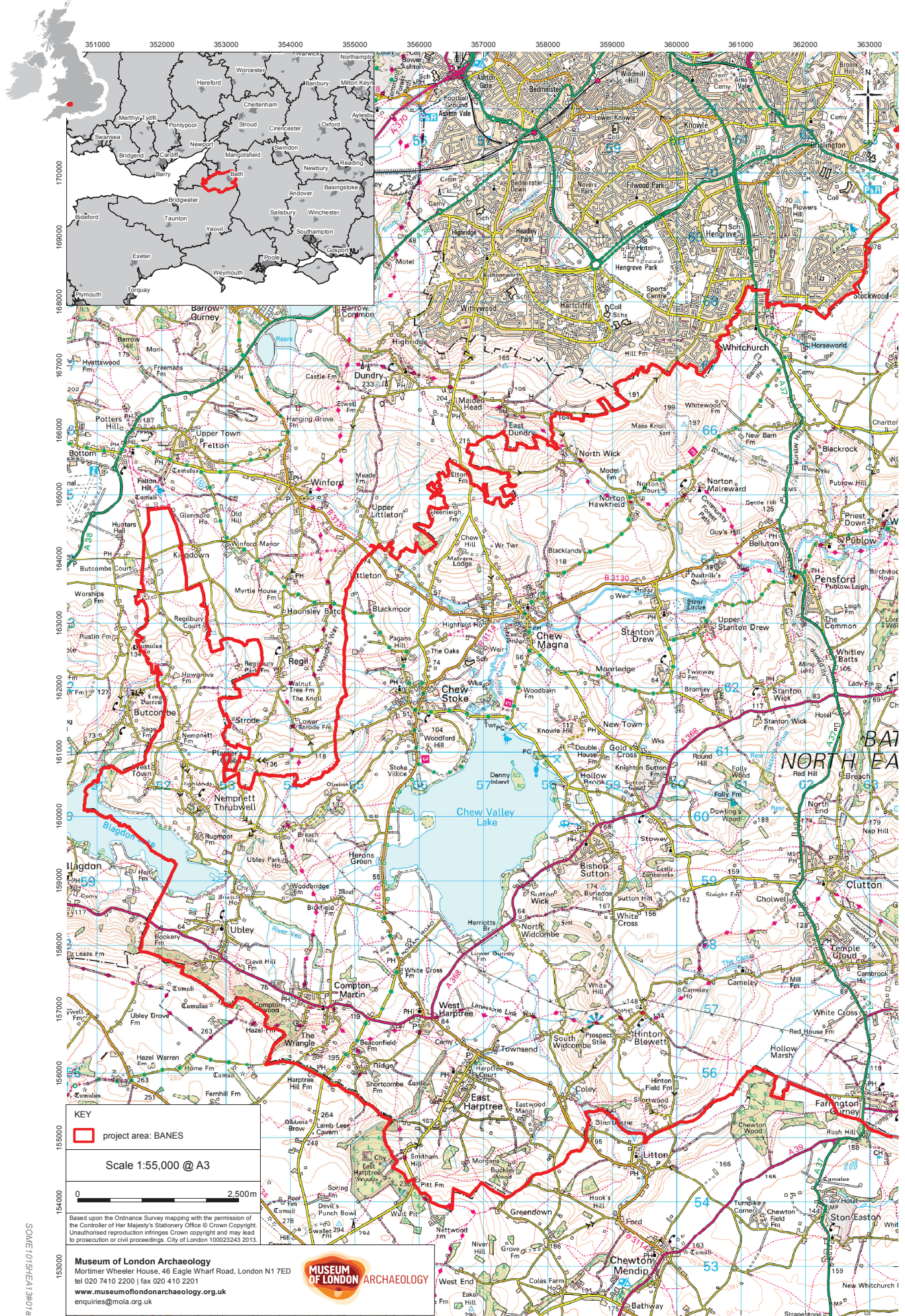


Fig 1a Project Area (West part): Bath and North East Somerset (BANES)



Fig 1b Project Area (central part): Bath and North East Somerset (BANES)

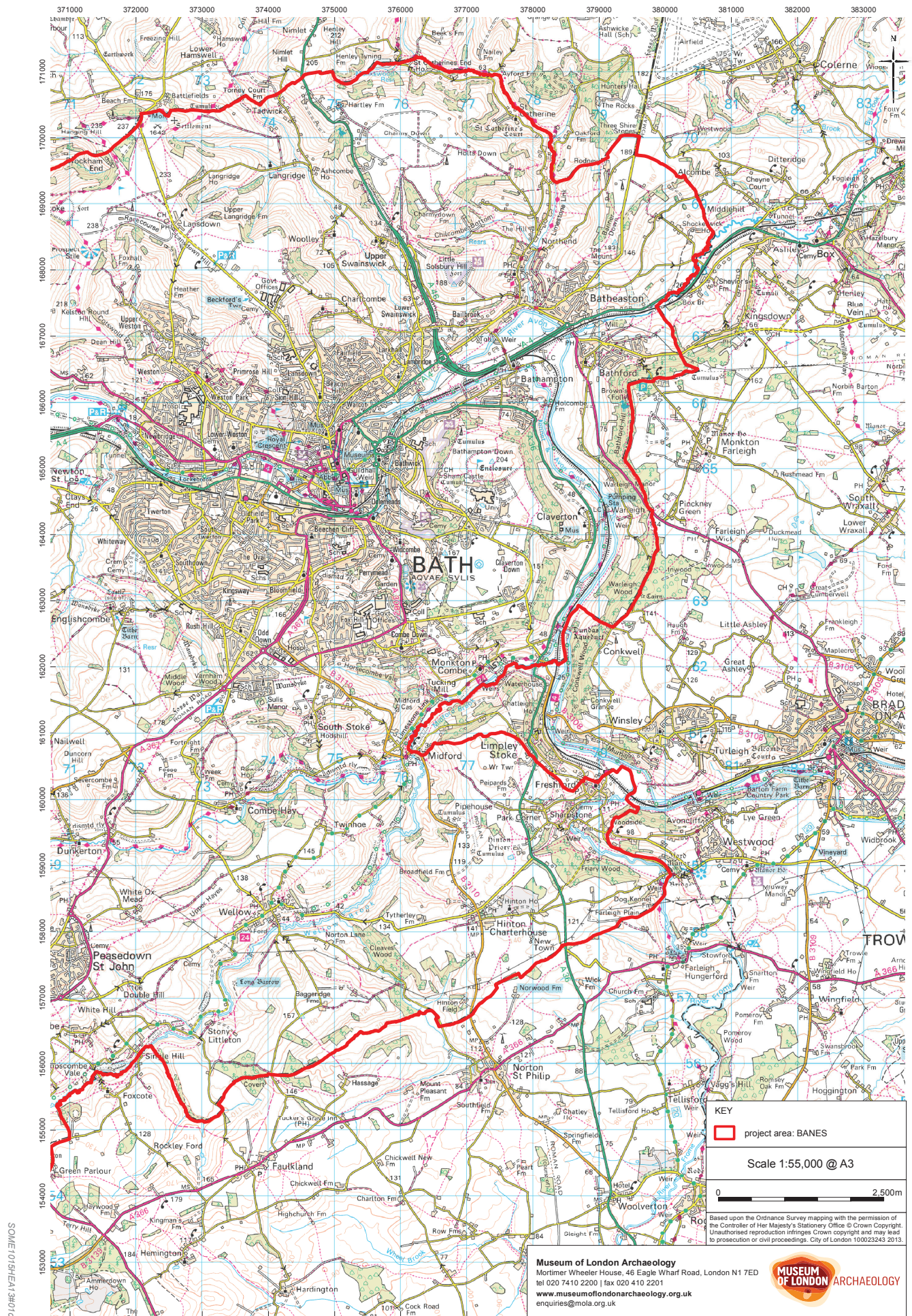
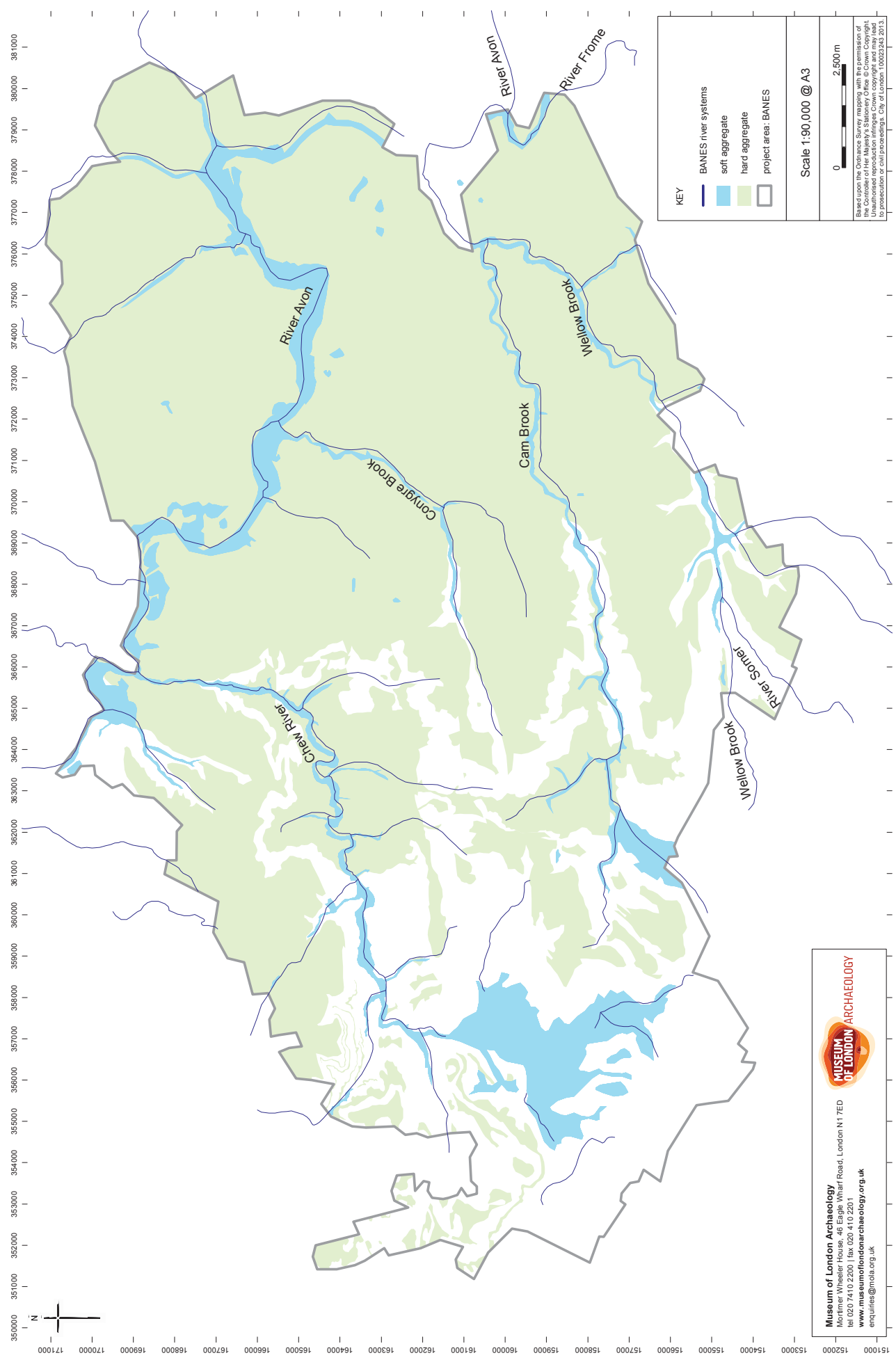


Fig 1c Project Area (East part): Bath and North East Somerset (BANES)



KEY	
	BANES river systems
	soft aggregate
	hard aggregate
	project area: BANES
Scale 1:90,000 @ A3	
0	
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Fig 2 Geology (Digital Geological Map of Great Britain, Scale 1:50000 (DIGMapGB-50))

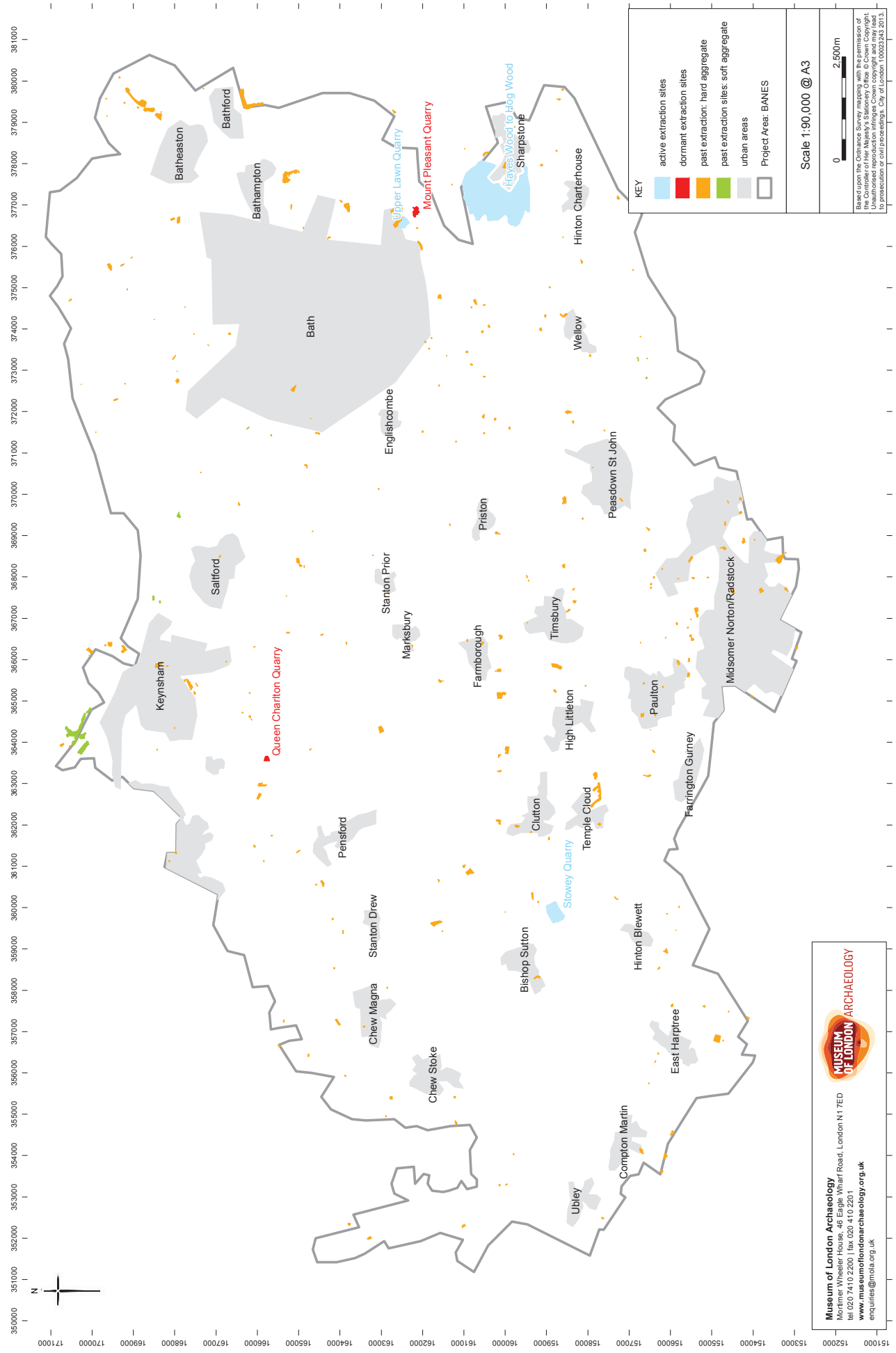
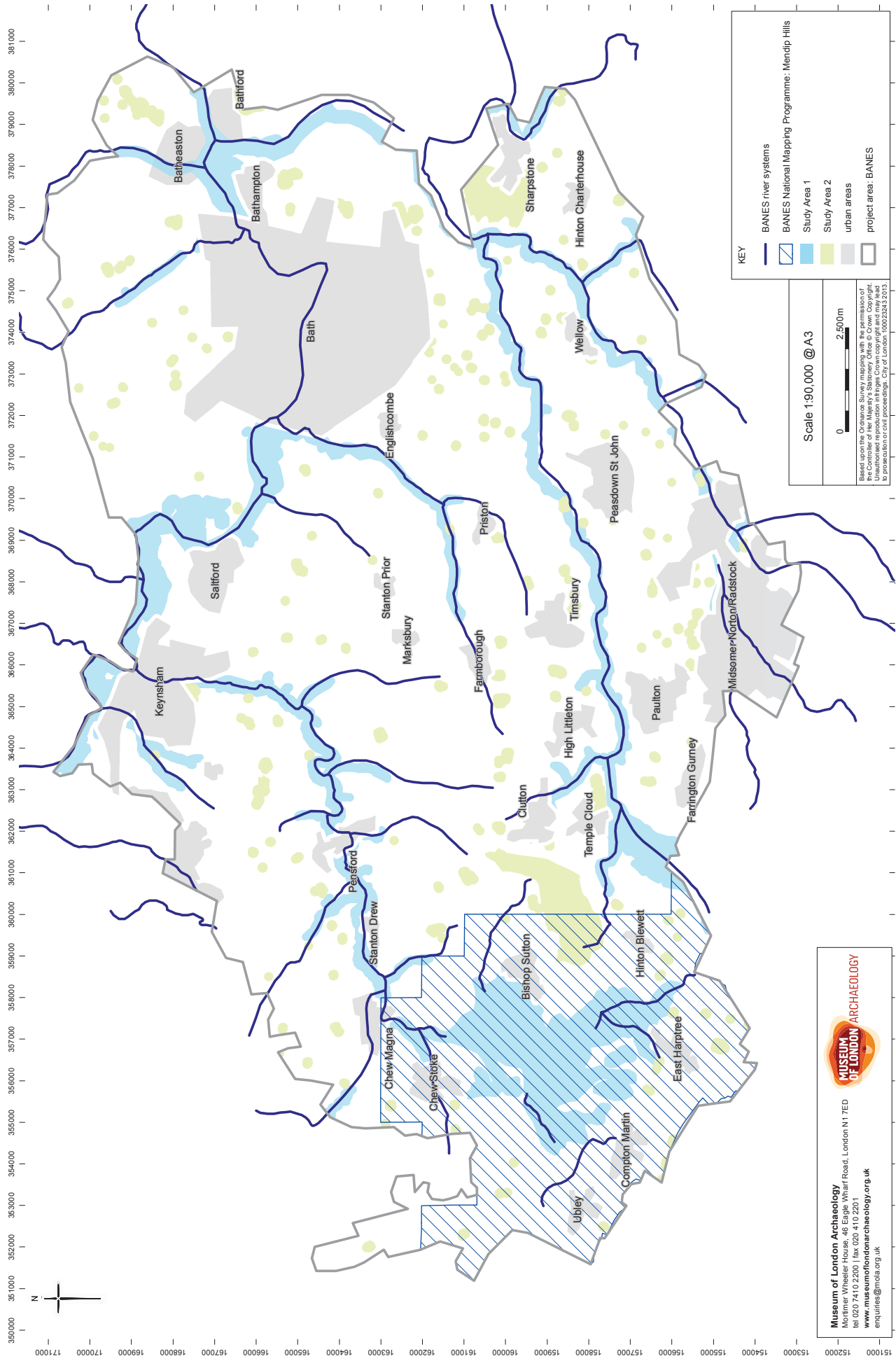


Fig 3 The location of past, active and dormant extraction sites

SOME1015HEA13#03



KEY

- BANES river systems
- BANES National Mapping Programme - Mendip Hills
- Study Area 1
- Study Area 2
- urban areas
- project area - BANES

Scale 1:90,000 @ A3

0 2,500m

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Fig 4 Study Areas 1 and 2

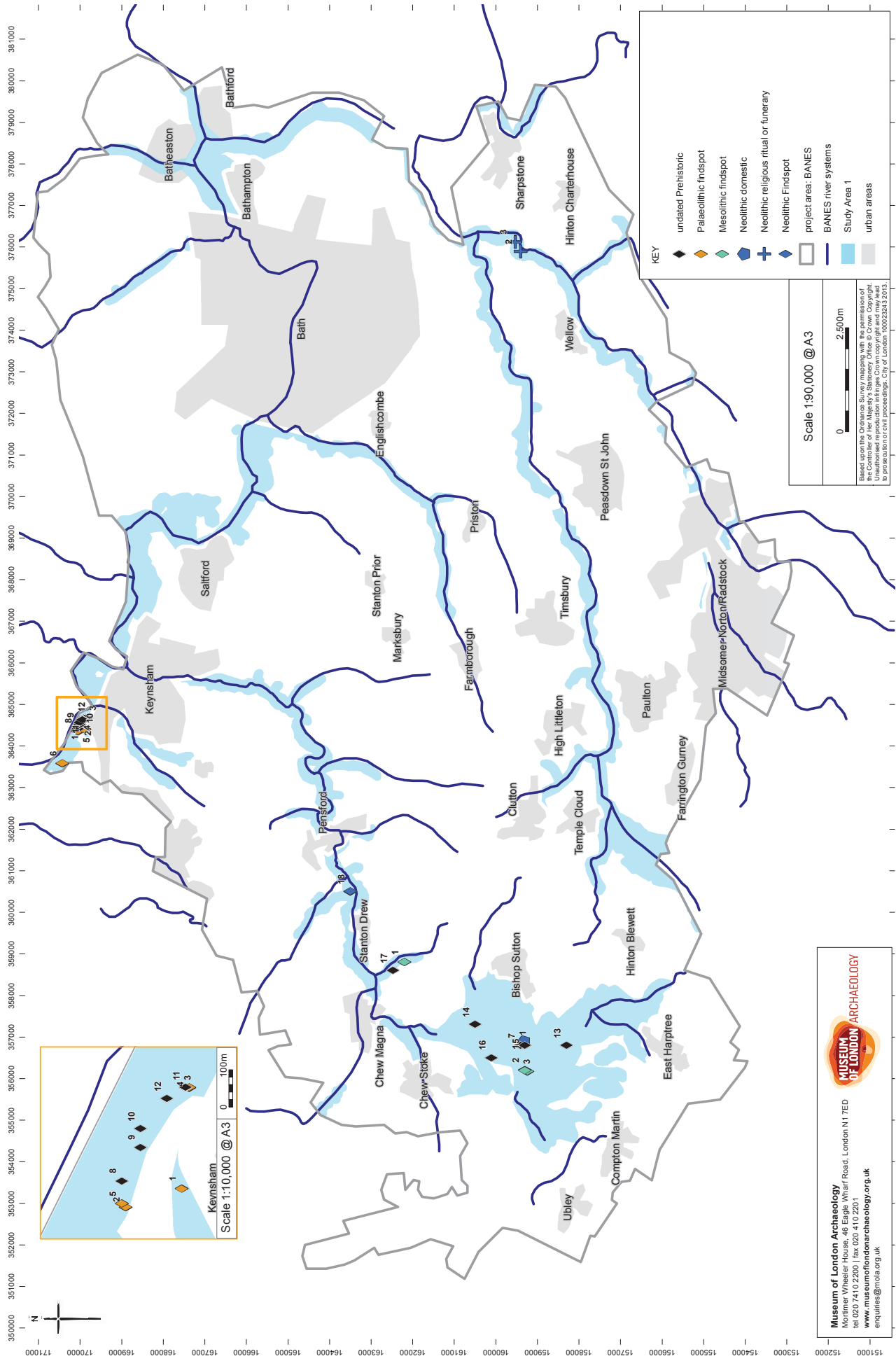
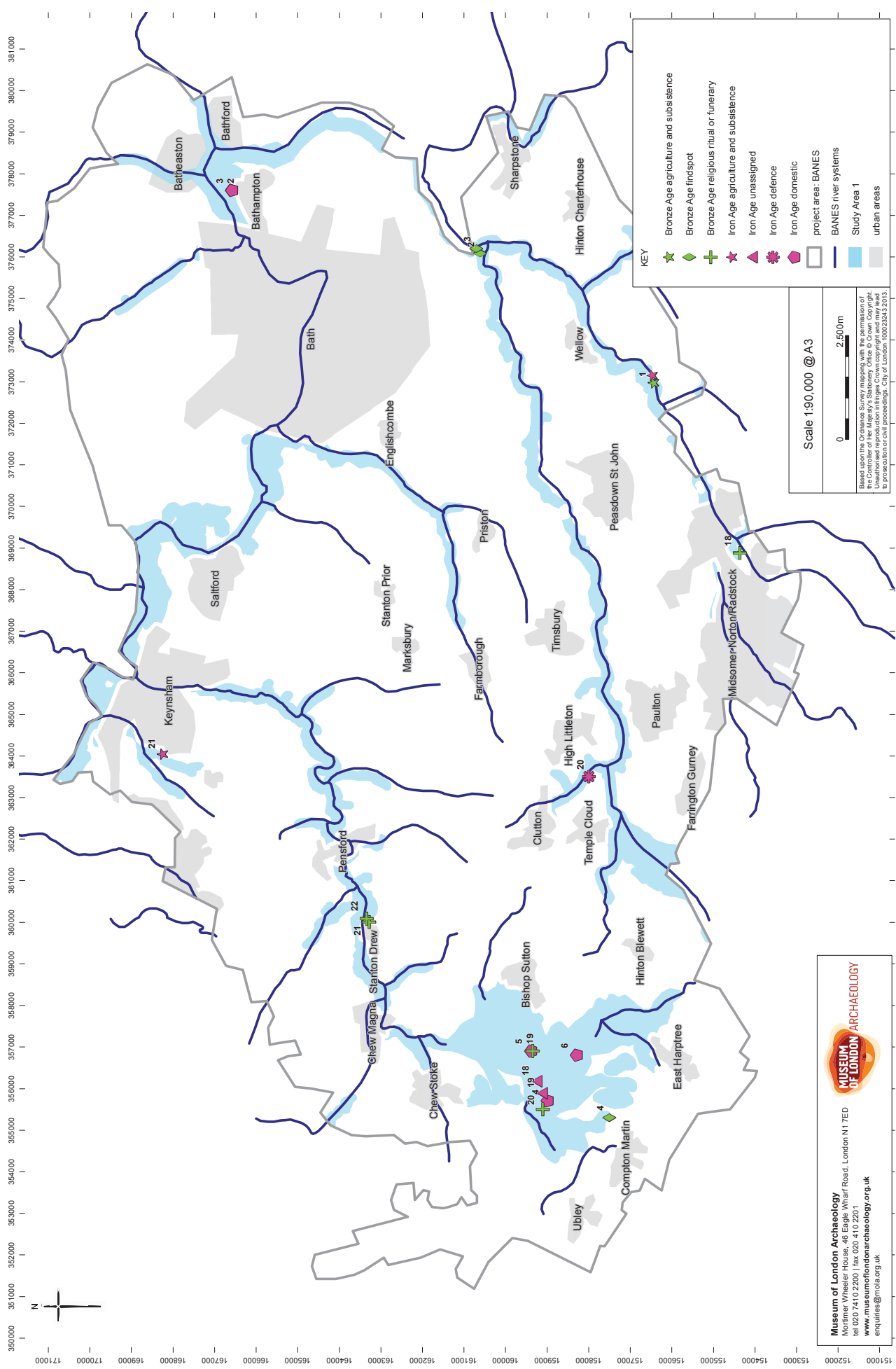


Fig 5 Study Area 1: Distribution of undated Prehistoric, Palaeolithic, Mesolithic and Neolithic assets by type

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Fig 6 Study Area 1: Distribution of Undated Prehistoric, Bronze Age and Iron Age assets by type

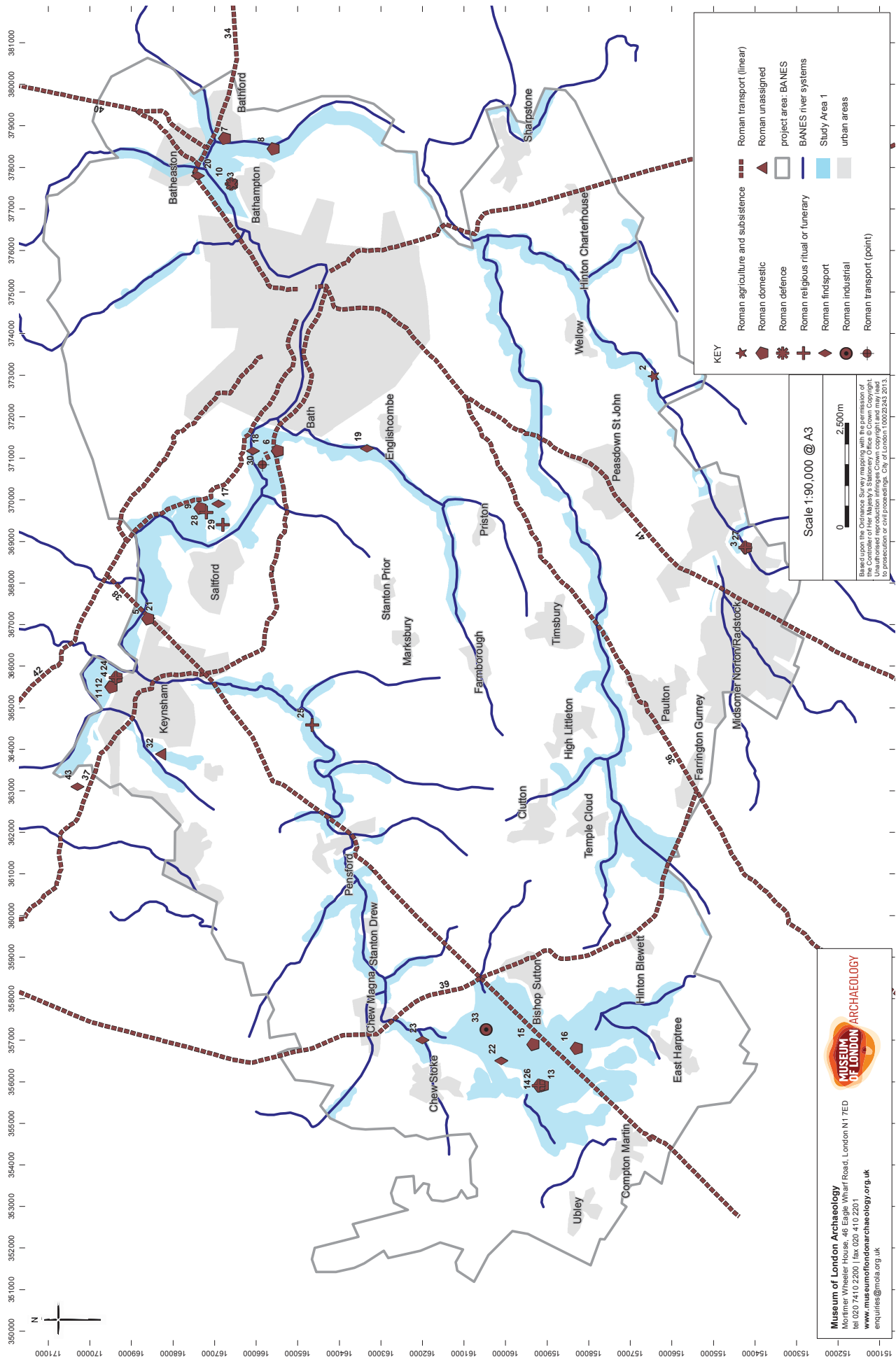


Fig 7 Study Area 1: Distribution of Roman assets by type

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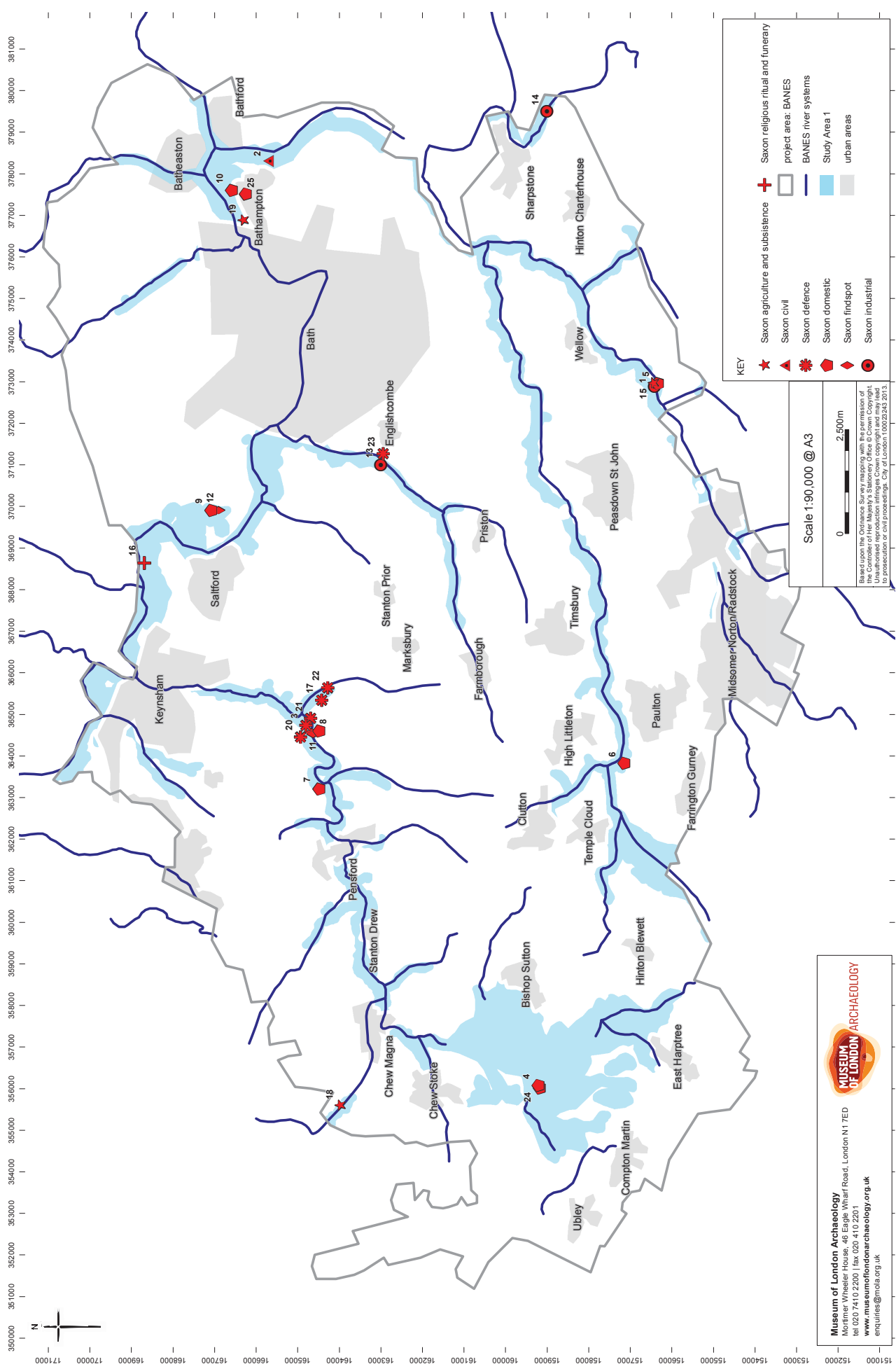


Fig 8 Study Area 1: Distribution of Saxon assets by type

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Scale 1:90,000 @ A3

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KEY

- ★ Saxon agriculture and subsistence
- ✕ Saxon religious ritual and funerary
- ▲ Saxon civil
- ✿ Saxon defence
- ◆ Saxon domestic
- Saxon domestic
- Saxon industrial
- project area: BANES
- BANES river systems
- Study Area 1
- urban areas

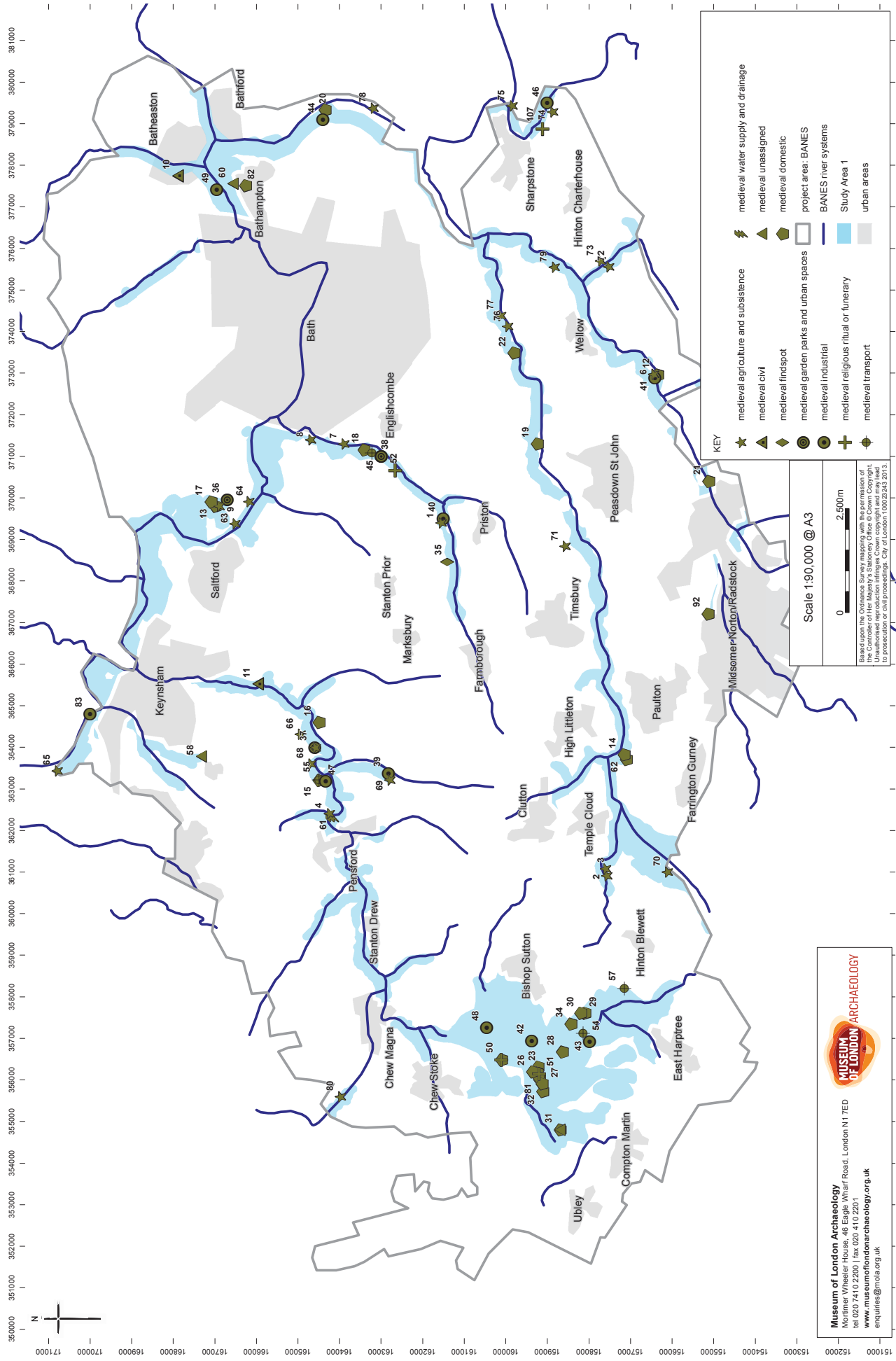
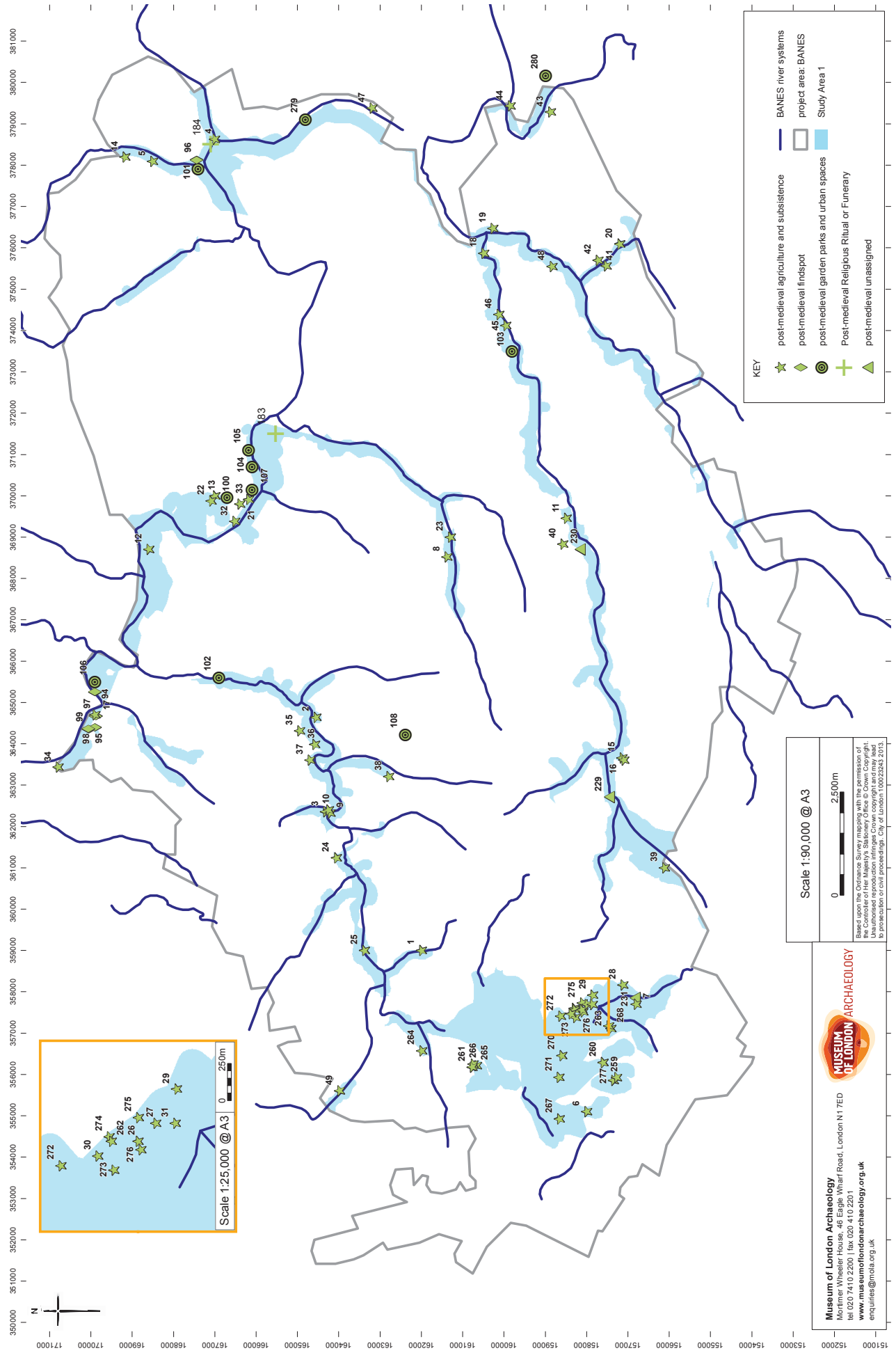


Fig 9 Study Area 1: Distribution of medieval assets by type

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KEY

- ★ post-medieval agriculture and subsistence
- ◆ post-medieval finds
- post-medieval garden parks and urban spaces
- ✚ Post-medieval Religious Ritual or Funerary
- ▲ post-medieval unassigned
- BANES river systems
- ▭ project area: BANES
- ▭ Study Area 1

Scale 1:90,000 @ A3

0 2500m

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Fig 10a Study Area 1: Distribution of post-medieval assets by type

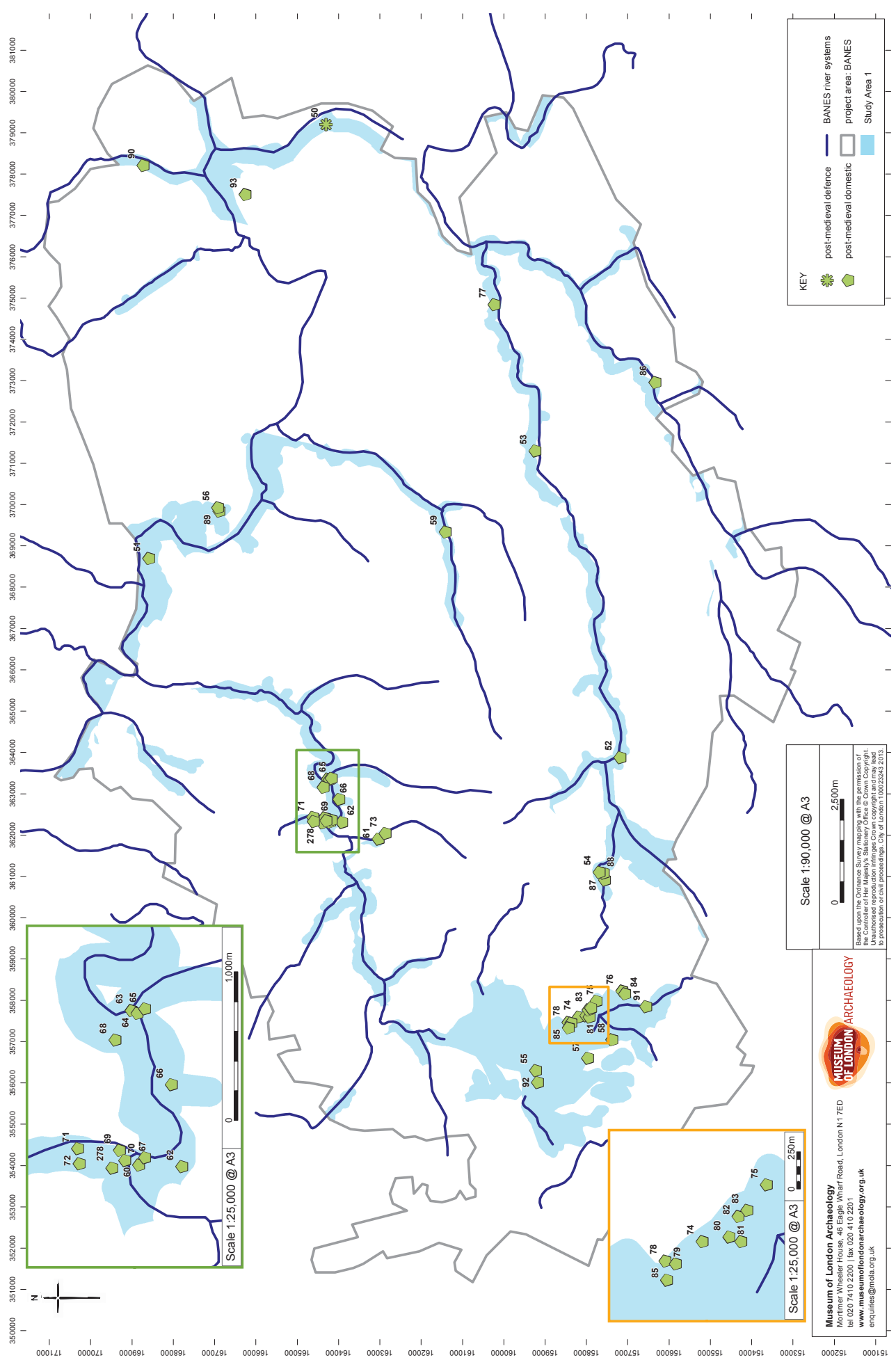


Fig 10b Study Area 1: Distribution of post-medieval assets by type

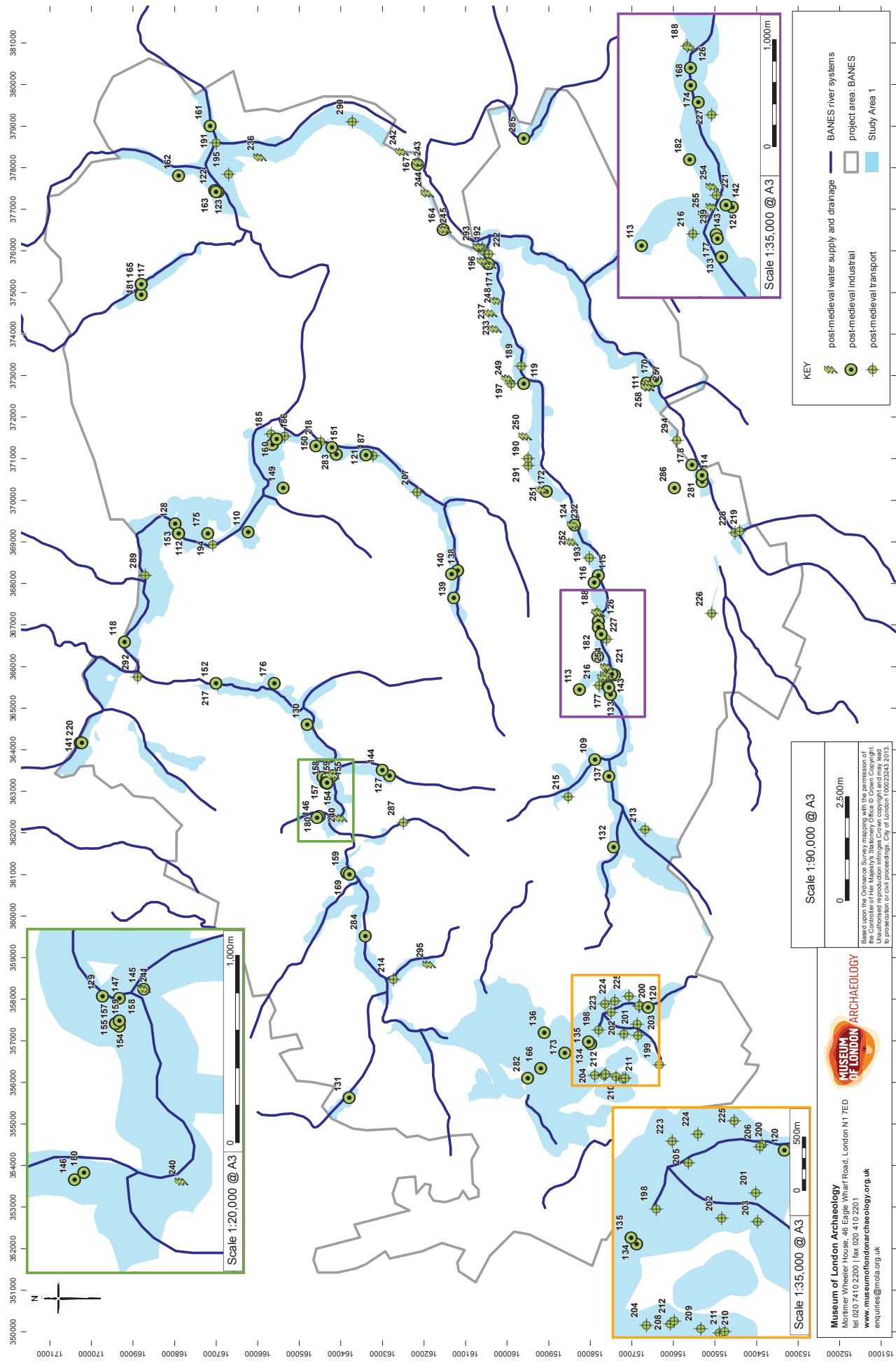
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Scale 1:90,000 @ A3

0 2500m

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KEY

- post-medieval water supply and drainage
- BANES river systems
- post-medieval industrial
- post-medieval transport
- project area: BANES
- Study Area 1

Scale 1:20,000 @ A3

0 1,000m

Scale 1:35,000 @ A3

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Fig 10c Study Area 1: Distribution of post-medieval assets by type

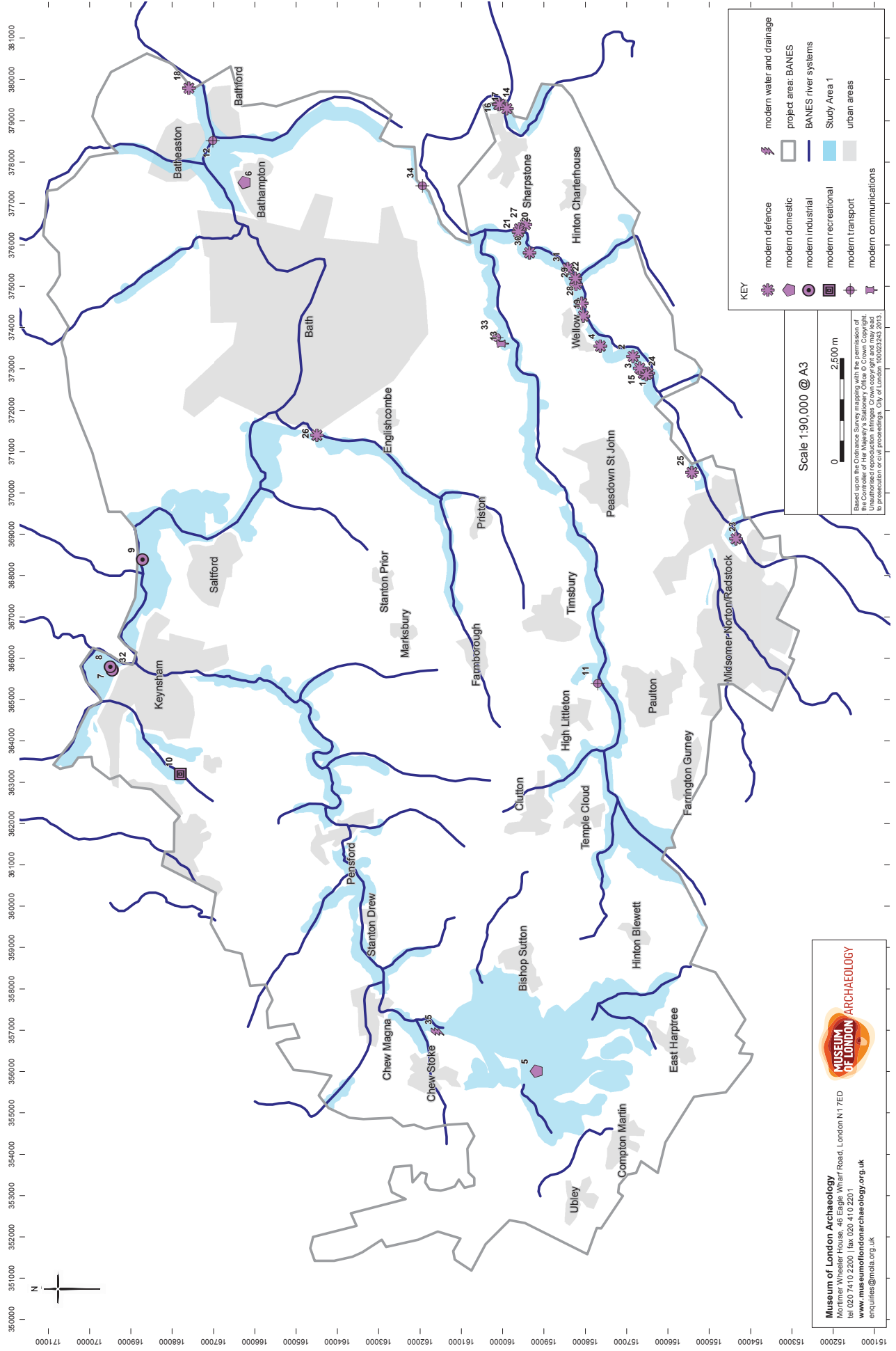


Fig 11 Study Area 1: Distribution of modern assets by type

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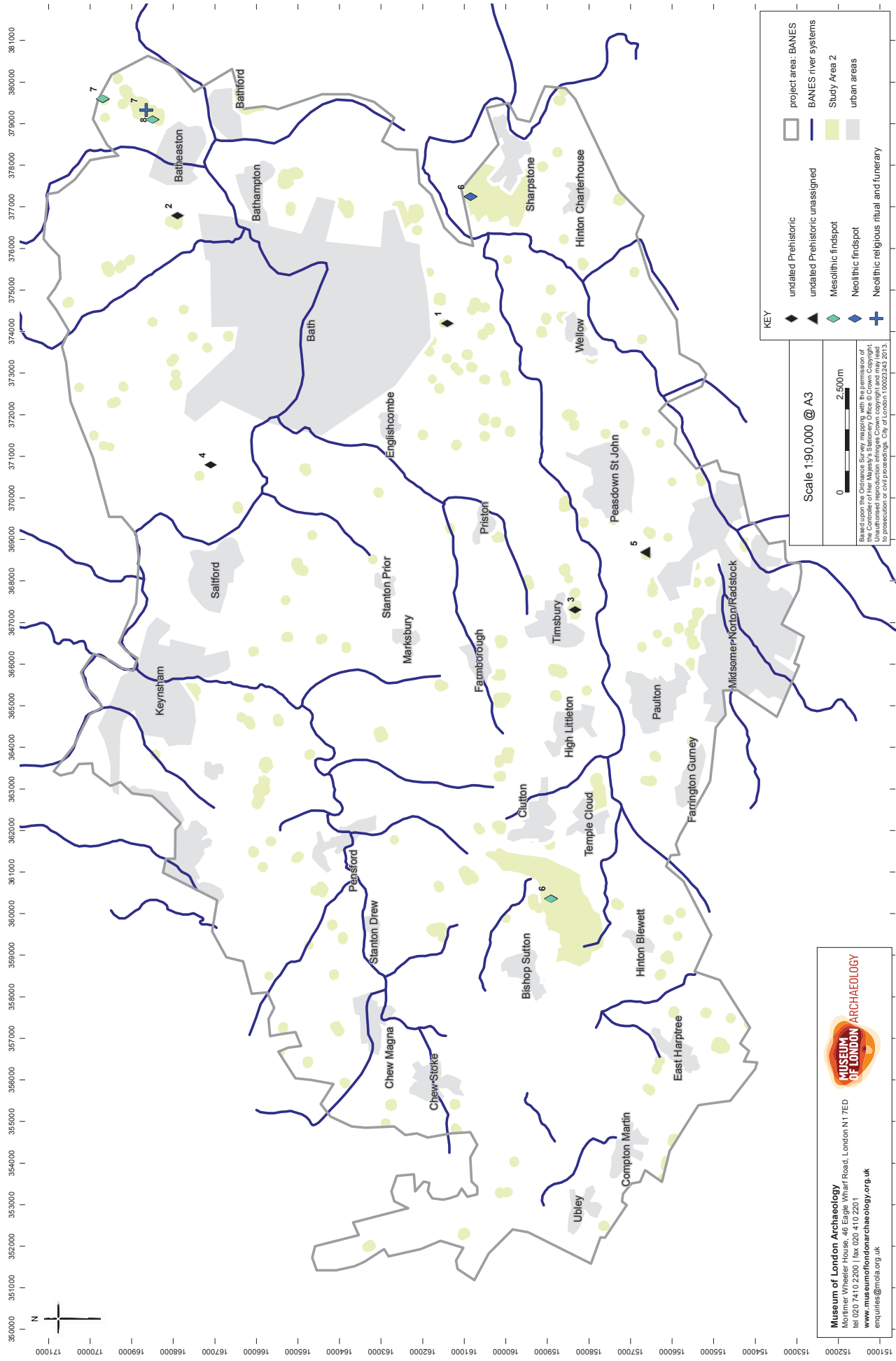
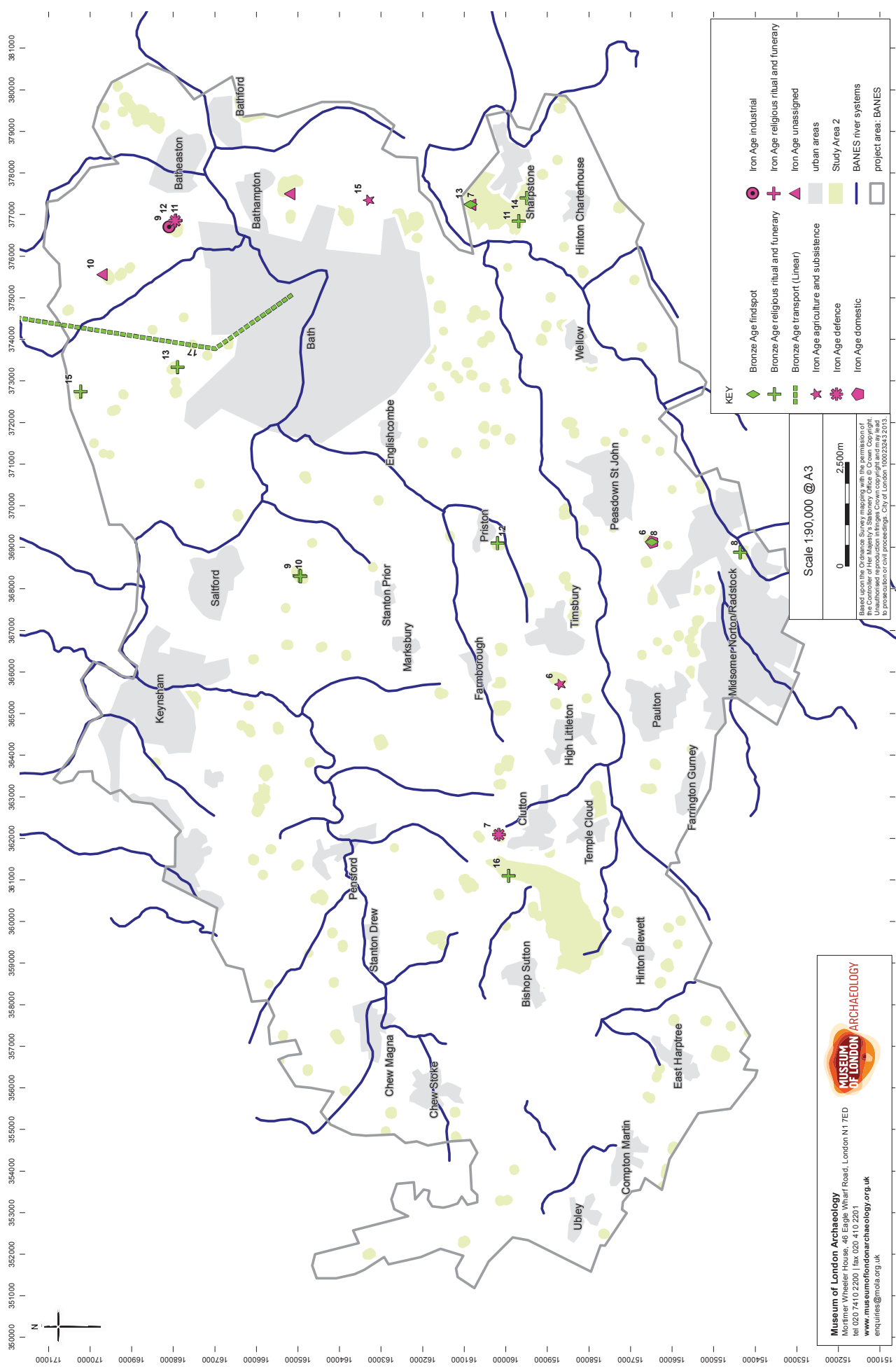


Fig 12 Study Area 2: Distribution of undated Prehistoric, Palaeolithic, Mesolithic and Neolithic assets by type

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Fig 13 Study Area 2: Distribution of Bronze Age and Iron Age assets by type

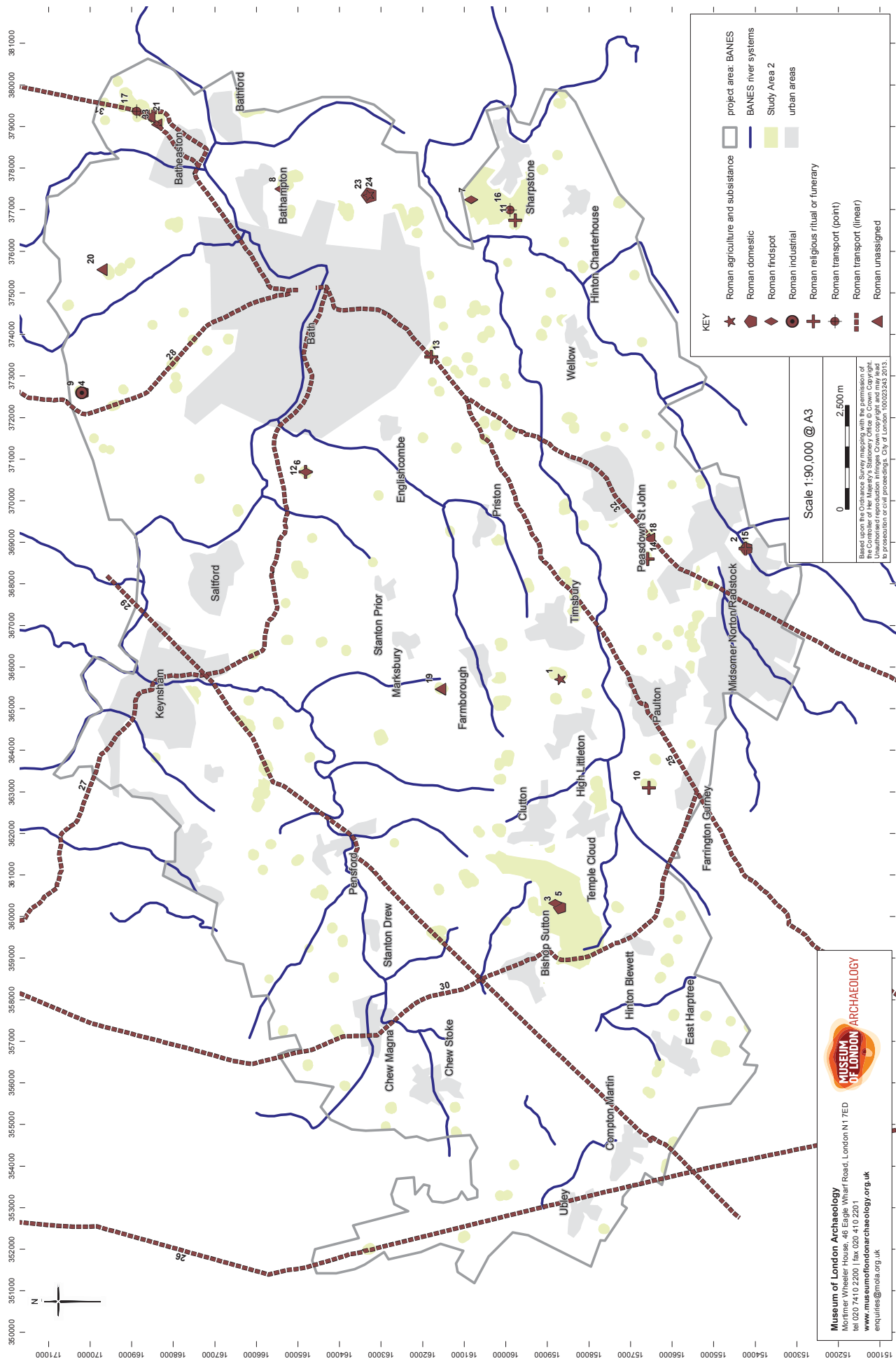


Fig 14 Study Area 2: Distribution of Roman assets by type

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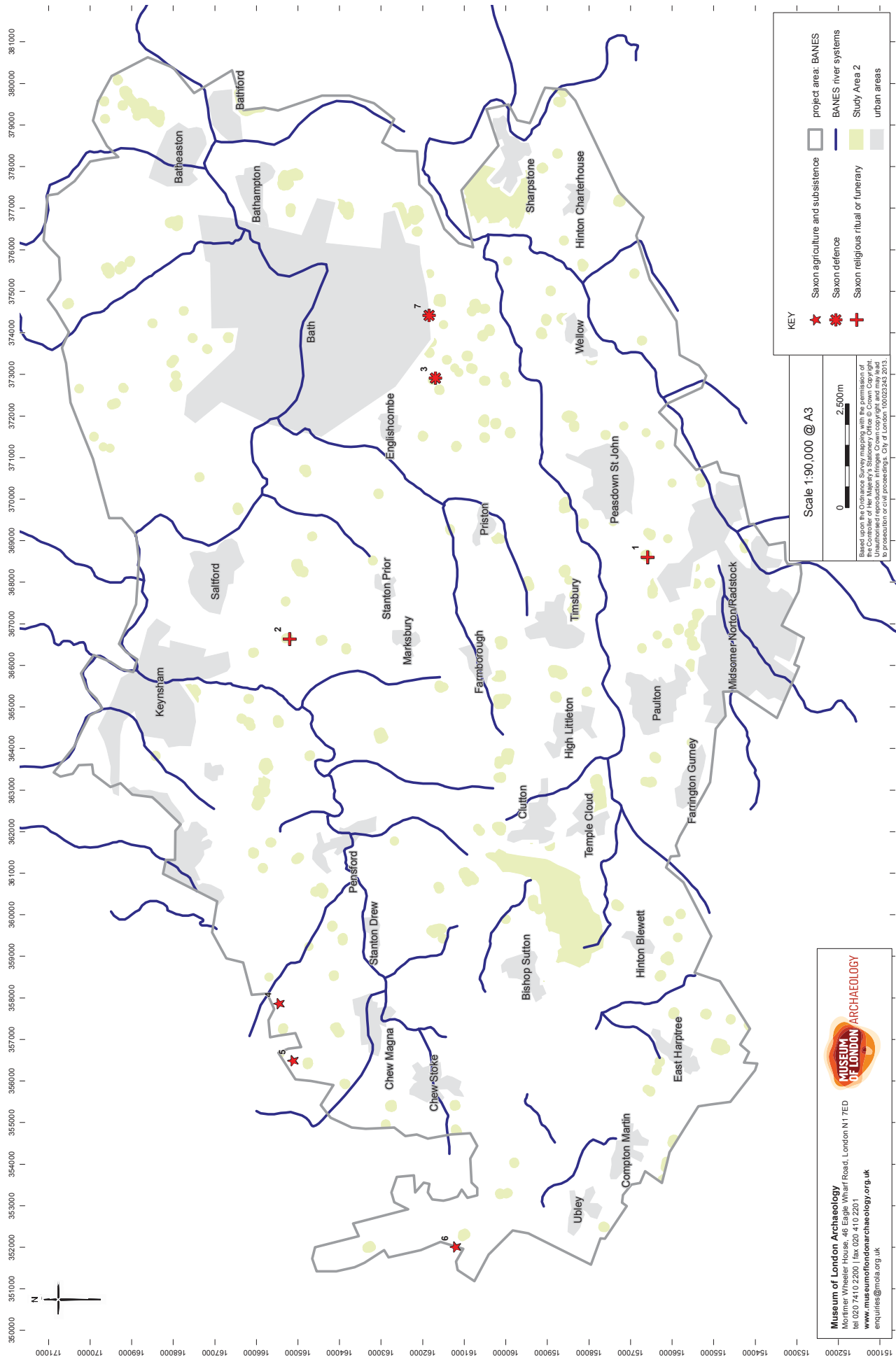
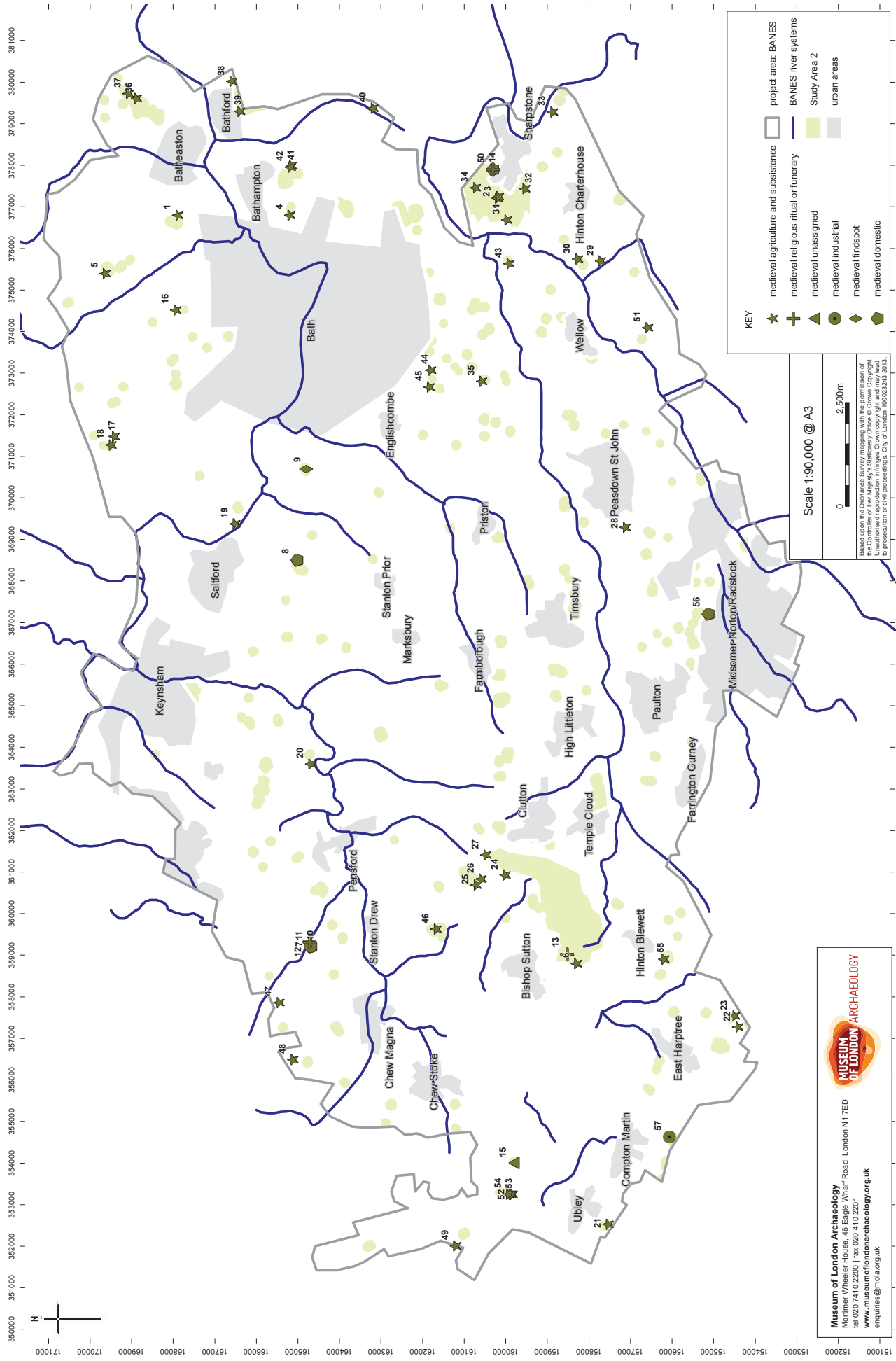


Fig 15 Study Area 2: Distribution of Saxon assets by type



KEY

- ★ medieval agriculture and subsistence
- ✚ medieval religious ritual or funerary
- ▲ medieval unassigned
- medieval industrial
- ◆ medieval findspot
- ⬠ medieval domestic

project area: BANES
 BANES river systems
 Study Area 2
 urban areas

Scale 1:90,000 @ A3

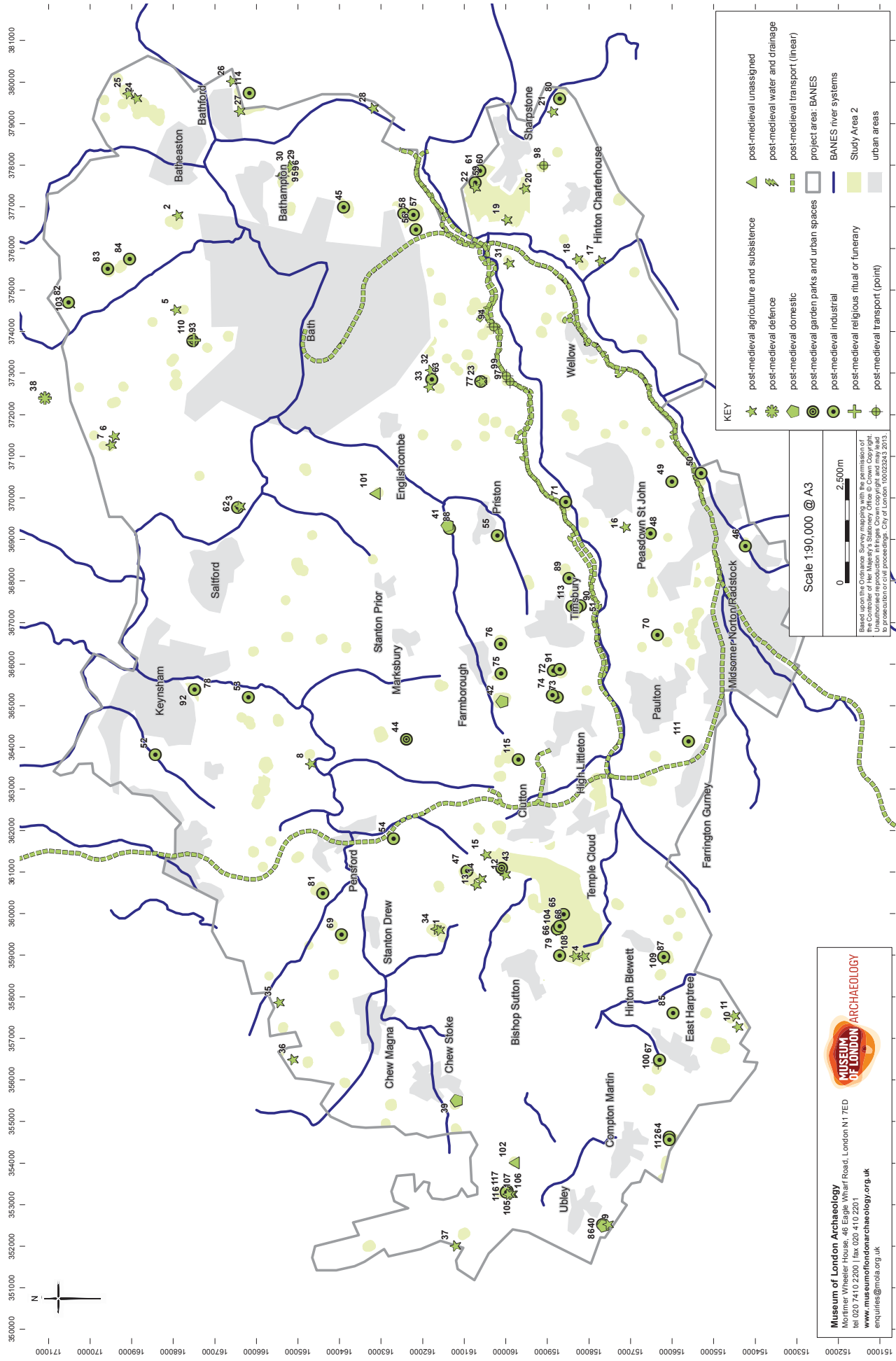
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Fig 16 Study Area 2: Distribution of medieval assets by type



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Fig 17 Study Area 2: Distribution of post-medieval assets by type

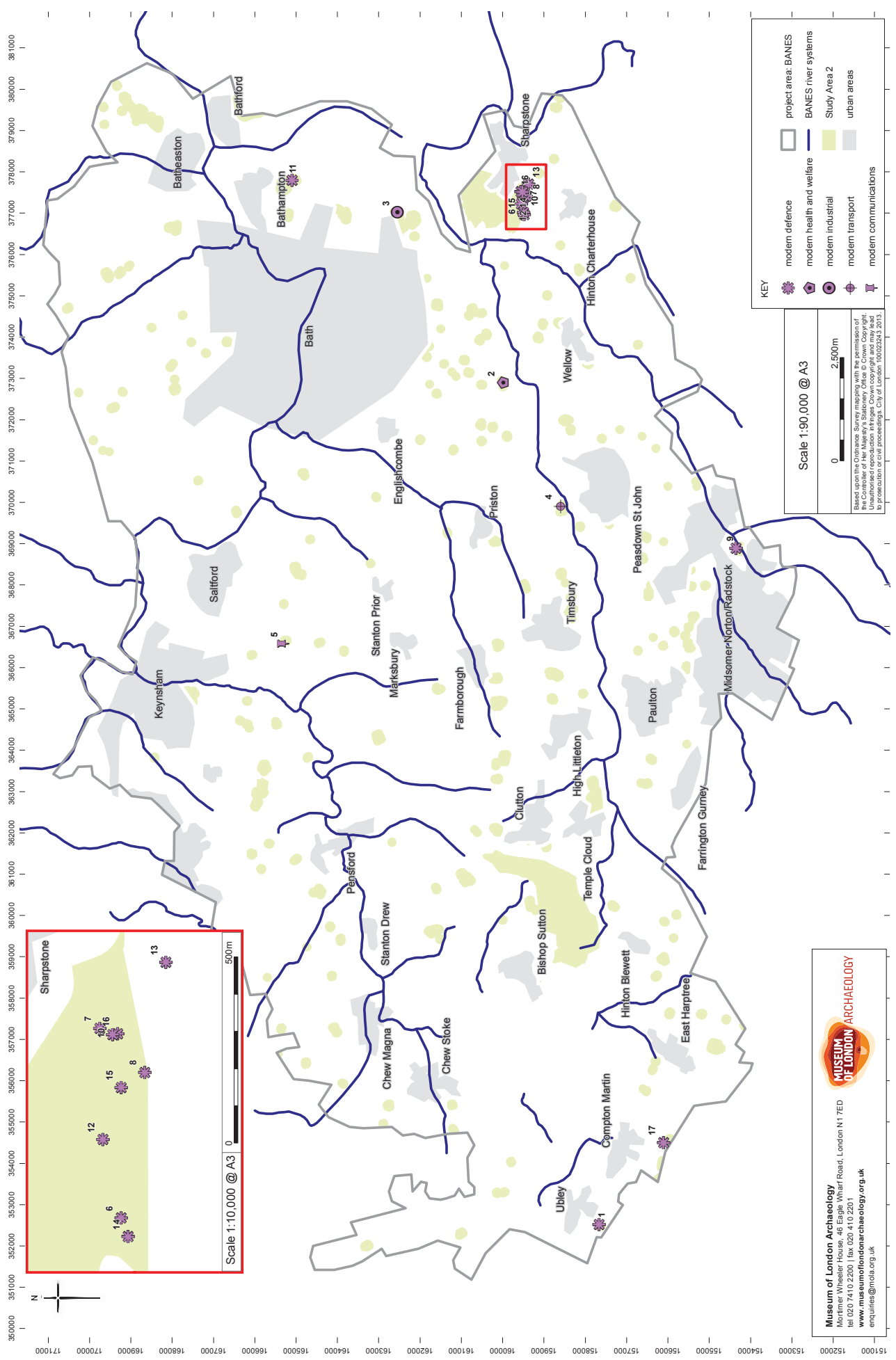


Fig 18 Study Area 2: Distribution of modern assets by type

SOME1015HEA13#18

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KEY

- modern defence
- modern health and welfare
- modern industrial
- modern transport
- modern communications
- project area: BANES
- BANES river systems
- Study Area 2
- urban areas

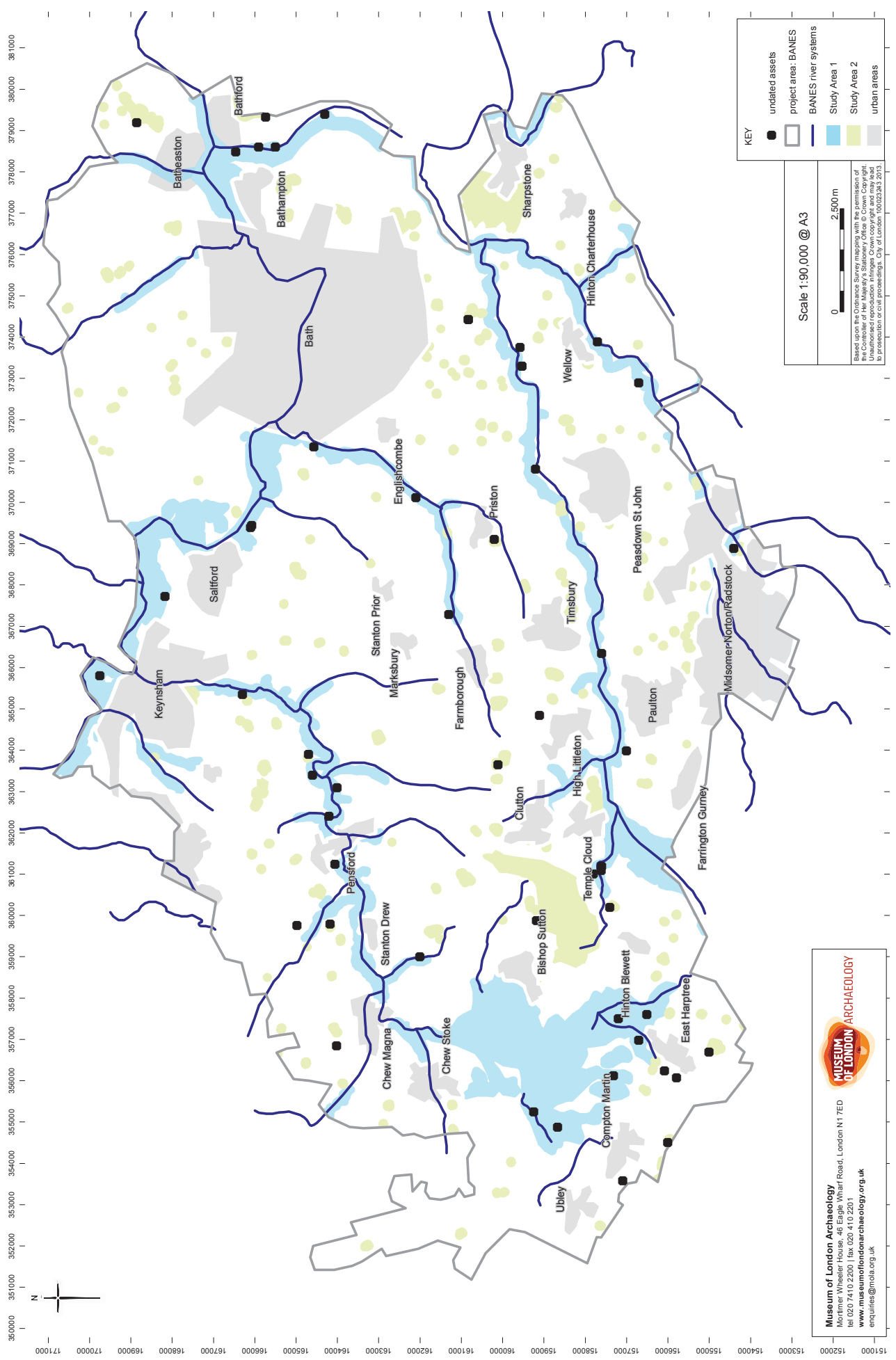


Fig 19 Distribution of undated assets across both study areas

SOME1015HEA13#19

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