NMP Mapping of the Marshwood Vale, Dorset AONB (HE no. 6936)

Cornwall Archaeological Unit

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The project was carried out using aerial photographs loaned by the Historic England Archive and Cambridge University. Additional digital photography was provided by Dorset County Council and lidar data from the Environment Agency (Geomatics).

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

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Date of Survey

The analysis, mapping and recording were carried out in 2015-6.

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Cover illustration: Post medieval quarrying within the Roman fort on Waddon Hill, Stoke Abbott. Photographed 16th February 2005 © Historic England (NMR 23816/10)

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Abbreviations

ADS	Archaeological Data Service
AMIE	Archives and Monuments in England Database
AOD	Above Ordnance Datum (sea level)
AONB	Area of Outstanding Natural Beauty
BC	Before Christ
CAU	Cornwall Archaeological Unit
CUCAP	Cambridge University Committee for Aerial Photography
DC	District Council
DCC	Dorset County Council
DEM	Digital Elevation Model
DOB	Defence of Britain
DSM	Digital Surface Model
DTM	Digital Terrain Model
DvCC	Devon County Council
EA	Environment Agency
EH	English Heritage
GHQ	General Headquarters
GIS	Geographical Information System
HBSMR	Historic Buildings and Site and Monuments Record
HE	Historic England
HEA	Historic England Archive
HER	Historic Environment Record
HES	Historic Environment Scotland
HLC	Historic Landscape Character
MAL	Meridian Air Maps
MNS	Map Note Sheet
MOD	Ministry of Defence
NCA	National Character Area
NE	Natural England
NHLE	National Heritage List for England
NHPCP	National Heritage Protection Commissions Programme
NIA	Nature Improvement Area
NMR	National Monuments Record
NMP	National Mapping Programme
NRHE	National Record of the Historic Environment
OS	Ordnance Survey

PDF	Portable Document Format
PGA	Pan Government Agreement
POW	Prisoner of War
PHHP	Poole Harbour Heritage Project
RAF	Royal Air Force
RCAHMW	Royal Commission on the Ancient and Historical Monuments of Wales
RCHME	Royal Commission on the Historical Monuments of England
SAC	Special Area of Conservation
SSSI	Site of Special Scientific Interest
SWRCZAS	South West Rapid Coastal Zone Assessment Survey (Dorset)
UID	Unique Identifier

1 Summary

This report presents the results of an archaeological survey involving the systematic interpretation, mapping, and recording of archaeological sites from aerial photographs and lidar imagery within a 193 square kilometre area of southwest Dorset and southeast Devon, centred on the Marshwood Vale. The analytical aerial survey was carried out using Historic England's (HE) National Mapping Programme (NMP) methodology.

The primary aim of this NMP project was to provide a rapid baseline survey of the Marshwood Vale and thereby enhance understanding of the present range of historic assets in order to facilitate assessments of their significance and thereby inform future management of the resource.

The project contributed to Historic England's corporate plan Aim 2: Identify and protect England's special historic buildings and places (HE 2016).

The project achieved these aims by providing significant enhancement to existing baseline data through the mapping, interpretation and recording of 1655 archaeological sites of which 1534 were entirely new sites, previously unrecorded in the Dorset and Devon Historic Environment Records (HERs) or in the National Record of the Historic Environment (NRHE) curated by Historic England.

This report describes the extent of the project area and the methodology used as well as giving an illustrative overview of the results of the aerial survey and the historic context for these. The Marshwood Vale is largely a medieval and post medieval landscape and the majority of features mapped in this area were related to land division, settlement, agriculture and industry during these periods. Very few prehistoric or later prehistoric sites were mapped but those that were mapped were more typically located on the higher ground within the project area. The mapping added to the one known Roman fort at Waddon Hill and also identified a mysterious and previously unrecorded military site at Fir Farm, Broadwindsor, thought to be Second World War in date.

The report is not intended to be a comprehensive account of the survey results; more exhaustive and detailed monument information is held in the Devon and Dorset HERs.

2 Introduction

2.1 Project background and aims

The Marshwood Vale is a landscape area that has been under-recorded in terms of its historic environment resource. Traditionally an area under a largely pastoral regime and away from large urban conurbations, the Marshwood Vale has seen very little archaeological fieldwork in recent decades. A small number of its upstanding earthwork monuments, mainly located on the higher ground surrounding the Vale itself, were excavated in the early to mid-20th century but otherwise the area has seen little archaeological research other than limited post war aerial photographic survey. That being said, the area has come under growing pressure in recent years as the small owner-occupied farms that characterise the area have become increasingly uneconomic, which has brought about consequent changes in land tenure and land management.

The landscape in this part of Dorset has undergone major field boundary changes since the end of the Second World War. Significant parts of this historic landscape have suffered from field boundary loss and its buried archaeological remains (many unrecorded) are being damaged through continued or increased ploughing. A high number of its farms are still owner-occupied by ageing farmers turning round very small profits, making them unattractive to the farms' heirs. Separate farmhouse and farm sales with aggregation of the traditional management units have been observed in recent years (C Munro, pers comm). Areas traditionally used for pasture have been progressively drained and taken into an arable regime, whilst future associated land

management changes - more often intensification – will be increasingly damaging to the historic environment in years to come.

This NMP mapping project was commissioned by Historic England (HE) after consideration of a proposal submitted in November 2013 (Royall 2013a). The proposal was the outcome of discussions between Cornwall Archaeological Unit (CAU), Dorset County Council (DCC) and the Dorset AONB (Area of Outstanding Natural Beauty). The proposals were for a detailed consideration, through the review of all readily available aerial photographs and lidar imagery, of the archaeological resource of the Marshwood Vale.

Following the successful delivery of the South Dorset Ridgeway NMP survey (Royall 2011), Dorset County Council and the Dorset AONB carried out an assessment of the potential for further NMP mapping within the county. This concluded that the Marshwood Vale was a high priority area; little is known about the historic environment resource of the Vale but the landscape is under increasing pressure as the small farms that characterise the area change.

In 2009, the Dorset AONB Management Plan identified a number of specific threats to the historic environment, the result of an increase in intensive arable farming (Dorset AONB, 2009, 68 and 71). These include:

- The impacts of land management (particularly plough-depth, subsoiling and rooting of crops) and visitor pressure on monuments.
- Changes to the wider historic character due to changes in land use and management, particularly the loss of boundaries.

There was therefore a pressing need to undertake NMP mapping within the AONB and particularly the Marshwood Vale itself in order to confirm the historic character of the landscape as well as the irreplaceable features set within it.

By systematically recording components of the historic environment from aerial photographs, a principle aim of this NMP project was to provide the essential data previously lacking within the HER and the Dorset AONB. Results from the project will facilitate a full assessment of the archaeological resource of the area, and inform future strategic planning and research frameworks for the area.

The mapping project was financed through the HE National Heritage Protection Commissions Programme (NHPCP). The mapping was carried out between November 2015 and October 2016 and the report produced in later 2016.

2.2 Overview of NMP methodology

The National Mapping programme (NMP) was initiated by the Royal Commission on the Historical Monuments of England (RCHME) in 1992. The aim of the NMP is 'to enhance our understanding about past human settlement, by providing information and syntheses for all archaeological sites and landscapes (visible on aerial photographs) from the Neolithic period to the twentieth century' (Bewley 2001, 78).

To achieve this aim a methodology was developed from previous selective approaches to mapping from aerial photographs (e.g. Benson and Miles 1974). The guiding principle of the methodology is 'to map, describe and classify all archaeological sites recorded by aerial photography in England to a consistent standard' (English Heritage 2010a and 2010b).

The NMP applies a systematic methodology to the interpretation and mapping of archaeological features visible on aerial photographs and lidar data (Winton 2015). This includes not only recording sites visible as cropmarks and earthworks but also upstanding structures, such as those relating to twentieth century military activities. This comprehensive summary of the archaeological information available on aerial photography is intended to assist research, inform planning and guide protection of the historic environment.

The Marshwood Vale project followed standard NMP methodology (with a few minor variations for those parts of the project covering the county of Devon arising from the use of ArcMap GIS as mapping software – see Appendix 1). It involved the systematic

examination of all readily available aerial photographs as well as lidar imagery held by the Environment Agency (EA). The online digital sources of aerial photographs held by Google Earth were also consulted.

Archaeological features were digitally transcribed using the AERIAL (Version 5.36) rectification programme and AutoCAD Map3D 2015 (infrastructure design suite). Each archaeological site was recorded directly into Dorset and Devon County Council's Historic Buildings, Sites and Monuments Record (HBSMR) databases and supplied to HE as portable document format (.pdf) and rich text format (.rtf) files.

Those areas located within Dorset were mapped by the CAU and those within Devon by AC Archaeology. The methodology varied slightly between the two counties and is described in Appendix 1 of this report.

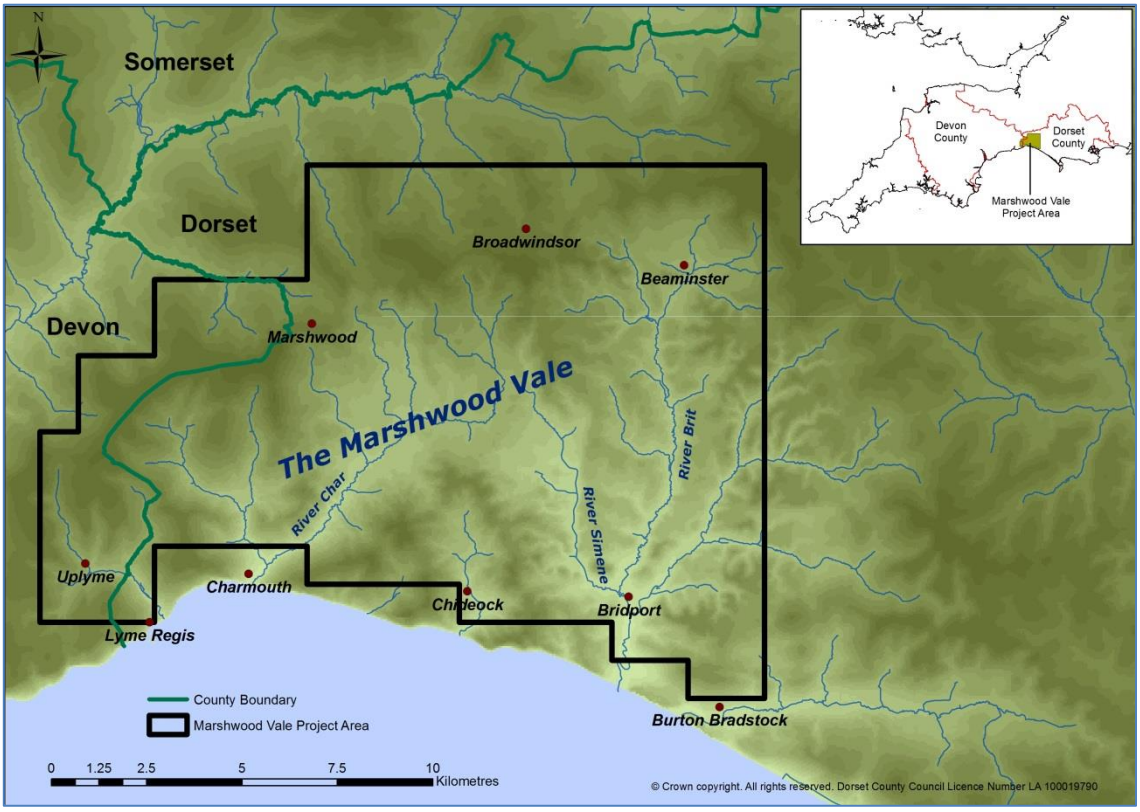


Figure 1. The Marshwood Vale NMP Project Area

3 The Project Area

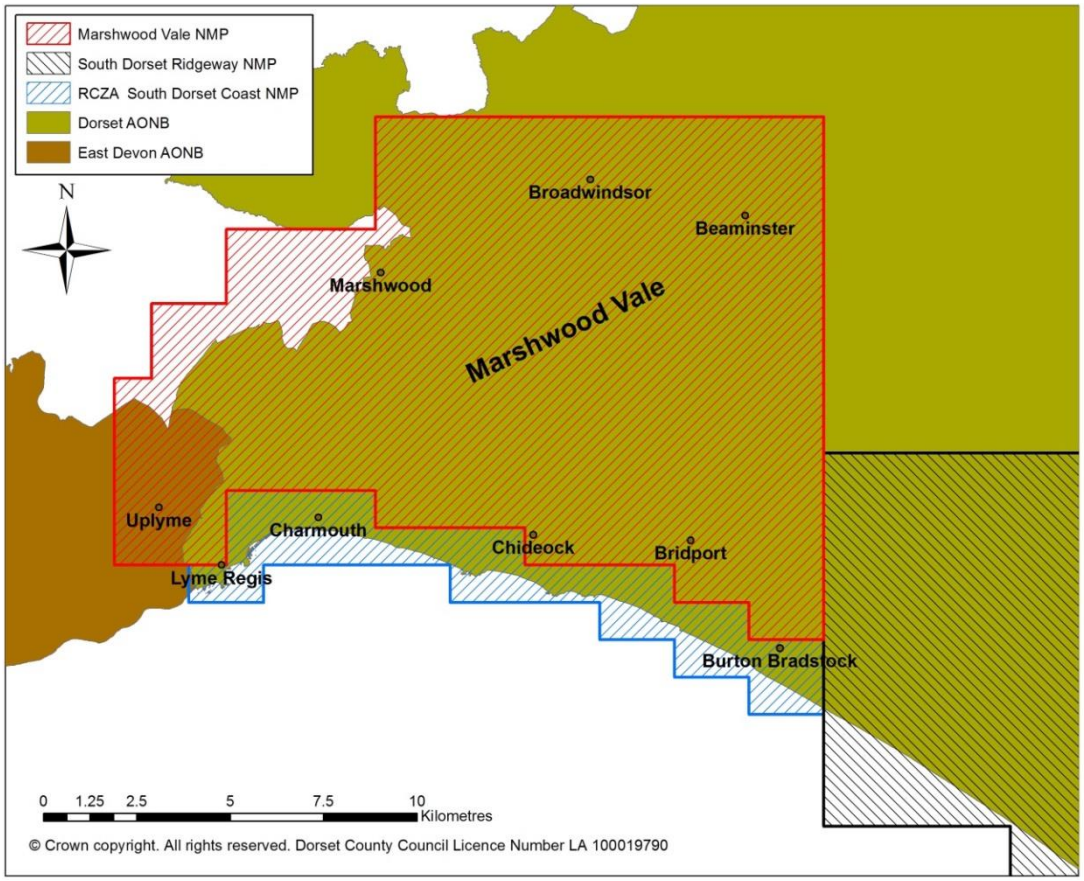


Figure 2. Location of the project area, previously completed NMP projects and AONBs

The Marshwood Vale is a low-lying, bowl-shaped valley in West Dorset to the northwest of Bridport. It is the lower catchment of the rivers Simene and Char and is enclosed by impressive Greensand hills on which are situated a series of prehistoric enclosures. The Vale itself was described by Arthur Salmon in his popular book on Dorset (Salmon 1915, 16) as "marshy and woody". As much of the known archaeological evidence for prehistoric activity is found on the higher ground surrounding the Vale (see Section 7.2) it is likely that the Vale remained wooded and marshy ground throughout much of prehistory; evidence for enclosure and assarting within the Vale appears to be of medieval and later origin (see Sections 7.3 and 7.4), further substantiating this.

In 1788, in his poem Lewesdon Hill, William Crowe described the Vale:

"The pleasant vale of Marshwood; pleasant now,
Since that the spring has deck'd anew the meads
With flowery vesture, and the warmer sun
Their foggy moistness drain'd; in wintry days
Cold, vapourish, miry, wet, and to the flocks
Unfriendly, when autumnal rains begin
To drench the spongy turf" (Crowe 1788, 6-7)

This somewhat negative description of the Vale was echoed by Sir Frederick Treves in his book *Highways and Byways in Dorset*, published in 1906:

"*To the north of the coast road is the Marshwood Vale, a somewhat sullen hollow, shunned by man, for there is hardly a habitation in it. It is, as the name implies, marshy and full of trees. Crowe speaks of it as 'cold, vapourish, and miry,'…. The roads though the valleys are narrow and grass-grown, for those who have business in its highways are few. Tall hedges shut in the roads, so that the place has ever the aspect of being un-traversed by man*" (Treves 1906, 278-9).

The study area covered 193 square kilometres of southwest Dorset and southeast Devon, stretching from Uplyme in the southwest to Beaminster in the northeast (Figure 1). The area included the core area highlighted by the Dorset AONB as a priority for NMP mapping. It took in the Marshwood Vale itself and its environs to the north and west. At the advice of the DCC HER, the mapping area was extended south towards the coast (although the coastal strip itself was not mapped having been previously included in the South West Rapid Coastal Zone Assessment Survey Component One - South Dorset Coast (SWRCZAS) (Royall 2014)).

In order to take in the entire length of the Vale and the River Char it was originally proposed to undertake NMP mapping from Charmouth in the west to Burton Bradstock in the east. The project area extended northwards along the valley of the River Brit to Beaminster; the northern edge of the project area coinciding with the upper reaches of the River Axe.

At the request of HE, to ensure that the project area had good topographical and historic landscape integrity the project area was further extended in the west to include the landscape related to all the western headwaters of the River Char.

The south-eastern boundary of the project area is formed by the western limit of the South Dorset Ridgeway NMP survey and the southern boundary by the limit of the SWRCZAS. Most of the project area lies within the Dorset AONB and the south-western corner within the East Devon AONB (Figure 2).

3.1 Geology, soils and landscape character

3.1.1 Geology

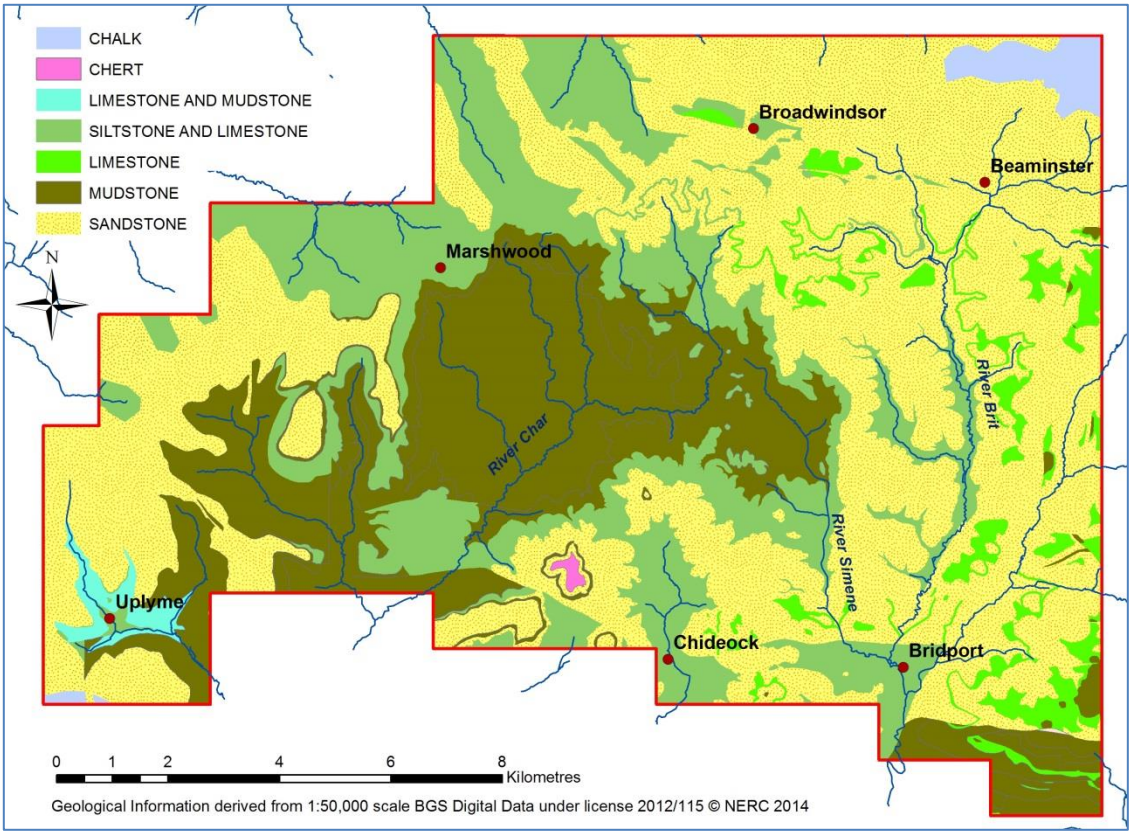


Figure 3. Map showing a simplified geology of the project area

The underlying geology of Dorset is very varied, giving the county its interesting landscapes. Much of the county is made up of relatively recent sedimentary deposits with Cretaceous Upper Greensand and Gault Clays in the west around Charmouth and mixed sands and mudstones of the Eocene to the southeast. A number of limestone ridges run through Dorset, the most notable of which is a wide band of Cretaceous

chalk which tracks from the southwest to the northeast of the county underlying the Dorset Downs and forming part of the Southern England Chalk.

This great band of chalk terminates abruptly in West Dorset and the last vestiges of it underlie the far north east corner of the Marshwood Vale NMP project area (Figure 3).

The Vale itself is a broad plain, most of which lies between 30m and 80m above sea level (AOD). The underlying geology of the Vale is Lower and Middle Lias mudstones and calcareous mudstones and it is encircled by steep ridges of sandstone and limestone. To the north the Pilsdon and Lewesdon Hills are the highest summits in Dorset, both being over 270m AOD. Jurassic sandstone and limestone ridges form the coastal higher ground between Charmouth and Bridport which separate the Vale from Lyme Bay. Cretaceous Upper Greensand dominates the western portion of the project area underlying the dominant ridge running from Shapwick Hill (just to west of the study area) to Lambert's Castle. The high ground to the east of the Vale is underlain by Jurassic Bridport Sands, Oolitic limestone and Cretaceous Grey Chalk to the northeast.

In terms of superficial Quaternary geology, alluvial deposits lie in the main river valleys along with undifferentiated river terrace deposits of clay, sand, silt and gravel in the tributary valleys of the Brit and Char rivers. Deposits of periglacial head lie inland of the coastal strip over much of the western half of the project area with clay-with-flints capping the higher Upper Greensand ridges (Figure 4).

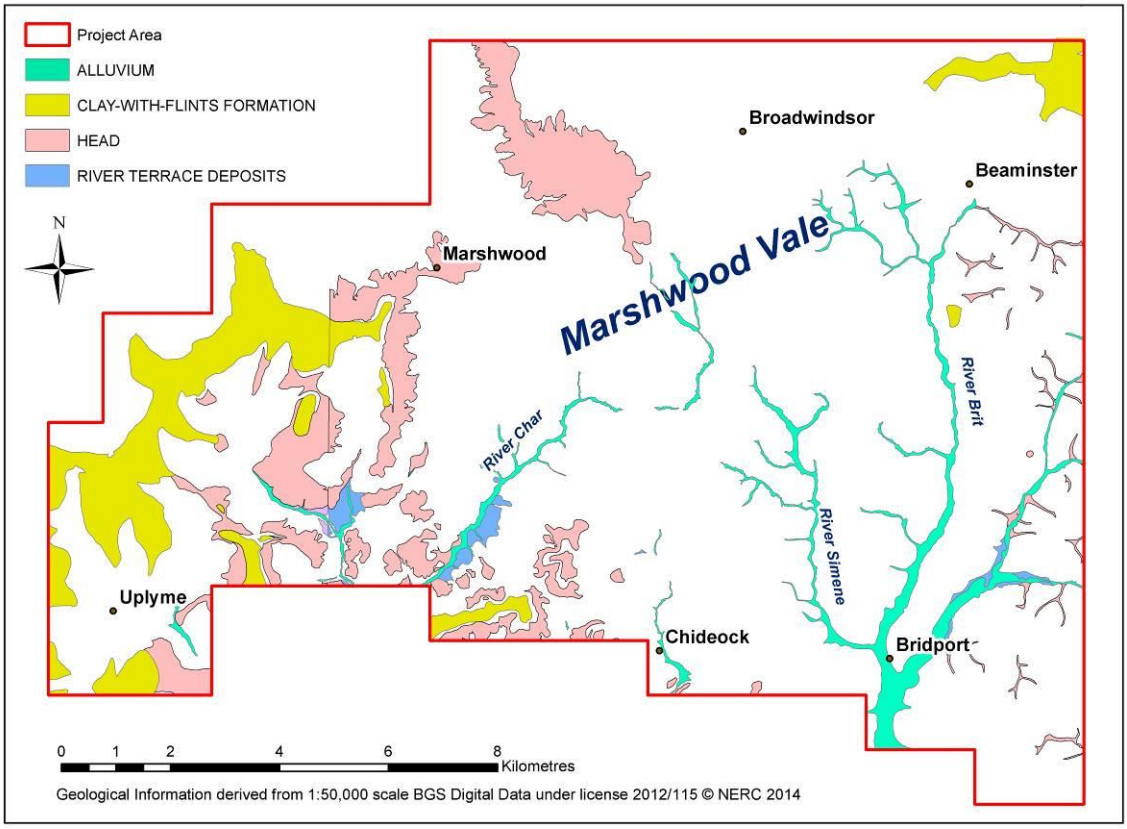


Figure 4. Superficial Geology of the Marshwood Vale NMP Project Area

3.1.2 Soils

[Information derived from Landis Soilscapes 2014].

There are four predominant soil types in the project area. The Vale itself has slowly permeable seasonally wet slightly acid but base-rich loamy soils (Soilscape 18) with the Upper Greensand ridges surrounding the Vale being overlain by freely draining slightly acid loamy soils (Soilscape 6).

Large dispersed areas of slightly acid loamy and clayey soils with impeded drainage (Soilscape 8) lie to the south between Charminster and Chideock, in the valleys of the

Rivers Brit and Simene and along the North Dorset Downs Areas to the north and west of Broadwindsor.

Smaller areas of very acidic upland soils with a wet peaty surface (Soilscape 16) are located along the ridge of Stonebarrow Hill, east of Charmouth and in the upper reaches of the Char tributaries on the eastern side of the ridge between Raymond's Hill and Lambert's Hills.

3.1.3 Landscape character

A landscape character assessment was carried out over the entire county by Dorset County Council in partnership with the AONB. Within the county, 21 broad landscape character types have been identified based on broadly similar combinations of geology, topography, vegetation, land use and settlement pattern, (Figure 5). A similar assessment was also carried out within Devon. The following descriptions are based on data from Dorset County Council, (2016) and Devon County Council, (2016).

3.1.3.1 Character Types

The project covers the following landscape:

Landscape Type	Landscape Character Area	Coverage
Clay Vale	Marshwood Vale	100%
Undulating River Valley	Brit Valley	95%
Wooded Hills	Chideock Hills	70%
	Wootton Hills	90%
	Powerstock Hills	30%
	Axe Valley Hills	60%
Clay Valley	Bride Valley	20%

Table I. Dorset Landscape Character Areas intersecting the Marshwood Vale NMP project area

Clay Vale. The clay vale character type is a homogenous grassland landscape incorporating a patchwork of small to medium sized fields with dense hedgerows and scattered mature hedgerow oaks. The Marshwood Vale itself is a bowl-shaped clay landform surrounded by limestone and sandstone ridges. It has a long history of dairy farming and its associated scattered farmsteads, hamlets and small villages give the vale a peaceful, undeveloped and secluded rural atmosphere.

Clay Valley. The clay valleys have a varied landscape of broad open valley and more secluded areas enclosed and defined by dramatic chalk escarpments and ridges (the tail end of the Southern England Chalk, see above). Their patchwork of small-scale rolling pasture fields, scattered woodland and scrub on steeper slopes has been shaped by centuries of agricultural improvement. Small farmsteads and villages are often hidden and scattered throughout the landscape. One area of Clay Valley lies within the project area: the Bride Valley east of Bridport.

Undulating River Valley. The alluvial flood plain of the River Brit with its associated tributary valleys and undulating rolling hills has a diverse character ranging from open rolling countryside to market towns and clustered villages. The scattered clustered settlements use locally distinctive golden limestone and thatch. The landscape is one of open rural character with small fields along the valley floor and arable, pasture and occasional woodland on the valley sides.

Wooded Hills. This is a pastoral landscape with broad rolling hills, steep ridges, incised valleys and a dramatic coastline. Wooded valley sides are interspersed with a patchwork of dense hedgerows, winding lanes and small settlements. This is a dominant character type within the project area with all four character areas (the Axe Valley Hills, Chideock Hills, Powerstock Hills and Wootton Hills) being located within (or partially within) the project area.

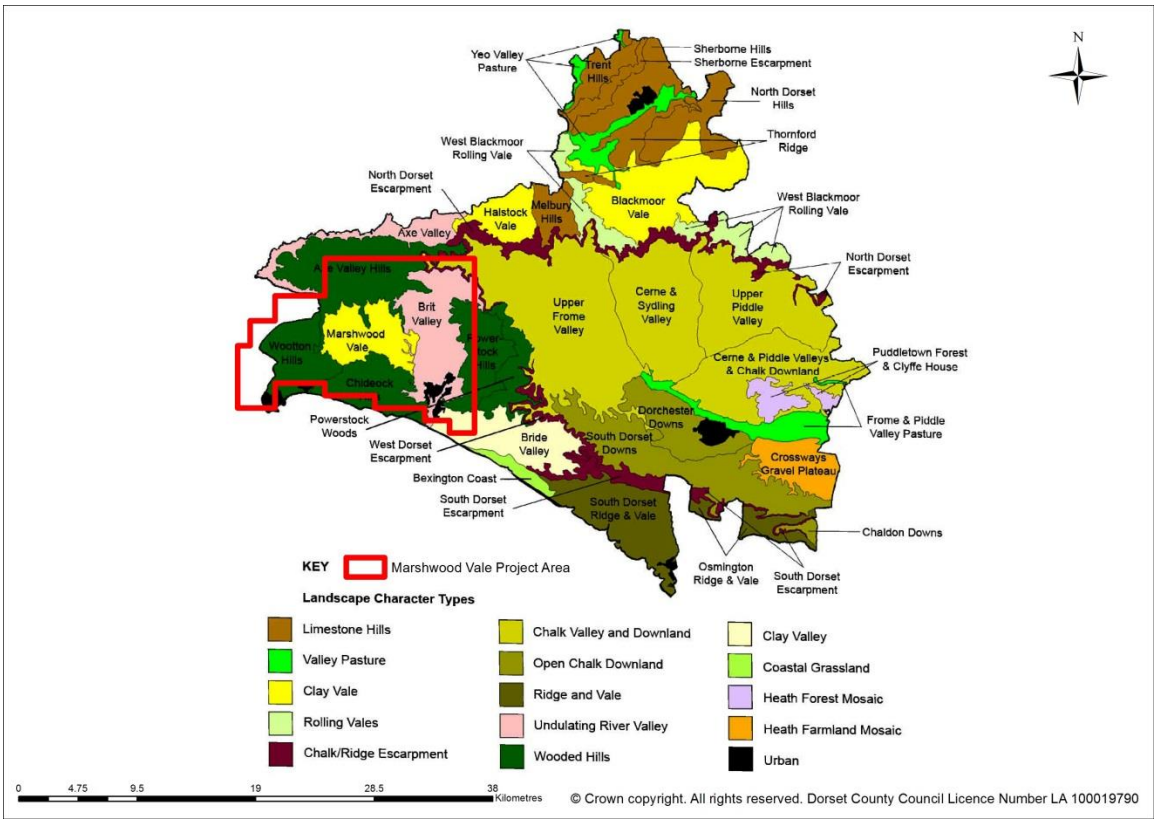


Figure 5. West Dorset Landscape Character Areas. (Source West Dorset DC 2008)

In addition, the project area covers the Wootton Hills Devon Character Area which comprises an elevated rolling ridge of discrete conical hills which extend into Dorset to the east and are associated with wooded slopes and lower lying valley farmland. (Devon County Council 2016).

3.1.4 Historic Landscape Character

Historic landscape character (HLC) assessments have been carried out over both counties by DCC and DvCC in partnership with English Heritage. HLC was pioneered in Cornwall (Herring 1998; 2009) to devise a method for characterising the present-day landscape with reference to the historical processes behind its development. Through the division of the present-day landscape into character Types and Zones, it allows the historic landscape to be given archaeological significance on a wide scale. More recent HLC frameworks typically present a greater depth and detail of historic landscape character but at its broader level HLC provides coarse grain mapping of the typical historic cultural processes that shaped the present landscape.

Devon's Historic Landscape Characterisation (Turner, 2005) is presented in two forms: a characterisation of the modern landscape and a characterisation of the post medieval landscape based on the 1880 OS 1st Edition maps. The Marshwood Vale NMP project used the HLC of the post medieval landscape as its primary reference. Whilst the HLC for Dorset is still in draft form, the data was supplied to the project by DCC. For Figure 6, the Devon HLC was simplified to conform to the Dorset character types.

The Dorset HLC data is as yet incomplete and has a number of inherent inaccuracies. For these reasons it was not used during the mapping and reporting phases of the project. Some general observations can however be made. As Figure 6 shows, the project area has an overwhelming rural character. The town of Bridport is the largest settlement area situated to the south-eastern corner and the outskirts of Lyme Regis lies to the south west. The rest of the area is primarily enclosed land with scattered small settlements, pockets of open land and dispersed woodland.

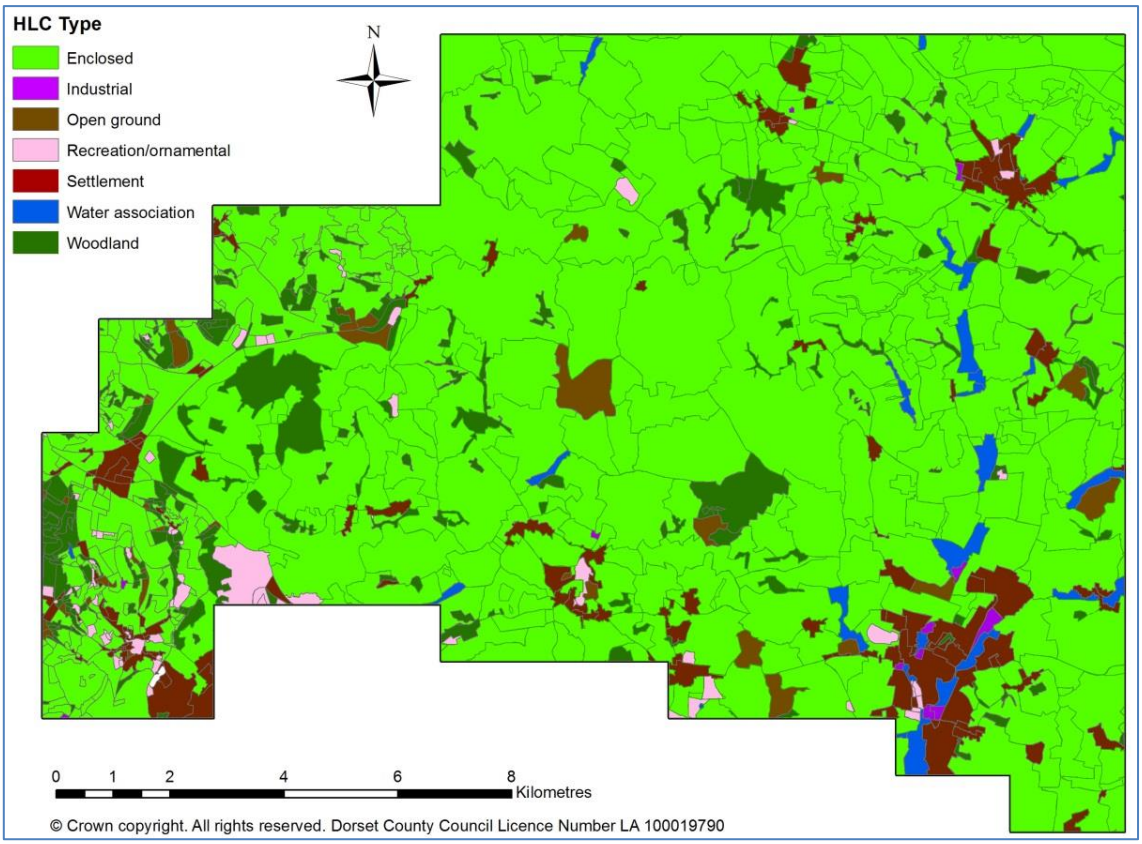


Figure 6. Historic Landscape Character Types.

The data in Table II below is an amalgamation of the Devon and Dorset data. The project area contains seven Historic Landscape Broad Character Types, listed below

Broad Historic Landscape Character Type	**% project area**
Enclosed	83.1
Industrial	0.2
Open Ground	1.6
Recreation/ornamental	1.3
Settlement	6.0
Water Association	1.5
Woodland	6.3

Table II. Broad Historic Landscape Character Types (Dorset and Devon combined)

3.1.5 National Character Areas

National Character Areas (NCAs) are sections of the countryside that share similar landscape characteristics and follow natural lines in the landscape, not administrative boundaries. The project area is primarily covered by the Marshwood and Powerstock Vales NCA 139 as specified by Natural England (2016). To the west lies NCA 147 (BlackDowns) and to the north, NCA140 (Yeovil Scarplands).

The Marshwood and Powerstock Vales NCA incorporate an area of high ground stretching from Bridport north to Beaminster, and westwards to Charmouth on the coast. It is characterised by regular hedged fields enclosing rich pastureland. Isolated farmsteads are distributed across the area, some having origins in the pre-medieval period.

4 Overview of the aerial photographs

Over 90 years of aerial reconnaissance has taken place in this part of Dorset. The earliest photographs available to the project were oblique images dating from the 1920s and 1930s from the Aerofilms Collection (see below).

Extensive programmes of vertical photography were carried out by the Royal Air Force (RAF) in the years during and after the Second World War. Blanket vertical cover has continued up until the present day, the flights carried out initially by the Ordnance Survey (OS) in the 1960s and, later, from the 1970s onwards, by DCC and the OS. These more recent sorties produced digital colour images.

The primary source of aerial photographs used in this project was the Historic England Archive (HEA) collection in Swindon; over 3,500 prints and digital images were loaned from this collection. The Cambridge University collection (CUCAP) also contains important photographic prints of the area although these were unfortunately unavailable during the lifetime of this project. Dorset CC provided over 2,800 digital aerial photographs which are from 1972, 1997, 2002, 2009 and 2014. Pan Government Agreement geo-referenced digital aerial photographs provided by HE were also available as well as digital photographs from Google Earth accessed via the internet. Details of photographs used during the project are contained in Appendix 1.

4.1 Specialist oblique photographs

Figure 7. The remains of medieval strip lynchets and field boundaries at Mangerton, Netherbury

The oblique photograph above shows a series of medieval earthworks picked out in low September sunlight. The earthworks include cultivations terraces, field boundaries and trackways possibly associated with an adjacent medieval hamlet on the site of the modern village. MDO1773. Unrectified oblique photograph, north to the top-right of image. Photograph: NMR 24725/29, 18-SEP-2007. © Historic England.

Systematic programmes of aerial reconnaissance, specifically to record archaeological sites, important buildings, historic landscapes and other features of interest, have been undertaken since the later 1940s by The Cambridge University Committee for Aerial Photography (CUCAP) and by the Royal Commission on the Historic Monuments of England, latterly as part of Historic England, since the 1970s. The photographs

collected by the National Monuments Record (NMR), now HEA, provided the bulk of the oblique coverage available to this project.

Targeted archaeological aerial reconnaissance flights have traditionally been undertaken to record cropmarks and have therefore been carried out in late spring and summer when cropmarks are forming within the germinating and ripening crops. The poorly-drained soils and often pastoral regime within the project area have not been conducive to the development of cropmarks and for these reasons few reconnaissance flights have been carried out within the project area and consequently only small numbers of oblique prints were available to the project team.

Oblique photographs taken in slanting sunlight (either during the winter months or in the early morning or late evenings of summer) are an ideal medium for defining earthwork monuments and the small numbers of oblique photographs have recorded the upstanding remains of Iron Age hillforts and medieval moats and strip lynchets (see Figure 8).

4.2 Vertical photographs

Vertical photographs provide coverage of all parts of the project area and have been taken at regular intervals from the early 1940s onwards. As part of the routine NMP process all readily available vertical aerial photographs were examined. A three dimensional view of the landscape, including any extant archaeological features, was achieved by using a hand-held stereoscope.

Figure 8. Deserted medieval farmstead at Kitty's Farm, Marshwood

Trackways, building *platforms and narrow ridge and furrow cultivation marks are visible on this vertical photograph taken by the RAF shortly after the end of the Second World War. MDO1641. Photograph: RAF CPE/UK/2431 RS 4214 22-JAN-1948. Historic England RAF Photography*.

The advantage of vertical photography is that large areas are usually surveyed. A potential disadvantage is that photographs may not always be taken at the most favourable times of day or year to maximise the visibility of archaeological features. Nonetheless due to the lack of oblique photographic cover, the value of vertical photography to the project cannot be overstated.

A good range of sources of vertical photography were available to the project. RAF vertical photographs from the 1940s to the early 1960s were an important source of information, particularly for 19th and 20th agricultural and extractive features as well as the small numbers of 20th century military features recorded.

The provision of a wide variety of later sorties (the DCC digital aerial photo tiles, the OS and the Meridian Airmaps (MAL) collections and online digital colour photographs from Google) ensured that coverage from vertical photography was good.

4.3 Aerofilms Collection

The earliest photographs available to the project were a small number of oblique images from HE Aerofilms Collection, many of which date to June 1925 and September 1928. Aerofilms Ltd was a pioneering air survey company set up in 1919 by First World War veterans Francis Lewis Wills and Claude Grahame-White. In addition to their own imagery the firm purchased smaller collections including those of AeroPictorial (1934-1960) and Airviews (1947-1991). The collection of historical air photographs was bought in 2007 by Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS now Historic Environment Scotland (HES)), English Heritage (now Historic England), and the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) and is now partially available on the internet on the Britain from Above website (HES, HE and RCAHMW 2016).

Figure 9. Aerofilms Collection photograph: Garstang Creameries, Bridport, August 1937

This historic image was taken two years before the outbreak of the Second World War. The original creamery buildings have since been replaced by modern structures that now extend across the entire open area; the allotments to the top of the picture were subsequently developed for housing and are now under Manor Fields. Unrectified oblique photograph, north to the left of image. Photograph: EPW054827 AUG-1937. © Historic England (Aerofilms Collection).

The images from the Aerofilms collection which cover the project area are exclusively low-level panoramic shots of towns such as Bridport and Beaminster. Their main focus is industrial buildings, hotels and railways; features generally outside of the NMP remit for mapping. The collection presents an unparalleled picture of the changing face of

Britain in the 20th century and its images are of great historic interest. Whilst of limited use in mapping archaeological features, the available images were of great value in providing historic context and an understanding of historic settlement development.

4.4 Lidar data

Airborne laser scanning (also known as Light Detection and Ranging (lidar)) is a relatively new medium providing an invaluable tool for archaeological survey, particularly in areas where conventional aerial photography is of little benefit such as in woodland.

Aircraft-mounted pulsed laser beams are bounced off the ground and the speed and intensity of the returning beams recorded. The beams return when they first hit a solid surface such as the top of the tree-canopy, a roof or the ground, this is the First Return. Depending on the density of the surface encountered, the laser beam can be reflected back more than once so in a light tree canopy for example, some of the beam will continue through to the ground surface before being finally returned (Last Return). This information is used to create a detailed digital elevation model (DEM) of the ground surface.

A Digital Surface Model (DSM) is an elevation model of the First Return and as such is a model of the surface of the earth including all features such as trees and buildings. Digital Terrain Models (DTM) however can be created using mathematical algorithms to remove all features above the natural ground surface such as the tree canopy using the Last Return data. The technique allows the identification and recording of upstanding features on the ground to sub-metre accuracy. The benefits of using lidar for archaeological recording have been previously recognized (Bewley *et al* 2005; Devereux *et al* 2005; Royall 2013b and Carpenter *et al* 2016).

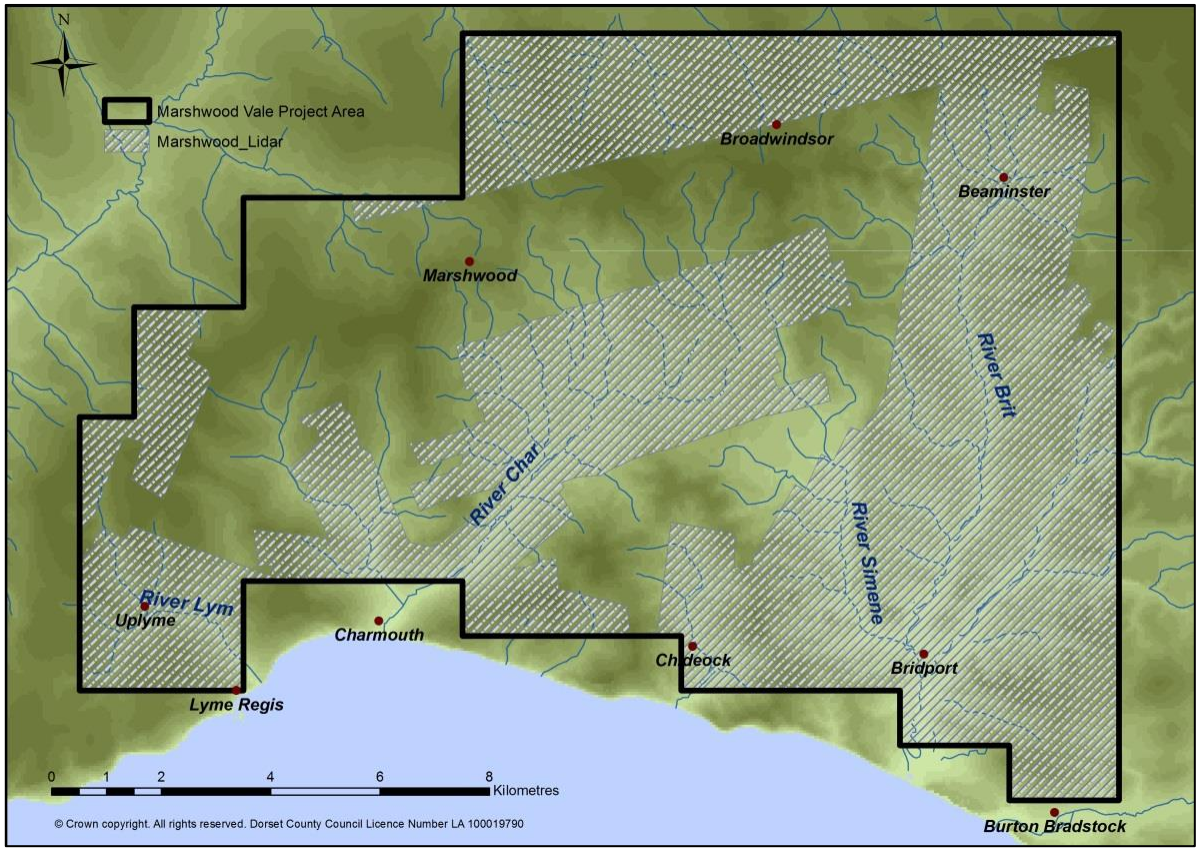


Figure 10. Coverage of Environment Agency (Geomatics) lidar for the project area

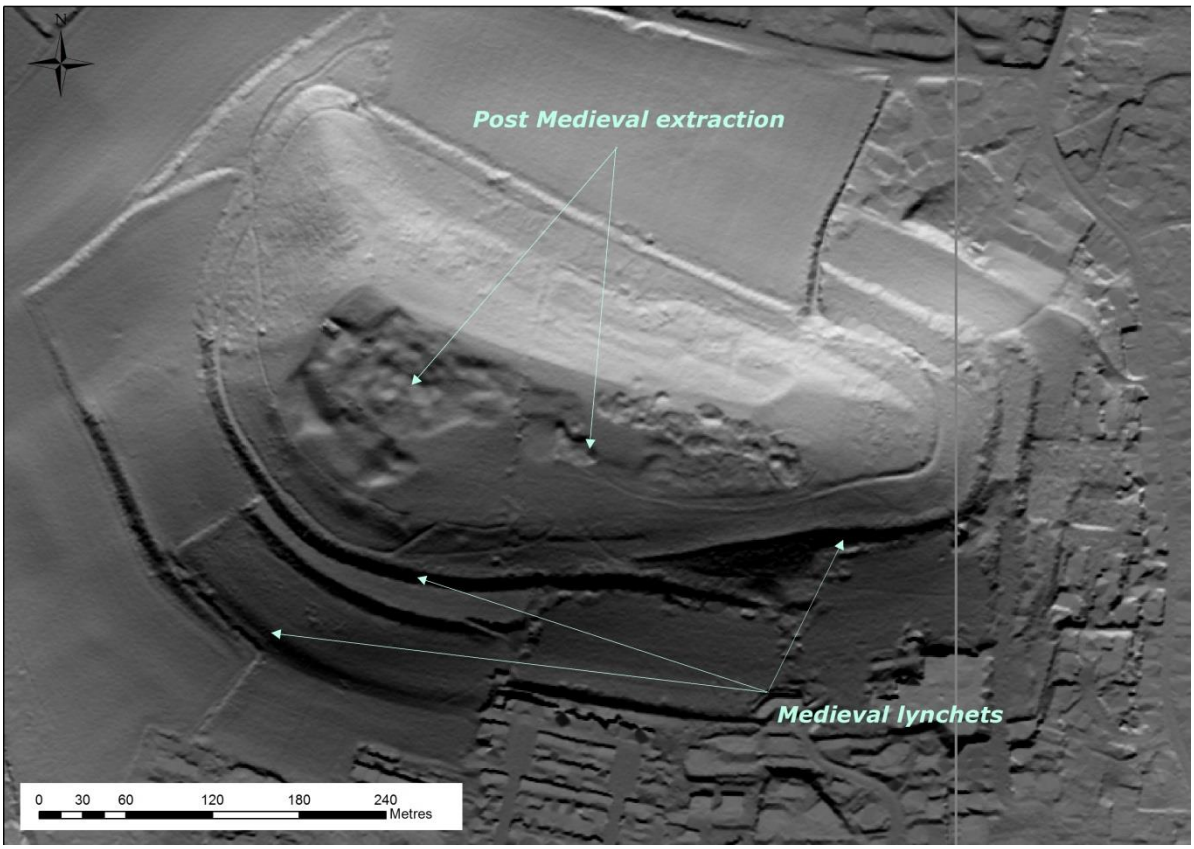


Figure 11. Post medieval extractive pits and medieval lynchets on Allington Hill, Bridport are clearly visible on Environment Agency lidar taken in 2010.

The lynchets are visible as banked earthworks curving around the hillside, the extractive pits as indented scarring on the hilltop surface.MDO37477 and MDO37478. © Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.

Lidar data was available for 65% of the project area (see Figure 10). The Environment Agency (Geomatics) had undertaken sorties of the main river valleys including the Rivers Char, Brit, Lym and Simene. The lidar coverage included the central portion of the Vale but not the higher ridges. There was no cover for the extensive areas of higher ground which surround the Vale on its west, north and eastern sides.

The Geomatics lidar was captured from 50cm and 1m grid taken in 2010 and 2012. The digital elevation models (DTM and DSM) were available as ascii grid files which were viewed and modelled in AutoCAD. To assist site identification and interpretation, multidirectional hill shades were generated using the Relief Visualization Toolbox developed by The Institute Of Anthropological and Spatial Studies at the Research Centre of the Slovenian Academy of Sciences and Arts.

5 Previously known monuments within the project area

5.1 Recent research and investigation in the project area

One of the main reasons for the initiation of this NMP project was the lack of up-to-date information concerning the historic environmental resource of the Marshwood Vale and its wider environs. Relatively little was known about the prehistory of the area other than the few upstanding monuments (four hillforts, a Roman fort and a small scatter of round barrows). Whilst a number of important medieval sites were known (including Marshwood Castle and extensive systems of medieval strip lynchets on the eastern fringe of the Vale on the limestone and sandstone ridges), the historic landscape within the Vale itself was poorly recorded and researched.

The reasons for this lack of knowledge were two-fold. Firstly the underlying soils of the Vale (slow draining and seasonally waterlogged – see section 3.1.2) are not naturally conducive to an arable regime. Prior to the 1940s much of the area was traditionally under improved pasture with generally small-scale arable and predominantly shallow-depth ploughing. As a result, few if any cropmarks are known and stray finds from ploughed fields are generally rare. This situation may change however as arable cultivation within the area intensifies and greater-depth ploughing increases; the threats identified in Section 2.1 suggest that this already occurring.

Secondly, being a very rural area away from the coastal fringe with few large towns, it has largely been spared the impact of late 20th and early 21st century developments such as urban expansion and road schemes. Few ground-based surveys, watching briefs or archaeological excavations have therefore been carried out.

5.2 NRHE and Dorset HER databases

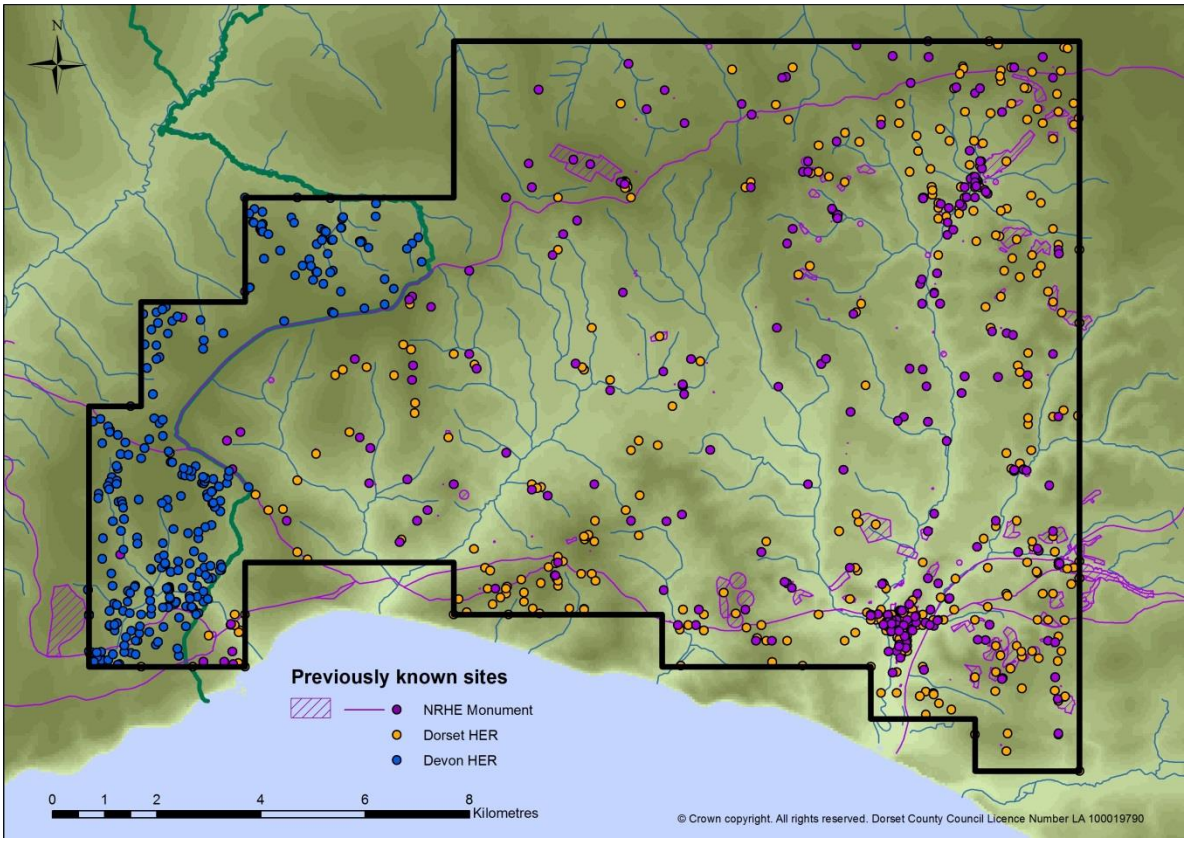


Figure 12. Distribution of pre-existing NRHE and Dorset HBSMR records (Monument (MON) records only)

Prior to the mapping project there were 537 records for monuments in the study area within the HEA NRHE database, 259 records in the Devon County HBSMR and 2813 records in the Dorset HBSMR. Of the 3072 records listed in the county HBSMRs, 2288 were for buildings and Listed buildings and 55 for find spots. In addition there were 1225 Listed buildings and three registered parks and gardens within the HE databases. The archaeological resource is therefore of varying density within the project area, being relatively rich on the peripheral sandstone ridges and sparse within the Marshwood Vale itself.

Summary of the known archaeological resource listed in the county and national databases prior to the current NMP study:

The known archaeological resource prior to the NMP project was varied with limited evidence from the Palaeolithic to the twentieth century.

Seven Palaeolithic find spots including six handaxes were listed in the Dorset HBSMR, as well as three groups of Mesolithic artefacts and five Neolithic find spots. The Palaeolithic and Mesolithic finds are predominantly distributed along the higher ground to the north and east of the Marshwood Vale; in contrast to the Neolithic finds which appear more closely associated with the river valleys (see Figure 20). Although the relatively small number of finds are likely to represent no more than chance or random discoveries, the present evidence suggests that early prehistoric activity was largely confined to the high ground surrounding the Marshwood Vale rather than within the Vale itself, as noted in Section 3 (and see Section 7.1)

One possible Neolithic long barrow was listed in the NRHE at South Bowood (NRHE UID 864006).

The Bronze Age was represented by 21 bowl barrows (all in Dorset) and five find spots; two in Dorset, comprising spearheads and an axe (NHRE UID 193109) and a socketed axehead (NHRE UID 866965); three in Devon, comprising a flat axe (MDV30114), a gold rod (likened to a Bronze Age torc) (MDV28546) and a collection of flint tools (MDV59713). The barrows lie on the prominent hilltops and are sometimes associated with later prehistoric sites, for example the Iron Age hillforts on Lambert's Hill and Pilsdon Pen.

The Iron Age period was represented by four hillforts; Pilsdon Pen, Lewesdon Hill, Lambert's Hill and Coney's Castle.

There were two known Roman roads running through the project area. The Exeter to Dorchester road (RR4f) is recorded as having branched at Charmouth where it continued along the coast (RR49). The other road ran from Brimstone near Dorchester to Exeter via Axminster (RRX6). Additional sites dating to the Roman period included a Roman Fort on Waddon Hill, Stoke Abbott, Dorset and a villa at Holcombe (Devon).

The Early Medieval or Dark Age period is represented by the Anglo-Saxon burh of Brydian which has been postulated to have been located at Bridport although no definitive evidence of Saxon activity within Bridport has yet been found. Saxon finds, including evidence of secondary burials within Bronze Age barrows, have been recovered from Hardown Hill in the parish of Whitchurch Canonicorum.

There were numerous medieval sites listed across the area including deer parks, field systems, lynchets, drove roads and trackways. Recorded evidence for medieval settlement included a shrunken village at Shipton Gorge, a deserted settlement at Hawood Marsh, a grange associated with Newenham Abbey and two moated castle sites at Chideock and Marshwood.

Many sites date from the post medieval period including two dismantled branch railways, the first between Milton Newton and Bridport Harbour and the second Lyme Regis to Axminster. Sites associated with industry include a wide scatter of limekilns along the ridges between Burton Brad stock to Broadwindsor and quarries between Bridport and Burton Bradstock and along the ridge between Up Lyme and Hawk church.

Twentieth century military archaeology was scarce with only one pillbox recorded on the B3163 between Beaminster and Broad Winsor, and an Anderson shelter in Bridport.

5.3 Scheduled Monuments

There are 17 Scheduled Monuments within the Marshwood Vale NMP project area. The following data is from Historic England's National Heritage List for England (NHLE) data © Historic England [downloaded Jan 2014].

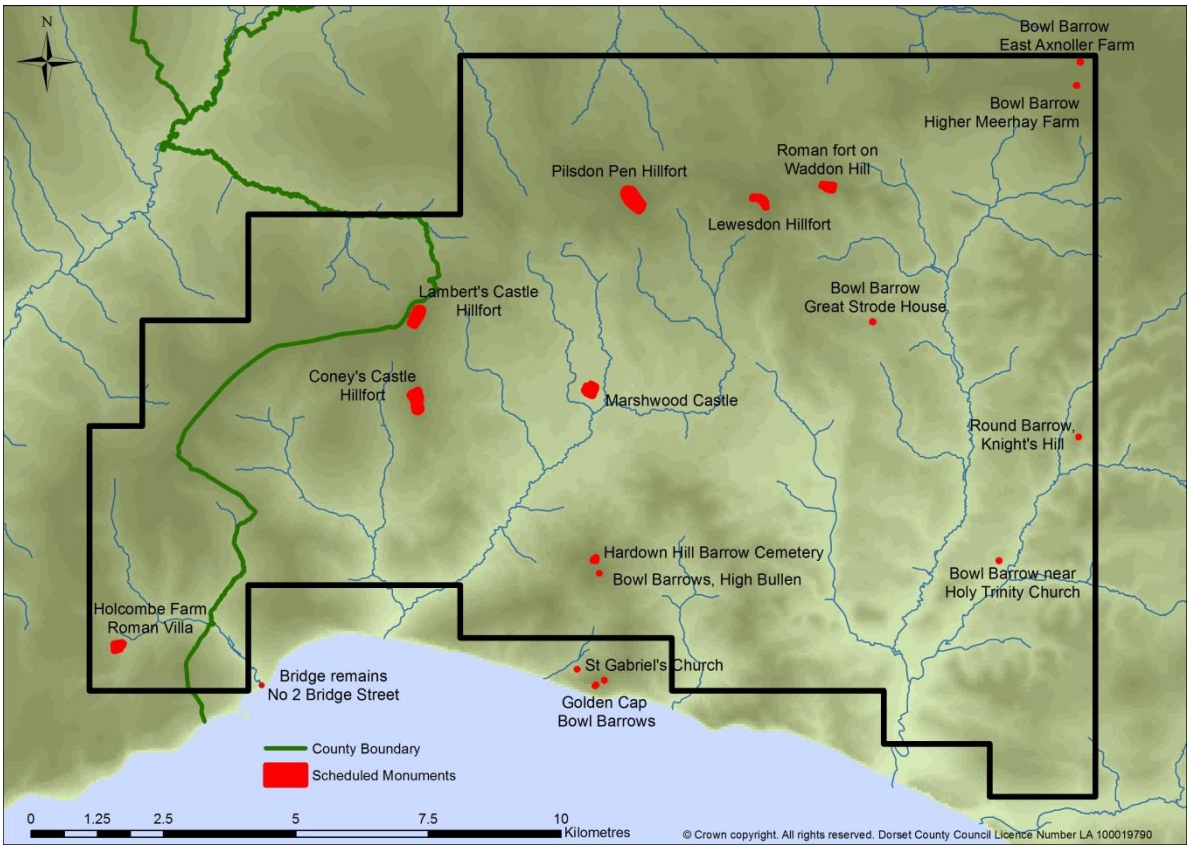


Figure 13. Scheduled monuments in the NMP survey area

NHLE No:	Name	NGR
1002410	Roman fort on Waddon Hill	ST 44944 01517
1002558	Roman villa 300yds (270m) SSW of Holcombe Farm	SY 31551 92840
1002836	Marshwood Castle	SY 40455 97688
1002838	Round barrow on Knight's Hill	SY 49680 96796
1003208	Small multivallate hillfort with outworks called Coney's Castle	SY 37205 97519
1015049	Bowl barrow on Beaminster Down 530m south east of East Axnoller Farm	ST 49712 03878
1015050	Bowl barrow on Beaminster Down 770m north east of Higher Meerhay Farm	ST 49643 03434
1016096	Bowl barrow 200m north east of Holy Trinity Church	SY 48177 94459
1016100	Bowl barrow on Eype Down 275m east of Frogmore Farm	SY 43818 92555
1016371	Bowl barrow on North Hill 750m north east of Marsh Barn	SY 47987 90690
1016372	Bowl barrow 230m north east of Great Strode House	SY 45792 98971
1016375	Barrow cemetery on Hardown Hill 600m west of Butt	SY 40538 94482

	Farm	
1017033	Chideock Castle: a moated site and associated features 520m south west of Chideock Manor	SY 42350 93065
1017034	Lewesdon hillfort, 525m north east of Brimbley Coombe Farm	ST 43654 01296
1017035	Lambert's Castle: an Iron Age hillfort 425m west of Nash Farm, with a bowl barrow, and the sites of a post-medieval fair and a telegraph station	SY 37177 99072
1018872	Three bowl barrows on High Bullen 230m south west of Hazelbower	SY 40628 94220
1019394	Pilsdon Pen hillfort and associated remains	ST 41275 01290

Table III. Scheduled monuments within the Marshwood Vale NMP project area

6 Summary Results of NMP Mapping

6.1.1 Overview of the NMP mapping

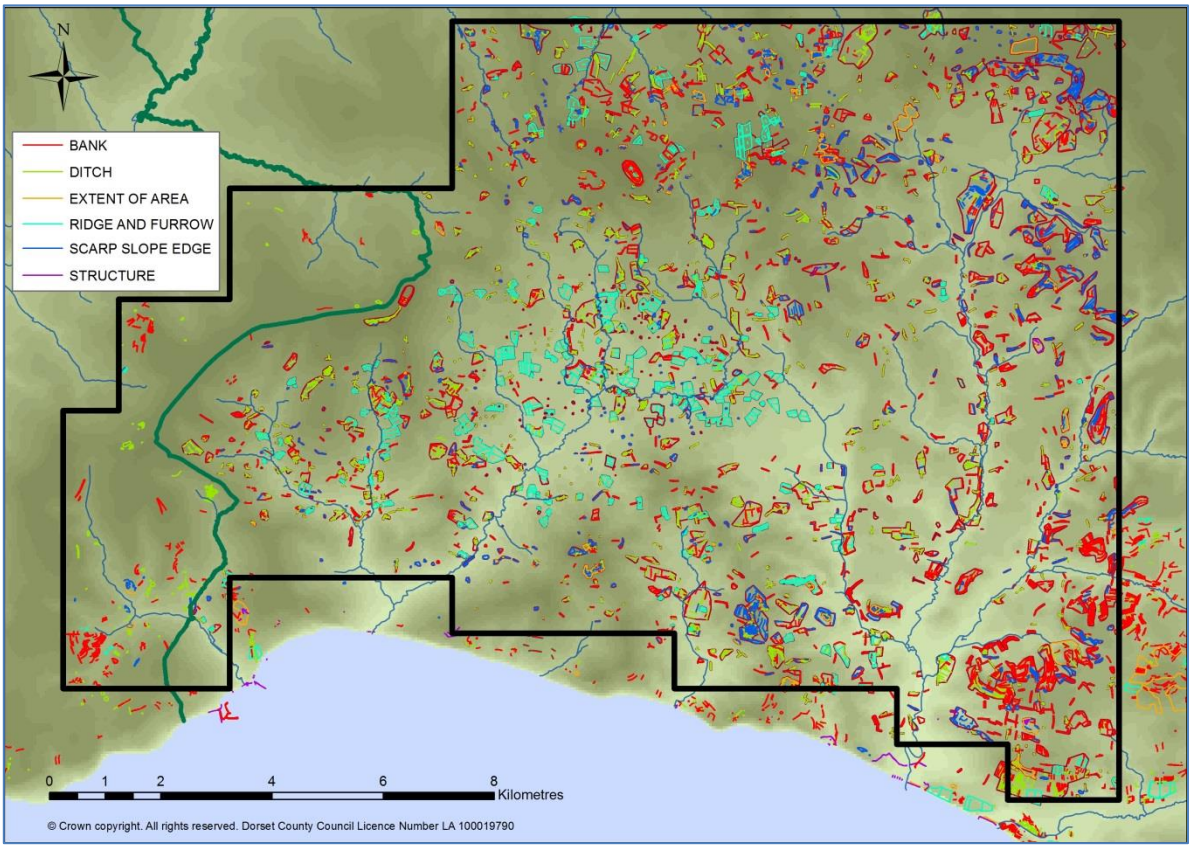


Figure 14. Map of the project area showing all NMP mapping

The NMP methodology entails the interpretation, mapping and recording of all archaeological sites from the Neolithic to the twentieth century from all readily available aerial photographic sources and lidar imagery. Features visible on aerial photographs include moderately substantial ditched or banked features either surviving above ground as earthworks, or as cropmarks of sub-surface features. Relatively slight earthworks under tree cover or in open ground can be identified from lidar imagery.

Historic aerial photography also provides details of earthworks and structures which have subsequently been denuded or levelled by ploughing, or otherwise destroyed or removed.

All sites mapped were recorded in either the Devon HBSMR database or the Dorset HBSMR database. These databases automatically generate unique project record numbers prefixed MDV for Devon records or MDO for Dorset. Some sites previously existing within the Dorset database were prefixed MWX. All sites discussed in this report will be referenced using these MDV, MDO or MWX numbers.

For the purposes of this report, reference to 'new sites' refers to those not previously recorded in either the Devon or Dorset HBSMR databases or in the national NRHE curated by HE.

6.1.2 Numbers of sites in the project area

During the project, details of 1655 monument records were input to the Devon and Dorset HBSMR databases. The general locations of these sites are displayed as dot-data on the distribution map (Figure 15).

The map shows that in terms of overall distribution, sites were plotted right across the study area. On average the project recorded 8.5 sites across each km^2, including those sites already listed in the HERs (see section 5.1). Of the 1655 monuments recorded,

1534 (93%) were for new sites and 121 (7%) were sites already recorded in the Devon HER, the Dorset HER, or the national NRHE databases.

Figure 15 shows that the sites previously recorded within the various county and national databases were largely located in the peripheral areas on the higher ridges surrounding the Vale itself. Only three of the sites mapped within the Marshwood Vale itself had previously been recorded in the Dorset HER, these included Marshwood Castle, a deserted medieval settlement at Kitty's Farm, and a linear mound that had previously been considered to be part of a medieval Deer Park boundary.

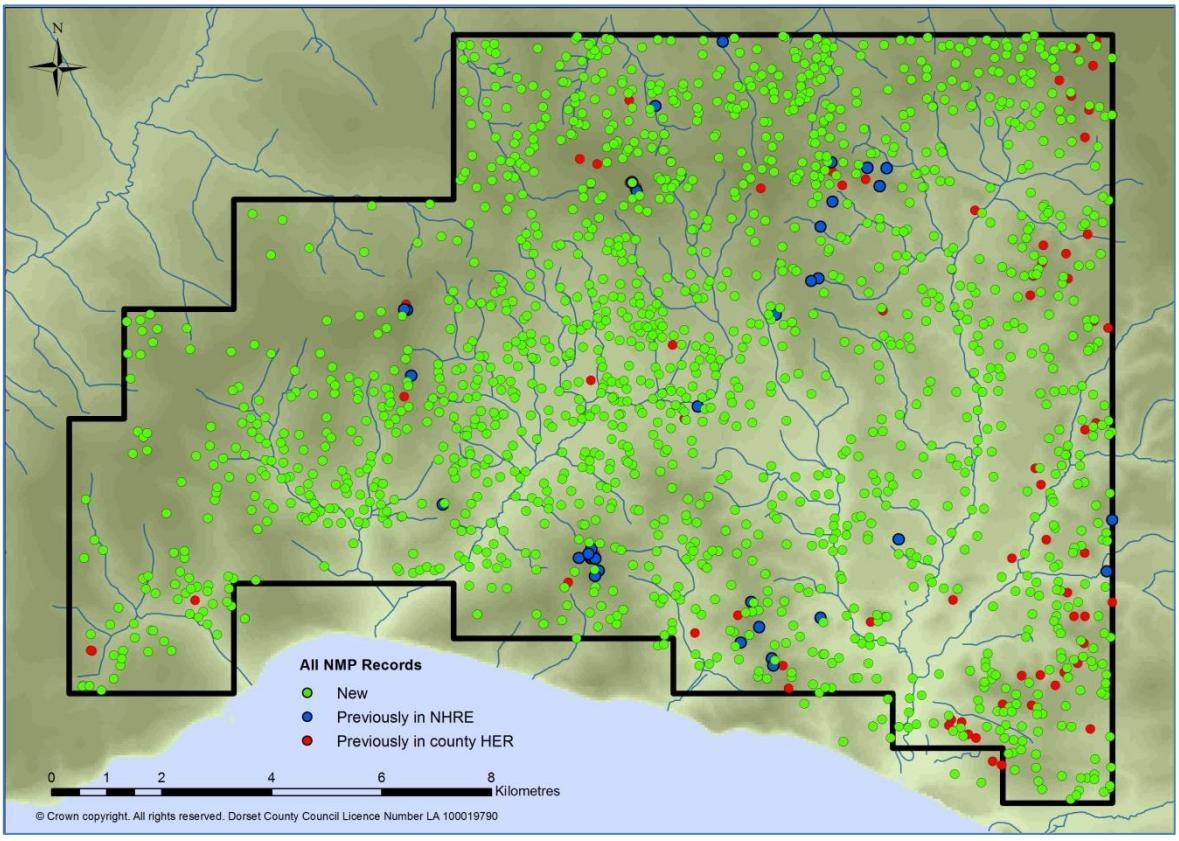


Figure 15. Distribution of all monuments mapped and recorded during the project

6.1.3 Summary numbers of sites by period

The numbers of sites recorded by period are listed in Table IV. The date ranges used in this report conform to national standards (e.g. FISH website 2017) and are those used in the Dorset HBSMR. With the exception of the early medieval period, archaeological sites were recorded for all periods from the Neolithic to the mid-20th century.

It should be noted that the nature of aerial photographic evidence means that only the broader archaeological periods can be assigned to sites unless there is further corroborative dating evidence arising from fieldwork, artefact scatters or excavation.

In this report, sites have been assigned broad archaeological periods based on the evidence from morphology, context and association with other securely dated sites. Some generalisations have been made: for example, ring ditches which were considered to relate to funerary practices have been assigned to the Bronze Age despite their potential for being of late Neolithic/Early Bronze Age origin. Similarly prehistoric enclosures, settlements and field systems have generally been allocated a later prehistoric date (Iron Age/Romano British) although some may have their origins in the Bronze Age. This broad approach reflects the indexing of the database entries within the HERs.

Period	Updated Sites	New Sites	Total
Neolithic	1	0	1
Bronze Age	21	5	26
Iron Age	5	0	5
Roman	1	0	1
Prehistoric/Roman	5	3	8
Medieval	44	83	127
Historic (Medieval/Post Med)	22	661	683
Post Medieval	17	652	669
Post medieval/early 20th century	1	85	86
Twentieth Century	2	12	14
Undated	2	33	35
Total	**121**	**1534**	**1655**

Table IV. Numbers of sites recorded in the HER databases during the project

The two maps in Figures 16 and 17 show the general distributions of sites by broad period across the project area. Figure 16 demonstrates the scarcity of monuments of Roman or earlier date but also illustrates the apparent avoidance of the Marshwood Vale itself; sites assigned to the prehistoric and Roman periods lie almost exclusively on the surrounding higher ridges. The same is true of specifically medieval sites, most of which also lie on the higher ridges (see Figure 17); it is only post medieval sites which appear in great concentrations within the Marshwood Vale itself.

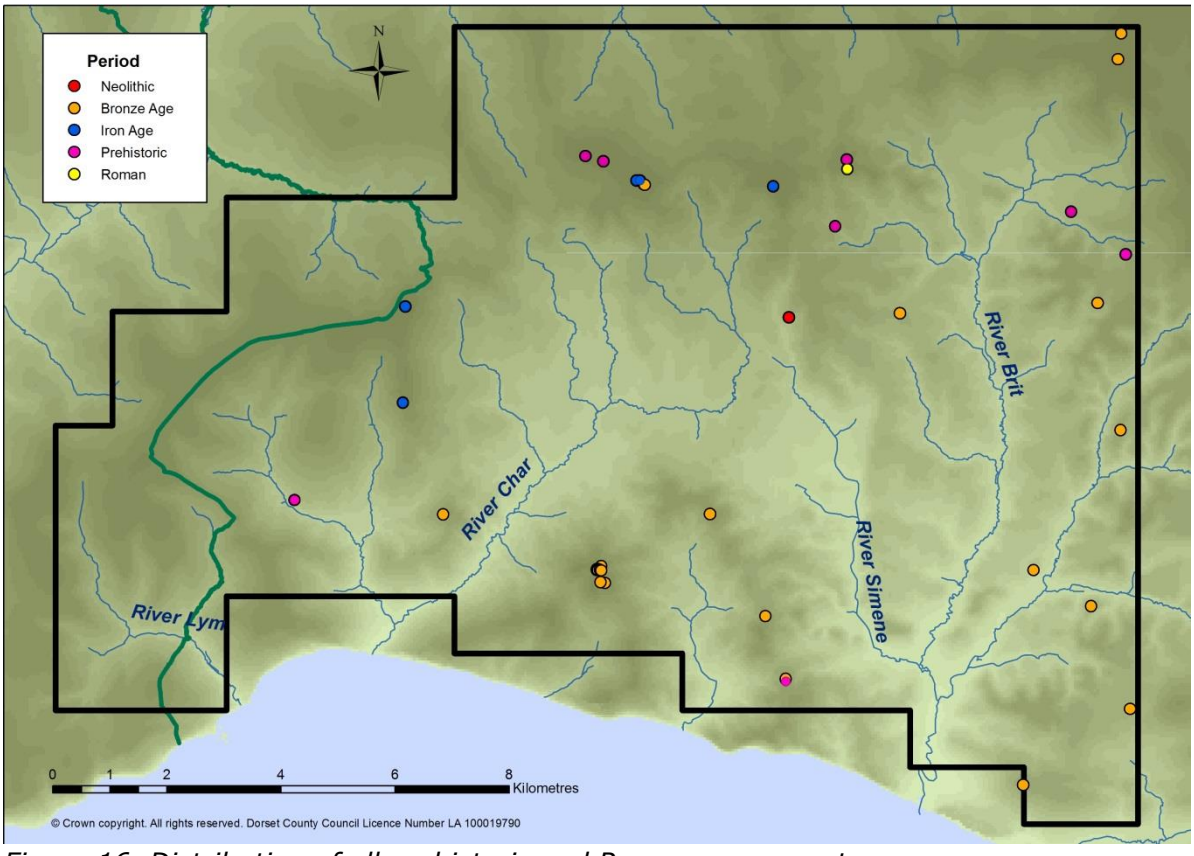


Figure 16. Distribution of all prehistoric and Roman monuments

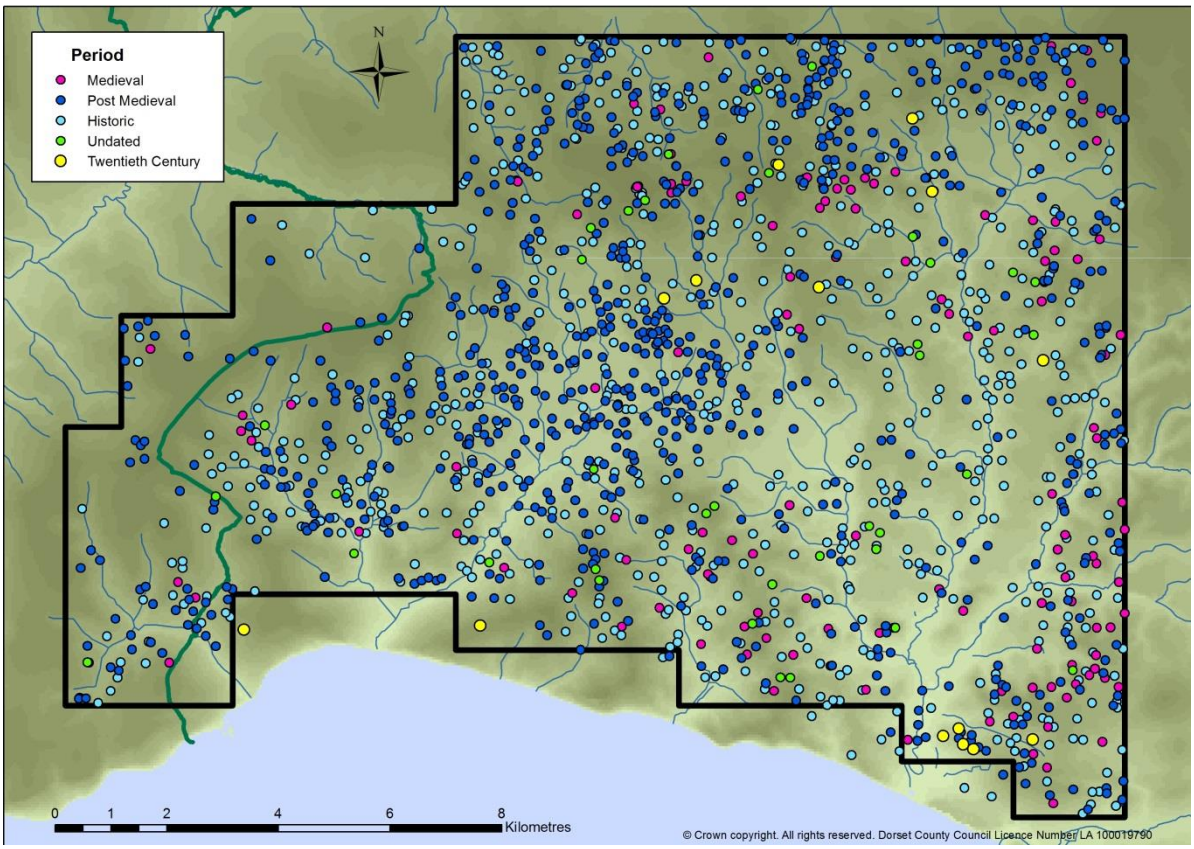


Figure 17. Distribution of all post-Roman and undated monuments

6.1.4 Form and survival of sites

The form and survival of each site was recorded in the project database. At the direction of the HEA, only the last known form of the site was recorded (e.g. as visible on the latest Google Earth images or on the lidar) and not necessarily the form of the site on the photographs from which it was plotted.

Form	No: Sites	% of total
Earthwork	1097	66.28
Partially levelled earthwork	147	8.88
Cropmark/soilmark/levelled earthwork	393	23.75
Extant structure	5	0.30
Partially extant/ruined structure	4	0.24
Completely demolished structure	9	0.54
Total	**1655**	

Table V. Form and survival of sites recorded in the HER databases

For example, if a site was visible as an earthwork on early 1940s RAF photographs but was later plough-levelled and consequently only visible as a cropmark on the latest photography, then the site was recorded in the database as a cropmark.

Similarly, if a site was not visible at all (neither as earthworks nor cropmarks) on the latest imagery but had been plotted as an earthwork from early photographs, it would be recorded in the database as Levelled Earthwork (unless no assessment of the current state of the monument could be made, for example if the site was obscured by vegetation [tree-cover or scrub], in which case it was recorded as earthwork).

A summary of the form and survival of sites recorded is set out in Table IV above. Of the 1655 sites recorded during the mapping project the majority, 1244 (75%), were

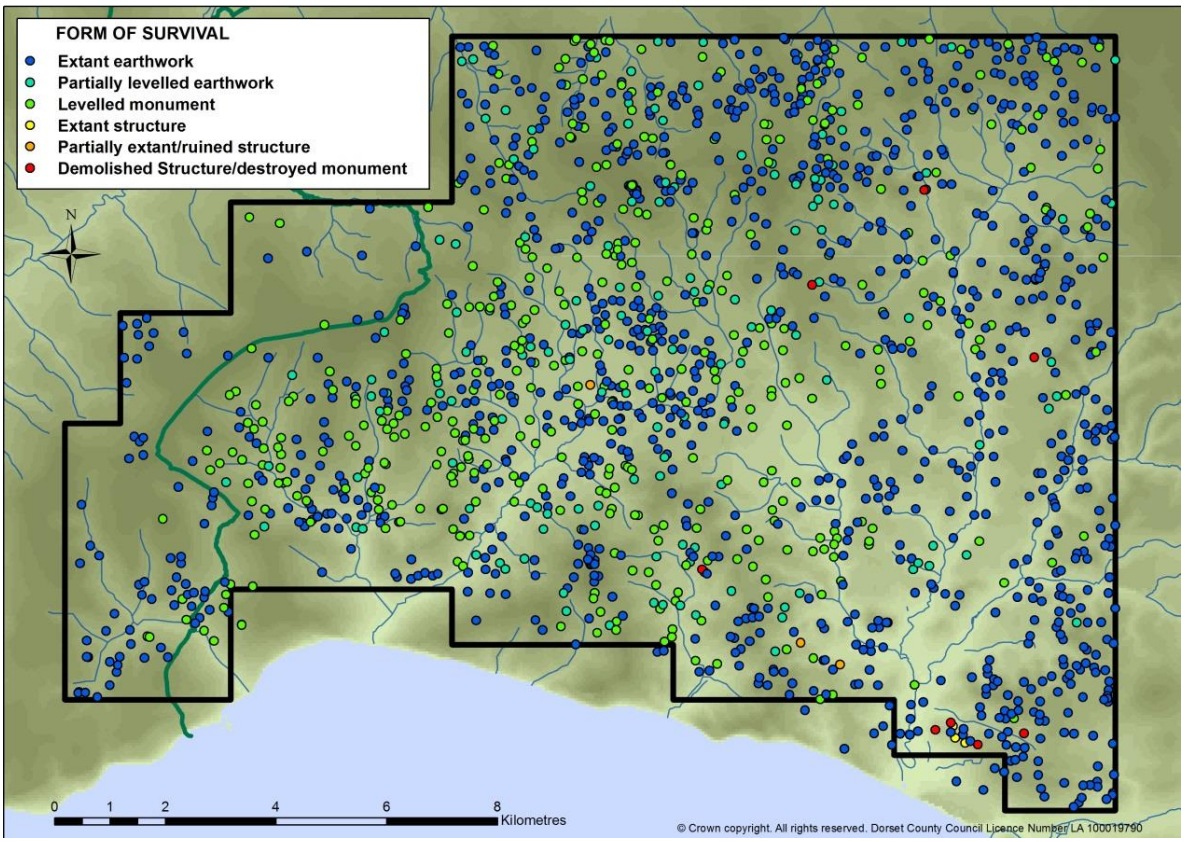


Figure 18. Survival of monuments mapped and recorded during the project

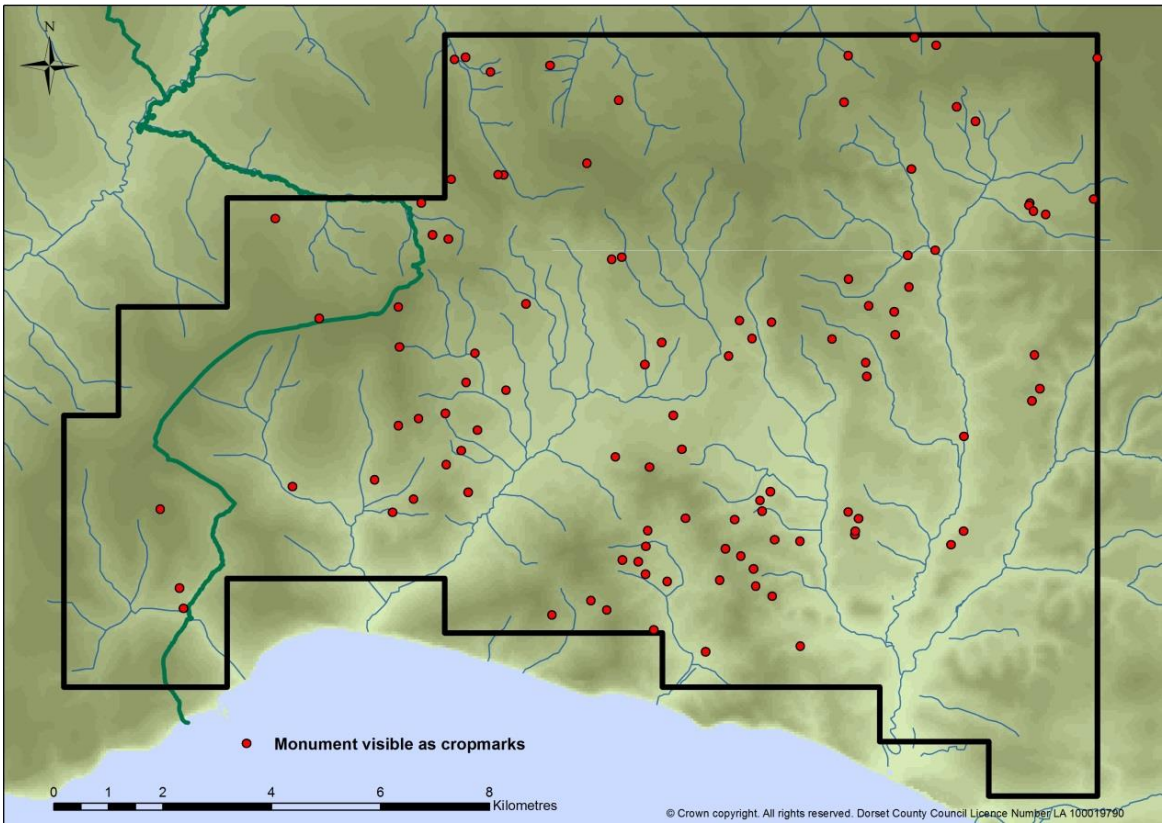


Figure 19. Distribution of cropmarks

still extant or partially extant earthworks and 9 (0.5%) were extant or partially extant structures. Upstanding remains were not visible on the latest aerial photographs or lidar imagery for 401 sites (24%).

As would perhaps be expected, the levelled and partially levelled sites are more prevalent on the lower ground and within the Vale itself on the arable and improved pasture. The majority of sites identified along the eastern sandstones and limestones ridges are still extant earthwork (Figure 18). Only 104 sites (6%) were visible on the aerial photographs as cropmarks; these were scattered right across the project area (Figure 19).

7 Thematic Overviews

The following section comprises a discussion of the sites mapped by the project in the context of their historic setting and function. The themed overviews are predominantly determined by the types of sites mapped, although some (e.g. Section 7.3; Post-Roman Agricultural Exploitation of the Vale) do discuss some broader topics (such as high status land division, for example), referring to examples observed within the project area. As the Vale itself is largely a medieval and post medieval landscape, the sections on medieval settlement and post-Roman agricultural exploitation (Sections 7.3 and 7.4) are considerably more comprehensive than those on prehistoric or Roman activity, which were only lightly represented within the project area.

7.1 Prehistoric ceremonial activity within the Marshwood Vale

7.1.1 Early prehistoric activity within the wider environs of the project area

There is evidence that early hunter-gatherers visited this part of Dorset and southeast Devon. Palaeolithic hand-axes have been found at a number of sites including Lamberts Castle and Pilsden Pen and worked flint and chert tools dating to the Palaeolithic and Mesolithic periods are recorded from a small number of sites along the higher slopes of the greensand ridges on the northern and eastern fringes of the Vale (Figure 20).

The first permanent marks left by humans on this landscape, however, occurred during the Neolithic period; broadly between 4000-2200 BC in Britain (FISH 2017). The landscape of southern Britain generally at the start of the Neolithic period was still predominantly wooded, as it had been during the former post-glacial period (Bell and Walker 1992, 156). Pollen evidence from sites in Dorset indicates that prior to 4000 BC a variety of woodland extended across the county; pollen from peat deposits near Litton Cheney (8km east of Bridport) indicated hazel woodland (Woodward 1991, 127) and further east at Rimsmoor near Bere Regis, pollen dated to the same period has indicated a closed forest of oak, lime, and elm (Barber 1987; Waton and Barber 1987).

From *c* 4000-3000 BC there was a widespread and dramatic decline in elm pollen in southern Europe. This has been attributed to disease, coinciding with the increasing impact made by Neolithic farming societies (Brown *et al* 2015, 35). From this time woodland clearance took place on an ever increasing scale. This has been well documented across southern Britain, resulting in a general decrease in tree pollen and an equivalent rise in grass/herb pollen (Bell and Walker 1992, 164; Cunliffe 1993, 37; Woodward 1991, 127-9). Neolithic woodland was not stable, however, and there is also some evidence for woodland regeneration during this period, possibly due to periods of climate fluctuation and agricultural decline (Brown *et al* 2015, 35).

There is much evidence for people living in this area of Dorset and southeast Devon during the Neolithic period. Their earliest presence in southwest England is now thought to date to around the 39th century BC (Whittle *et al* 2011, 204). Although little is known about their settlements in terms of location and form, there are several flint and pottery scatters of Neolithic date within the project area. Although still few in number, the distribution of these findspots contrasts to those of the Palaeolithic and Mesolithic periods, being more closely distributed along the main river valleys rather than across the hilltops (Figure 20).

Even so, the heavier soils of the Vale itself appear currently devoid of early prehistoric activity and this apparent absence of sites is likely to be a real phenomenon and not simply one of lack of discovery. Whilst pollen evidence suggests forest clearance from the Neolithic onwards in southern Britain, there is no data from the Marshwood Vale itself. Seven kilometres to the south, however, at the coastal Bronze Age barrow cemetery at Golden Cap, a pollen sequence indicated that oak woodland still covered the area immediately prior to the barrows being constructed (Papworth 2011, 93). The Vale to this day is poorly drained and not conducive to arable cultivation without modern drainage improvements. It is therefore possible that it remained largely a damp woodland wilderness well into the later prehistoric period.

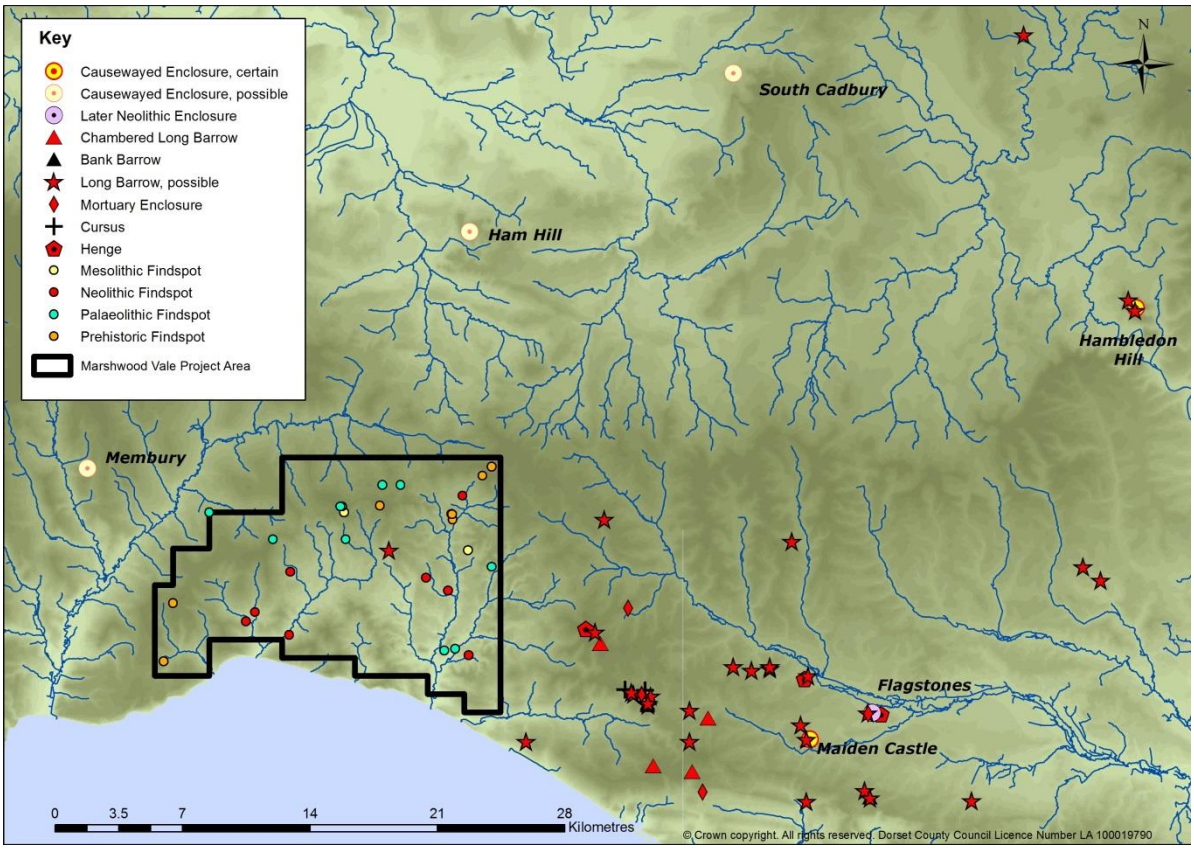


Figure 20. Prehistoric worked flint and axe find spots within the project area and the wider distribution of Neolithic monuments

The main evidence for Neolithic peoples in this area, as in the rest of southern Britain, is through their funerary and ceremonial monuments. These are located across Dorset and southeast Devon, particularly along the South Dorset Ridgeway immediately to the east of the Marshwood Vale (Royall 2011). The monument tradition that continued into the early Bronze Age is also the primary evidence of human activity in this area. Findspots are limited but there are a number of Bronze Age barrows within the project area, predominantly on the higher ground surrounding the Vale (See Section 7.1.3). The evidence for prehistoric ceremonial monuments mapped by the project and their historic context are discussed in Sections 7.1.2 to 7.1.4 below.

Causewayed enclosures

Causewayed enclosures are typically located on elevated ground. A recent assessment of the location and aspect of causewayed enclosures by Oswald *et al* (2001) demonstrated that they further appear to be deliberately sited to face a particular direction and tilted towards areas with which they are intervisible, indicating a connection between the enclosures and particular sectors of the landscape (Oswald *et al* 2001, 106; Whittle *et al* 2011, 11).

Whilst there appears to be a clear territorial connection between causewayed enclosures and the landscapes they overlook, the chronology of construction and use of these monuments demonstrates much variation; Hambledon Hill in Dorset, for example, is particularly complex and long-lived, calculated as having a start date of *c* 3690-3365 cal BC (at 95% probability) and an end date of *c* 3380-3145 cal BC (at 88% probability) (Whittle *et al* 2011, 134). The scale of the monument suggests it was both a highly important and highly visible site. It probably served multiple purposes over its life span, clearly accommodating large gatherings of people at various times. Towards the end of its lifetime it also saw violence, which may have led to the construction of stronger defences, although defence was probably just a small part of its wider purpose (*ibid*, 149-51).

In addition to Hambledon Hill (Mercer 1980; Mercer and Healy 2008), there is a causewayed enclosure at Maiden Castle (Wheeler 1943). An enclosure at Flagstones (Healy 1997) may derive from the causewayed enclosure tradition but this site is later in date, at *c* 3,100 BC, and may rather represent a new or re-invented monument type (Oswald *et al* 2001, 133). Cunliffe (1993, 55) suggests that more enclosures are likely to have existed within the region; a concentration of Neolithic material from Ham Hill in neighbouring Somerset makes this a high contender, as does a site at Membury in Devon where Neolithic finds associated with a possible ditch were excavated in 1994 (Tingle 1995) (Figure 20).

Long barrows

Long barrows are scattered right across the South Dorset Ridgeway and a small group of chambered long barrows are known in West Dorset including The Grey Mare and Her Colts at Gorwell and The Hell Stone at Portesham (Riley 2008). Long barrows were typically earthen mounds that might also contain a range of internal stone features and wooden or stone chambers (Field 2006, 21). They are broadly distinguished as earthen barrows or megalithic barrows and, along with other early Neolithic monuments, such as chambered tombs and long cairns, were typically used as burial places, although it is still not clear whether this was their main, or even only, function (*ibid*). The range of mortuary practices found within long barrows often varies, with some containing no visible evidence of burials, others housing just a few bones or the bones of one individual. Some long barrows, however, contained the bones of many separate individuals including men, women and children (*ibid*, 132-33). Work carried out on long barrows in southern England suggests that, rather than being the repository of ancestral remains, these monuments may only have housed a few generations of burials (Riley 2008, 25).

Long barrows were typically located in elevated places in the landscapes and were probably constructed in areas cleared of woodland (Woodward 1991, 129). As noted above, physical evidence for Neolithic sites becomes scarce away from the chalk ridges of the South Downs and into the Marshwood Vale itself. As Field (2006, 102) notes, however, the perceived absence of long barrows on lower lying ground may be due in part to agricultural activity levelling such monuments. Current research is increasingly showing the presence of ploughed out long barrows in lowland landscapes, particularly along river valleys. This riverine focus is becoming increasingly demonstrated and, interestingly, is echoed by the distribution of Neolithic findspots within the project area, which also respect the river and stream valleys within the Vale (see above).

The known distribution of long barrows does not currently extend westwards beyond the South Dorset Ridgeway and none are known in Devon (Kinnes 1992, fig 1A.1), although a few chambered tombs are recorded; a small concentration on Dartmoor and a recently revisited site at Broadsands, near Paignton (Griffith and Quinnell 1999; Sheridan *et al* 2008).

7.1.2 Neolithic ceremonial sites within the project area

The first Neolithic monuments to be built were long barrows, long cairns and chambered tombs. These were in existence in Britain by *c* 3800 cal BC, to be followed 300 to 400 years later by causewayed enclosures (Whittle *et al* 2011, 1). This culture may have taken some time to spread to the southwest; a recent assessment of causewayed enclosures in south Wessex indicated that the construction of barrows in the region dates from around the 38th century BC and causewayed enclosures from around the 37th century BC (*ibid*, 204).

There is currently one Neolithic mound recorded within the project area; to the west of Lowness Coppice, at South Bowood. The mound was first identified from aerial photographs taken in 1974 by the RCHME and is recorded in the NRHE, (NRHE UID 864006) as a long barrow. The presence of an upstanding linear mound was confirmed at this location during the mapping phase of this project from the lidar (Figure 21). The mound is approximately 30-35m long and 12-16m wide. It lies 200m from a stream on

the lower western slopes of a north-south ridge within enclosed land described by the Dorset HLC as medieval piecemeal enclosure.

In terms of length and width, the mound conforms to that of other confirmed long mounds in the region (Kinnes 1992, 66-8). Its orientation and siting are perhaps atypical of a Neolithic funerary site, although its location near a stream head is interesting, given Field's (2001, 102) observations, above. An overwhelming proportion of Neolithic long barrows are orientated between north east and south east although some exceptions are known (*ibid*, 68-9). The mound at South Bowood is orientated to the south west and this along with its relatively low-lying location is perhaps an indication that it is not of prehistoric origin but rather a later construction, possibly a medieval or post medieval pillow mound. The sometimes similar characteristics of Neolithic long barrows and medieval pillow mounds has been highlighted as a concern for potential misidentification (Field 2006; Williamson 2006; Williamson and Loveday 1988) and this is discussed further in Section 7.4.2.

Apart from the possible long barrow at South Bowood there are no known Neolithic sites within the Vale. As mentioned above, the Vale probably remained wooded during the Neolithic period. The South Bowood site is, however, located close to a river or stream valley, as are the majority of recorded Neolithic findspots (see Figure 20). This may indicate some ingress into the area via the accessible valleys during this period. If the South Bowood site does prove to be of Neolithic date, it significantly contributes to the understanding of the Neolithic period in this part of Dorset.

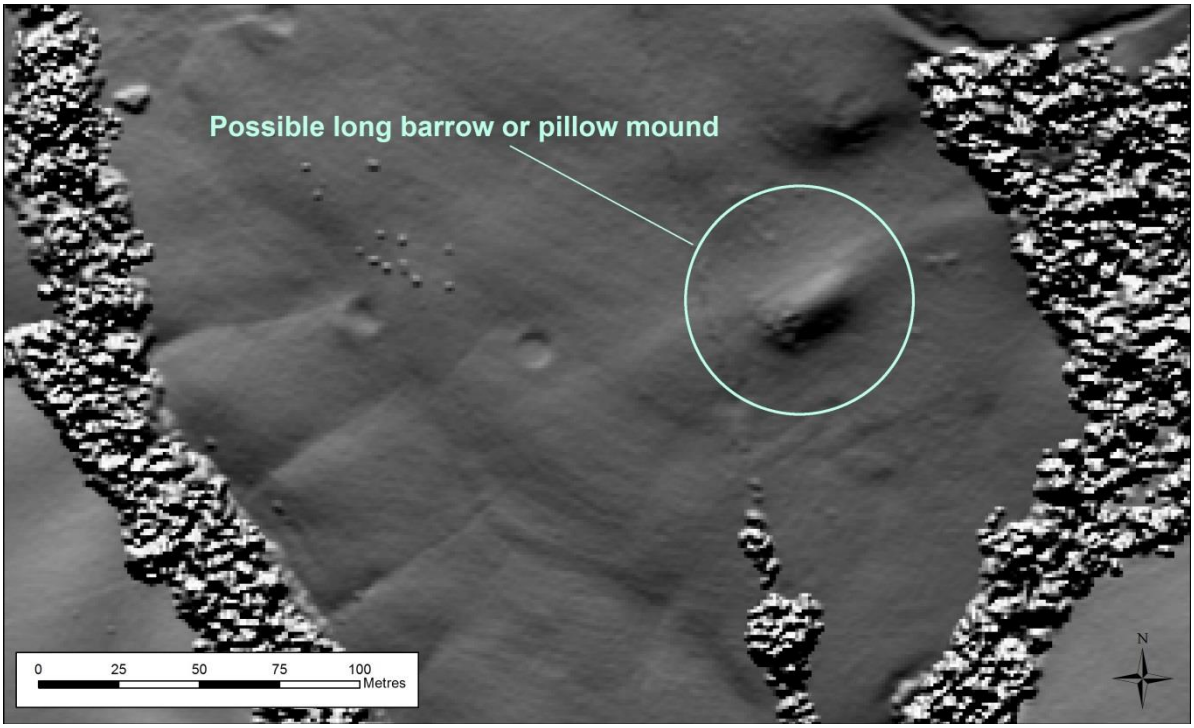


Figure 21. Undated long mound at South Bowood

© Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.

MDO38306 © Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.

7.1.3 Bronze Age ceremonial sites within the project area

Rituals associated with death and burials during the later Neolithic and into the early Bronze Age in southern England were complex and varied. In addition to the continuity of existing practices, two new traditions appear to have been established during this time. There was a brief appearance of cremation cemeteries but the dominant practice into the early Bronze Age was the practice of single inhumation; the burial of individuals who were interred with personal items as grave goods, usually under a round barrow (Cunliffe 1993, 112). This change in funerary tradition has long been

viewed as a reflection of a change in society away from the celebration of common lineage to that of an individual's status, although recent research reveals greater social complexity and many round barrows are known to have held more than one secondary burial (Garwood 2007, see below).

The sites of 21 Bronze Age barrows and two possible ring ditches had previously been recorded within the study area and details of a further five were added to the HER during the project. These 28 sites are all distributed on the crests of the higher ridges and hills surrounding the vale (Figure 22).

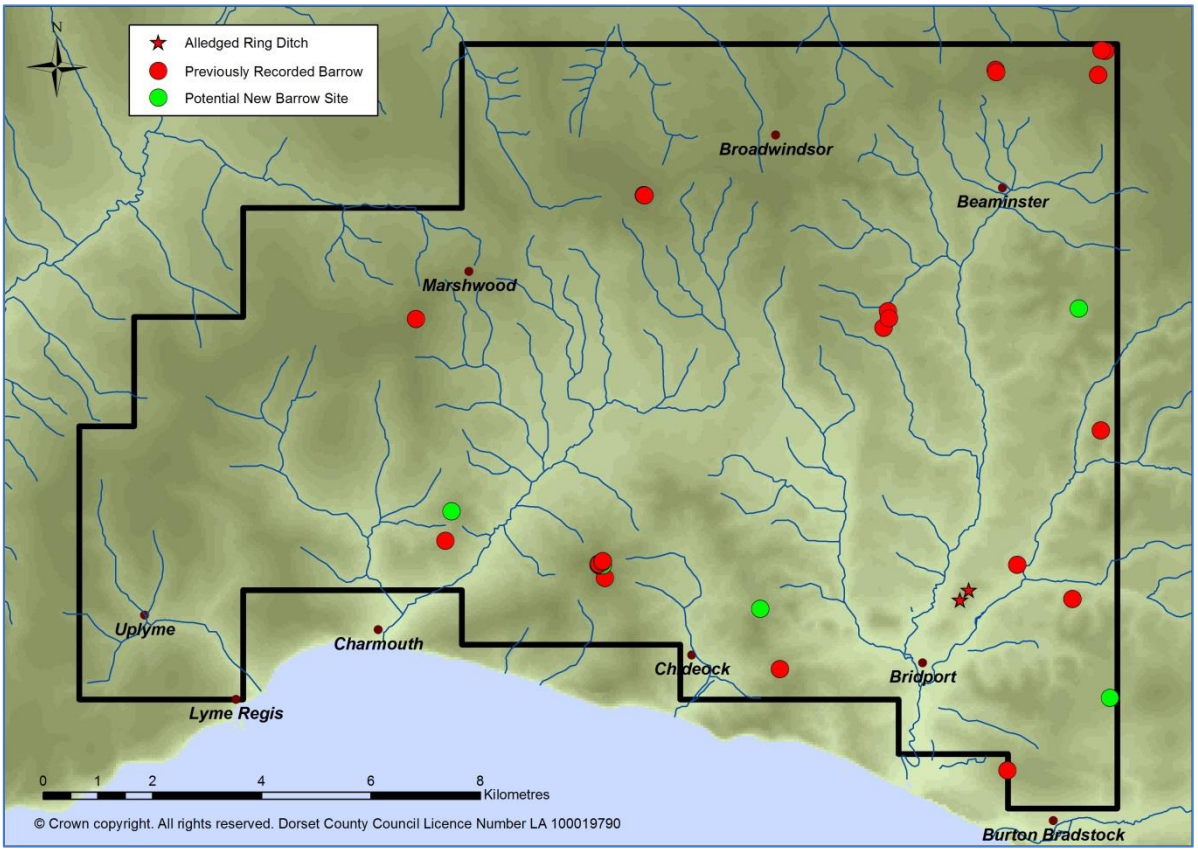


Figure 22. Distribution of Bronze Age ring ditches, barrow and mounds within the Marshwood Vale NMP project area

In most cases, the barrows are located above the 100m contour; two exceptions to this being Boarsbarrow Hill, Loders, and Barrow Hill, Bradpole, where the barrows are situated on the tops of isolated lower hills overlooking the River Asker and its tributaries (Figure 23). Two possible barrows have previously been suggested by the RCHME immediately to the south on Watton Hill but these were not identified during the project and are highly questionable.

Early and Middle Bronze Age funerary practices have long been recognised as having wide ranging diversity in terms of individual barrow form as well as groupings and phasing (Parker Pearson 1999, 86 and see Garwood 2007). Whilst only a small number of round barrows have been identified in this project, some variety was observed. The majority of barrows were small bowl barrows ranging from 7m to 24m in diameter. In most cases there was no evidence for an outer ditch but for two barrows, traces of an outer ditch were recorded. Several of the Marshwood examples appear to have been robbed in antiquity having pits dug centrally into the barrow mound.

It has been suggested that these simple small barrows may be relatively early, possibly dating to before *c* 2200-2100 BC (Garwood 2007, 36), and potentially single-phased barrows associated with a single inhumation burial. However, some of these earlier mounds may have been embellished later in the Bronze Age and/or reused with the deposition of secondary or satellite burials. At a barrow at Wellwood Farm, Beaminster, for example, a secondary cremation of an infant was excavated beneath a circular

retaining wall. This cremation was contained within an urn which was interpreted by the excavator to be Deverell Rimbury Ware of Middle Bronze Age date (Farrar 1956, 136-8). Its more recent inclusion in Longworth's Corpus of Collared Urns (2009, No. 359) could push this burial to the earlier Bronze Age, however, based on Needham's (1996) chronology of the British Bronze Age (Longworth 1984; Needham 1996).

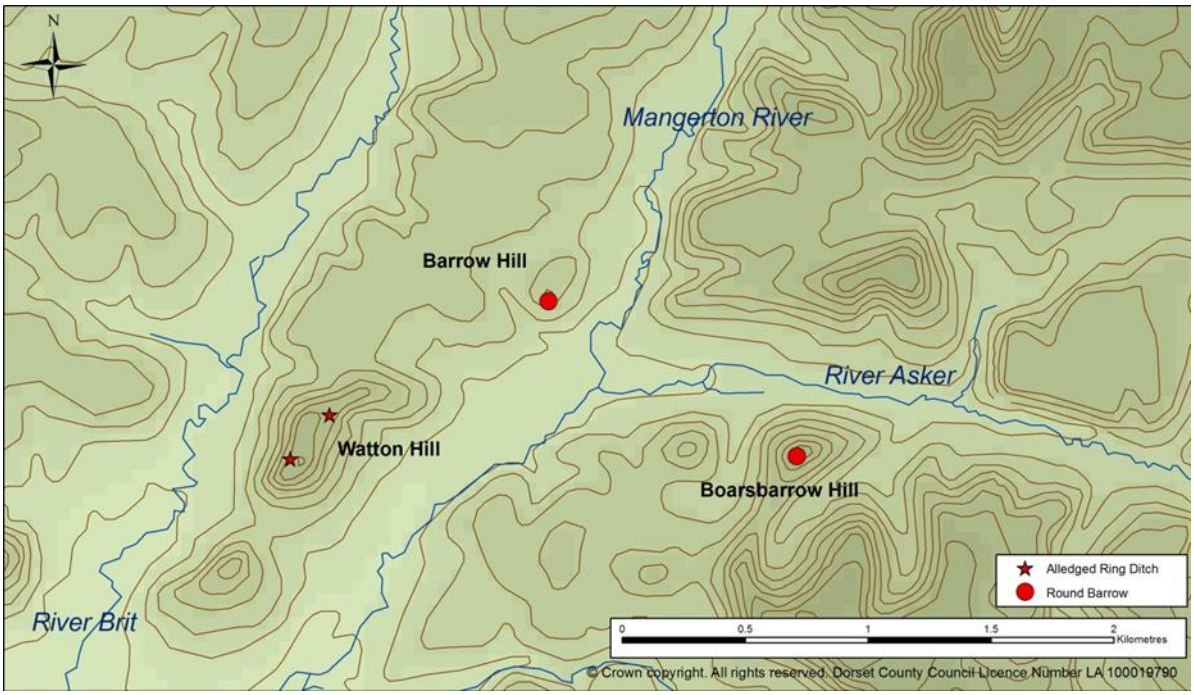


Figure 23. Positioning of round barrows overlooking the confluence of the Rivers Mangerton and Asker.

Over time many, but not all, funerary barrows were built together to form large cemeteries (Cunliffe, 1993, 115). Whilst this is the case for neighbouring areas such as the South Dorset Ridgeway (Royall 2011, 35), within the Marshwood Vale most are isolated single barrows on the highest points of hills and longer ridges. This contrast is more broadly reflected in barrow distribution generally across southern England, and may be due to a number of different factors; changes in population density, differences in territorial organisation, mobility of people and less centralised communities are all possible (Cunliffe 1993, 117-8).

Pairs of barrows are known at Buckham Down, Beaminster, and on Pilsden Pen, a prominent hill which later became the site of an Iron Age hillfort. Another possible pair of barrows lies at Lower Strode, Netherby. Here a simple mound lies on the highest point of a lower spur or plateau west of the River Brit. A second, now destroyed barrow was recorded by the RCHME in the 1960s located 200m to the south (NRHE UID 449996).

Some barrows do seem to have been constructed in association with each other; although the distance between individual barrows is perhaps too far for the associations to be termed a 'cemetery' it may be these were sited deliberately so as to be intervisible with each other or to claim association with a certain sector of landscape. At Wootton Fitzpaine, for example, a round mound has been identified by the project, situated on the western side of a prominent hilltop known as Conegar Hill, overlooking the confluence of several tributary streams of the River Char. A narrow ridge or spur runs southwards from the main hilltop and the possible sites of two other barrows are recorded in the NRHE (UID 8638659), on the crest of this ridge. They are located respectively 550m and 950m to the south of the identified mound and overlooking the same piece of landscape.

On Beaminster Down a group of three barrows are recorded in the Dorset HER although only two survive as upstanding mounds 450m apart. These possibly form part of a larger barrow grouping which includes the two at Buckham Down described above (and

see Figure 24). The barrows are located on an important boundary in the landscape; a chalk ridge forming the very edge of the South Downs. The ridge extends to the north east to form the South Dorset Ridgeway. The ridge also forms the watershed between three important rivers; to the north lies the valley of the River Axe, to the south the River Brit and to the east the River Hooke. Two of the barrows are located just to the north of the main east-west ridge on a saddle connecting it to an adjacent ridge and just above the sources of the rivers Hooke and Axe.

This ridge would no doubt have been a place of significance to the barrow builders. It may have formed the boundary between different territorial groups, or perhaps marked the border between the tamed (the relatively well populated and culturally rich South Dorset Ridgeway with its chambered tombs, cursus monuments, henges, and complex barrow cemeteries) and the wild (the quiet backwaters of the Marshwood Vale).

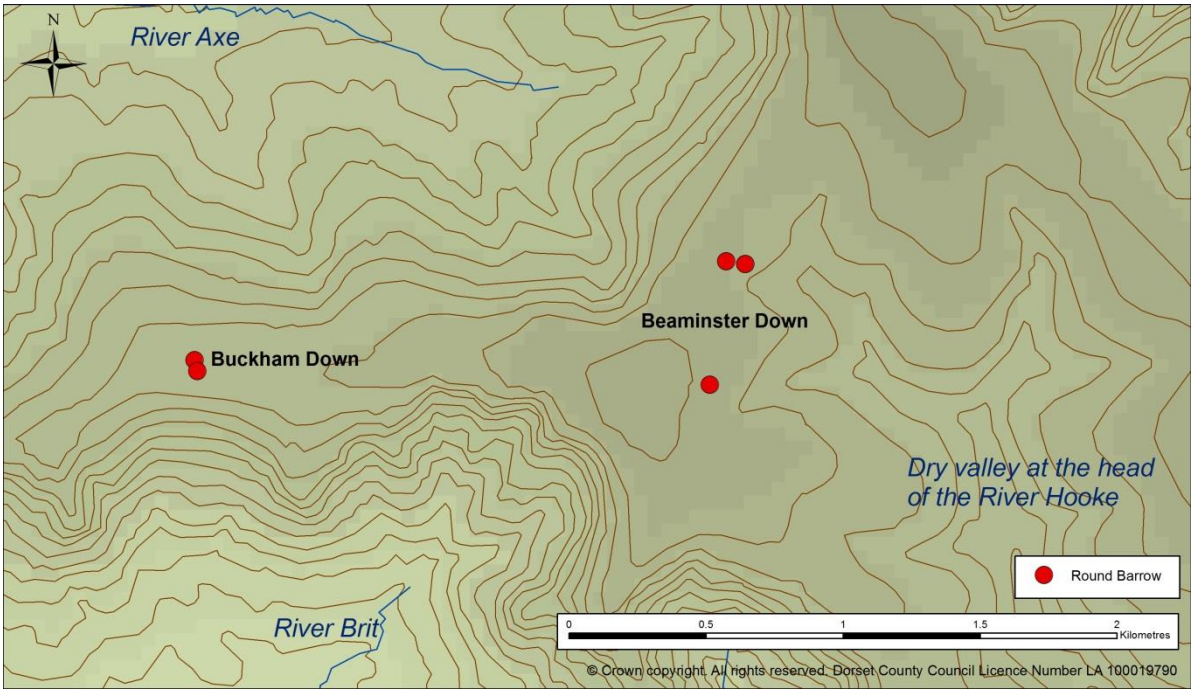


Figure 24. Dispersed barrow groupings on Beaminster Down and adjacent ridge.

A more complex barrow cemetery is known at the northern end of Hardown Hill, Morcomebelake. The cemetery includes a curve of four simple bowl barrows on the eastern edge of the hill with a fifth more elaborate barrow to the west (Figure 25). The fifth barrow comprises a central mound surrounded by two concentric banks around 2m apart. The outer bank is flanked on the NE, NW, SE and SW sides by four small circular features, each 8-10m in diameters, which were initially interpreted as satellite barrows but are now thought likely to be later embellishments (NHLE 1016375).

These satellite features have been described as "horseshoe-shaped" with open sides facing the internal barrow (NHLE 1016375); although evidence from the 1940s aerial photographs indicates that they may have originally been complete circular mounds (Figure 25). The OS field investigator who visited the site in 1955 described them as alleged barrows each of which had been dug into from the direction of the (central) barrow (*ibid*). The satellite features are linked to each other by outer arcs of linear bank and the unusual and very regular arrangement of this monument has led to it being likened to a folly.

One of the barrows within this cemetery was excavated by Dr Wynyatt Wingrave in 1916 and found to contain an assemblage of metalwork and flint finds interpreted as being grave goods associated with an Anglo-Saxon inhumation. No skeleton was present, which was thought at the time to mean an acidic environment resulting in the loss of all organic material (Austin 2014, 49). The finds included spearheads, a knife, a shield boss, and a bronze brooch dating to the mid-fifth to the mid-sixth century. Interpretation of the finds by Evison (1969) concluded that the range and quantity of

finds indicated at least five individuals; thereby suggesting that a small Saxon cemetery had been inserted into the earlier Bronze Age barrow. Recent rethinking of the site by Austin (2014), however, suggests the finds may represent a hoard or possible ritual deposit rather than a burial assemblage, although the finds continue to represent an anomaly in this part of Dorset (*ibid*, 66).

The barrow cemetery at Hardown Hill possibly extends southwards on the adjacent hill of High Bullen. Here a number of small mounds have been identified as potential bowl barrows and are scheduled as such (List entry 1018872) although no trace of these mounds was visible on the aerial photographs available to this project.

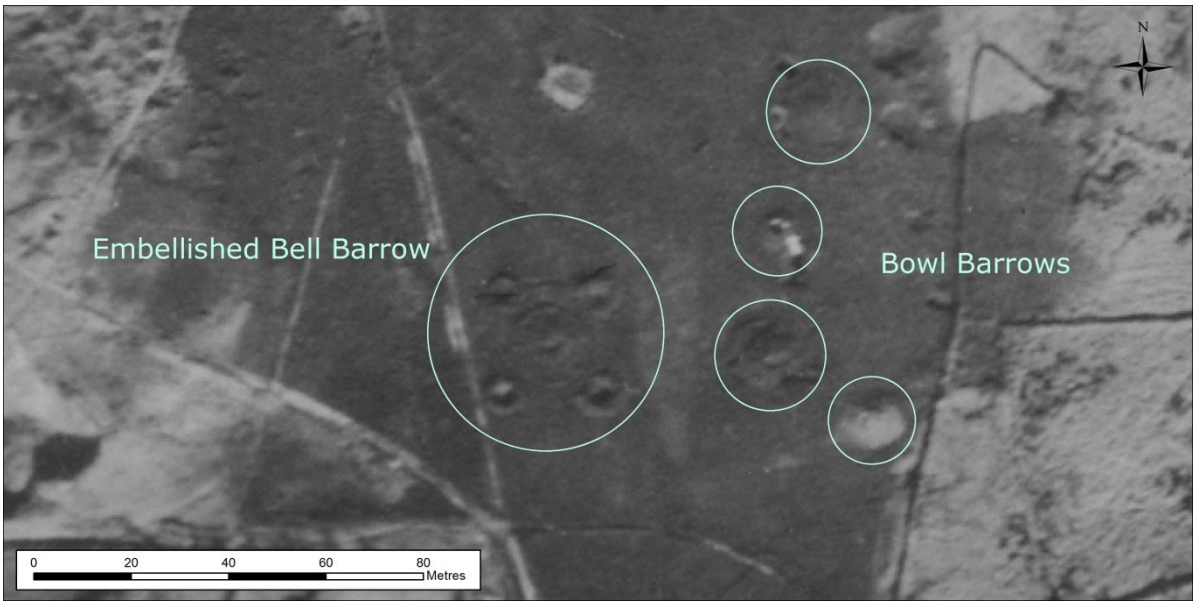


Figure 25. Barrow cemetery on Hardown Hill, Morcombelake

Photograph: RAF CPE/UK/2431 RP 3175 22-JAN-1948. Historic England RAF Photography.

7.1.4 Case studies of potential new barrow sites

Whilst there is little evidence for human exploitation of the Vale in the earlier prehistoric periods, the mapping project has identified four previously unrecorded mounds: their locations, in elevated positions on the landscape, may be indicators that they are all the remains of prehistoric burial mounds.

These include a mound visible as an upstanding earthwork on the Environment Agency lidar taken in 2010. It is located to the southwest of Mapperton Farm, Beaminster, on the southern end of a small spur of land running southward from the main Greensand ridge. It holds a prominent position in the landscape overlooking the head of a tributary valley of the River Brit. The mound is 15m in diameter and appears to have a small hollow just off centre, possibly the site of a robber pit or an old tree throw (Figure 26).

Another potential new barrow site lies on the northern end of Quarry Hill, Chideock (MDO38388). The hill is part of a long linear ridge forming the eastern valley side of the River Winniford. If it does prove to be a prehistoric burial mound and not a post medieval spoil heap (much of the hill, as its name suggests, having been disturbed by 19th century limestone extraction), it would be a northern continuation a linear series of Bronze Age round barrows which run from Thorncombe Beacon on the coast and along the ridge to Eype Down (Figure 27). Another potential new barrow site, perhaps continuing the series, was identified further north along the ridge at Jan's Hill, Symondsbury (MDO38235).

Two further potential new burial mounds were identified, the first at Loders Lane, Shipton Gorge (MDO37552). The Shipton Gorge site comprises a low round mound, 23m in diameter situated just off the summit of a low rise on the plateau between Shipton Hill and Walditch Knap. It is of dubious provenance and may be a natural landscape feature.

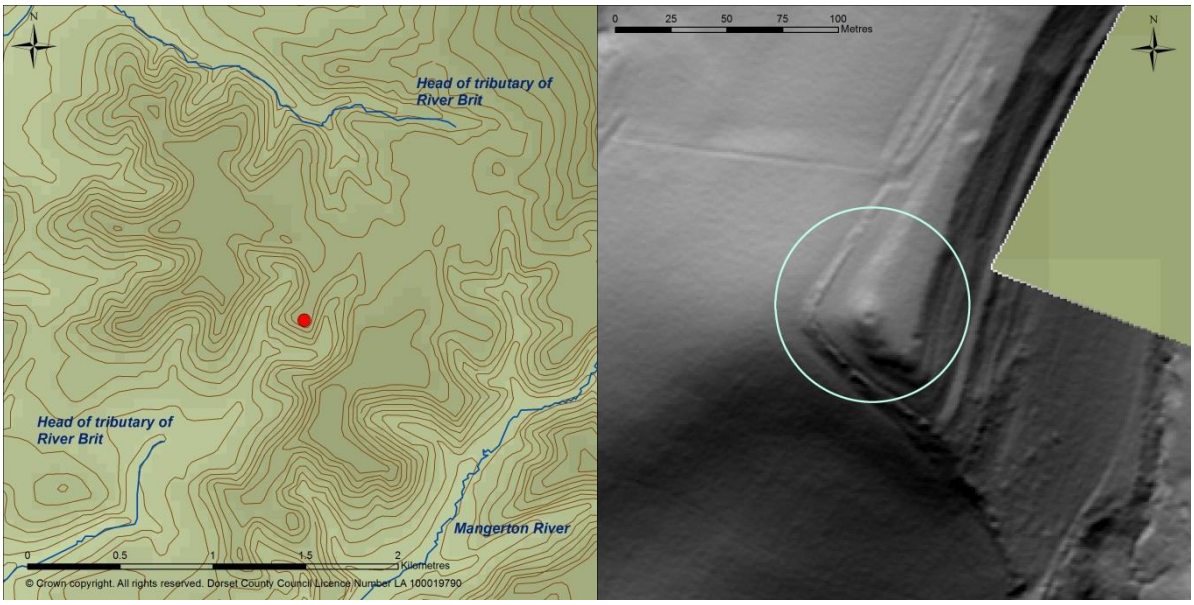


Figure 26. Potential Bronze Age burial mound at Mapperton, Beaminster.
MDO37774 © Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.

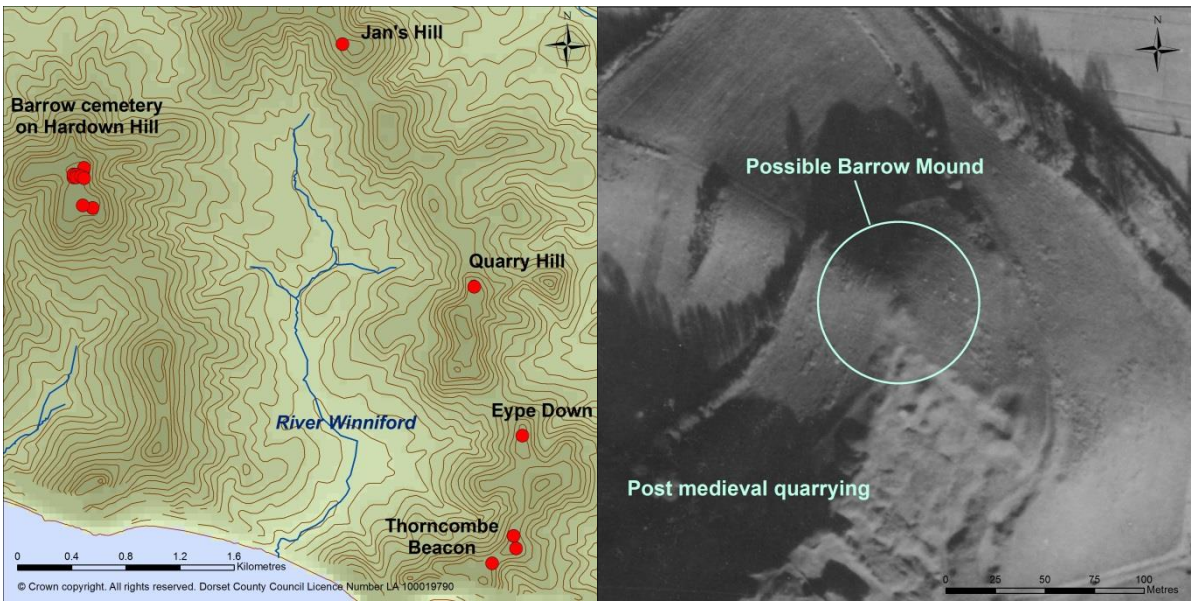


Figure 27. Potential Bronze Age burial mound at Quarry Hill, Chideock.
MDO38388. Photograph: RAF CPE/UK/2431 RP 3171 22-JAN-1948. Historic England RAF Photography.

The final site is on Conegar Hill, Wootton Fitzpaine (MDO38916) (Figure 28). Conegar Hill is an isolated conical hill between the River Char and its western tributary. The sites of three possible barrows were recorded in the vicinity of the hill in the NRHE but none were identified at their given locations on aerial photographs or the lidar during the project. However a circular feature, 19m in diameter was visible on the vertical RAF photograph just off the summit on the western side of the hill. A small hollow had been dug into the eastern side of the mound. It is possible that this is the site of a Bronze Age burial mound, however the place name 'Conegar' suggests that the locality of the hill had an association with rabbits or rabbit rearing and the feature may alternatively be the site of an historic pillow mound or rabbit warren (see Section 7.4.2).

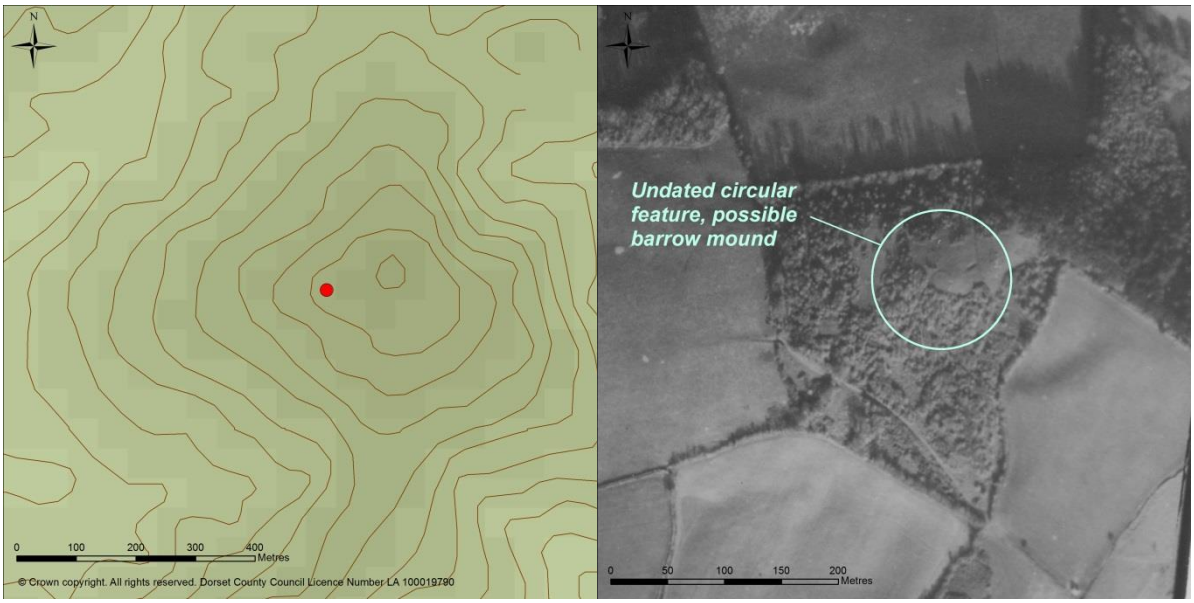


Figure 28. Potential Bronze Age burial mound at Conegar Hill, Wootton Fitzpaine. MDO38916. Photograph: RAF CPE/UK/2431 RS 4181 22-JAN-1948. Historic England RAF Photography.

7.1.5 Summary

To summarise, whilst some Bronze Age barrows are located on the higher ground surrounding the Vale, their low frequency is in stark contrast to the numerous rich barrow cemeteries found only a few kilometres to the east on the South Dorset Ridgeway. There is no doubt that the area was the focus of some activity during the Bronze Age but the evidence so far suggests this was mainly concentrated around the periphery of the Vale on the higher ridges and along the coastal strip. Within the lower lying Marshwood Vale itself there is very little evidence for Bronze Age activity. No new sites were revealed on APs covering this area but as the Vale itself has seen little in the way of ground survey and excavation it is possible that as yet undetected sites may exist. Nonetheless, as the lower lying Vale was probably inhospitable marshy woodland for much of the earlier prehistoric period it is unlikely to have been an easy or pleasant prospect for early communities to inhabit. Although there may be a range of factors underlying the distribution and number of Bronze Age barrows, it is probable that low population numbers during the Bronze Age were a major determinant in this area, resulting in a relatively small number of ritual monuments of this period compared to other parts of Dorset.

7.2 Later Prehistoric and Romano-British settlement and agricultural exploitation of the Marshwood Vale and it environs

7.2.1 Summary of later prehistoric activity in Southern Britain

In contrast to the monumental landscapes of the Neolithic, the most direct evidence for human activity in later prehistory is predominantly settlement-related, surviving as earthworks in the landscape or as buried remains identified by excavation and aerial survey. The Early to Middle Bronze Age was characterised by round barrows, scattered open farmsteads and settlements, and the development of co-axial field systems (Papworth 2011, 14). The Middle to Late Bronze Age also saw developing changes in land organisation and the defining of territory and ownership through enclosure. Long linear land boundaries were established, sometimes incorporated within, sometimes cutting across, earlier field systems, as at Orcheston Down, Salisbury Plain, and Snail Down in Wiltshire, for example (Sharples 2010, 44). Farms and settlements became increasingly enclosed and burial monuments went out of use (Papworth 2011, 14).

The known distribution of settlement and field systems of the Late Bronze Age and Early Iron Age across the chalk downlands of Dorset, Wiltshire and Hampshire indicate a densely settled and farmed landscape (Cunliffe 1993, 138; Sharples 2010; 62). Defended hilltop enclosures also made an appearance during this time, typically located on ridge-ends and hilltops in prominent positions (Sharples 2010, 55).

The theme of enclosure in the Late Bronze Age and throughout the Iron Age has been explored by many researchers of Iron Age traditions. The nuances of purpose and function of the various types of enclosure found throughout the Iron Age are still in discussion but at the very least they express conscious ideologies of status, social organisation and territoriality. They also demonstrate aspects of social order, hierarchy and a sense of ownership. The defining and protection of property may have been managed through mutual agreement and co-operation, or may have been part of a more ordered arrangement under higher authority (Papworth 2011, 14).

The Iron Age hillforts are perhaps the most visual manifestation of Iron Age society and this area of Southern England has a high concentration of these major defensive earthworks. Hilllforts developed from the Early Iron Age (800-300 BC), in many cases building on former hilltop enclosures. These early hillforts were simple univallate enclosures with single entrances, usually in excess of 10 hectares in area and located in prominent positions within the landscape. During the Middle Iron Age (300-100 BC) some hillforts were abandoned but others were enlarged, with better and more elaborate defences. From around 100 BC the majority of hillforts went out of use, although some, such as Maiden Castle and Hambledon Hill, remained to become large complex centres known as *Oppida* (Papworth 2011, 14; Sharples 2010, 55).

The function of hillforts over the course of the Iron Age was varied and often complex, with each transition in development illustrating probable changes in social organisation, status and community need. The concept of hillforts as centres of political power and control is a long-held one. This has since been challenged by such as Hill (2001, 101) and it seems more likely that the range in size and type of hillforts probably represented a diverse range of functions that may reflect both centralised and non-centralised communities in different areas (Papworth 2011, 17-21).

During the Late Iron Age (100 BC – 100 AD) enclosed farmsteads and settlements set within extensive field systems were re-established in the landscape. The range in size and complexity of enclosure suggests that the majority housed multiple households of varying number and scale; demonstrating that community, be it on a smaller or larger scale, was at the centre of Iron Age social ethos (Sharples 2010, 58-60). Some open settlements were still to be found, however, and in some areas, such as Cranborne Chase, there appears to have been little if any boundary definition, suggesting a different form of social organisation, perhaps that of more permeable and fluid societies (Papworth 2011, 13; Sharples 2010, 57).

Later Iron Age Britain was a tribal society, divided into a number of ethnic groups or confederacies which are identifiable through distributions of material finds such as pottery and coinage (Cunliffe 1993, 208-10). Dorset, along with parts of what is now south Somerset and east Wiltshire, was the province of the Durotriges. The precise boundaries of the Durotrigian territory are unclear but the western and north western boundaries have long been suggested to follow the southern extent of the River Parrett in Somerset and the River Axe in Devon. To the north and east the boundary is thought to most likely follow the Avon valley in Wiltshire and its tributary the Wylye (Cunliffe 1978, 104; Papworth 2011, 46-47).

The Durotriges were a wealthy people who, prior to the Roman invasion, had established profitable trade links with Armorica. Their culture is distinguished by its use of silver coinage, which showed distinct Continental influences and high levels of imported ceramics, as well as their distinctive locally produced Poole pottery (Papworth 2011, 50-59). Rather than forming a single cohesive tribal grouping, however, the Durotriges may have been a confederacy of groups (Cunliffe 1978, 104-8; 1993, 210) or an alliance of discrete communities sharing a common coinage (Papworth 2011, 179). Papworth (*ibid*, 94) observed that Durotrigian coinage and pottery was generally lacking from Iron Age hillforts in West Dorset, however. This area of Dorset also lacks the distinctive Durotrigian crouched inhumation burials evident further west in the county. This may indicate a community living beyond the direct sphere of Durotrigian influence (*ibid*, 53-55, 94).

7.2.2 Prehistoric settlement within the Marshwood Vale

Settlement evidence for the later prehistoric periods in the west of Dorset and into Devon is sparse. This may in part be due to the underlying geology; the slippage of soft sands and clays into the valleys burying the archaeology in thick colluvium (Papworth 2011, 85), although evidence for settlement out of the valleys on the ridgetops is also rare. It seems probable that West Dorset always had a lower population than the neighbouring chalklands of the South Downs to the east; even well into the Later Iron Age, Durotrigian pottery and coinage in this area generally remains rare (*ibid*, 46).

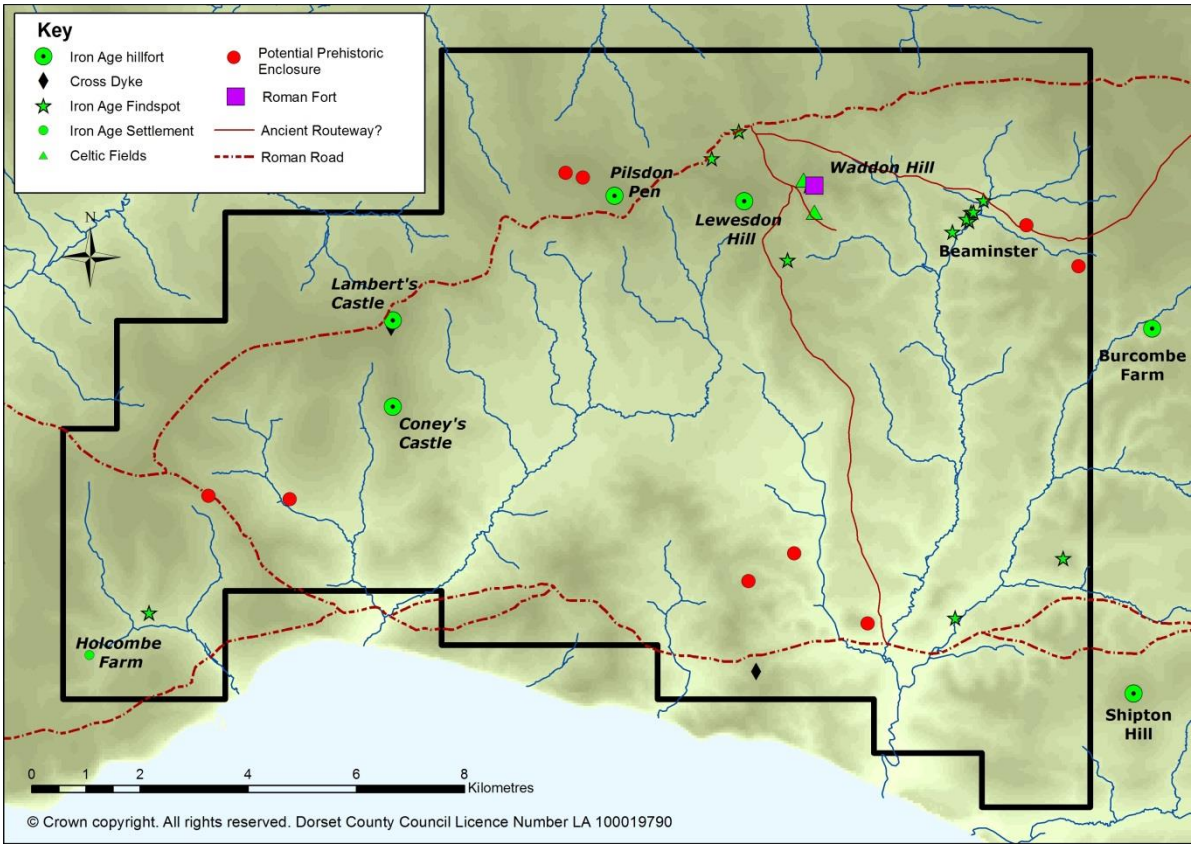


Figure 29. Iron Age sites within the Marshwood Vale NMP project area

There are four Iron Age hillforts in the project area. These are positioned in a wide arc on the Upper Greensand ridges which form the northern and western boundaries of the Vale. Two other probable hillforts lie immediately to the east of project area on Shipton Hill, Shipton Gorge (MDO2432) and Burcombe Farm, North Poorton (MDO1788). If these two sites are proved to be Iron Age, they would have effectively completed a ring of defended hilltops surrounding the Vale (Figure 29).

A sixth site is worth mentioning with regard to its potential Iron Age origins; that of Waddon Hill. The hill is known to have been the site of a Roman fort which was established around AD 50 and abandoned around *c* AD 64 (Webster 1979) (see Section 7.2.4.). It has been previously noted that most other 1st century Roman forts in the Durotrigian area lay within or in close proximity to hillforts (Papworth 2011, 91) and whilst no features could be given a definitive pre-Roman date during excavation there was evidence of earlier earth-moving and tree clearance prior to the siting of the fort. The rampart was also found to have been constructed in the same manner as native hillforts, by digging a series of quarry pits (Webster 1979, 55); these pits were later filled in with Roman material and levelled off. Durotrigian coins and pottery are recorded from the site but Iron Age coins from military sites are commonplace and do not necessarily infer prior occupation (Papworth 2011, 91). More fieldwork on the site is required to establish whether an Iron Age hillfort or settlement preceded the construction of the Roman fort on Waddon Hill.

Pilsdon Pen is an elongated hilltop upon which are the earthworks of an Iron Age multivallate hillfort. This is the only multivallate hillfort in the project area and the largest; its outer ramparts enclose an area of 80 hectares. To the south east and south west fragments of two outer linear earthworks were identified during the mapping project. Whilst these may perhaps be later medieval lynchets, there may also be a possibility that they are earlier constructions relating to the prehistoric defences of the hill (see Figure 30).

A number of lithic artefacts have been recovered from the vicinity of Pilsdon Pen indicating that the hill was the focus of human activity since early prehistoric times. Upper Palaeolithic and Mesolithic flint tools were recovered during excavations at the hillfort (Pearce 1983) and two groups of Mesolithic chert artefacts recovered from the sides and top of the hill (Source Dorset HER).

Parts of the hillfort were excavated between 1964 and 1971 (Gelling 1977). A settlement comprising at least 14 roundhouses was discovered although very little pottery was recovered. The lack of finds along with a lack of storage pits led the excavator to suggest that the site was only occupied for a limited period. It has also been suggested that the absence of pottery indicates limited (if any) local pottery manufacture in the area; that which was recovered coming from Somerset (Papworth 2011, 89-90). If this is the case, it would support the idea that the Marshwood Vale in general was not heavily populated during this time.

The hillfort lies on the south-east end of an elongated Upper Greensand Ridge overlooking the Vale to the south. The potential sites of two smaller prehistoric enclosures had previously been identified towards the northwest end of the ridge within 1km of the hillfort (NRHE UIDs 193086 and 193089). The eastern enclosure appears to have a simple curvilinear form with an embanked earthwork enclosing approximately 0.8ha with no traces of internal features. The western enclosure is more complex comprising an inner enclosure 0.2ha in size set within a larger curvilinear enclosure at least 1.5 ha in size. The outer earthwork of the western enclosure appears to have been constructed for defensive purposes as it has a bank with outer ditch and an 'in-turned' entrance facing westwards towards the end of the ridge.

The date of these enclosures is unknown and whilst they may be contemporary with the Iron Age hillfort which occupies the eastern end of the ridge, they may equally represent earlier or later phases of settlement or agricultural enclosure. The eastern of the pair was only very faintly visible on aerial photographs taken in 1946 and may therefore be of dubious authenticity, the western enclosure is however still visible on recent lidar imagery as an extant earthwork (Figure 30, right) and is more convincing.

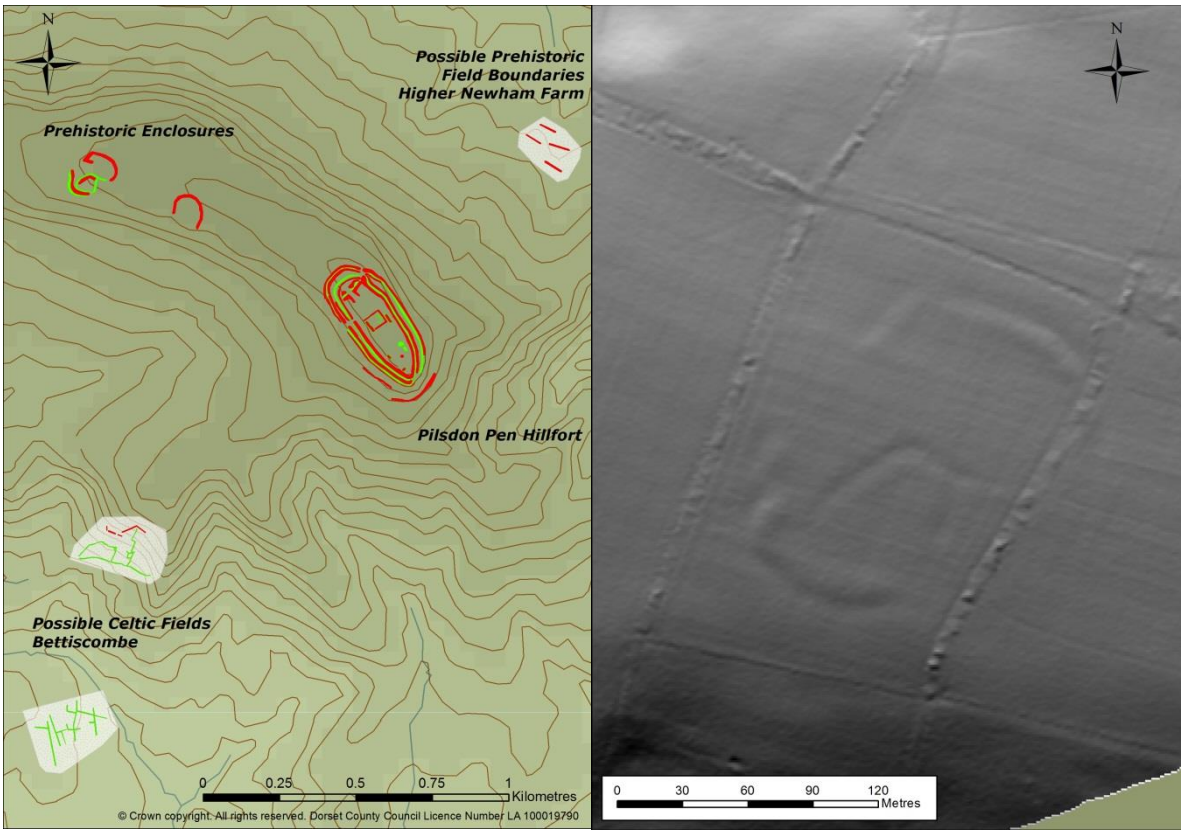


Figure 30. Possible prehistoric features mapped in the vicinity of Pilsdon Pen hillfort.

© Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.

**Using NMP symbology, features shown in red are banks and in green, ditches.*

The RCHME had previously identified vegetation marks or slight earthworks covering much of Pilsdon Pen hilltop; these had been interpreted as the remains of a Celtic field system (NRHE UID 883383). There was no evidence of these features on the aerial photographs or lidar imagery available to the project and therefore the presence of these fields could not be confirmed. To the south of the hillfort at Bettiscombe Manor House however, two small fragments of field system were identified as potentially being of prehistoric origin on the basis of their morphology. In addition, to the north of the hill near Higher Newham Farm, four low banked lynchets were recorded possibly underlying, and therefore predating, medieval strip field boundaries. These field system fragments, whilst not directly associated with the hillfort, may have been created and farmed by the same communities that were responsible for the construction of the enclosures and hillfort, although a later origin cannot be ruled out and further fieldwork is needed to establish the dates of the mapped features.

Evidence for field systems and settlements relating to this period in the Marshwood Vale is poor. It is uncertain whether the paucity of evidence for later prehistoric settlement in the vales is due to the area being largely unpopulated during prehistory or because sites relating to these periods are difficult to identify. It has been suggested that prehistoric farmsteads located in the Vale might have been buried under thick layers of colluvium, the underlying soft sands and clays eroding from the valley sides and burying the archaeology at depth (Papworth 2011, 85). Accounts by such as Taylor (1970, 67), however, suggest that the Marshwood Vale probably remained well-wooded into the early medieval period. If this was the case, it would suggest that the Vale was indeed only sparsely settled prior to this time, and then predominantly along the river valleys or closer to higher ground.

Other than the fragments of field system described in the vicinity of Pilsdon Pen (see above), the only evidence for later prehistoric agrarian activities within the Vale is the Celtic field system on the northern side of Waddon Hill (MDO39094 - foreground of

front cover). Two other 'Celtic' field systems had previously been record by the NHRE; the first 250m to the south of Waddon (NRHE UID 883392) and the second a further 550m further south again at Brimley Farm, Stoke Abbott (NRHE UID 883387). The presence of these two systems could not be confirmed during the project, field boundaries were recorded at both sites from the aerial photographs but a prehistoric date could not be attributed to the features with any degree of certainty.

It has previously been noted that extensive areas of Dorset are characterised by rectilinear land divisions (Davey 2013, 175); partially fossilised in the modern landscape, these linear divisions are thought to have originated in the prehistoric period. The rectilinear land holdings identified in other parts of the county can be seen to extend from valley floor to upland pasture; most clearly defined in areas of gently sloping valleys and chalk uplands and probably formed to maximise the types of resource available to individual holdings (Davey 2013; Taylor 1970). Subsequent sub-division and formalisation of these holdings over time has created broadly rectilinear patterns of enclosure in places, often associated with long linear hedge boundaries and lanes that extend across the landscape. Many of these boundaries can be traced on the OS 1st Edition maps and are still visible on aerial photographs. As the boundaries remain largely extant they have not been mapped by this project.

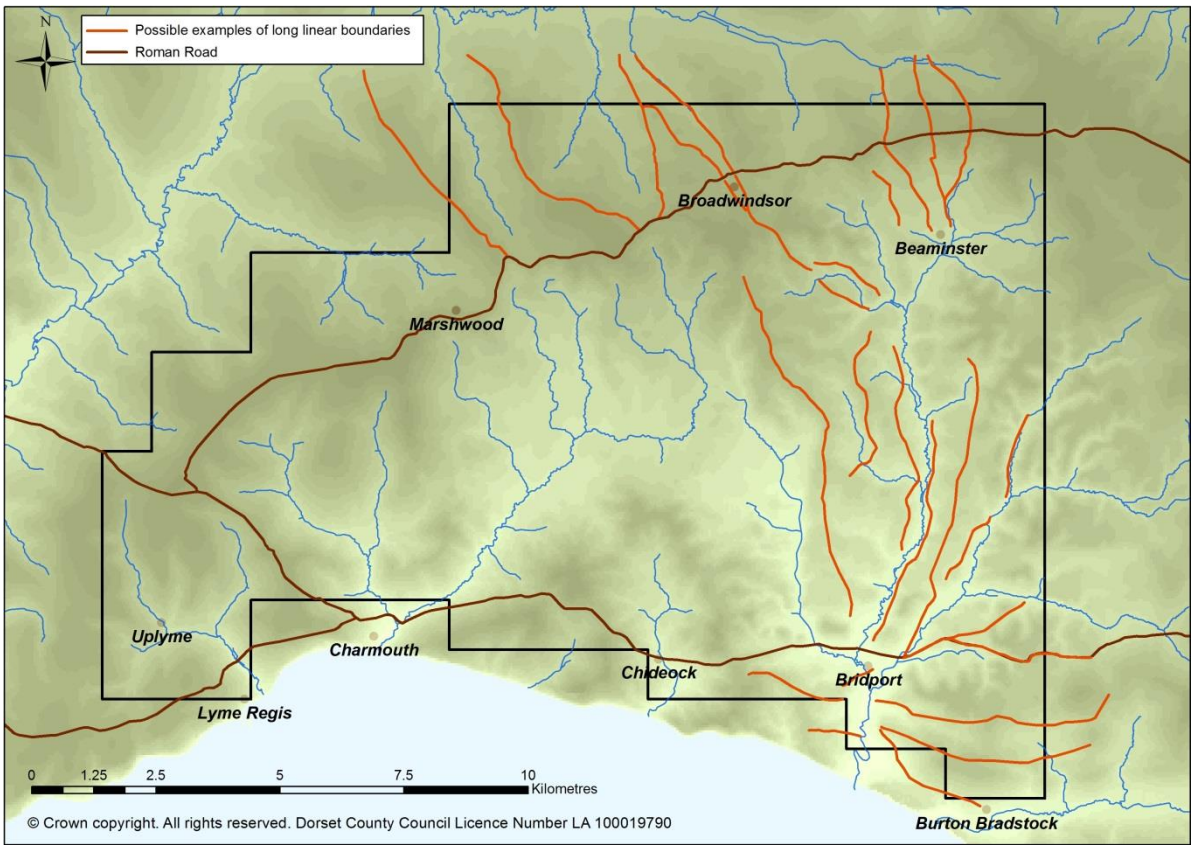


Figure 31. Possible examples of long linear boundaries around the northern and eastern edges of the Marshwood Vale, potentially of prehistoric origin

Whilst much of the Marshwood Vale itself was probably not heavily settled until the medieval period (see sections 7.3 and 7.4), the higher ridges surrounding the vale were probably cleared and settled much earlier than this. Whilst the NMP project mapped few features that could be attributed a prehistoric date some long linear boundaries were identifiable in the landscape which could be of Saxon or pre-Roman origin (Fig 31). These long linears in many cases follow present-day lanes and roads or align along stream valleys, which may suggest a different function to those observed by Taylor (1970) and Davey (2013). Others, however, do run across the contours and, particularly in the north of the project are, appear to be perpendicular to, and cut by, a probable Roman road running between Dorchester and Exeter via Axminster. In the

southeast of the project area a number of long linear boundaries appear to be aligned with the main Roman road from Dorchester to Exeter (Fig 31).

These long linear boundaries may potentially represent similar types of rectilinear land holdings observed in other parts of Dorset, which were probably created to maximise resource potential (Davey 2013, 175). It is notable that, although not a definitive selection, the long linear boundaries identified in Figure 31 are clearly distributed along the northern and eastern ridges surrounding the Vale but are not clearly apparent within the Vale itself. This suggests that, whatever their date of origin, they represent something different taking place on the peripheries of the Vale to anything happening within the Vale itself.

7.2.3 Case study: Later Prehistoric settlement sites at Beaminster

In addition to the two enclosures on Pilsdon Pen, the mapping project recorded eight curvilinear enclosures which may potentially be the remains of later prehistoric or Romano-British settlement sites (Figure 32). The most convincing of these enclosures are situated within the valley of a minor tributary of the River Brit in the parish of Beaminster near the eastern edge of the project area (Figure 33).

At Combe Farm a rectilinear ditched enclosure enclosing at least 0.2 hectares is positioned on the north-east edge of a ridge looking westwards directly down the stream valley to its confluence with the River Brit. Only three sides of this enclosure are visible, the open side facing towards the valley (Combe Farm, Figure 32, bottom right). Just over a kilometre to the west on a low ridge lies the second site at Whitcombe Farm (Figure 32, top right). Here a small complex of rectilinear ditched enclosures is visible on aerial photographs taken in 1973 and 2002. The two main enclosures are 0.12ha and 0.25ha in size and are possibly enclosed within an outer enclosure; partially visible on the eastern side. No associated contemporary field boundaries were identified.

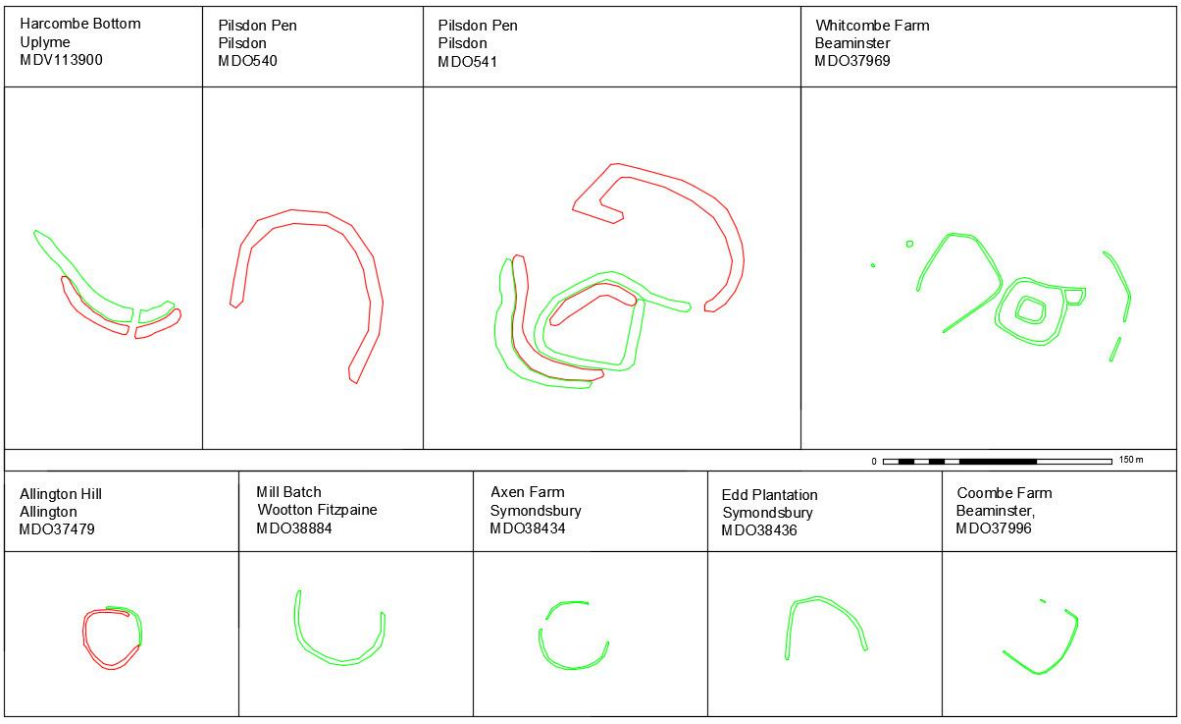


Figure 32. Possible prehistoric settlement enclosures within the Marshwood Vale

**Using NMP symbology, features shown in red are banks and in green, ditches.*

It is perhaps significant that the line of the current B3163, which runs east from Beaminster before heading north to meet the A356 (which is considered to be the route of the Roman Road from Dorchester to Exeter (see Section 7.2.4)), passes immediately to the south of the Whitcombe enclosures. It is possible that the modern road follows the line of an ancient route way which would have been used by the settlers that built and lived at Whitcombe (see Figures 31 and 33).

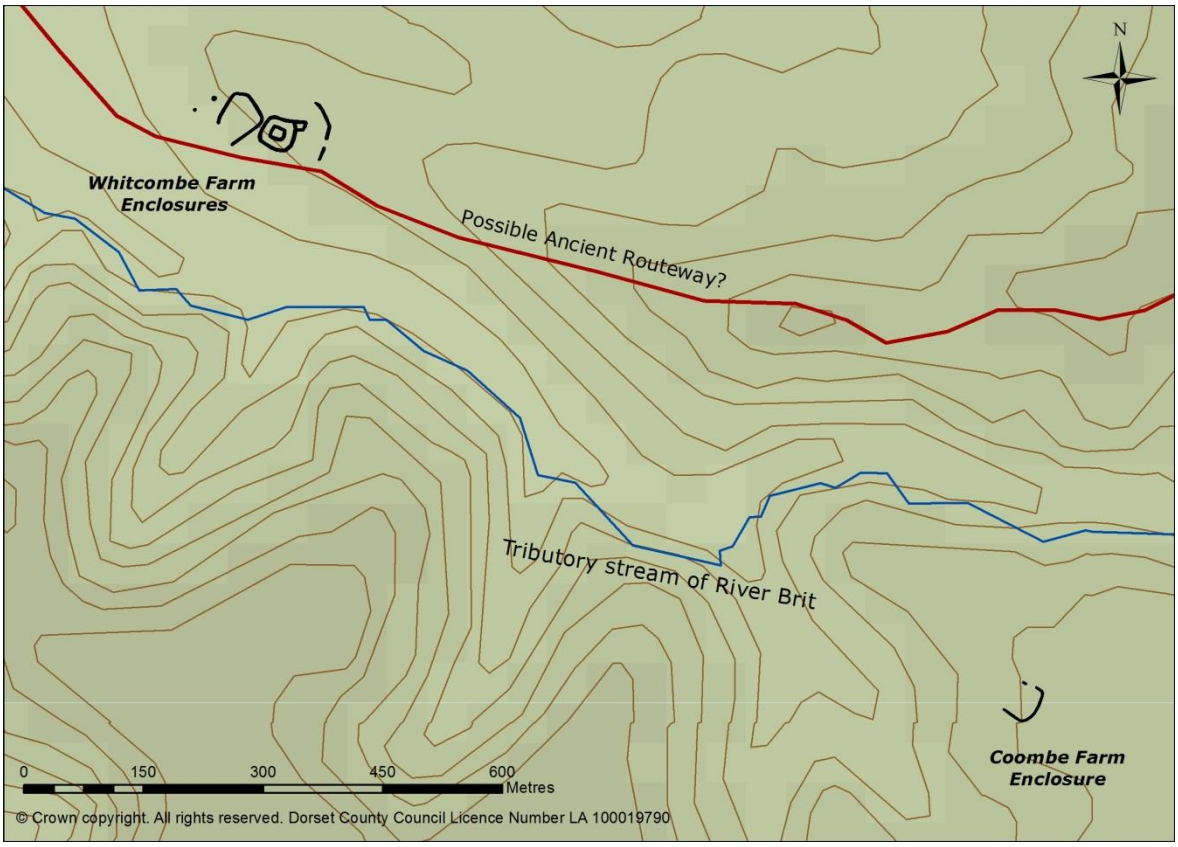


Figure 33. Possible prehistoric settlement enclosures, Beaminster

7.2.4 Roman Marshwood Vale.

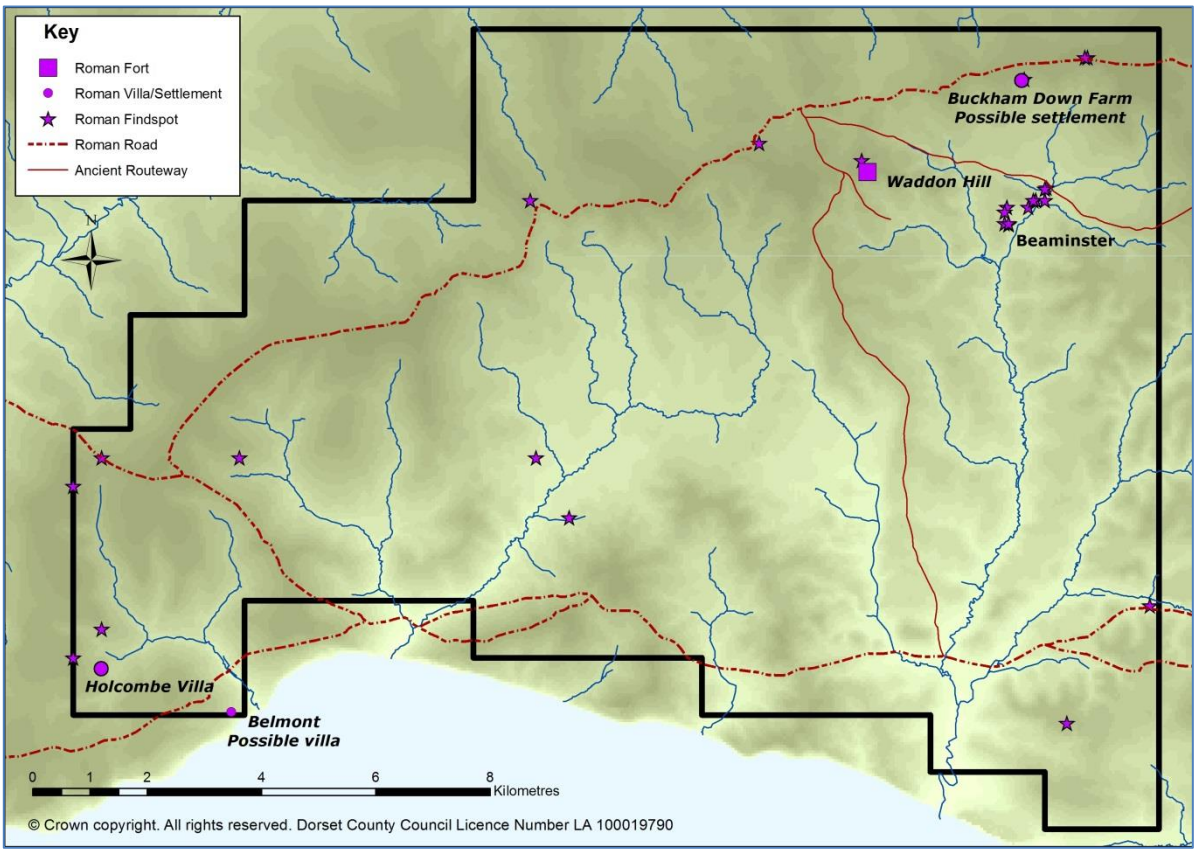


Figure 34. Roman sites within the Marshwood Vale NMP project area

The Roman road from Dorchester to Exeter is thought to have run along the northern edge of the study area, through Broadwindsor and south-westward along the line of the modern B3164 towards Axminster. This traditionally accepted route of the road passes within 150m of the two Iron Age hillforts of Pilsdon Pen and Lamberts Castle (Figure 29), which may suggest that sections of the Roman road were constructed along older routeways. One of these older route ways may run south east from a junction with the Roman road, past Waddon Hill (see below) and through Beaminster (Figure 34).

A scattering of Roman findspots are recorded along the length of the Roman road and there is a particular concentration of Roman findspots at Beaminster, which would appear to suggest there was a focus of (as yet unidentified) Roman activity in this area (Figure 34). A small concentration of Roman roof tiles and pottery (NHRE UID 192972) are recorded at Buckham Down, to the north of Beaminster and just south of the alleged route of the Roman road. These would appear to indicate the presence of a high status Roman settlement, possibly a villa, in the vicinity, although the precise location of this remains unknown.

A small number of Roman findspots are also recorded around the edges of the Marshwood Vale, largely found in close proximity to the main river valleys (Figure 34). Although limited, the evidence for Roman activity within the project area indicates that this was largely restricted to the higher ground surrounding the Vale rather than extending into the heavily wooded Vale itself.

In the south-west corner of the project area there is the Roman villa (NHRE UID 449785) situated near Holcombe Farm, on the River Lim near Lyme Regis. The villa is located on the site of a Late Iron Age settlement and it continued in use into the 4th century AD. The site of a further possible villa (NHRE UID 449817) may exist near Belmont in Lyme Regis, where a tentative Roman hypocaust is recorded. Both the villa at Holcombe and the possible site at Belmont closely respect the conjectured Roman road running between Charmouth and Exeter (Figure 34).

The only likely Roman features mapped by the project were in association with a 1st century Roman fort at Waddon Hill (see front cover, Figure 35 and Figure 78), excavated by Graham Webster between 1959 and 1969 (Webster 1960, 1965, 1979). This fort lies on a pronounced flat-topped hill a kilometre to the south of the Roman road running from Dorchester to Exeter (Figure 34). As mentioned above, it also lies between two present-day roads running southeast from Broadwindsor. The Roman army's movement through the South-West is likely to have followed already existing trackways (Branigan and Fowler 1976, 18) and these roads may follow the line of two such route ways in existence prior to the construction of the main Roman road: the westernmost of these was identified as one of the long linear boundaries running through parts of the project area, and possibly pre-Roman in origin (see Section 7.2.2 and Figures 29; 31; 33).

The fort on Waddon Hill may have been constructed prior to the Roman road network being established. A substantial part of the fort has been destroyed by recent stone quarrying but the excavations showed that it was over 80m wide and at least 120m long and was probably established around AD 50 as part of Scapula's (the then Roman governor of Britain) initial campaigns to secure the Devonian peninsula (Branigan and Fowler 1976, 27-29; Webster 1979, 54-5). The fort is thought to have been built by Vespasian, who commanded the campaign in the south-west, eventually securing the submission of the Durotriges after what appears to have involved fierce fighting in the area and the siege of several strongly defended Iron Age hillforts in the vicinity, including Hod Hill and Maiden Castle (Mattingly 2006, 99).

The fort was likely to have been initially established as an over-wintering camp for the south-western campaign and later established as a maintenance and supply base. Scattered tent pegs were recovered during the excavations indicating tented accommodation prior to the construction of timber buildings in the central area of the fort, which included the principia, praetorium, and possibly the valetudinarium, as well as probable barrack blocks (Webster 1965).

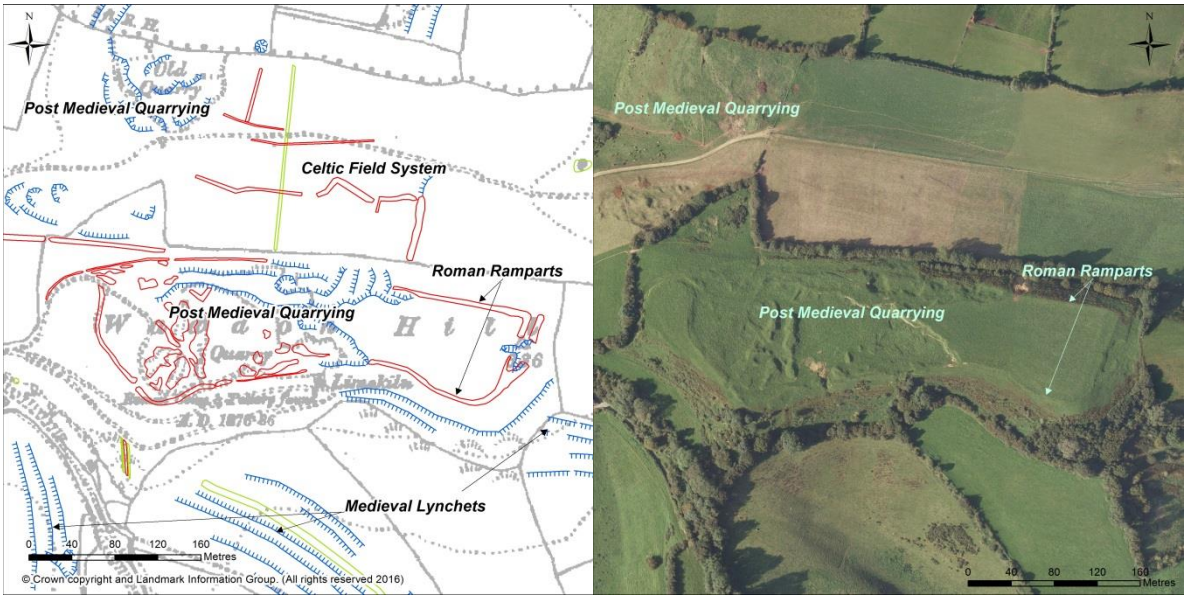


Figure 35. Roman Fort at Waddon Hill

MDO2531. Photograph mosaic: DCC VAP 2009

**Using NMP symbology, features shown in red are banks and in green, ditches.*

The fort on Waddon Hill was manned by a mixed garrison of legionaries and auxiliary cavalry. Finds included scabbard mounts, a hilt guard, and a scabbard ring all from legionary gladii as well as numerous spear and lance heads which were interpreted by the excavator as signifying a mounted unit equipped as a fighting force (Webster 1979, 56). It continued in use until shortly after AD 60 and was probably abandoned as a direct result of the Boudican revolt which resulted in troops being stripped from the

south-west provinces in order to provide troops for Scapula's campaigns against the rebels (*ibid*).

Other than a second Roman road running along the southern edge of the project area, as with previous periods or prehistory, the Vale seems to have been left largely untouched by the Romans.

7.2.5 Summary

Prior to this NMP project, evidence that the Marshwood Vale was occupied during the later prehistoric (Bronze Age and Iron Age) and Roman-British periods was scarce, and this picture remains largely unaltered. Few Iron Age sites have been recognised and very few Durotrigian artefacts have been found. It has been noted that there is a general lack of Iron Age pottery in west Dorset hillforts, very little having been recovered during excavations at Pilsdon Pen and none from a section cut across the ramparts at Lambert's Castle in 1990 (Papworth 2011, 90). Other than the fort on Waddon Hill itself (and a few find-scatters of pottery, tesserae and coins interpreted as possibly the sites of settlement and villas), no sites of Romano-British date are known in the Vale.

As previously suggested (Section 7.1), the low numbers of prehistoric burial mounds within the Marshwood Vale is likely to be a reflection of a low population. The Vale probably remained significantly wooded up until around the 11th century AD (see Section 7.3) and it seems likely that the area continued to be largely uninhabited into the later Iron Age and Roman-British periods. A handful of small enclosures, which may have been the sites of later prehistoric settlements, have been identified from the aerial photographic evidence during this NMP project and it is essential that these sites are investigated further with field walking, geophysical surveys, and possibly excavation, in order to determine their true date and character.

If the population of the Vale was indeed limited in the later prehistoric periods, one must question why there are four Iron Age hillforts in fairly close proximity to each other along the northern edge of the Vale (or indeed why the Romans felt the need to construct a permanent, albeit short-lived, fort on Waddon Hill). It is possible that the hillforts were placed at the edges of territories (which extended to the north and west of the study area) and/or acted as meeting places for exchange and trade (as much as for defence) in otherwise dispersed communities. This may be particularly relevant if the Durotriges were indeed a confederacy of smaller isolated tribal groups. The early Roman fort at Waddon was established during the initial Roman campaigns to secure the Devonian peninsula. It seems likely that it would have been maintained to keep a firm eye on the communities that built and used the hillforts as well as to oversee the largely untamed Vale to the south with its potentially useful resources of timber. As mentioned above, the location of the fort may have facilitated a guard point along existing ancient routeways but it may have gone out of use before the principal Roman roads linking the south-west to the rest of Roman Britain were constructed.

7.3 Medieval settlement patterns within the Marshwood Vale

Studies of the post-Roman landscape of southern Britain are increasingly showing that patterns of settlement and agriculture established by late Iron Age and Romano-British communities demonstrate a far greater degree of continuity and longevity than previously supposed (e.g. Davey 2004; 2005; Fleming 2016; Rippon 2008; Rippon *et al* 2015; Williamson 2003). Far from being a period of social crisis and collapse, the 5th to 6th centuries in many parts of southern rural Britain may have seen little change in the daily lives of local communities, with the patterns of settlement and land organisation that evolved during the course of the 7th to 11th centuries appearing to owe much to already established Iron Age and Romano-British landscapes.

Early studies of Roman to early medieval landscape transition have attempted to characterise long observed differences in historic landscape development during this period (e.g. Gray 1915; Rackham 1986). More recently, geographers Roberts and Wrathmell (2000; 2002) defined four landscape 'provinces' based on 19th century patterns of dispersed and nucleated settlement; the Southwest, Southeast, Northwest and Central Provinces. These different landscape regions have been used to theorise varying models of landscape change between the late Roman and early medieval periods, dependent on whether the underlying Roman landscape could be shown to be homogenous across the country or regionally different. From these scenarios various models have been proposed to account for regional differences within the context of wider historic landscape processes (e.g. Rippon 2008, 23-26; Rippon *et al* 2015, 117-120).

Interestingly, the project area sits at the southernmost tip of what Roberts and Wrathmell (2000; 2002) termed the 'Central Province', modified slightly by Rippon (2008; 2015) as the 'Central Zone'. In central Dorset this zone narrows to be closely flanked by the Southwest Province and the Southeast Province. The Southwest Province lay beyond the area of Anglo-Saxon immigration and appears to have retained a largely antecedent Roman landscape that demonstrates broad continuity until around the 7th to 8th centuries AD, with a medieval settlement pattern of dispersed farmsteads and hamlets within a landscape of enclosed fields with some small open fields (Rippon 2008, 221). The Central Zone may or may not have shared this same antecedent landscape but this region saw an Anglo-Saxon presence by the 5th century and by the 7th to 8th centuries was developing a more structured and organised landscape of large nucleated villages and area of large open fields, commonly farmed within a strong system of lordship (*ibid*, 183). In contrast again, the Southeast Province saw an extensive Anglo-Saxon presence but by the 7th to 8th centuries this was still an area of predominantly dispersed settlement and small enclosed fields, with only few villages and area of open field (*ibid*, 124).

Within the project area there are aspects of all these landscape characters. The contrast between the medieval settlement development within the heavy clays soils of the Marshwood Vale and on the higher greenstone and chalk ridges further demonstrates that even within these broader regional patterns identified above there was more localised variation (see Rippon 2008, for example, for a discussion of these variable landscape character areas, or '*pays*').

Although almost certainly rooted in older origins, the medieval settlement character of this part of West Dorset probably developed from around the 7th to 8th centuries, when a growing Saxon influence was spreading into the counties of Somerset and Dorset and changes in settlement and agriculture began to accommodate wider national trends in settlement and land organisation (e.g. Costen 2011; Rippon 2008; Taylor 1970).

From around this time villages associated with large common fields were established on the more fertile soils of the river valleys running through the limestone and greenstone hills. These were rarely complex nucleated villages as found elsewhere within central England, often comprising a single long street and a back lane (Taylor 1970, 75). On the poorer acidic soils of the heaths and uplands and on the low-lying heavy clay soils,

such as those found in the Marshwood Vale, the settlement character was that of smaller scattered manorial centres, hamlets and farmsteads associated with small irregular fields and closes, some of which were open fields farmed co-operatively by groups of tenant farmers, and some farmed independently under a single owner or tenant farmer (and see Section 7.4).

The heavily wooded clay soils of Marshwood Vale were probably colonised relatively late compared to the surrounding high ground (Taylor 1970, 67). As discussed above (Section 7.2.2), there is only scant evidence for late prehistoric settlement in the Vale, predominantly located within, or in close proximity to, the four Iron Age hillforts recorded within the project area. The Domesday Book records notably lower levels of pasture and meadow in the Vale, along with medium to high levels of woodland (Derby and Finn 1967), suggesting that clearance and settlement were underway by the 11th century if still not extensive by that time.

Place-name evidence in the Vale reflects settlement of the heavy clays as a result of progressive woodland clearance and assarting. The Old English place-name suffix *hay*, meaning 'enclosure, small wood, assart, or deer park hedge' abounds in the Vale (e.g. Childhay, Revelshay, Sminhay, Grigshay, Manshay). Many settlements are located within irregular fields and closes, interspersed with the tell-tale strips of relict woodland or 'shaws' that assarting produces. Coppices are plentiful and many settlement names contain woodland-related names, such as 'Ash, Wood, Oak and Hangar'.

The wooded claylands of West Dorset were being more progressively and systematically cleared by the 13th century. There was a significant increase in the number of new settlements being established, although these were typically small and compact and large areas of woodland and waste still remained (Taylor 1970, 95). The factors behind the spread of settlement onto the clay soils of the Vale are probably complex but changes in lordship, population rise, and pressure for land may be key among these.

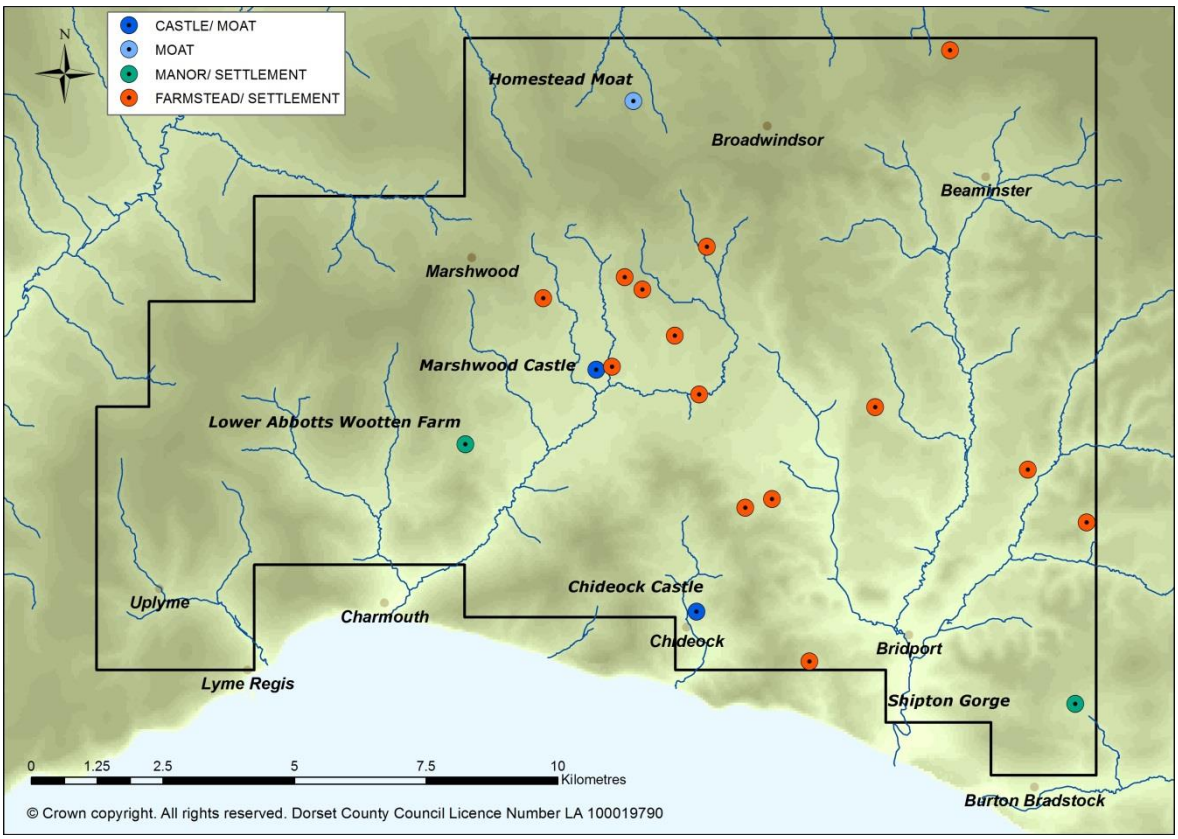


Figure 36. New and updated medieval settlement sites mapped by the project

Typically in other parts of the country similar colonisation and spread onto poorer soils and into previously wooded areas was closely linked to patterns of manorialisation and land ownership from the 11th to 12th centuries onwards; a time which also saw the

beginnings of manorial fragmentation and the allocation of new holdings through partible inheritance; the apportionment of inheritance amongst a number of family heirs as opposed to the single dominant son (primogeniture) (e.g. Bailey 2002; 2010; Campbell 1981; 1986; Rippon 2008).Using aerial photographs and lidar imagery, this NMP project mapped one new medieval manor/ settlement and eleven new medieval (or later) farmsteads/settlements. It also updated the records held in national and county historic environment databases for one medieval manor/ settlement, three medieval moated manor sites, and three medieval (or later) farmsteads/ settlements (Figure 36). The significance of these to the pattern and organisation of medieval settlement within the Vale are discussed below.

7.3.1 High status medieval sites

The evidence for high status medieval sites such as mottes, manors and moated sites within the study area is relatively limited. As manors comprise units of land ownership, identifying a manorial centre can sometimes be problematic. The date of origin for many manors may also be difficult to establish, particularly where late and post medieval manors were formed as a result of manorial fragmentation and changes in land ownership. Settlements recorded as vills in the Domesday record can be assumed to represent the head settlement of a manor in existence by the 11th century (Darby 1971, 1; Fleming 2016, 24) but commonly there may be more than one settlement associated with manorial holdings.

Dorset contains several large composite manors, such as Sherborne, Wareham and the Isle of Portland, for example, which contain un-named sub-tenancies within them (Darby and Finn 1967, 69). Additionally, many rural manors may now survive as farms and hamlets where the manorial title has since been lost. Where medieval manors have become subsumed within present-day villages the original manorial centre may also be difficult to identify precisely. Surviving manor farms, court houses, manor houses and moated sites may broadly indicate where former manors were centred but this cannot be relied upon: the names of manor houses changed over time and 'manor' was not always part of their title. Furthermore, the title of 'manor house' was sometimes given to post medieval houses even where these were not clearly related to a manor site at all; a phenomenon noted in east Somerset by Ellison (1983, 9).

Within the study area, the project mapped three moated manors already recorded in national and county historic environment databases; Chideock Castle (MDO895), Marshwood Castle (MDO1634), and Homestead Moat, Broadwindsor (MDO531). A moated site at East Hewstock (NHRE UID 193010), Beaminster, dating back to at least the early 14th century, is now under a modern farmhouse and no features associated with it were mapped by this project.

Moated sites were built throughout the medieval period, with the main period of construction between 1250 and 1350 AD. These types of sites are all located within the Marshwood Vale and are characteristic of areas of dispersed settlement and heavy soils, but they are otherwise considered to be relatively rare in this part of the country. Each of the three moated sites mapped by the project reflects differing degrees of manorial status and display, as suggested by their size and layout. All three, however, are significant in being examples of a type of manorial site that features on the heavier clays soils of west Dorset but which is not generally commonplace in Dorset as a whole.

Case Study: Chideock Castle

Chideock Castle (MDO895) is located around 300m to the northeast of Chideock village centre on the east side of the River Winniford and survives as a particularly well-preserved example of a moated manor site.

Chideock was recorded in the Domesday Book as 'Cidihoc', indicating that a manor existed here by 11th century. Documentary sources date the manor back to at least 1248 AD and in 1257 AD it passed to Sir John Gervase. Chideock Castle was constructed in 1380 AD when his grandson Sir John Chideock obtained a Royal License to crenelate (Bartelot 1944, 74). It was destroyed during the Civil War and the manorial centre subsequently moved around 500m to the northwest to the present

Chideock Manor House (NHRE UID 450200), which itself dates back to at least the 15th century.

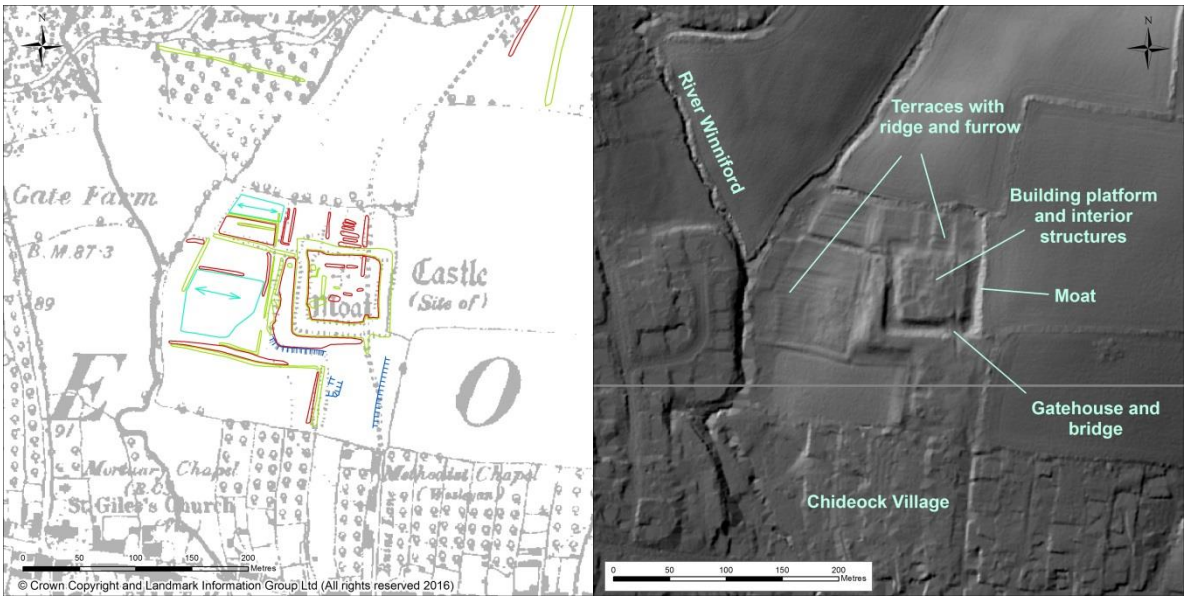


Figure 37. Chideock Castle moated site and associated earthworks, Chideock

MDO895. © Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.
**Using NMP symbology, features shown in red are banks and in green, ditches.*

The site of Chideock Castle comprises a sub rectangular platform 65m across, which contains the earthworks of former buildings and with a gatehouse at its south-eastern corner. These were positioned within a larger banked enclosure in excess of 90m in across.

Associated earthwork remains include enclosures, fishponds, building platforms and terraces within a field known as 'Ruins Field'. The surrounding moat averages around 15m wide and 2.5 m deep (NRHE UID 450215) (Figure 37). The gatehouse and bridge across the south-eastern corner of the moat indicate that the main approach to the manor was from Chideock Village to the south; a footpath shown on the 1st Edition map may fossilise this approach (Figure 37). Chideock Castle is associated with a medieval deer park (MDO900), first documented in a deed of 1475. It was said to measure around 1.5 miles in circumference; around 2.5 km (Cantor and Wilson 1969, 197). Chideock Castle may be situated within and close to the western edge of the deer park, which may have had a tributary of the River Winniford as its western boundary (Section 7.3.3, Figure 49).

This project mapped the central building platform and the outline of potential internal structures, along with the moat and a substantial bank on its southwest side. The lidar imagery indicated a series of terraces to the north and west of the castle moat. Narrow rows of cultivation marks are visible within and respecting the terraces, which based on their morphology may indicate medieval strip fields (see Section 7.4). The mapping of features associated with Chideock Castle has added to the understanding of the form and relationship of earthworks associated with the moated manorial enclosure and the ancillary enclosures adjacent to its north and west sides, along with their probable medieval land use (Figure 36). The contemporaneity of the features mapped by this project is assumed but is not known, however.

Case Study: Marshwood Castle

Marshwood Castle (MDO1634) is a fortified manor house located to the southeast of Marshwood village, situated between two tributaries of the River Char. The manor house survives as a roughly rectangular enclosure enclosed by a broad moat. Part of an angle tower survives in the southwest corner of the enclosure (Figure 38). The ruined remains of a chapel are recorded to the northwest of the tower, although the exact location of these is unknown.

Marshwood Castle was first documented in 1215 as the Head of the Honour and Barony of Mandeville of Marshwood (NHRE UID 450003). The castle may have its origins in a Norman motte and bailey but recent re-evaluation of the site suggests that a mid-14th century date for the castle is more likely (Bowden 2005, 3). This would potentially imply that the 13th century residence of the Mandevilles was sited elsewhere or was replaced by the later castle.

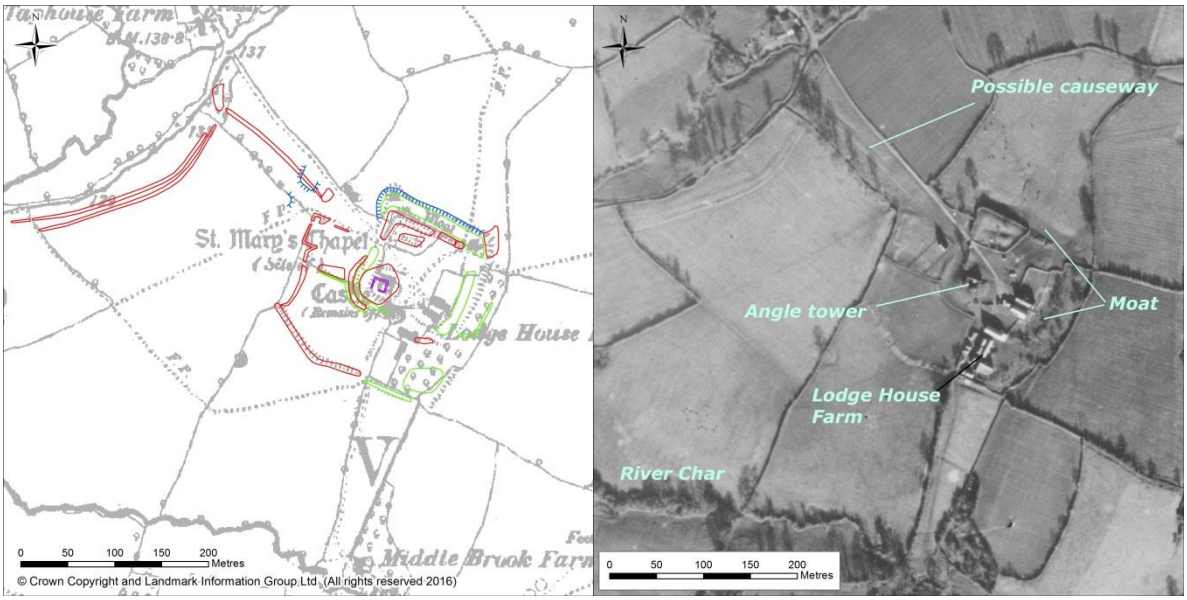


Figure 38. Marshwood Castle moated site and associated earthworks, Marshwood

MDO1634. Photograph: RAF/CPE/UK 2431 RS 4212 22-JAN-1948. Historic England RAF Photography

**Using NMP symbology, features shown in red are banks and in green, ditches.*

The architectural form and layout of Marshwood Castle has been likened to high status 'water castles' elsewhere in the country, such as Bodiam in Oxfordshire, and Ravensworth in Tyne and Wear (Bowden 2005, 3). It certainly appears to have stood within an elaborately designed landscape by this time, which may have included a formal causewayed approach to the castle from the west. Another possible approach was observed by Bartelot (1944, 71), who records a narrow stone paved lane leading up from the south and turning east towards the castle along a cobbled trackway; this is no longer visible and nothing associated with this possible approach was mapped by this project. It may have been an older approach, perhaps linked with an earlier building on this site if the castle replaced an older seat. Bowden (2005, 4) observed that the direction of this approach would broadly lead from, or towards, the parish church and holy well at Whitchurch Canonicorum.

Marshwood Castle is located towards the northwest border of a medieval deer park (MDO1638), 'Marshwood Park', established in the early 14th century (see Section 7.3.3, Figure 49). A second deer park (MDO1639), Crekelade Park', was located to the west of Marshwood Castle, the borders of the two parks being closely adjacent. The earliest documented record for the two parks dates to 1329, although it is not clear whether they are contemporary or whether one preceded the other (Wilson 1974, 76). The park boundaries may be fossilised in the pattern of surrounding lanes but no obvious earthworks associated with the parks were mapped by this project. If Marshwood Castle is mid-14th century in date it potentially post-dates the construction of the deer parks, suggesting these may have been associated with an earlier residence in the near vicinity.

This project mapped the castle enclosure and angle tower and associated earthworks, including sections of the surrounding moat and the banked causewayed approach from the northwest. Additional earthworks also mapped were considered to be probable field boundaries of medieval or post medieval origin. Historic cultivation marks were visible

within and respecting the enclosures surrounding Marshwood Castle on aerial photographs of the 1940s (Figure 38). If these represent medieval ridge and furrow preserved by pasture then they potentially precede the 14th century deer park. Their narrow and regular morphology might, however, more closely reflect post medieval narrow rig derived from 18th century steam ploughing (see Section 7.4); this would potentially reflect agricultural activity within the existing fields and closes associated with the manor, once the manor itself was abandoned.

Case Study: Homestead Moat

Homestead Moat (MDO531) is situated on a gentle east facing slope between two tributaries of the River Axe around 875m to the west of Burstock. The upstanding earthworks suggest a moated enclosure around 50m by 50m, currently dissected by a northeast to southwest aligned post medieval field boundary (Figure 39). There is no visible evidence for internal structures but this project did map a series of small banked enclosures and field boundaries to the west of the moat that may be associated with it, although there is a possibility they are later in date. A series of probable post medieval field boundaries were also mapped by this project to the southwest and southeast of the moat.

The Dorset HER records no entrance to the moated site has yet been identified. Recent lidar imagery, however, reveals a linear bank to the southwest of the site that may be associated with an approach from that direction (Figure 39). The bank extends between the southwest side of the moat and Park Water Lane and appears to be overlain by the end of a probable post medieval field boundary visible on aerial photographs taken in the 1940s.

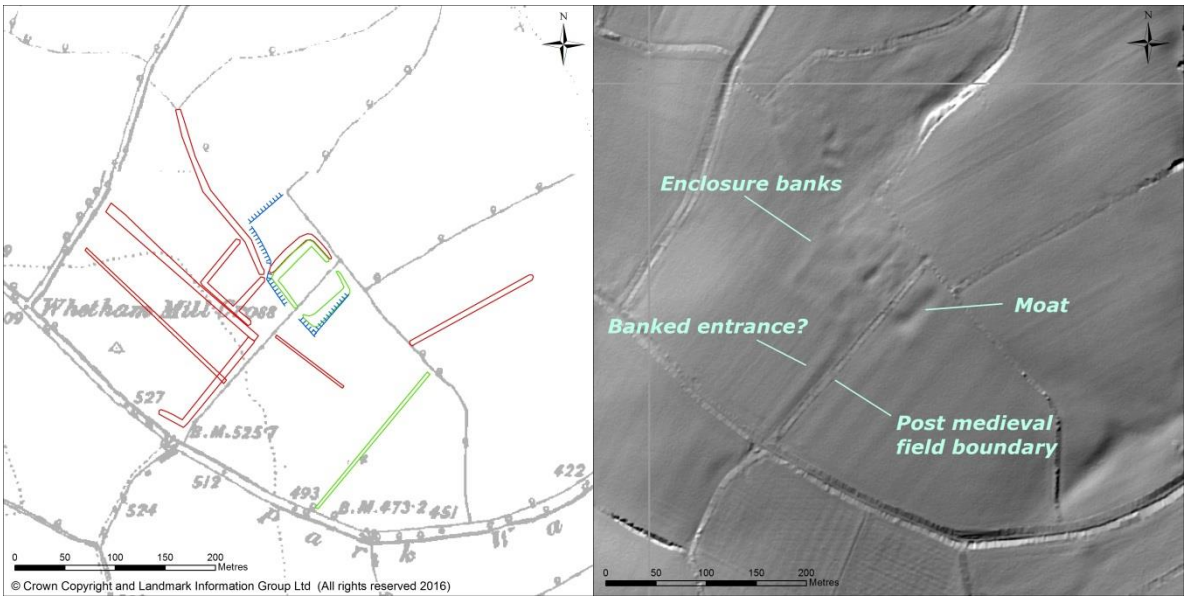


Figure 39. Homestead Moat and associated earthworks with later field boundaries, Burstock

MDO531. © Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.
**Using NMP symbology, features shown in red are banks and in green, ditches.*

Homestead Moat does not appear to reflect the same level of high status as the sites at Chideock and Marshwood but it nonetheless comprises one of a very small number of high status medieval moated sites in the Vale and is therefore of great significance. The manor of Burstock was a Domesday manor that was later associated with the Cistercian monks at nearby Forde Abbey. Homestead Moat could potentially be an example of a farmstead or lesser manor associated with the monks' estates, probably of 13th or 14th century date. Other known examples of lesser moated sites of potentially contemporary date in west Dorset include Corscombe Court (MDO954) to the northeast of Beaminster, in Blackmore Vale. Corscombe Court is a later farmstead with thirteenth

century origins, which lies a short distance outside the main village on heavy clay soils in an area of medieval woodland clearance (Taylor 1970, 107).

Case Studies: Lower Abbott's Wootton Farm and Shipton Gorge

Alongside the three moated sites detailed above, this project mapped ditched and banked earthworks associated with probable settlement remains thought likely to be associated with two further medieval manorial sites.

Lower Abbott's Wootton Farm, Whitchurch Cononicorum is the southernmost of two farmsteads on the heavy clay soils of the Marshwood Vale, which together made up the medieval manorial centre of Wotton Abbas, recorded as 'Wideton' in 1086 (NHRE UID 449735). Lower Wootton Abbots Farm is located on the site of the Elizabethan manor house, which was demolished in 1858. Banked earthworks and scarps (MDO38953) visible to the southeast of the farmhouse on aerial photographs taken in the 1940s are potentially associated with a former manor house on the site. Mapped features included a large oblong platform or terrace 58m by 22m and banked linears representing possible historic field boundaries (Figure 40). The platform or terrace is currently occupied by a modern 20th century dwelling.

Shipton Gorge is a small nucleated village located within the rolling greenstone and limestone ridges to the east of Bridport. Shipton Gorge was still a royal manor in 1086 when it was recorded as 'Sepetone'. The manor passed through the hands of the de Maureward and de Gorge families and thence to the Coplestone family, who took over the manor in 1461. Court House (MDO2442) was built by the Coplestone family (Shipton Gorge parish council 2010) to the southwest of the parish church, presumably replacing an earlier manor house in the vicinity.

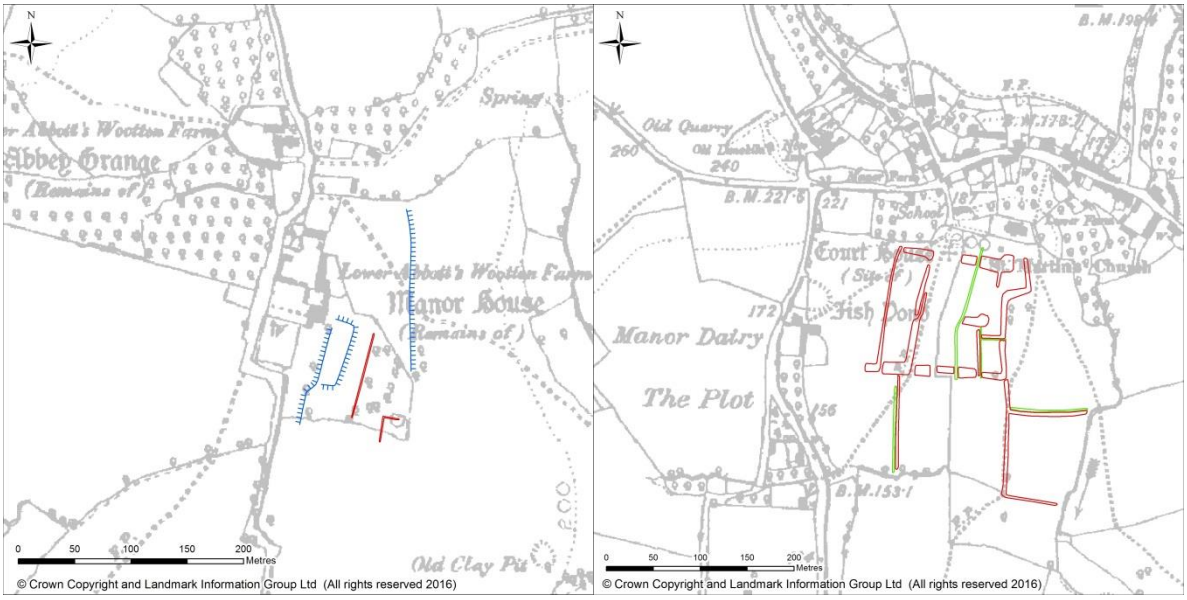


Figure 40. Earthworks associated with former medieval manor houses and/or settlements at Lower Abbott's Wootton Farm, Whitchurch Canonicorum (left, MDO38953), and Shipton Gorge (right, MDO2442)

**Using NMP symbology, features shown in red are banks and in green, ditches.*

Low upstanding earthworks in a field to the south of the site were recorded in 1955. The earthworks and possible building platforms were thought to be associated with the remains of a manor house (currently assumed to be Court House – but see Section 7.3.2) and, possibly, an adjacent area of shrunken medieval settlement (NHRE UID 450177). Banked and ditched earthworks are shown to the south of the former Court House on recent lidar imagery and these were mapped by this project. The low earthwork banks and ditches appear to form a series of narrow elongated enclosures and fields that may overlie older banked earthworks, potentially suggesting a long history of settlement in this area. The narrow sinuous morphology of the enclosures is suggestive of medieval strips or tenements, although the size of some of the underlying

boundary banks is more indicative of settlement earthworks, such as building platforms or enclosures (see Section 7.3.2). No obvious remains of building platforms or foundation earthworks associated with the manor house were mapped.

7.3.2 Medieval villages, hamlets and farmsteads

As discussed above, the medieval settlement character within the project area was predominantly one of larger nucleated or polyfocal villages on the higher greensand and limestone ridges and smaller scattered manors, hamlets and farmsteads on the lower lying clay soils of the Marshwood Vale. Much of the medieval village cores are contained within present-day village footprints and therefore few features associated with medieval settlement evolution were mapped by this project.

One possible exception to this was an area of shrunken medieval settlement to the southwest of the parish church in Shipton Gorge (Figures 40 and 41). Here, narrow north-to-south running linear banks and ditches appear to overlie more substantial banked earthworks, which are broadly square in character. The former are reminiscent of medieval tenements or burgage plots and if that is the case they may be the back ends of plots running off a former street to the south of the church. The boundaries align on both the wall of the churchyard and the road to the west, suggesting a possible 'planned' medieval settlement respecting the church, whose position indicates it was once more closely related to this area of potential settlement than the present-day village to the north.

Figure 41. Earthworks to the south of Shipton Gorge parish church may indicate an early medieval manorial site and shrunken settlement

MDO2442. Photograph: OS95640 V 54 25-JUL-1995. Ordnance Survey Photography ©Crown copyright. Ordnance Survey.

**Using NMP symbology, features shown in red are banks and in green, ditches.*

The potential tenements may form part of a 'croft and toft' arrangement, with a shorter house plot (croft) and a larger semi-arable or garden allotment plot (toft) beyond. As the main thoroughfare of the present day village is located to the north of the parish church, it could suggest a shift in settlement development to the north of the church at some point during the later medieval period, perhaps following the takeover of Shipton Gorge manor by the Coplestone family in 1461. If the construction of Court House replaced an earlier manor house then the more substantial underlying banks and earthworks may relate to this site and an area of associated settlement to the south of the church. Certainly, the earthworks mapped by this project appear to reflect a time-depth of activity and phases of settlement change. These would merit further investigation to fully understand the nature, relationship and chronology of settlement features in this area and how they relate to the development of the present-day village.

There is some evidence for deserted or shrunken settlements on the clay soils within the Marshwood Vale; predominantly that of farmsteads, manors and small hamlets. Earthworks representing enclosures, field boundaries and trackways of varying scales and morphologies are visible on aerial photographs and lidar imagery (Figure 42).

In the clearest examples for deserted settlements there is very good evidence for the layout and make-up of complete, or near complete, settlement complexes, with evidence for enclosures, possible building platforms, field boundaries and trackways (e.g. Merryfield, Marshwood (Figure 42, top left, MDO38919); South Buckham Farm, Beaminster (Figure 43, MDO38015); Kitty's Farm, Marshwood (Figure 44, MDO1641); Mangerton, Netherbury (Figure 45, MDO1773)).

Figure 42. Evidence for deserted or shrunken settlements in the Marshwood Vale demonstrates a variety of sizes, layouts and functions

**Using NMP symbology, features shown in red are banks and in green, ditches.*

Merryfield appears comparatively simple in form, comprising a single farmstead building set within two elliptical enclosures and with a trackway leading south to join the road. The site lies around 275m southwest of Marshwood manor house and the form of the field boundaries in the vicinity of Merryfield suggest it was probably surrounded by small irregular fields; possibly farmed in severalty as they are closely arranged around the farmstead. The manor house to the northeast may post-date the

farmstead as the woodland to the south of the manor house appears to overlie an earlier field pattern, but this could simply indicate later land re-organisation (Figure 42, top left). Merryfield is shown on the 1st Edition map, indicating a relatively late abandonment for this site.

South Buckham farm is shown as Lower Buckham Farm on the 1st Edition map. Both Lower and Higher Buckham Farms are situated within the conjectured extent of a medieval deer park (NHRE UID 193054) to the northwest of Beaminster and the 'Buck' place-name potentially indicates the sites of both farms may formerly have had some function related to this. Banked earthworks to the northeast of South Buckham Farm suggest an enclosure measuring around 36m by 57m, with a possible trackway adjacent to the west and further smaller enclosures abutting its west side (Figure 43). The complex is located around 100m east of the present South Buckham farmhouse, which is thought to be 16th century in date (NHRE UID 192963).

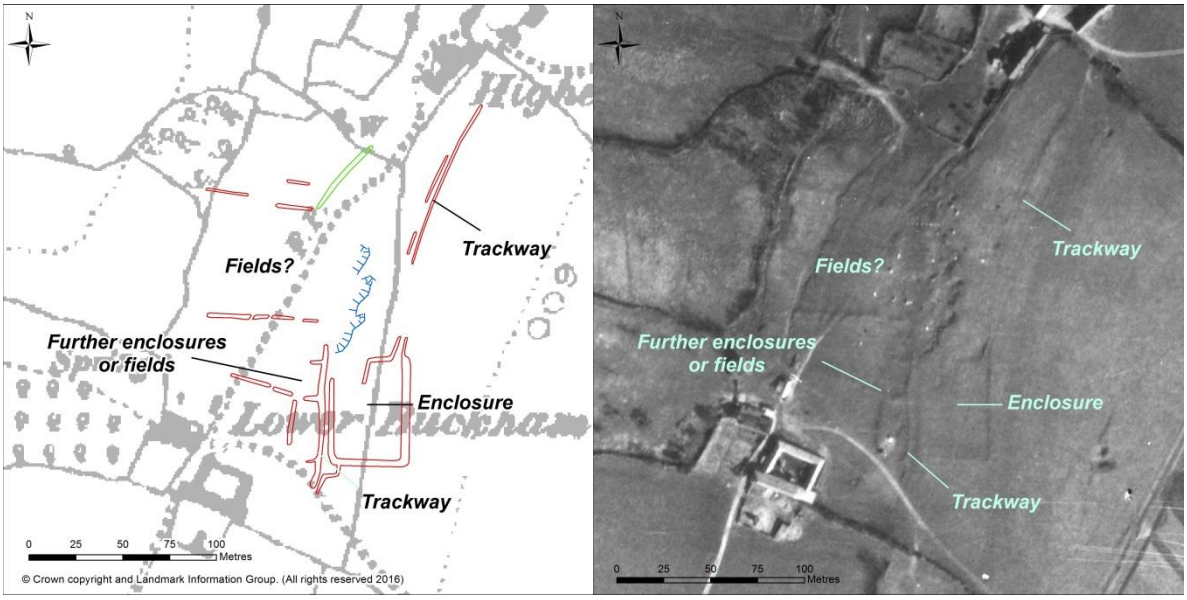


Figure 43. Enclosures and trackways at South Buckham Farm

MDO38015. Photograph: RAF/CPE/UK/1975 FP 1092 11-APR-1947. Historic England RAF Photography

**Using NMP symbology, features shown in red are banks and in green, ditches.*

The trackway running through the site accesses onto a footpath running south to the road. A further section of trackway runs north from the northeast corner of the enclosure past Higher Buckham Farm. The enclosures and trackways may be part of a once larger holding or settlement at Lower Buckham, or they may pre-date the farmstead altogether. Most of the earthworks are aligned on each other but differently to both neighbouring farms and the surrounding field boundaries, which are likely to originate from around the time the deer park was falling into disuse. This may support the notion that the enclosure and associated earthworks reflect a site contemporary with the deer park, perhaps a lodge or an enclosure (or enclosures) for penning deer – hence the 'buck' place-name.

The site of Kitty's Farm, to the north of Broad Orchard, Marshwood, is visible on aerial photographs and lidar imagery as a complex series of enclosures, trackways and field boundaries (Figure 44). The site of the farmstead is clearly identifiable, along with a series of fields or enclosures to the east. The farmstead is nested within small irregular fields that may have been farmed in severalty by the tenant or landowner as they form a 'halo' around the farm and are not clearly associated with any of the surrounding farmsteads shown on the OS 1st Edition map. There is no visible evidence for medieval strips within these fields, although narrow ridge and furrow in the fields to the southeast of Kitty's Farm is visible on aerial photographs of the 1940s. This may

represent post medieval steam ploughing, but a medieval date is also possible. The farmstead to the south of Kitty's Farm in Figure 44 is of 20th century date.

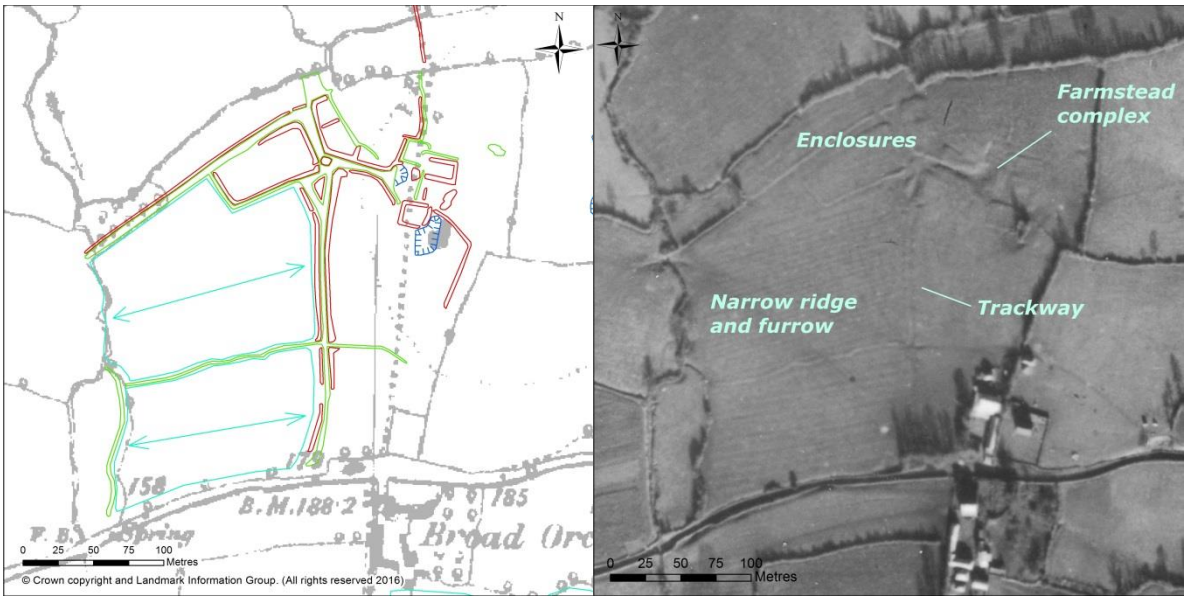
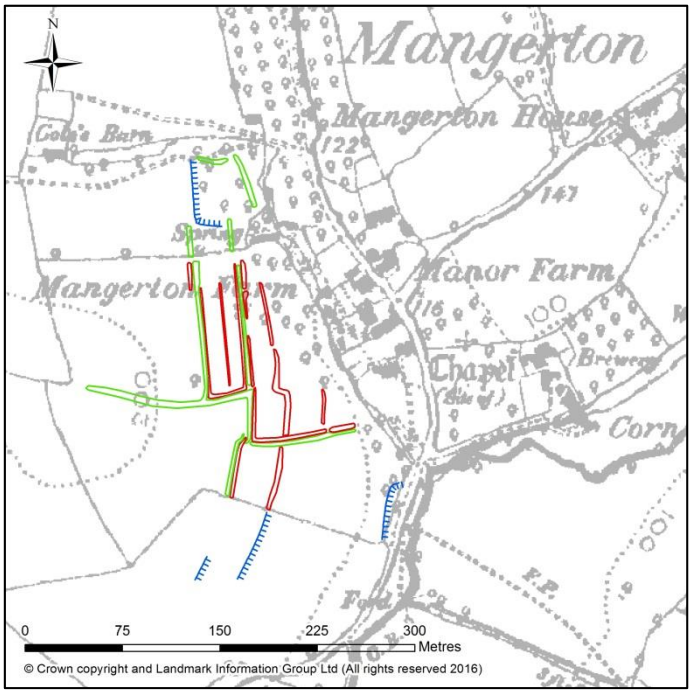


Figure 44. The earthworks of an abandoned farmstead at Kitty's Farm, Marshwood

MDO1641. Photograph: RAF/CPE/UK/2431 RS 4214 11-APR-1947. Historic England

**Using NMP symbology, features shown in red are banks and in green, ditches.*

At Mangerton, Netherbury, a series of scarps and ditched and banked earthworks (MDO1773) are visible to the west of the present-day settlement, which may represent an abandoned medieval farmstead and associated field system. The hamlet of Mangerton was once two manors, one of which was located to the southeast of the hamlet (NHRE UID 449988); a medieval chapel-of ease (MDO1769) associated with the manor is shown on the OS 1st Edition map (Figure 45). The site of the second manor is not documented.



The earthworks located to the west of Mangerton Farm suggest a possible building platform or enclosure with narrow slightly curving field boundaries to the south. The form of the field boundaries suggests a medieval origin, probably derived from medieval strips, possibly existing within an area of communally farmed open field. A ditched trackway appears to follow the southern line of these fields. The earthworks may be those of an abandoned farmstead, or possibly an early manorial site. As with Shipton Gorge, the evidence here indicates an area of shrinking or abandoned medieval settlement.

Figure 45. Earthworks to the west of Mangerton may be those of an abandoned medieval farmstead or manorial site

**Using NMP symbology, features shown in red are banks and in green, ditches*

The evidence revealed by aerial photographs and lidar imagery clearly demonstrates that the medieval to post medieval settlement landscape within the Marshwood Vale became one of small farms, hamlets and manors that in places were located quite close together. Surrounding these scattered settlements were small irregular fields and closes, probably farmed in severalty by individual tenant farmers.

Medieval manors and hamlets appear more commonly associated with areas of communally farmed open field, indicative of differing arrangements of land ownership and tenancy, but this is not always the case. Some manors or higher status farmsteads appear to be located within a 'halo' or small irregular fields, sometimes contained within large curvilinear enclosures. These may be indicative of medieval holdings carved out of the woodland through assarting by individual landowners; many of these enclosures appear to be associated with lesser manors or higher status holdings.

Figure 46. Examples of curvilinear enclosures within the Marshwood Vale, associated with lesser manors and farm holdings

The large curvilinear enclosures were not mapped by this project as many survive virtually complete in the present-day landscape, preserved by strong hedgerow lines, streams and lanes and often bordered by small coppices and remnant strips of woodland (Figure 46). Typically the farmstead or manor appears to be located at the edge of the enclosure, rather than in the centre. Some enclosures demonstrate partial

loss of form, possibly through subsequent reorganisation or expansion of holdings, or through post medieval boundary loss.

The mapping of settlements and enclosures by this project has enhanced the understanding of medieval settlement development within the project area, and particularly the contrast in settlement form on the higher greensand and limestone ridges compared to the heavier clays of the Vale. It has succeeded in showing something of the variety of form and function of medieval settlement and the patterns of enclosures associated with these. At a slightly lesser scale it has been able to map some evidence for shrunken and deserted settlements and the shift of some settlements, perhaps as functions changed or communities decreased or expanded in numbers.

7.3.3 Medieval deer parks

Within the study area there are twelve medieval deer parks recorded in the national and county historic environment databases, a number of which remain clearly visible on aerial photographs, despite some re-organisation and/or removal of historic field boundaries (Figure 47).

The evidence for former deer park boundaries largely survives fossilised in the pattern of historic lanes and extant field boundaries rather than as earthworks and cropmarks and no features clearly associated with medieval deer parks were mapped by the project. The relatively high number of deer parks recorded within the project area form a significant part of the medieval landscape context, however. They would have helped define patterns of high status land ownership and land division established during this period as well as dictating the availability of certain types of resource and the management of these.

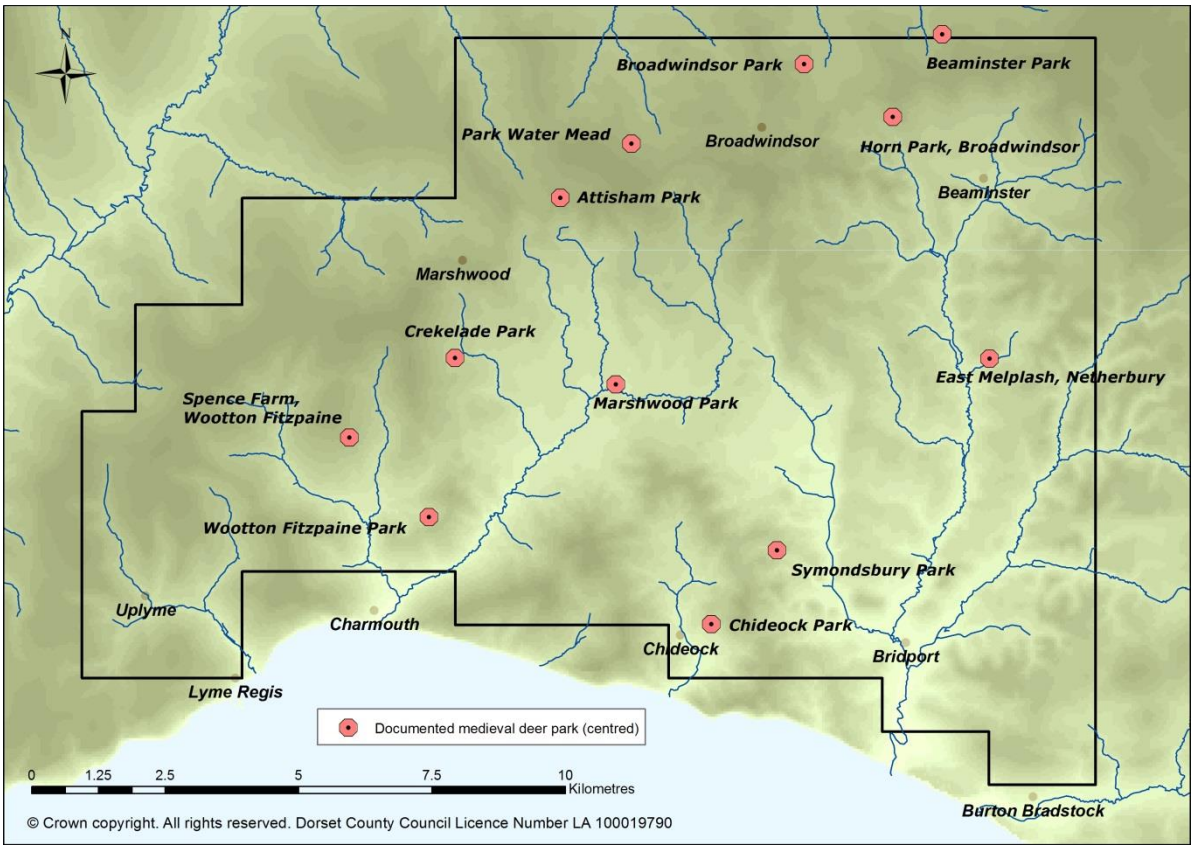


Figure 47. Medieval deer parks documented in the study area

The earliest records naming the deer parks documented in the project area typically date between the late 13th and late 15th centuries. The park tradition was introduced by the Normans and about 35 deer parks across the country are recorded in the Domesday Book (Rackham 1980, 88). The number of parks had escalated by the 12th

century; possibly due in part to the introduction of fallow deer, which were easier to confine than native species (Rackham 1986, 123). The distribution of medieval deer parks in England is closely linked to that of woodland, although most parks combined tree cover with open spaces for hunting and grazing.

Owning a deer park was a status symbol in the medieval period and they were typically associated with the upper echelons of society, such as royalty and aristocracy as well as lesser wealthy institutions such as monasteries and minor gentry (Rackham 1986, 123). Planning permission was required to establish a new park so deer parks are relatively well documented. The defining feature of a medieval deer park was the park pale, which usually consisted of substantial banks with inner ditches, often topped by timber paling or walling. Internal features might variously comprise inner compartments, managed coppices and wood banks, park lodges, rabbit warrens, fishponds and tracts of open grazing land.

The shape of deer parks was commonly oval or roughly circular and they may be found sited at the edge of manorial holdings, away from the prime arable land (Muir 2000, 19); this is demonstrated by the featured examples from the Marshwood Vale in Figures 48 to 51 in this report. The medieval deer park declined in popularity from around the 16th to 17th centuries when some saw a new lease of life as ornamental parks, part of the culture of designed landscapes that rose in popularity from around this time (Rackham 1986, 127-8).

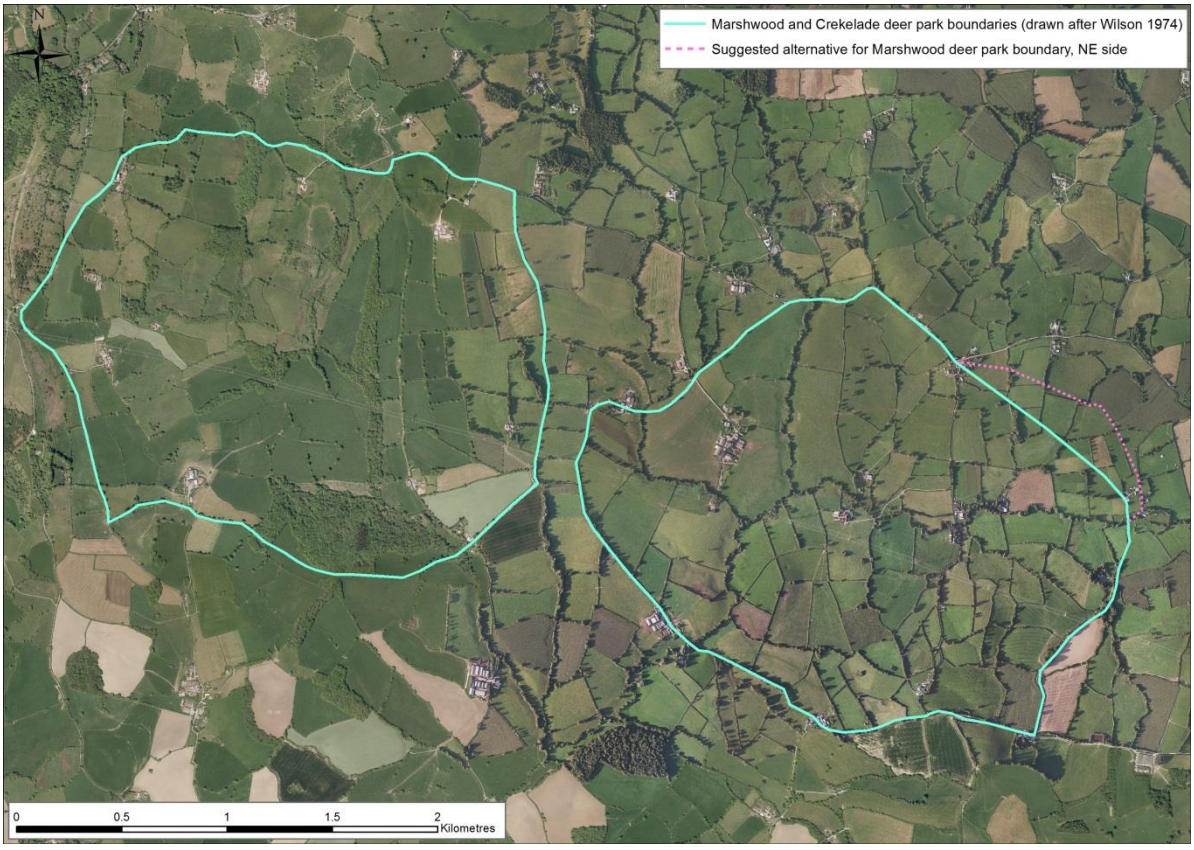


Figure 48. Marshwood and Crekelade deer parks (MDO1638; MDO1639) are still visible on aerial photographs, although post medieval re-organisation of historic field boundaries has obscured some section of the park boundary

Photograph mosaic: DCC VAP 2009

The identification of medieval deer parks in the present-day landscape relies on the survival of extant boundary features, such as long gently curving enclosure banks and ditches, the patterning of historic field lanes and parish boundaries that respect former deer park boundaries, and natural features such as streams. Place-name evidence can also indicate the existence of possible parks – the use of 'Park', 'Hatch', 'Lodge' and 'Hay' place-names, for example, are all associated with medieval deer parks (Muir

2000, 21), as are names associated with dogs or kennels, warrens ('coney') and hunting towers ('trist', 'stand'), for example.

Many of the medieval deer parks documented in the study area (e.g. Wootton Fitzpaine (MDO3440); Marshwood (MDO1638); Crekelade (MDO1639); Symondsbury (MDO2663); Chideock (MDO900)) can be traced, at least partially, on the basis of surviving landscape features and place-names: Higher and Lower Park Farms associated with Broadwindsor Park (MDO537); Park Coppice and Park Cowleaze associated with Beaminster Park (NHRE UID 193054); Home Park, North Park and Park Farm at Chideock Castle, for example. The 'Hay' place-name that abounds in the Marshwood Vale may also be indicative of deer park enclosure in some instances.

The deer parks of Dorset were studied by Cantor and Wilson in the 1960s and 70s and descriptions and conjectural plan drawings of the majority of parks within the study area (e.g. Broadwindsor, Wootton Fitzpaine, Spence Farm, Chideock, Marshwood and Crekelade) were produced in contemporary issues of the Dorset Proceedings (e.g. Cantor and Wilson 1969; Wilson 1974). These early studies would bear some revisiting to clarify some of the suggested boundaries as a rapid assessment of historic boundaries shown on the OS 1st Edition map indicate potential alternatives for some of the boundaries suggested in the relevant Dorset Proceedings.

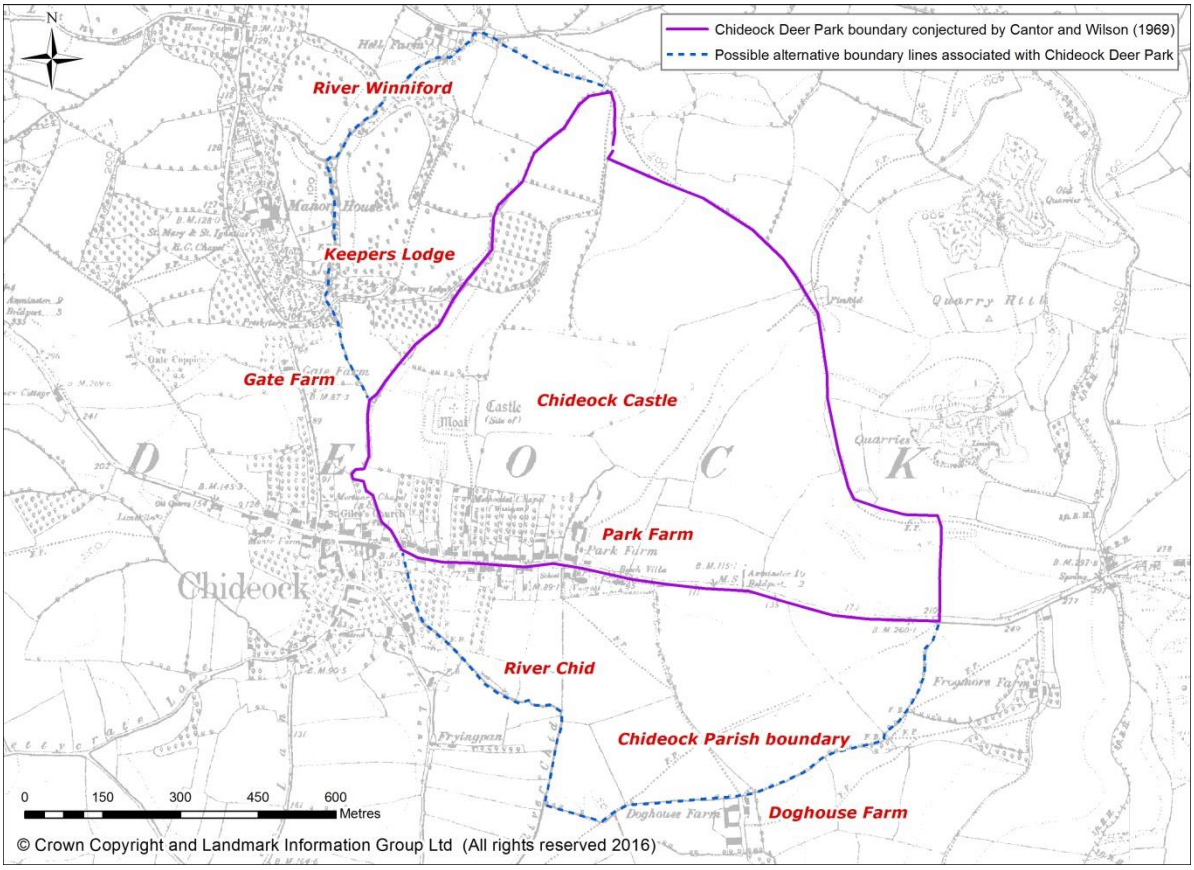


Figure 49. Suggested alternative boundary extent for the medieval deer park (MDO900) at Chideock Castle

The conjectured park boundary at Chideock Castle, for example, suggests the stream to the west of Chideock Castle formed the western boundary and the road through Chideock Village formed the southern boundary (Cantor and Wilson 1969). These conjectured boundaries do coincide with place-name evidence and the documented size of the deer park (*ibid*, 197). There are, however, some large curving boundary lines to the south of the main road, which incorporate the Chideock parish boundary and the River Chid, and to the west, which incorporate the River Winniford. There are also place-names adjacent to these boundaries, such as Doghouse Farm, Gate Farm and

Keeper's Cottage, for example, which may be associated with the deer park, although it is not certain that they were located within its extent (Figure 49).

A possible deer park at Park Water Lane (NHRE UID 193111) is documented on the basis of place-name evidence; the name Park Water Lane and fields to the south called Little and Great Park Mead. The certain presence of a deer park at this location is not known, nor its potential extent, but two curved sections of historic field boundaries shown on the OS 1st Edition map may be associated with a possible deer park enclosure (Figure 50).

These two sections of historic field boundary are located to the east and west of Burstock Manor, which lies broadly central between them. Given the number of deer parks documented for principal medieval manors within the study area it is highly plausible that a potential deer park at this location was associated with this manor. The westernmost of the two possible sections of deer park boundary potentially abuts, or forms part of, the large banked boundary mapped to the southwest of Homestead Moat (MDO531) (see above, Section 7.3.1). As it seems unlikely the moated site would have been positioned on the park boundary whilst the deer park was in use, this may indicate that Homestead Moat post-dates the deer park and that the banked boundary potentially represents a section of the former park pale that was re-used as part of the wider enclosure associated with this site.

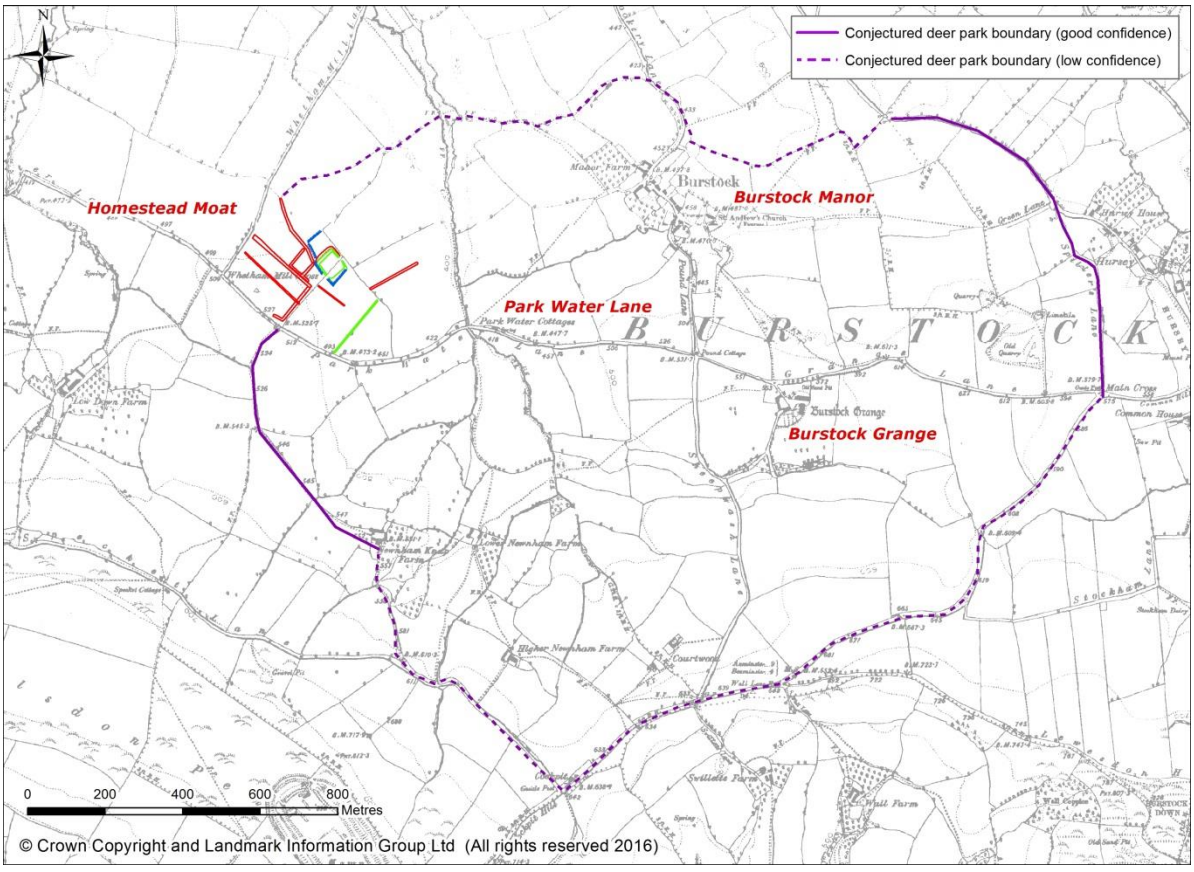


Figure 50. The conjectured outline of Park Water Mead Deer Park (NHRE UID 193111)

**Using NMP symbology, features shown in red are banks and in green, ditches*

The medieval deer parks within the project area appear to have been predominantly laid out in a non-arable landscape, with the pattern of fields and settlements that developed over the course of the medieval period very much respecting the former deer park boundaries. There is little, if any, evidence for the carving up of a pre-existing farming or settlement landscape, suggesting that the land division associated with the formation of these deer parks took place in the wooded landscape of the Marshwood Vale and its margins, prior to, or at the very least coinciding with, any pronounced clearance and settlement of this area. As mentioned above (Section 7.3.1)

woodland clearance and settlement of this area was probably still relatively limited by the 11th century.

Current aerial photographs show irregular fields within Crekelade Deer Park, which are interspersed by the characteristic strips of woodland left over by assarting; the OS 1st Edition mapping shows that most of these have coppice names, suggestive of woodland management (Figure 51). The coppice names are closely related to farm names within the deer park, which may indicate the apportionment of woodland resources to holdings established within the deer park area after it fell into disuse; some of the farms shown on the OS 1st Edition map have since been lost. Several of the farm names contain 'park' and 'hay' place-name elements, also indicating woodland clearance and enclosure associated with the former deer park. The east side of the former deer park has a contrasting pattern of enclosure, far more regular in form and potentially an area of later post medieval enclosure, perhaps of former open grassland.

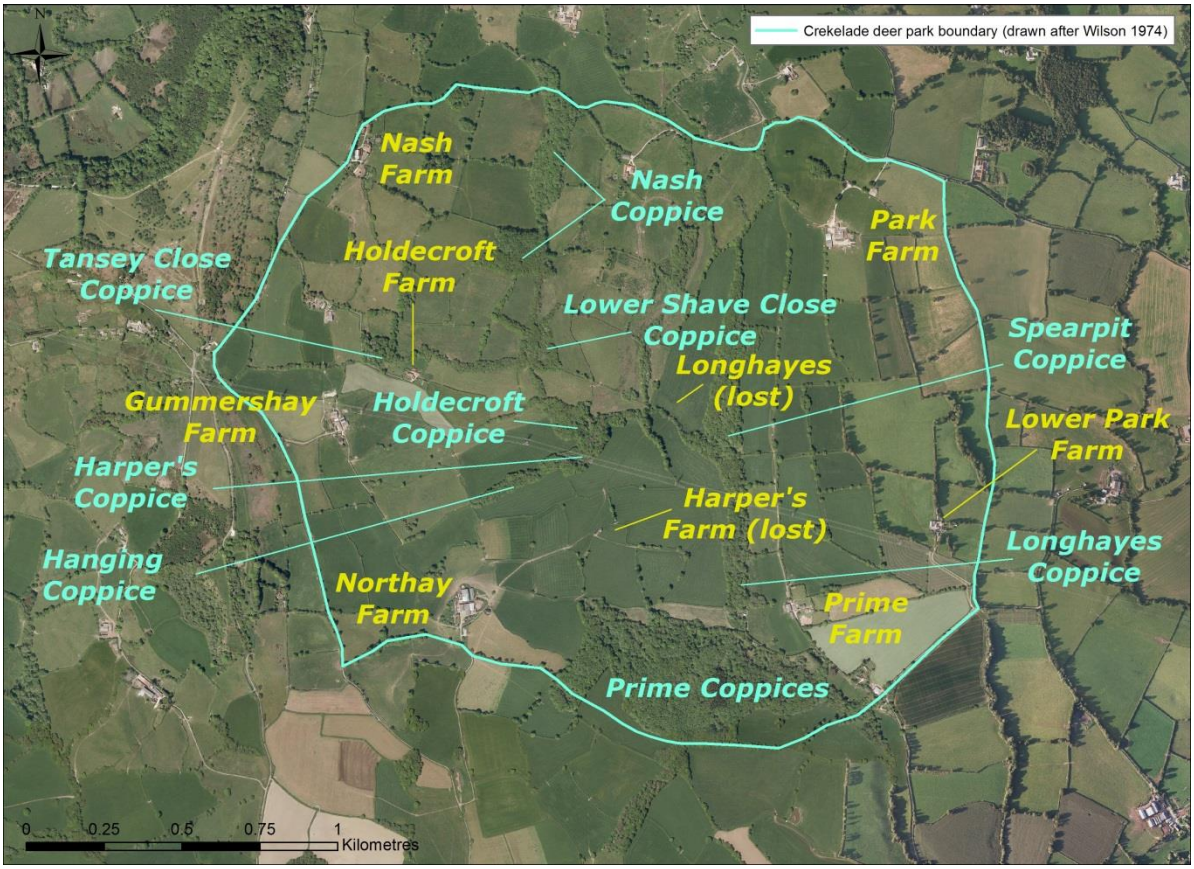


Figure 51. Coppices and associated medieval farmsteads within the outline of the former Crekelade Deer Park (MDO1639)

Photograph mosaic: DCC VAP 2009

At Broadwindsor an area of probable medieval open field is indicated on the OS 1st Edition mapping, which appears to directly conform to the eastern boundary of the possible deer park at Park Water Lane. The OS 1st Edition map also shows an area of late or post medieval enclosure on the southeast side and adjacent to the possible deer park boundary, very narrow and regular in form and of contrasting character to the field pattern on the northwest side of the boundary. This is considered to represent late post medieval, possibly early 19th century, enclosure of Hursey Common to the west of Broadwindsor (Figure 52).

Major sections of the former deer park boundaries within the project area are fossilised by the pattern of historic lanes and routeways running through it. Only with post medieval boundary removal and re-organisation does some of the definition of the former deer parks appear to have become lost. The reason that no clearly identifiable elements of deer park boundaries were mapped by this project is that the park extents

are largely fossilised by current landscape features. The landscape context of the medieval deer parks within the project area, and their relationship to the patterns of land organisation, settlement and agriculture is therefore highly significant and would merit further study and analysis.

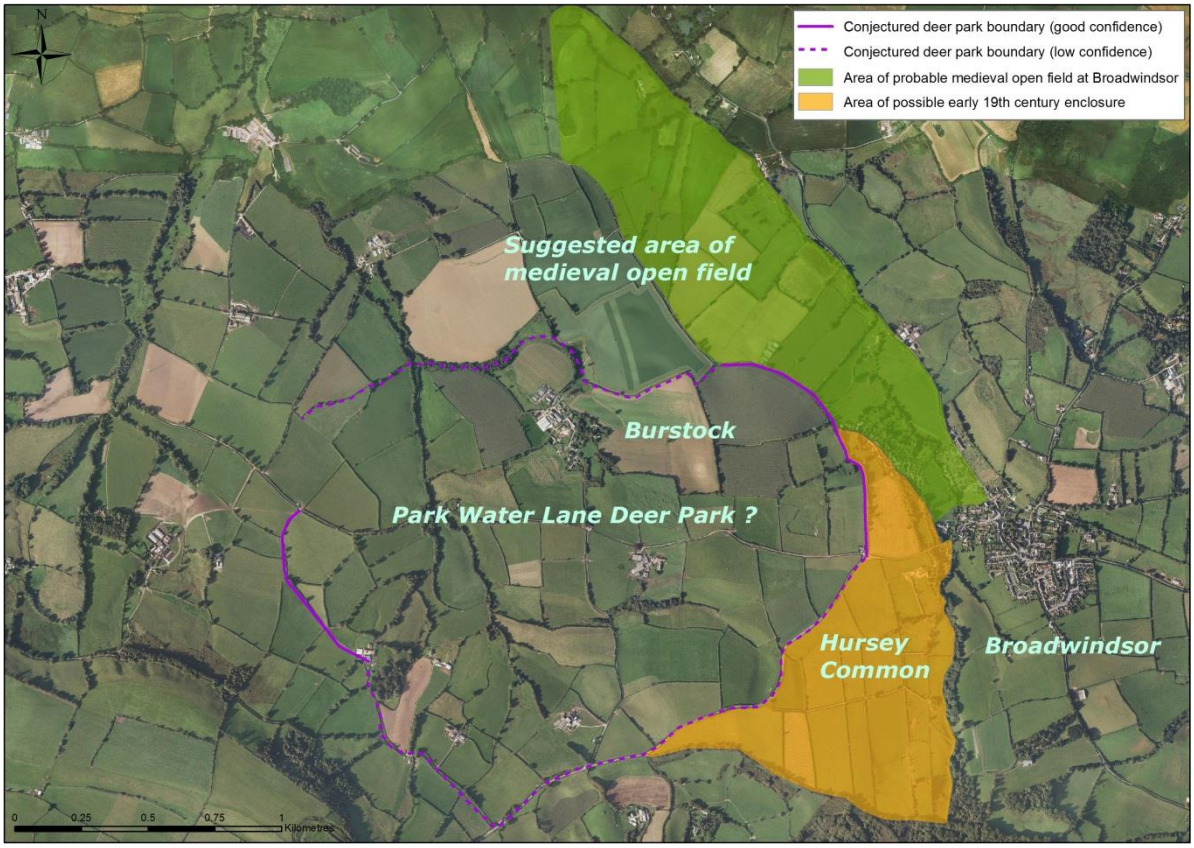


Figure 52. Suggested medieval open field and post medieval enclosure respecting the possible Park Water Lane deer park (NHRE UID 193111) west of Broadwindsor

Photograph mosaic: DCC VAP 2009

7.4 Post-Roman agricultural exploitation of the Vale

Numerous enclosure boundaries of probable medieval origin are preserved within present-day hedge lines; the result of post medieval enclosure fossilising the major boundary divisions. There has been much historic boundary loss since the late 19th century (see Section 7.7) but the OS 1st Edition map and earlier parish Tithe mapping (where available) are invaluable sources for attempting to recreate medieval and post medieval landscape character and aerial photographs of the 1940s considerably enhance our understanding of earlier field patterns, revealing earthwork remains that may no longer be visible today.

The earthworks of medieval field systems, strip fields, strip lynchets and individual field boundaries within the study area have been mapped by this project and these clearly demonstrate the concentration of strip lynchets and relict strip fields along the slopes of the higher ground to the north and east of the Vale. This contrasts with the lower lying clays of the Vale where the evidence is largely limited to removed historic or post medieval field boundaries and a small number of relict historic field systems as well as some patches of probable medieval ridge and furrow (Figure 53).

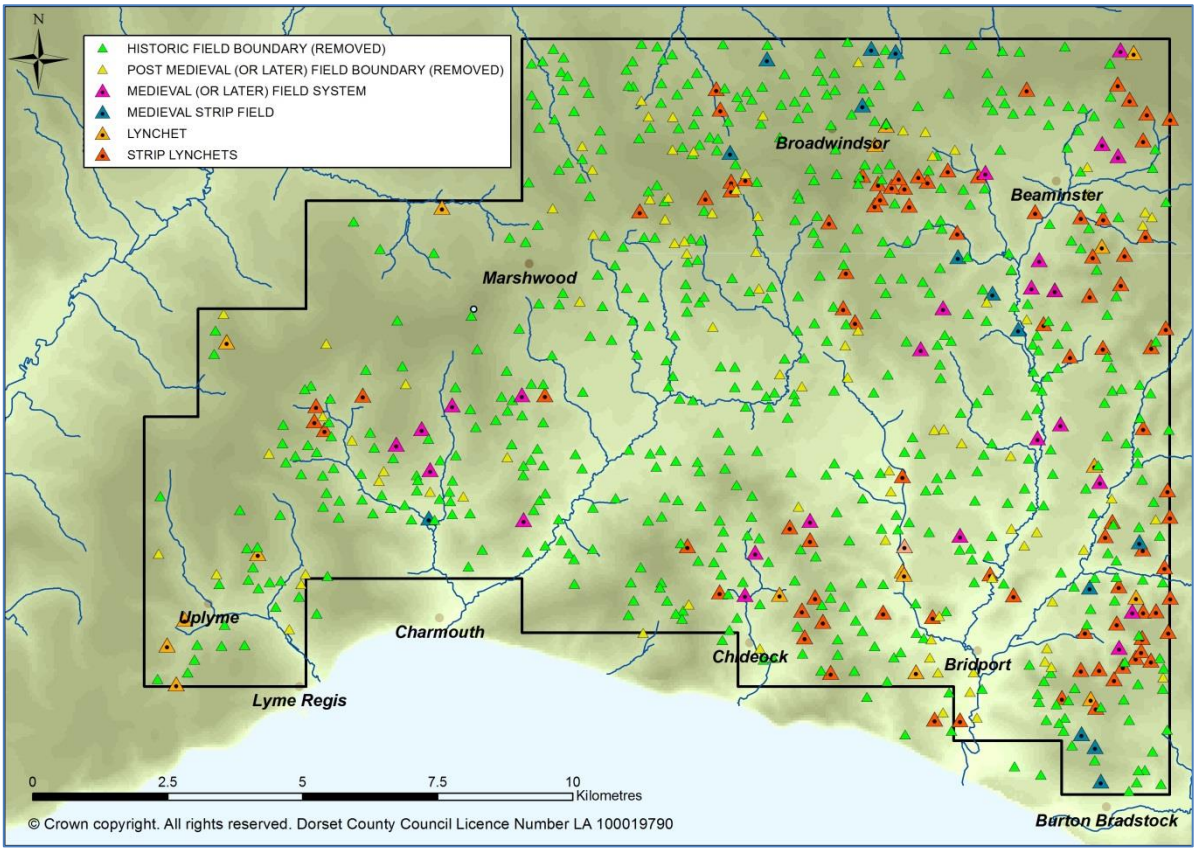


Figure 53. Medieval or later field boundaries, field systems, strip fields and strip lynchets mapped by the project

The contrast in medieval settlement and landscape character between the lower lying clays of the Vale and the higher greensand and limestone ridges surrounding it has long been apparent. Within the Vale piecemeal enclosure and progressive woodland clearance from at least the 11th century produced small irregular fields, characteristically bounded by thickset hedges on top of large banks and closely grouped around individual hamlets, manors and farmsteads (Taylor 1970, 95-6). An 18th century account by Marshall (1796, 136) observes that '*whatever may have been the circumstances which led to the inclosure of the Vallies under notice, they were made from the un-reclaimed forest state; without the intervention of common fields or stinted pastures; judging I mean from their present appearances… which have been,*

undoubtedly, inclosed from a state of reclaimed woodland. The hedgerows are crooked, and furnished with timber, and the banks raised'.

Some smaller manors, and many of the more isolated farmsteads, may have farmed much or all of their land in severalty (farmed by an individual landowner or tenant farmer). The majority of manors and hamlets would typically have operated small open fields worked on a co-operative basis.

The open fields associated with manors and hamlets probably looked little different to those farmed independently but they would have been divided between tenant farmers in a similar way to that of the common field associated with the larger medieval hamlets and villages within the project area; evidence for possible medieval strip field division within open fields was mapped in proximity to Chideock and Pilsdon manors, for example (Figure 54). As these open fields would have been farmed by only a small number of tenants they would have been receptive to early enclosure by agreement, which would have created the patchwork of small fields that still broadly survive in this area (although see Section 7.7 on boundary loss).

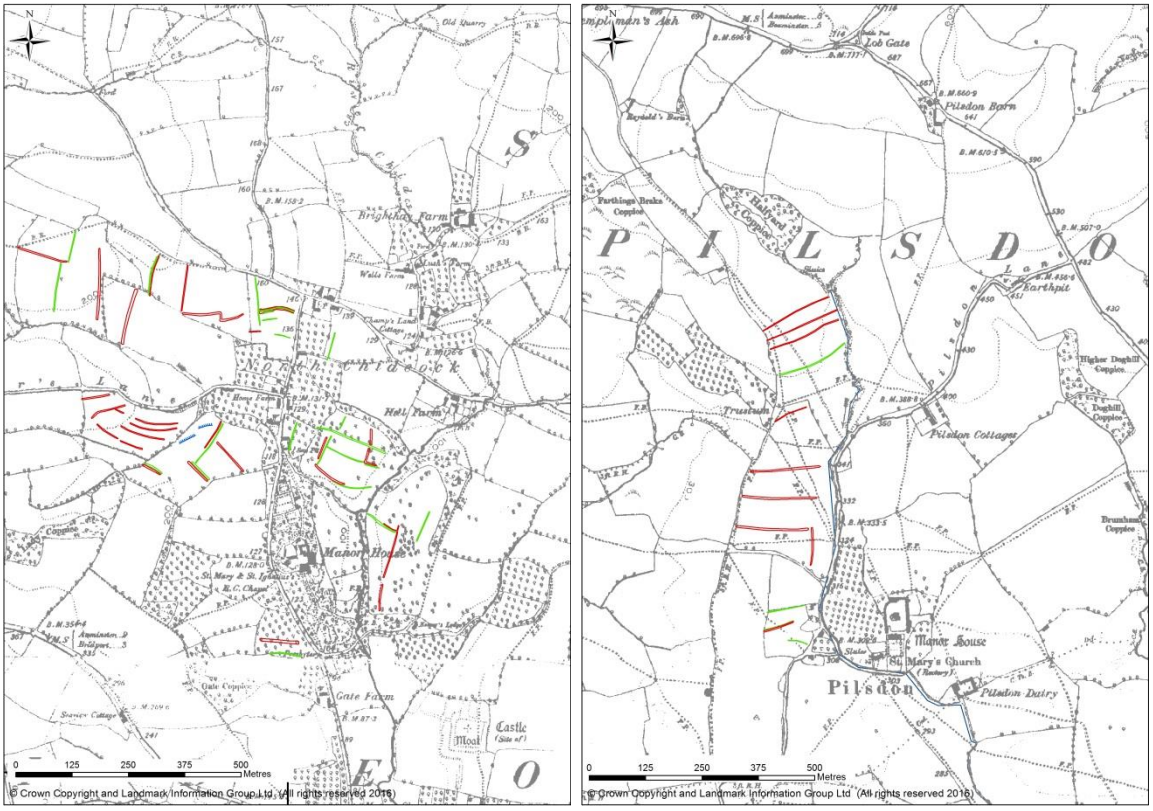


Figure 54. Historic field boundaries and medieval strips mapped by the project within former open or common field associated with Chideock and Pilsdon manors

**Using NMP symbology, features shown in red are banks and in green, ditches*

The terms 'open' and 'common' are both often confusingly used to describe co-operatively farmed fields during the medieval period but 'common' is usually reserved for the types of open field associated with the large two to three field systems of central England (Gray's (1915) Midlands System) (Campbell 1981; Rippon 2008, 2-6). It is now generally agreed that open fields first appeared as a landscape feature during the 7th and 8th centuries and that by the 14th century they were widespread throughout England (Bailey 2010, 154). Open fields are usually farmed under some degree of common right but this is not always the case (Bailey 2010, 156).

The open field in this part of Dorset was not on the scale of the larger Midland common fields but there is a distinction in scale and character between the smaller irregular open fields associated with medieval manors and farmsteads and the larger commonly farmed open fields associated with hamlet and villages. These larger 'common' fields typically extend from settlement margins as elliptical, elongated or bulbous lobes; as

demonstrated at Broadwindsor (see Figure 52) Stoke Abbott and Wootton Fitzpaine (Figure 55). The open field associated with Pilsdon Manor (Figure 54) may also have been closer in scale to these larger examples. The narrow rows of curving S-shaped banked and ditched earthworks mapped within all of these examples demonstrates the probable existence of strip division within areas of former medieval open field.

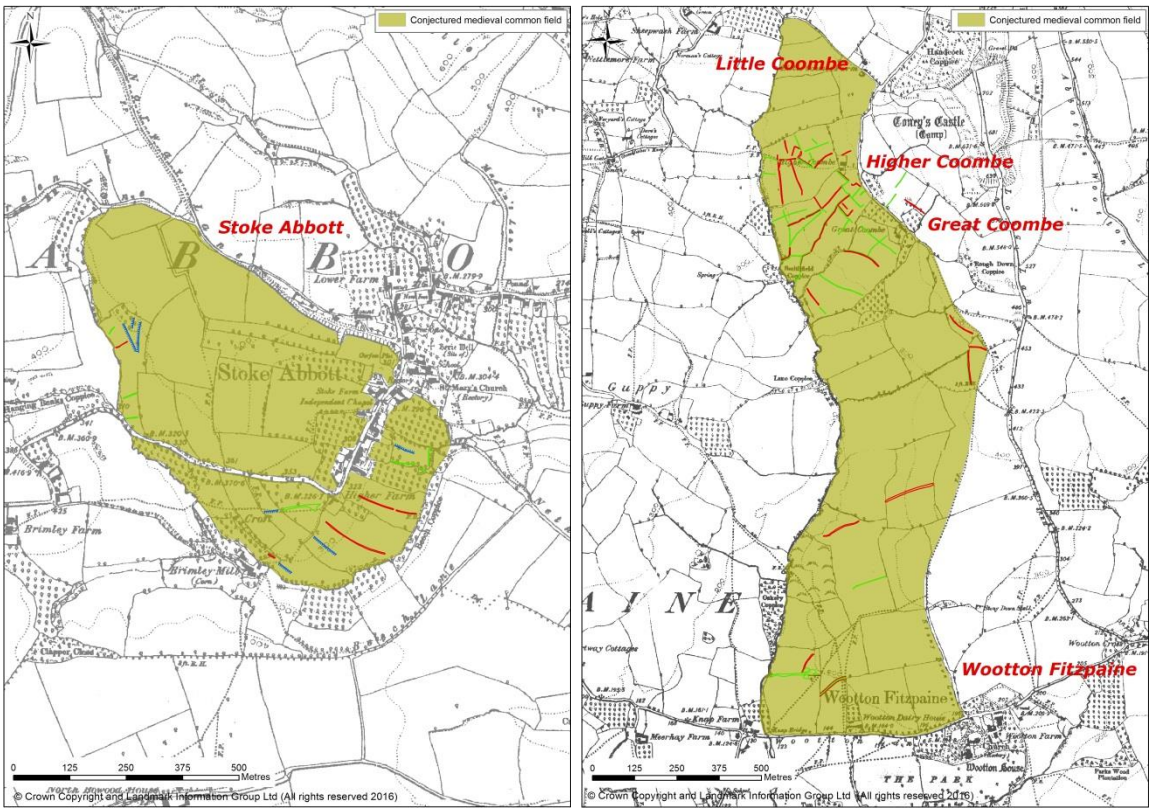


Figure 55. Conjectured medieval common field at Stoke Abbott and Wootton Fitzpaine

**Using NMP symbology, features shown in red are banks and in green, ditches*

As the need for more arable land increased the village 'common' fields were expanded to take in areas of less suitable land; this probably occurred somewhere around the 13th to 14th centuries, although dating is not certain (Taylor 1970, 99). On the higher ridges surrounding the Vale the result was series upon series of narrow strip lynchets hugging the steep slopes; many of these, such as those at Walditch, to the east of Bridport, have been mapped by the project and their narrow scarps and banks remain a distinctive feature of the present-day West Dorset landscape (Figure 56).

Strip fields may also have been established on higher marginal ground at this time. Aerial photographs of the 1940s show a group of former medieval strips (MDO37464) at The Groves, Eldon Hill, Burton Bradstock, for example. These were not mapped by the project as they were still extant in 1948, although they now only survive as faint earthworks (Figure 57). These former strips, fossilised by later post medieval enclosure, probably represent the expansion and subsequent contraction of arable cultivation on the higher ground surrounding the Vale. They also probably owe their long survival to their abandonment and the lack of re-use of this area as arable land.

As woodland clearance in the Vale progressed into the 13th and 14th centuries there was an increase in isolated farmsteads that may have been farmed from the outset by individual landowners or tenant farmers. This is potentially demonstrated by a group of farmsteads within and adjacent to the northern edge of Crekelade Park, Marshwood, which are first documented between the 12th and 14th centuries (although this does not necessarily confirm their date of origin, which may be earlier) (Taylor 1970, 99-100). The predominance of 'Hay' place-name suggests holdings created from woodland clearance and assarting and the OS 1st Edition map reveals evidence of large curving boundary lines that may represent relict medieval enclosure boundaries formed as a

result of those processes. The individual farmsteads also appear to be located within broad 'halos' of small irregular fields, although subsequent boundary changes may have altered their medieval form (Figure 58).

Figure 56. Medieval strip lynchets at Walditch, east of Bridport

MDO349. Photo mosaic DCC VAP 2009

**Using NMP symbology, features shown in red are banks and in green, ditches*

In some cases the holdings in Marshwood Vale created through ongoing woodland clearance may have been established on or towards the edges of former medieval open field (see Taylor 1970, 95). At Wootton Fitzpaine, for example, the elongated lobe of open field conjectured above appears to extend north to incorporate the farmsteads of Great, Higher and Little Coombe (Figure 59). A complex field system (MDO38779) associated with these farmsteads and thought to be at least partly medieval in origin was mapped by the project.

The field system comprised a number of small enclosures and historic field boundaries which appear to be located within a halo of larger enclosures surrounding Great and Higher Coombe, shown on the OS 1st Edition map. These larger enclosures may suggest these farms were established under single tenancy and farmed independently. The field system (MDO38779) may incorporate both medieval and post medieval enclosure boundaries but some of the curving boundaries that were mapped may derive from medieval strip fields, potentially indicating some degree of co-operative farming was taking place here during the medieval period.

As it is likely that these farmsteads were later medieval or early post medieval in date they may have been established as individually tenanted holdings once the open field began to be enclosed; a process which probably began from around the 15th century onwards (Taylor 1970, 120). The mapped field system could therefore represent several phases of medieval re-organisation and boundary change.

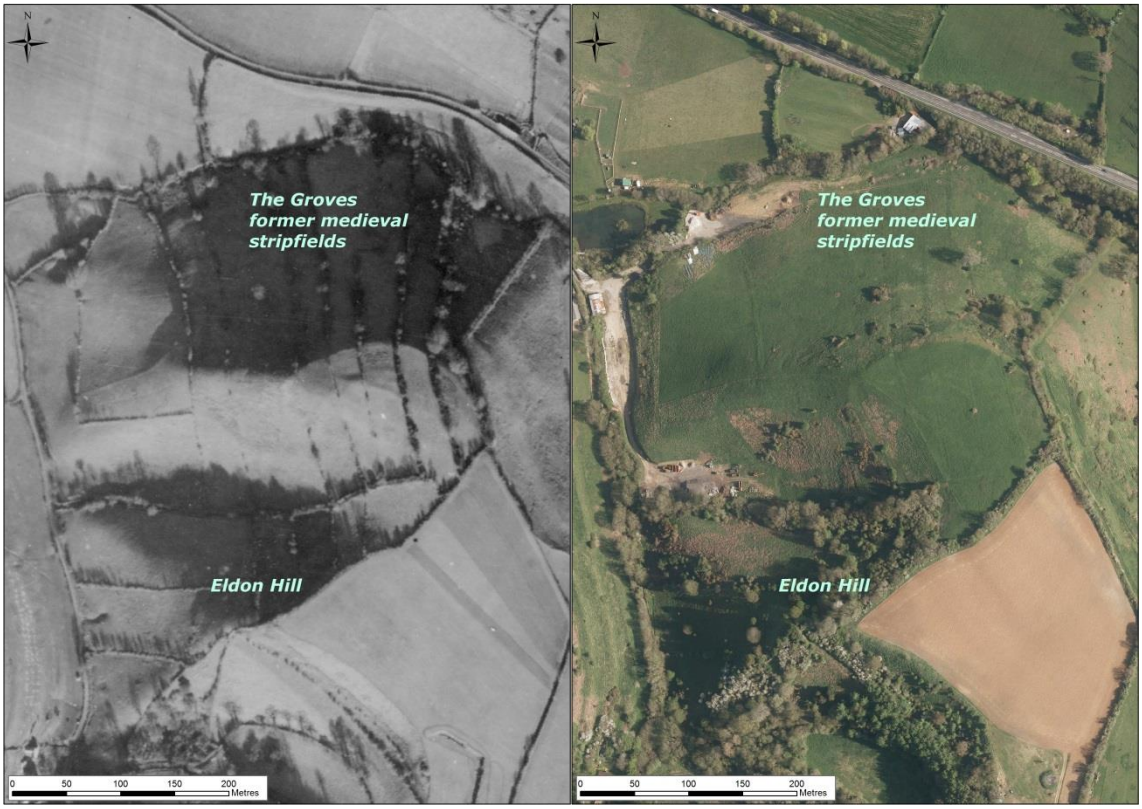


Figure 57. Former medieval stripfields at The Groves, Eldon Hill, Burton Bradstock were still extant in 1948 but now survive only as low earthworks

MDO37464. *Photographs: RAF/CPE/UK 2431 RP 3161 01-JAN-1948. Historic England RAF Photography; Photograph mosaic: DCC VAP 2009*

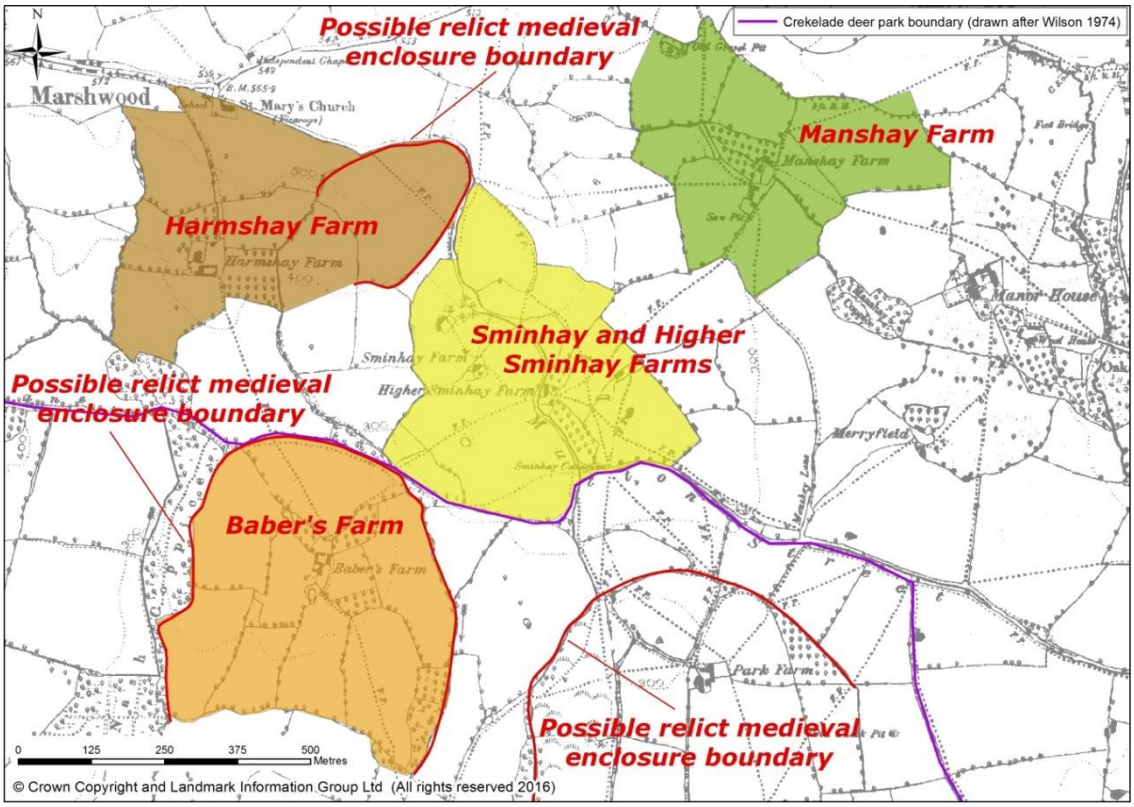


Figure 58. A group of farmsteads within and adjacent to Crekelade Deer Park, Marshwood, suggest small medieval holdings created through assarting. The shading of enclosures is illustrative and not intended to suggest exact medieval holdings

If the curving boundaries do not represent strips within former medieval open field these may alternatively be evidence for co-operative farming within otherwise individual holdings, as discussed above (page 59). This may have been a particular feature of small groups of medieval farmsteads, or where additional farmsteads were established close to the original, perhaps through partible inheritance (the splitting of holdings through family inheritance). The names Great, Higher and Little Coombe may indicate a medieval settlement that formed or split in this way. Whatever the case, the evidence indicates greater complexities of land organisation and land management during the medieval period, made potentially more complicated by a relatively 'weak' manorial system (characterised by fragmented, multiple or lower status lordship; see Bailey 2010; Campbell 1986, for example) in this area of Dorset and the progressive changes in land allocation made possible by ongoing woodland clearance.

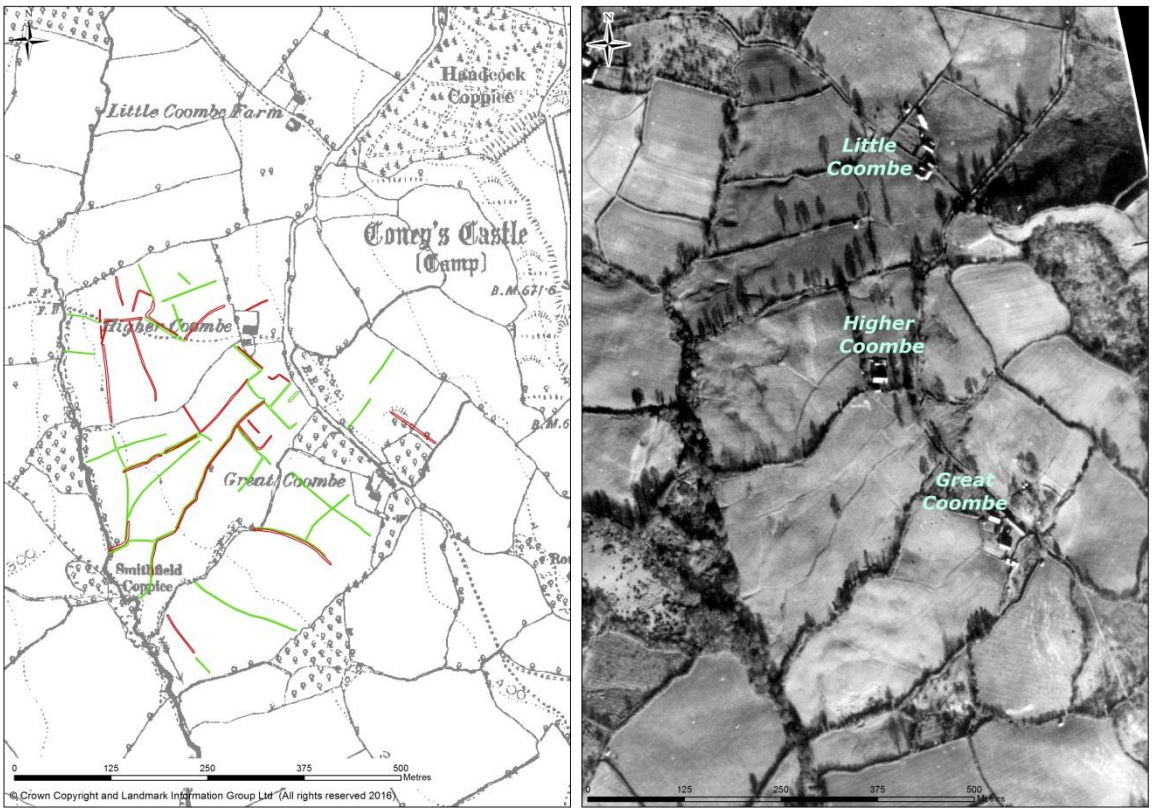


Figure 59. Earthworks associated with a probable medieval field system at Great and Higher Coombe Farms, Whitchurch Canonicorum

MDO33779. *Photograph: RAF/CPE/UK 2431 RS 4207-8 22-JAN-1948. Historic England RAF Photography*

**Using NMP symbology, features shown in red are banks and in green, ditches*

The deparking of medieval deer parks took place from around the 15th century onwards and this period also saw the continuation of piecemeal enclosure through assarting and the beginnings of enclosure of the village open 'common' fields, although this was mainly for pasture (Taylor 1970, 127-130). This process of piecemeal enclosure of the wooded claylands continued into the 16th and 17th centuries. An increasing number of tenant farmers by this time occupied individual holdings but many still had at least half their land within the remaining common arable fields (*ibid*, 130). The distinctive S-shaped character of the fields that resulted from the post medieval enclosure of former medieval strips is what helps landscape archaeologists and historians distinguish medieval arable land from the later planned enclosure of the 18th and 19th centuries, which was generally more large-scale and rectilinear in form.

The large-scale Parliamentary Enclosure Acts of the 18th century had a relatively minor effect on Dorset (Taylor 1970, 150). What open field there was had largely seen private and piecemeal enclosure already but some 18th and 19th century reorganisation and

new enclosure did occur. This was largely through ongoing woodland clearance or by enclosing previously unenclosed common pasture. The field pattern created through these means generally became more regular and geometric in form, with field boundaries characterised by quickset hedges on low field banks (*ibid*, 153).

In some cases the early 19th century enclosure of former common land resulted in very long narrow rectilinear plots, reminiscent of the former medieval strips. Examples of these types of enclosure survive within an area of former deer park (MDO537) to the east of Broadwindsor (Figure 61 (right)) and on an area of former common (Hursey Common) to the southwest of Broadwindsor (see Figure 52). In both cases these are likely to have been the result of early 19th century enclosure of former common pasture. Taylor (1970, 156) records a similar example from Marnhull parish in the Blackmoor Vale to the east of the project area.

Where post medieval enclosure is identifiable within the project area this is often relatively small in scale and interspersed between areas of older irregular fields (Figure 60), demonstrating the generally piecemeal character of medieval and post medieval enclosure in this area.

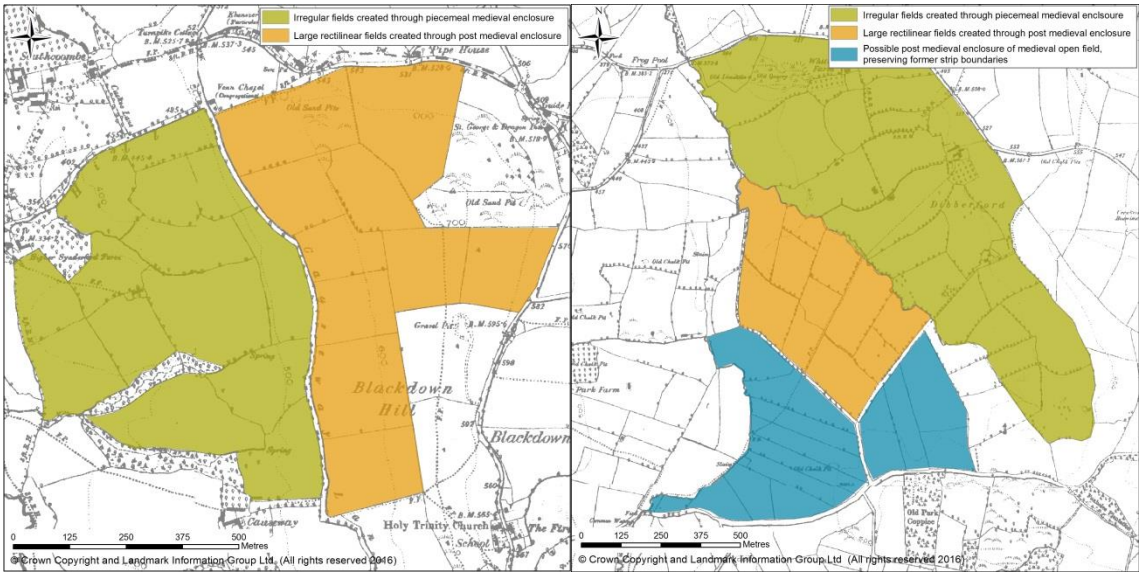


Figure 60. Examples of probable medieval and post medieval enclosure in the vicinity of Blackdown Hill and Dibberford, Broadwindsor

7.4.1 Medieval and post medieval agriculture

The mixed farming regime within the project area during the medieval period was probably worked on a convertible, or ley, basis, rotating fields between cropping and fallow periods to maintain productivity (Bailey 2010, 158-9). Rural landscapes such as that within the project area, comprising a dispersed settlement pattern and a mixed pastoral and arable regime, would have developed a mixture of closes and open arable fields. The closes would have been for pasture, whereas the arable fields would have been organised in strips dependent on the number of tenant farmers working them (*ibid*, 160).

By the 14th century there was a national rise in pastoral farming (Campbell 1993, 63-64) and over the next two hundred years sheep farming developed as the mainstay of Dorset's agrarian economy, although the main sheep pasture was located on the higher greensand and chalk ridges (Taylor 1970, 127). In the claylands the main stock animal during the medieval period was cattle, although sheep were brought down onto the heavier clays soils in the winter.

Marshall (1796, 129, 137, 144) writes of the 18th century agricultural production of the West Dorset valleys (which include the Marshwood Vale) as being a mix of permanent grassland, arable crops and temporary leys. The main produce of the valleys was timber (mainly Oak), fruit trees and arable crops (such as wheat and oats). Grassland

pasture was the most common form of field, providing for the dairy farms. Towards Bridport the lighter soils also produced beans, hemp and flax. Sheep were common on the higher ground around the Vale and orchards were common across the area (*ibid*). Local Lime was extracted and burnt to produce dressing for the heavy soils (*ibid*, 145).

The unit of medieval cultivation, the strip, was commonly known as a 'land'. The average measurement of a land in the central part of England was around 7m wide by 180m long, although there was considerable variation on this (Hall 2012, 5). Parallel lands were grouped together in furlongs and the ploughing of these lands produced elongated S-shaped patterns of ridge and furrow. These were typically aligned up and down-slope and with distinctive piled earth headlands at each end where the turning plough deposited loose soil as it lifted free of the furrow (Hall 2012, 6).

The wider sinuous lines of medieval ridge and furrow contrast with the steam ploughing that was introduced in the late 18th to 19th centuries. This later ploughing technology produced straight narrow ridges ('narrow ridge and furrow' or 'narrow rig'), which typically aligned with straighter post medieval field boundaries and often occupied entire fields (Hall 2012, 11). It is likely that the majority of cultivation marks mapped by the project reflects this later ploughing technology but the evidence is not always conclusive and elements of older ridge and furrow may also be represented. There is more certainty for medieval cultivation where late or post medieval boundaries appear to overlie older cultivation marks, or where the ridge and furrow survives in sections and aligns with curving field boundaries, but this is not always conclusive, due to the scale of survival of historic enclosure.

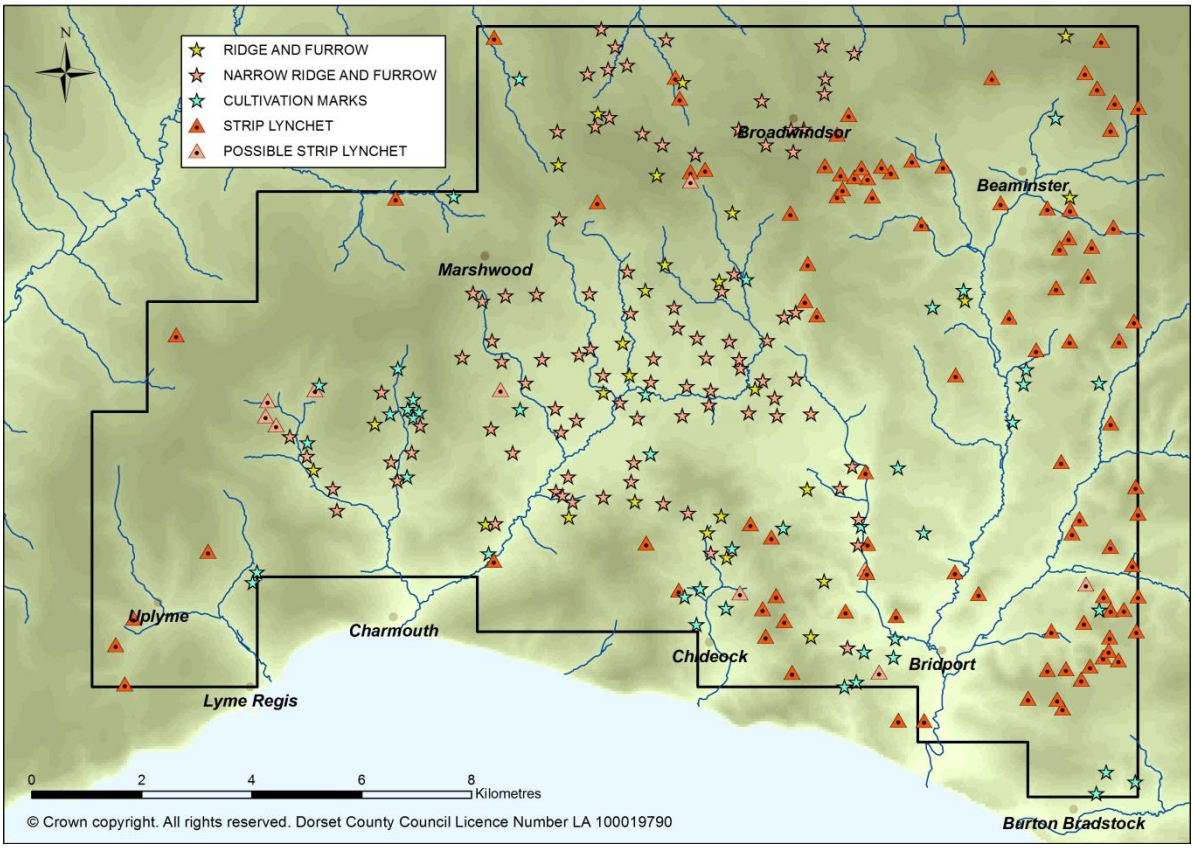


Figure 61. The distribution of medieval strip lynchets on the steep slopes of the higher ground in contrast to the evidence for medieval and/or post medieval ridge and furrow, which is more concentrated within the lower lying Vale

The agricultural depression of the 19th century saw a general contraction of arable land in areas of poorer soils, with a return of much former arable land to pasture. The abandonment of some areas of former arable has resulted in the preservation of cultivation marks left behind by medieval and post medieval ploughing. These cultivation marks are visible on aerial photographs of the 1940s and lidar imagery and

have been mapped by this project. The distribution of probable medieval and/or post medieval ridge and furrow within the project area demonstrates a marked concentration on the heavier clays soils of the Vale. This stands in contrast to the distribution of mapped medieval strip fields and strip lynchets on the high ground surrounding the Vale (Figure 61). This distinction probably reflects the wider return to pasture on the heavy clay soils by the late 19th century, with the lighter soils of the surrounding high ground generally retaining larger areas of arable.

Where medieval ridge and furrow is visible on aerial photographs it may survive as partial earthworks that have been impacted by later ploughing. Where good examples survive these may help to reconstruct the pattern of medieval open field before it became enclosed. Examples of probable medieval ridge and furrow were mapped by the project at Temple Brook and Low Down Farms, Broadwindsor (MDO38930) and Laverstock Farm, Stoke Abbott (MDO38541). Both examples indicate partial survival of ridge and furrow within irregular enclosures that may fossilise areas of former medieval open field associated with these farmsteads (Figure 62).

Figure 62. Evidence of probable medieval ridge and furrow at Temple Brook, Low Down and Laverstock Farms within enclosures suggestive of former open field associated with these farmsteads

Left: MDO38930. *Photograph: RAF/CPE/UK 1974 FS 2412 11-APR-1947. Historic England RAF Photography*

Right: MDO38541. Photograph Mosaic: RAF/CPE/UK 1974 RS 4336 11-APR-1947; RAF/CPE/UK 1975 FP 1085 11-APR-1947. Historic England RAF Photography Historic England RAF Photography

**Using NMP symbology, features shown in red are banks and in green, ditches*

Examples of cultivation marks most likely associated with post medieval ploughing technologies are more widespread within the Vale. To the south of Broadwindsor, for example, cultivation marks (MDO38982; MDO39014) are visible on aerial photographs of the 1940s (Figure 63). The pattern of enclosure includes irregular fields of probable medieval origin, some of which may have been part of an area of medieval open field associated with Broadwindsor. To the west of these are the series of very straight and narrow rectilinear enclosures that may occupy part of the southern extent of Hursey

Common (and see page 66 above). These enclosures are probably of post medieval or later origin, possibly associated with enclosure of the former common during the early 19th century.

The cultivation marks visible on aerial photographs are located within both types of enclosure. The majority are straight and narrow in form and measure around 4m wide, although some are closer to 6m in width. As a rule they occupy the entire enclosure, although the ridge and furrow within the narrow rectilinear enclosures more clearly align with the external field boundaries than those within the more irregular enclosures, as might be expected. Although the presence of medieval cultivation within this area cannot be entirely ruled out, it is more probable that the ridge and furrow visible on aerial photographs of the 1940s reflects late 18th or early 19th century steam ploughing. A more modern origin may also be possible in some cases.

At Oakford and Hackeridge Farms to the south of Pilsdon there is also substantial evidence for cultivation marks (MDO38190; MDO38198) visible on aerial photographs of the 1940s. In this area the irregular fields and sinuous field boundaries of medieval origin are relatively well preserved with less indication of post medieval re-organisation. Nonetheless, the cultivation marks evident within these enclosures are narrow and regular in form and measure around 4m in width. They also generally occupy entire fields (Figure 63). There is perhaps more likelihood for older elements of medieval ridge and furrow to survive within these earlier enclosures. Nonetheless, the nature of the ridge and furrow visible on aerial photographs of the 1940s indicates that the majority probably reflects post medieval steam ploughing or more modern cultivation.

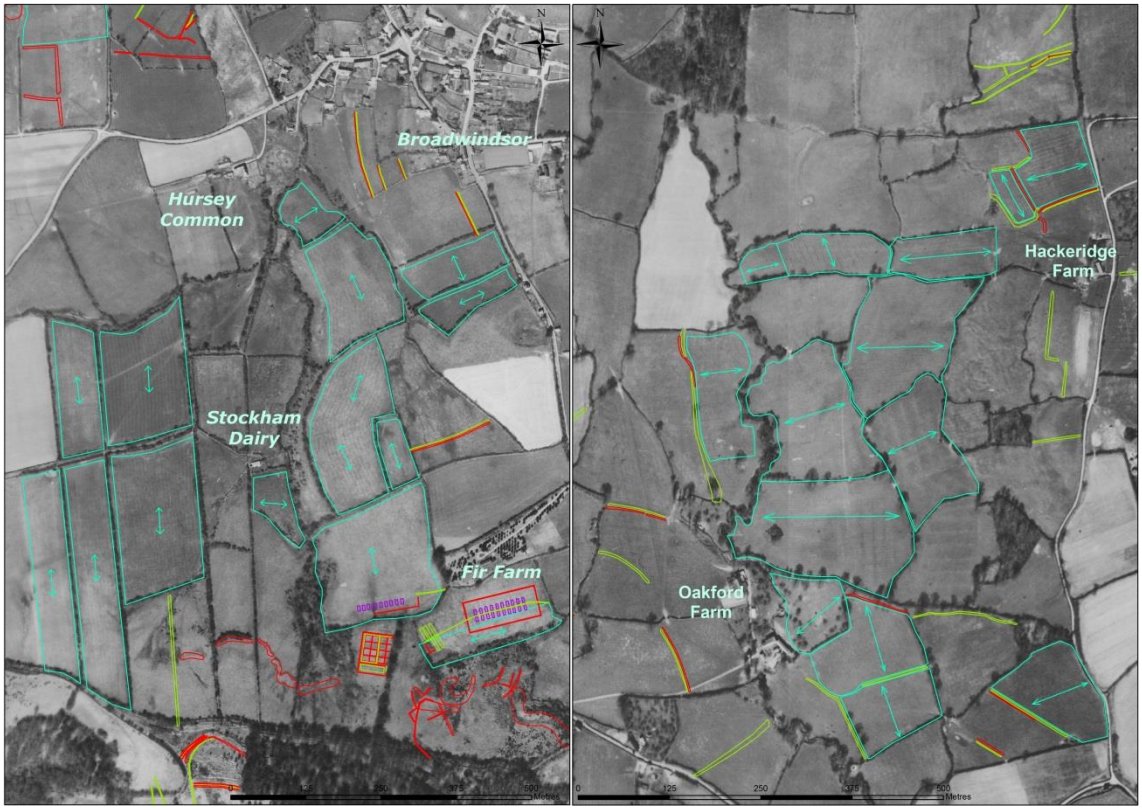


Figure 63. Evidence of probable post medieval narrow ridge and furrow to the south of Broadwindsor and at Oakford and Hackeridge Farms to the south of Pilsdon

Left: MDO38982; MDO39014. *Photograph: RAF/CPE/UK 1974 FS 2407 11-APR-1947. Historic England RAF Photography*

Right: MDO38190; MDO38198. Photograph Mosaic: RAF/CPE/UK 1974 FP 1410 11-APR-1947; RAF/CPE/UK 1975 FP 1085 11-APR-1947. Historic England RAF Photography Historic England RAF Photography

**Using NMP symbology, features shown in red are banks and in green, ditches*

7.4.2 Rabbit Warrens

Rabbits existed in Britain before the last ice age but then died out. There may have been attempts to re-introduce the rabbit to Britain during the Roman period but documentary accounts suggest they were only successfully re-established by the early 12th century (Rackham 1986, 47-8; Williamson 2006, 6). Medieval warrens were originally areas of land set aside for rearing and hunting game animals. The right to hunt was granted by the king so to have rights of 'free-warren' was initially a privilege reserved for high status landowners and elite members of society (Bailey 1988, 2; Rackham 1986, 47; Williamson 2006, 6).

Rabbit warrens appear to have increased in number during the late 14th and 15th centuries. As the population declined following the Black Death, and grain prices tumbled, the farming of rabbits was a useful agricultural diversion for manorial landowners (Williamson 2006, 7).

By the 16th to 17th centuries, rabbit farming had become much more commercial in scale, although warrens were still viewed as a status symbol by elite landowners (Williamson 2006, 8-10). Rabbit farming gradually became less of an elite resource and by the 18th century rabbits were well acclimatised to present conditions and increasingly breeding outside of the man-made warrens. By this time they were considered less of a delicacy and more as a pest but continued to be farmed in one form or another up until the 19th century (Rackham 1986, 48; Williamson 2006, 10).

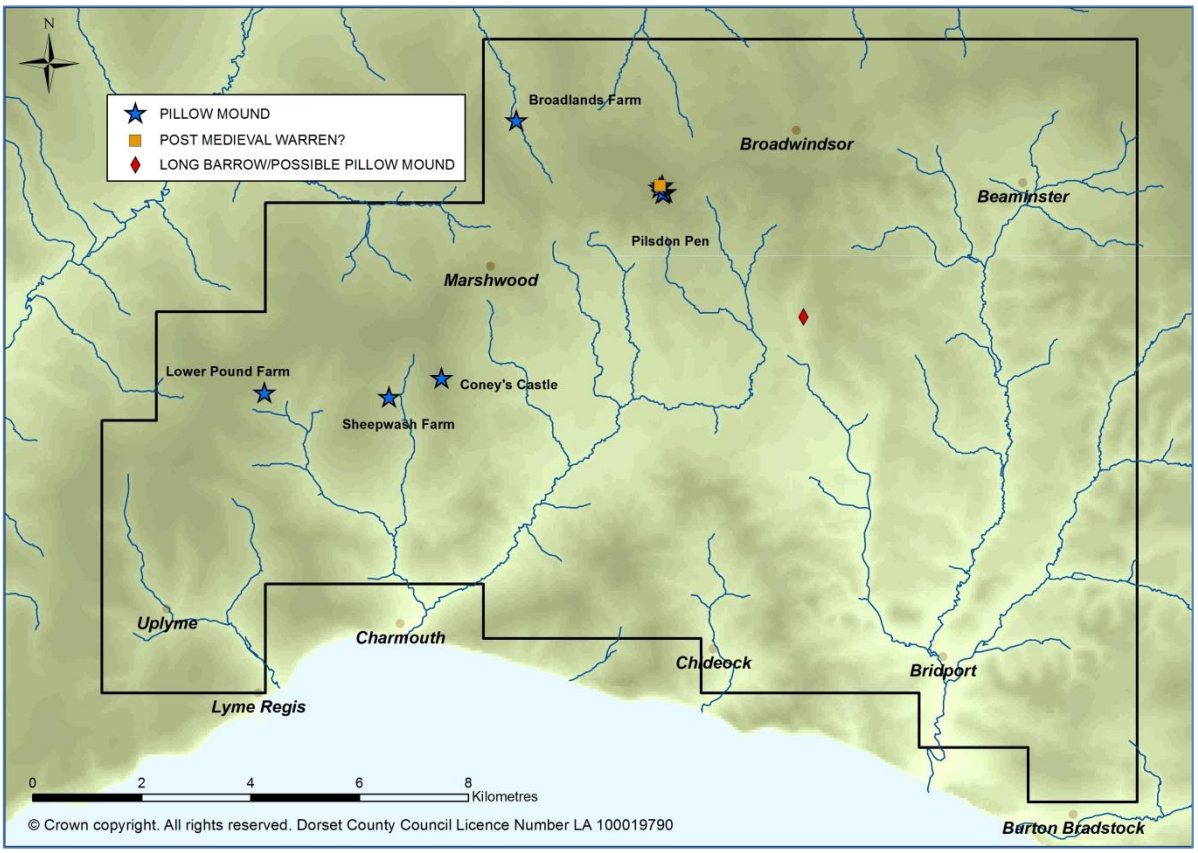


Figure 64. Medieval to post medieval pillow mounds, possible pillow mounds, and warrens mapped by the project

Initially rabbits were farmed in contained warrens in order to provide them with a sustainable environment. Earthworks were created to encourage burrowing and the flat-topped sub-rectangular 'pillow mounds' that were built at this time are usually the clearest surviving evidence for the presence of medieval and post medieval warrens (Rackham 1986, 47). The first introduced rabbits disliked moist conditions and although pillow mounds do occur in level situations they are more commonly located on higher drier ground, often positioned at right angles to slopes to maximise drainage and the

dispersal of burrowed soil (Bailey 1988, 2; Williamson 2006, 16). Many warrens were enclosed by earth banks or stone walling, usually with a vertical facing on the inside and a sloping face to the outside. Some used natural features as boundaries and many larger warrens had internal sub-divisions as well as a lodge house (*ibid*, 45-48, 60).

Williamson (2006, 19) notes that pillow mounds are frequently found within areas of existing or late-enclosed common land and that there appears to be a close association with earlier earthworks. Many are found within or adjacent to Iron Age hillforts and Bronze Age barrows, with some deliberate re-use of these earlier earthworks as warrens (*ibid, 19, 43*). This has led to some confusion over their interpretation in the past and the archaeology of pillow mounds and warrens remain relatively poorly understood (*ibid*, 25).

In addition to the pillow mounds themselves, place-name evidence can often infer the existence of a medieval warren, even where no above ground remains survive. 'Coney', the old name for rabbit, gives rise to names such as 'Conegar', 'Coney', Conifer Wood; there is a 'Conegar Hill' to the northeast of Broadwindsor and to the southeast of Wootton Fitzpaine, and a 'Coneygar Hill' to the east of Bridport. To the north of Symondsbury is 'Old Warren Hill'. 'Coney's Castle' (MDO2980) to the north of Wootton Fitzpaine also suggests the presence of a medieval warren.

There is an observed association between medieval warrens and deer parks (Bailey 1988, 4; Williamson 2006, 18). Although there is no direct evidence for this within the project area there is a possible correlation. Conegar Hill to the southeast of Wootton Fitzpaine is situated adjacent to the conjectured northeast boundary of Wootton Fitzpaine Park (MDO3441); Old Warren Hill is situated adjacent to the conjectured eastern boundary of Symondsbury Park (MDO2663); Conegar Hill to the northeast of Broadwindsor is situated adjacent to the conjectured boundary of Broadwindsor Park (MDO537); Coney's Castle is situated less than 200m to the west of the conjectured western boundary of Crekelade Park (MDO1639) (Cantor and Wilson 1963, 151-2; Wilson 1970, 206-8; Wilson 1971, 173-5; Wilson 1973, 76-9).

The project mapped nine long elliptical mounds within the project area, which by their morphology are thought likely to be medieval or post medieval pillow mounds (Figure 64). Five of these mounds (MDO2019; MDO2021-5) are grouped together within the Iron Age hillfort (MDO2018) on Pilsdon Pen. A square enclosure (MDO38036) in the centre of Pilsdon Pen is also thought to represent a post medieval rabbit warren (see below). In addition to these sites a mound previously identified as a Neolithic long barrow (MDO38306) may be reinterpreted as a possible pillow mound, on the basis of morphology (see Section 7.1.2), although it's size sets it outside the normal range for pillow mounds, which do not usually exceed 10m in width (Williamson 2006, 16). Pillow mounds are also typically associated with an external ditch which usually runs all the way around the mound rather than just along the sides, as is more common amongst Neolithic long barrows (*ibid*). The presence of a ditch around MDO38306 was not established by the project and its definitive interpretation remains provisional.

The group of five pillow mounds mapped by the project on Pilsdon Pen are located on the level top of the Pen, within the earthworks of the Iron Age hillfort (MDO2018) and are generally aligned southeast to northwest along its line (Figure 65). Two adjacent mounds (MDO2020; MDO2021) are recorded as a pair of Bronze Age barrows (see Section 7.1.3). The pillow mounds are broadly elliptical in form and comprise an inner mound and an outer ditch and vary between 8m and 18m in width and 14m and 35m in length. The pillow mounds are shown on the OS 1st Edition map and are visible on aerial photographs. The mounds are clearly still well-preserved on an aerial photograph taken in 2009 (Figure 65).

Central within the hillfort is a rectangular banked enclosure (48m by 56m), which was originally interpreted as an Iron Age or Roman religious site (NHRE UID 193083). Excavations on Pilsdon Pen in the 1970s (Gelling 1977) revealed a series of straight sided slots running at right angles to the long banked mounds, which were re-interpreted as artificial burrows within a probably post medieval warren (Williamson

2006, 20-22, Fig 14). Whether by chance or design, Pilsdon Pen is situated around 650m to the southwest of a possible deer park at Park Water Lane (NHRE UID 193111).

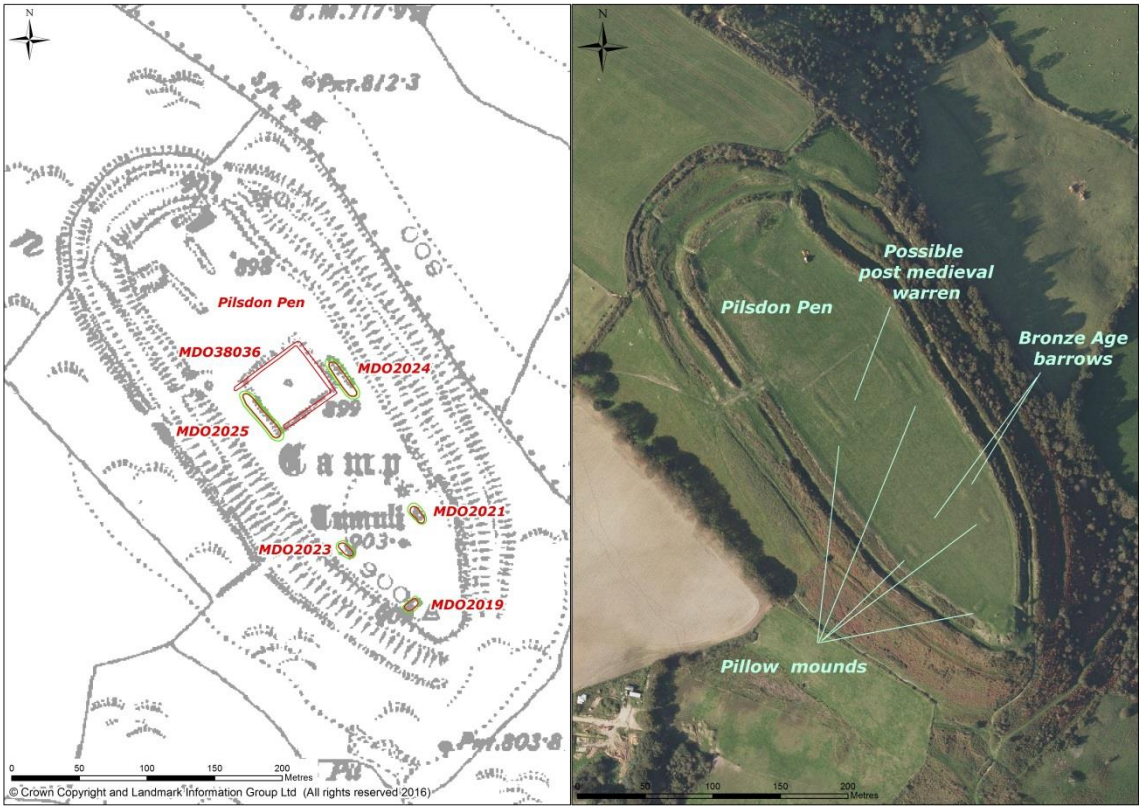


Figure 65. Pillow mounds shown on top of Pilsdon Pen, Pilsdon, on the OS 1st Edition map are still extant and visible on recent aerial photographs

MDO2019-MDO2025. Photograph mosaic: DCC VAP 2009

**Using NMP symbology, features shown in red are banks and in green, ditches.*

Based on its place-name, Coney's Castle may also have had a long history of re-use as a medieval or post medieval warren. There is no visible evidence for pillow mounds on the hilltop, although there is one situated on its lower slopes around 100m to the north. The mapped 29m by 5m earthwork mound (MDO38751) is broadly sub rectangular and is orientated broadly east-west and is surrounded by an outer ditch (Figure 66, left).

Around 900m west of Coney's Castle, to the south of Sheepwash Farm, two oblong mounds 10-15m long and 2-5m wide (MDO38774) may also be medieval pillow mounds, based on their morphology. These potential pillow mounds appear to be closely associated with a system of trackways (MDO38772) leading between Sheepwash Farm and Higher Coombe Farm, to the east. One of these trackways may in fact be the remains of part of a former medieval enclosure associated with Sheepwash Farm, similar to the large curvilinear enclosures observed elsewhere within the project area (see Sections 7.3.3 and 7.4.1) (Figure 66, right).

Two possible pillow mounds (MDO38639) mapped at Lower Pound Farm, Wootton Fitzpaine, also appear to be located within a possible former medieval enclosure. Curvilinear boundaries encompassing Higher and Lower Pound Farms to the south and west almost certainly represent assarting within a wider area of woodland. Larger curving boundaries beyond these shown on the OS 1st Edition map and still visible on present-day aerial photographs may indicate a once larger enclosed wood (Figure 67). The area of woodland to the northeast of Lower Pound Farm is named 'Wyld Warren' on the OS 1st Edition map, once again indicating the existence of a rabbit warren in this location. It is not known whether the woodland was enclosed to create the warren or whether it predated it but it is possible that some of the historic enclosure boundaries within and around the wood are associated with enclosure of the warren, possibly re-using or adapting existing enclosure boundaries to achieve this.

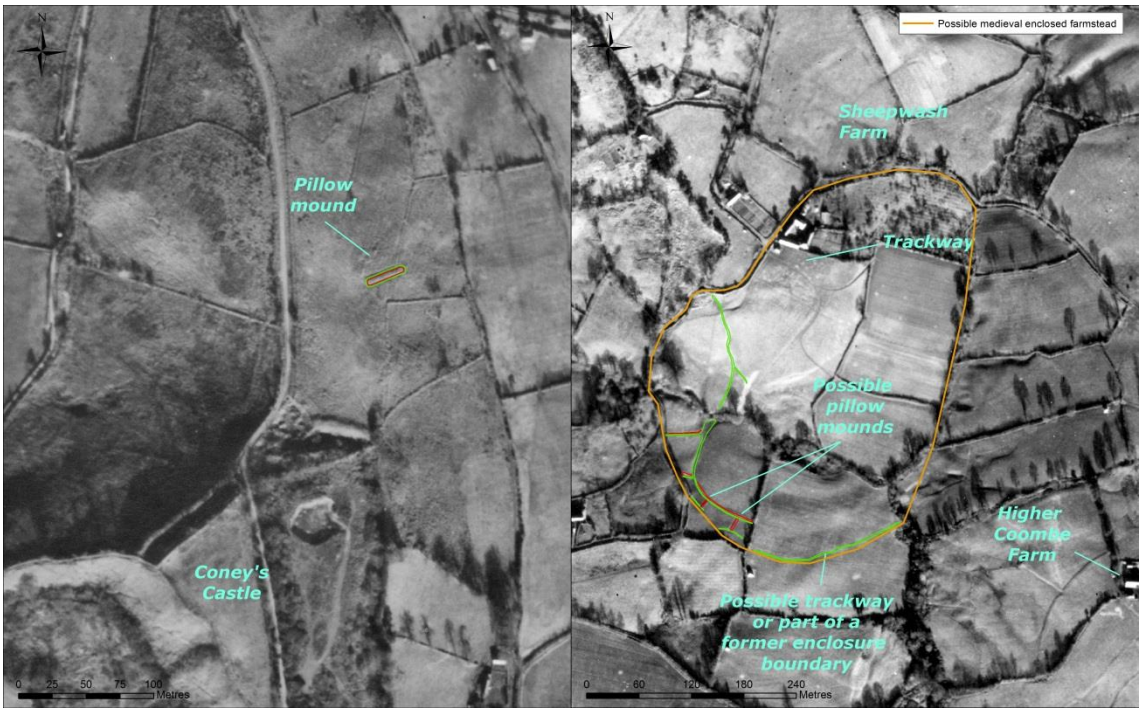


Figure 66. Pillow mounds at Coney's Castle and Sheepwash Farm near Wootton Fitzpaine, Whitchurch Canonicorum

MDO38751 (left), MDO38774 (right). Photograph: RAF/CPE/UK 2431 RS 4207 22-JAN-1948. Historic England RAF Photography

**Using NMP symbology, features shown in red are banks and in green, ditches.*

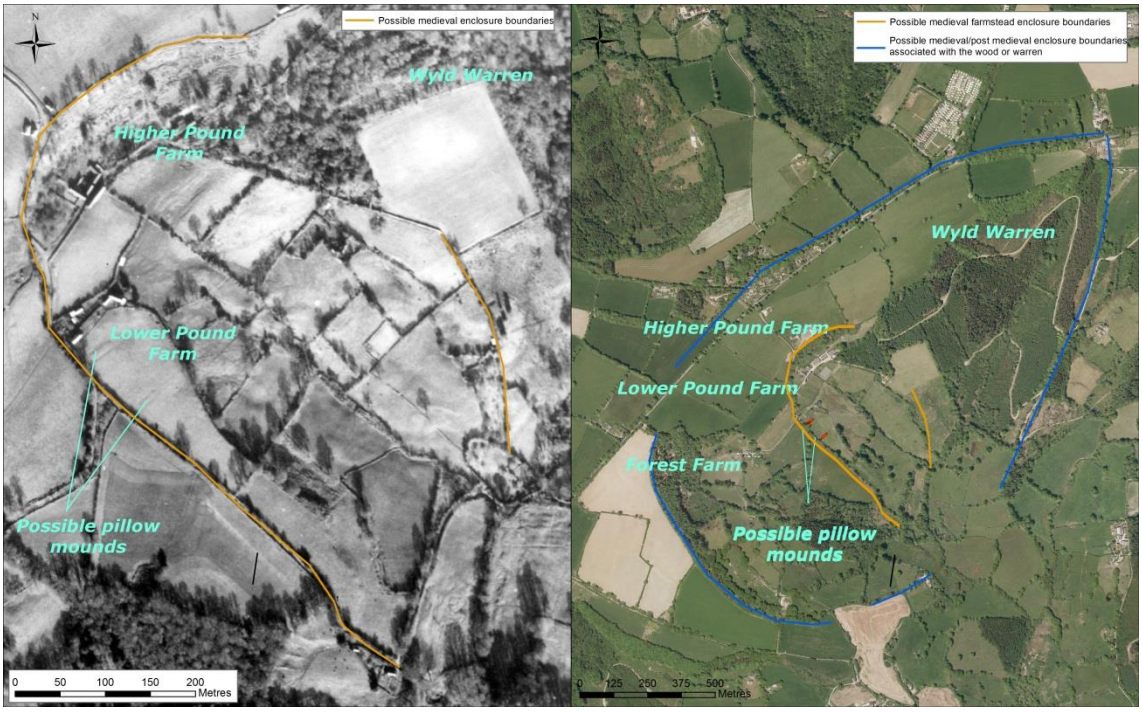


Figure 67. Two possible pillow mounds at Lower Pound Farm, Wootton Fitzpaine, located within a possible medieval enclosure created through assarting. Wyld Warren (Warren Wood) suggests a post medieval warren that may also have been enclosed.

MDO38639. Photographs: (left) RAF/CPE/UK 2431 RS 4204 22-JAN-1948. Historic England RAF; (right) Photo Mosaic DCC VAP 2009

**Using NMP symbology, features shown in red are banks and in green, ditches.*

7.4.3 Orchards

The OS 1st Edition mapping shows significant numbers of orchards clustered around the main settlements within and surrounding the Vale (Figure 68). Even the smaller individual farmsteads and manors have some orchard enclosures associated with them, the majority of which are probably post medieval in origin, although some older examples may exist.

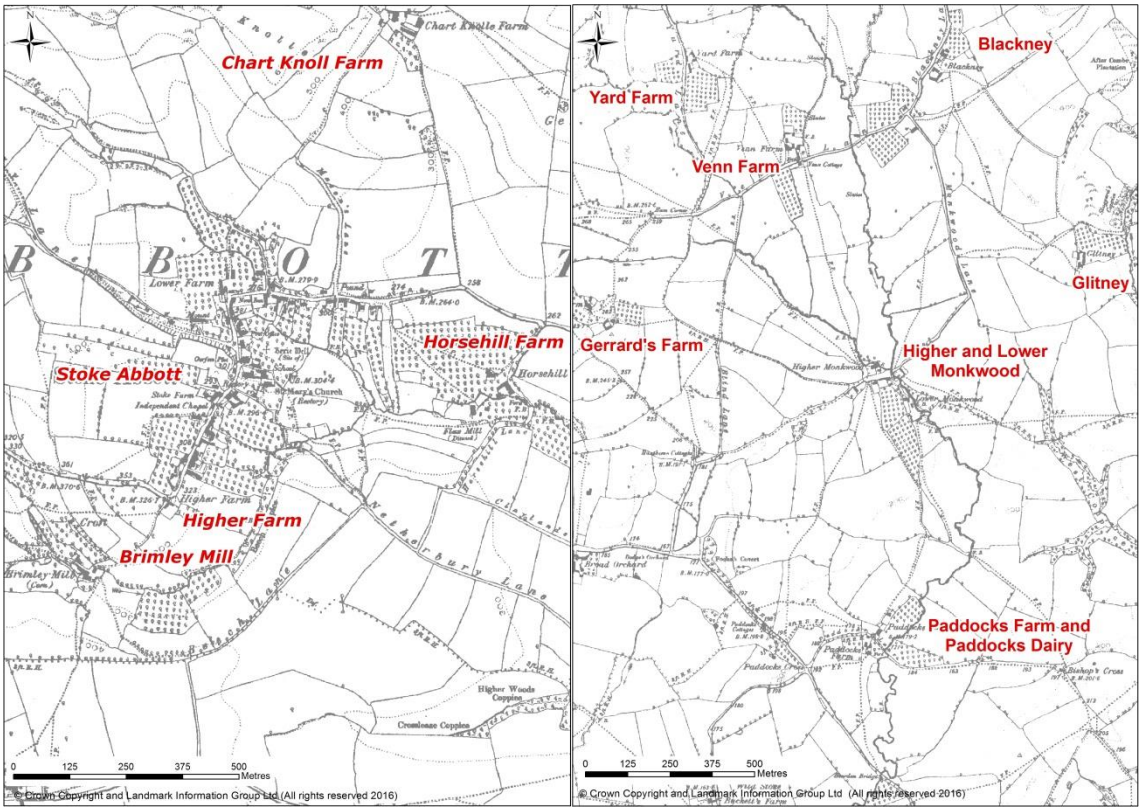


Figure 68. Examples of historic orchard associated with farmsteads (right: to the east of Pilsdon) and larger settlements within the Vale (left: at Stoke Abbott)

Where evidence of former orchards is indicated by aerial photographs and lidar imagery this is most commonly in the form of regular narrow plantation ridges within small irregular enclosures. This further suggests that the orchards were established within established enclosures of probable medieval origin. In many cases the narrow ridges within these can appear very similar to post medieval narrow ridge and furrow and it is quite possible that some of the evidence for orchard plantation ridges and narrow ridge and furrow mapped by the project could be mistaken in their interpretation.

At Yard Farm, to the east of Pilsdon, for example, narrow parallel ridges are visible as banks and ditches on aerial photographs of the 1940s within enclosures of denuded orchard (Figure 69). The ridges appear to correspond with the lines of orchard shown on the OS 1st Edition map. To the north of Yard Farm there is also an area of faint ridge and furrow visible on aerial photographs of the 1940s that may be the result of medieval or post medieval arable cultivation but which may also represent an area of lost orchard.

At Pilsdon Manor an area of orchard is shown to the northwest of the manor house on the OS 1st Edition map (Figure 70). An aerial photograph taken in the 1940s shows this orchard to be partly denuded by this time but also reveals narrow ridges within the orchard extent, along with quadrilateral ditches that appear to have a plan form; these are shown more clearly on a later aerial photograph taken in 1984 (Figure 70, bottom left). Between the quadrilateral ditches further plantation ridges are visible. Those in the southwest of the site are on a different alignment to the others. These ditched features may represent possible drainage channels but their plan form suggests possible pathways, perhaps even a formal designed garden area. They are clearly

present within the orchard by the 1940s, suggesting they may have been part of the orchard design, or perhaps an earlier feature associated with formal ornamental gardens belonging to the manor.

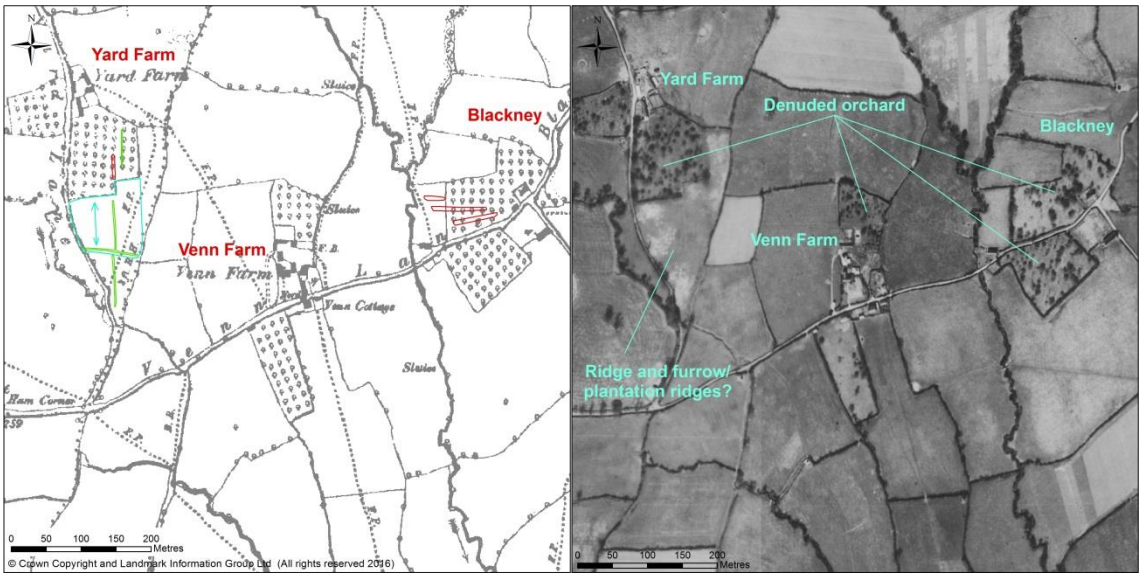


Figure 69. Banked and ditched earthworks mapped by the project at Yard Farm and Blackney, Pilsdon, may be orchard plantation ridges or arable ridge and furrow

Photograph: RAF/CPE/UK 1974 FP 1406 11-APR-1947. Historic England RAF Photography

**Using NMP symbology, features shown in red are banks and in green, ditches.*

The aerial photograph taken in 1984 shows these features clearly but also shows the complete loss of orchard by this time (Figure 70, bottom left). The contrast in evidence for orchards generally between the OS 1st Edition mapping and aerial photographs taken since the 1940s demonstrates that post medieval orchards in the Vale were once widely extensive but that since the late 19th century their loss has been significant (and see Section 7.7).

The issue of loss of medieval and post medieval agricultural features, such as field boundaries, orchards and farmsteads in recent times, is a significant one for modern rural landscapes. The loss of historic character impacts on our understanding of historic settlement development and agricultural practices and this has further implications on local planning decision making and development frameworks. The introduction of HLC as a method for determining historic character was introduced to mitigate these impacts and to identify where historic character was clearly preserved and where it was at risk of being lost. This is discussed below (Section 7.7) in the section on the 20th century landscape of the Vale and the issues of field boundary loss in particular.

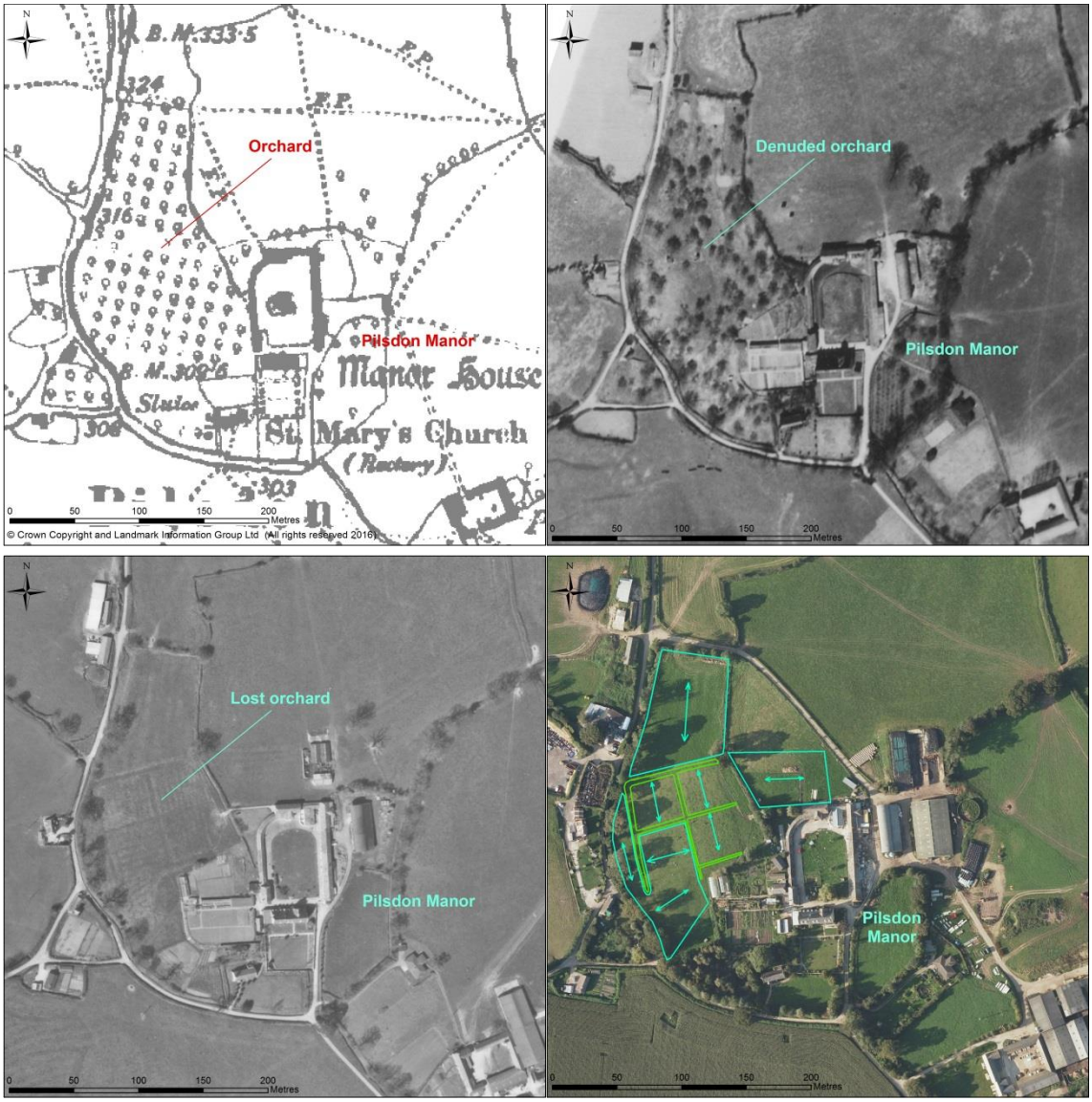


Figure 70. Post medieval orchard loss demonstrated at Pilsdon Manor, Pilsdon. Quadrilateral ditches and narrow ridged earthworks may be part of the orchard design or an earlier formal garden design feature associated with the manor

MDO38201. Photographs: (top right) RAF/CPE/UK 1974 RS 4336 11-APR-1947. Historic England RAF Photography; (bottom left) OS 84024 V 034 11-APR-1984. Ordnance Survey Photography ©Crown copyright. Ordnance Survey; (bottom right) Photo Mosaic DCC VAP 2009

**Using NMP symbology, features shown in red are banks and in green, ditches.*

7.5 Extractive industries

Nearly 500 extractive pits and quarries were mapped and recorded across the project area. These ranged from small pits (less than 20m across) to extensive areas of quarrying associated with the 18th and 19th century lime industry. Many of the larger sites are marked as 'Old Quarry' on the OS historic mapping although only six extractive pits had previously been recorded in the county HERs.

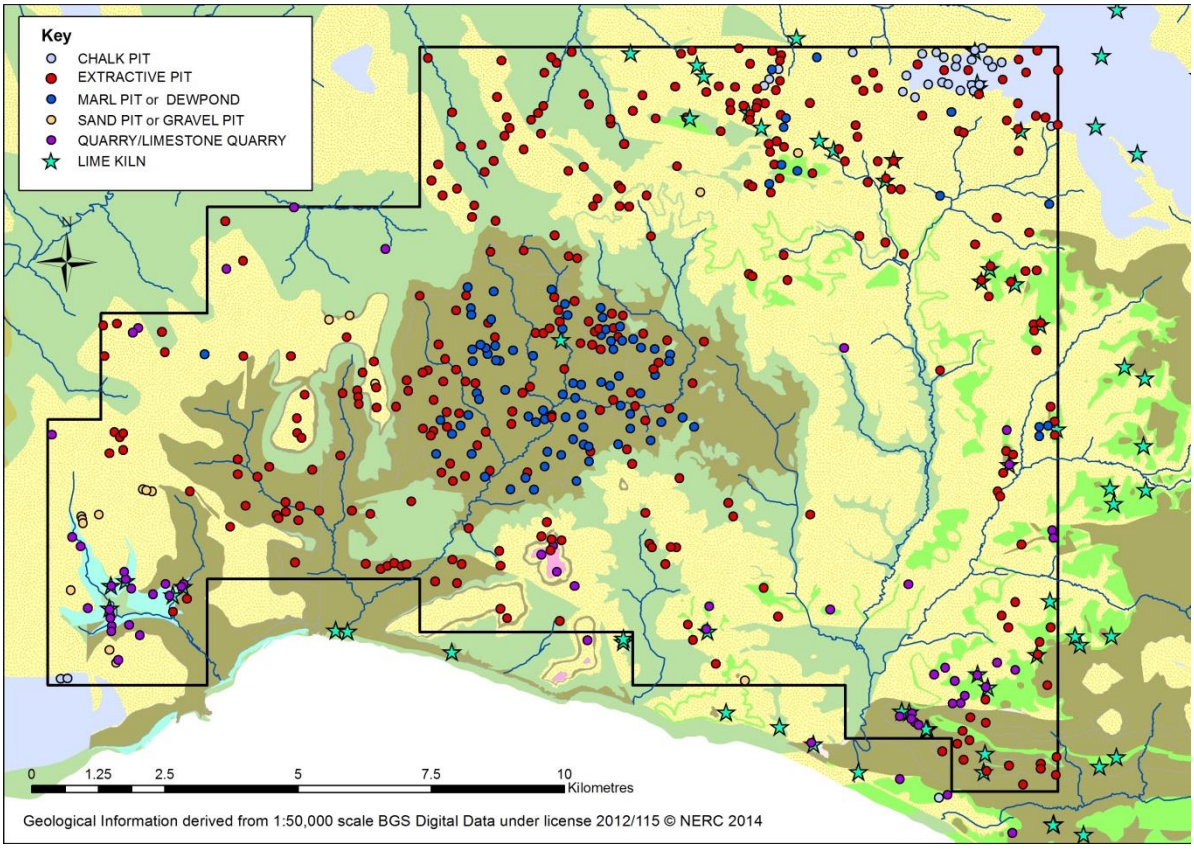


Figure 71. Extractive pits, quarries and lime kilns in the vicinity of the Marshwood Vale

Note: for key to geology, see Figure 3 in this report

7.5.1 Limestone quarries and Limekilns

In addition to being an important building stone, limestone has long been used in the production of lime mortar, in the manufacture of lime wash, and as a soil improver.

Advances in agricultural techniques and farming productivity occurred throughout the post medieval period with the adoption of water meadows and use of fertilisers such as lime (Betty 1986, 197-8). Most crops, including grassland, flourish better in neutral or basic soils. Farm manure will acidify a soil over time and rain will wash out lime; even from soils in chalk or limestone areas. Applying crushed limestone or lime to agricultural land increases both soil fertility and soil texture and its use as a fertiliser in England is known from as early as the 16th century (Riley 2006, 135-6).

Quicklime is the product of burning limestone at high temperatures and its production in lime kilns began in Britain in the medieval period. There was a rapid growth of rural limekilns in the 18th century in response to the innovation of its widespread use in agriculture. Quicklime is a highly caustic alkali and initially it was applied to the fields directly from the kiln. Mixed with the topsoil layer and drawn into heaps, the quicklime could destroy any organic tissue, thus releasing nutrients into the soil (Isham 2000, 21). Slacked lime is produced by mixing quicklime with water in a process which creates a lot of heat in a strong reaction. The reaction produces a dry powder which is less reactive than quicklime but has similar fertilizing characteristics.

Quicklime was manufactured in a stone or firebrick-lined line kiln comprising a bowl or pot like cone, usually set into a hillslope or bank. One or more arches were built into the base of the kiln; this 'draw arch' gaving access to the base of the cone where a fire could be lit to start the process; it enabled air to enter and for the burned lime to be raked out. Alternate layers of fuel and limestone were packed into the kiln and burnt over several days. Due to the noxious gases created during the burning and the corrosive nature of burnt lime, kilns were often constructed in situ at the limestone quarry sites although sometimes the more stable limestone was transported to where it was needed and burnt there (Neaverson and Palmer 2002, 123).

Figure 72. A Lime Kiln at Coalbrookdale, William Turner c.1797

© www.william-turner.org reproduced under Creative Commons Licence

Turners 18th century painting A Lime Kiln at Coalbrookdale provides a rare glimpse into world of 18th century lime burning. Whilst the noise and foul smell that would have pervaded the air cannot be relayed, the poor state of the trees immediately to the left of the fired kiln are a clear and direct result of the polluting gases and intense heat which would have been emanating from the kiln.

The disused limekilns with their distinctive arches have an elegant look about them today but in their heyday they would have been intrusive to the locality with their loud furnaces and highly poisonous fumes. They were regularly the cause of death; their warmth attracting the homeless, many of which were poisoned by the large quantities of carbon dioxide that they emitted.

"Dr. O'Connor, of Carlow, has recently directed attention to another prolific source of destruction to health and life which especially exists in rural districts and in the neighbourhood of small towns. The kilns for burning lime, dotted everywhere over the face of the country, directly cause the death, in every ten years, of between two hundred and three hundred persons. Their warmth attracts to them wayfarers, who, falling asleep, so die, from the poisonous fumes of carbonic acid emitted, of which an mixture of only one-sixth renders the atmosphere unfit to support life. All this would be at once remedied by a law requiring lime-kilns to be surrounded by a fence. The attention of Parliament was directed to the subject fourteen years ago, and it has been

repeatedly urged on their notice during the interval. Surely the evil has attained a sufficient maturity to entitle it to notice, even though the sufferers by it be only the homeless and friendless poor."

The Lancet, Annotations, November 15 (Walkley 1856, 551).

The rural lime industry developed in areas where there was a ready source of local limestone and fuel, as well as a local market. Throughout the 18th and 19th centuries, many small rural kilns were constructed to supply the local agricultural industry. Most fell out of used by the later part of the 19th century or the early years of the 20th century when the industry became concentrated in a smaller number of large-scale limeworks which operated continuous kilns producing a larger output.

The small disused limekilns were recorded on the first edition and second edition Ordnance Survey maps and a significant number are marked on the limestone and chalk ridges encircling the vale (see Figure 71). A cluster of lime kilns are also documented to the south west around Uplyme; these are associated with outcrops of Blue Lias formation interbedded limestones and mudstones.

There is no evidence for a charcoal industry within the project area although the many areas of woodland coppice that would have survived in the Vale into the post medieval period would have initially provided a ready supply of wood for fuel. The 18th and 19th century lime industry however was fuelled with imported cheap coal or culm.

Many of the limestone-topped hills that dominate the eastern and northern fringes of the project area showed evidence of extraction; this was assumed to have been of post medieval date although an earlier origin for some of the extraction sites cannot be ruled out. Several extraction sites are co-located alongside the sites of lime kilns marked on the Ordnance Survey historic mapping. Those workings which do not have adjacent documented lime kilns may once have had an associated kiln which fell out of use and into ruin before the OS mapping was carried out.

7.5.2 Case study: Chideock, Symonsbury, Allington and Bridport Parishes

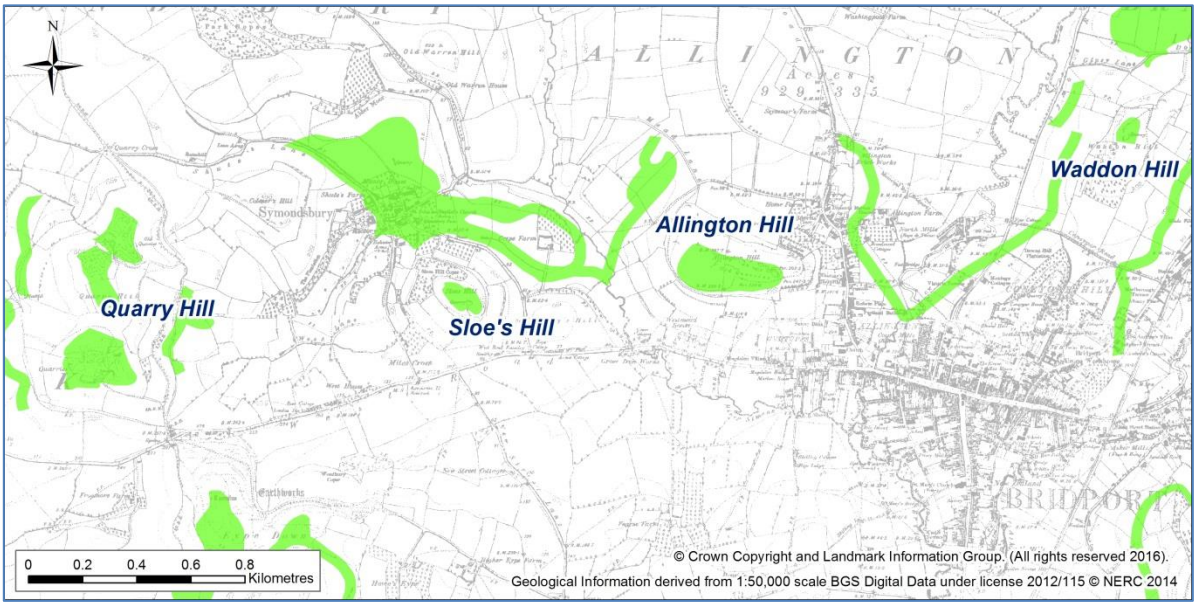


Figure 73. Limestone outcrops and quarrying sites near Bridport

The limestone resource of the project area is restricted to thin outcrops of oolitic limestone on the very tops of the sandstone ridges. A string of small limestone outcrops is situated in the southeast of the project area between Bridport and Chideock (Figure 73). Four of these outcrops show evidence of limestone quarrying; the adjacent hills of Quarry Hill, Chideock; Sloe's Hill, Symondsbury; Allington Hill, Allington; and Watton Hill, Bridport. None of the quarries are large or deep such as those found on the Isle of Purbeck or on Portland. This is due to the outcrops being very shallow, in places only a

few metres thick. The visible workings are similarly shallow and small-scale and they were presumably very quickly worked out.

The most extensive of these workings are on Quarry Hill, a saddle-shaped hill with a double-summit topped by two separate limestone outcrops. Both summits have extensive evidence of shallow quarrying, each covering an area of approximately three hectares. The Ordnance Survey has marked the site of a limekiln on the 1st edition map. It is not marked as disused and was therefore probably still in use up until the end of the 19th century. There is no sign of the structure on the RAF aerial photographs which were taken in 1948 (Figure 74).

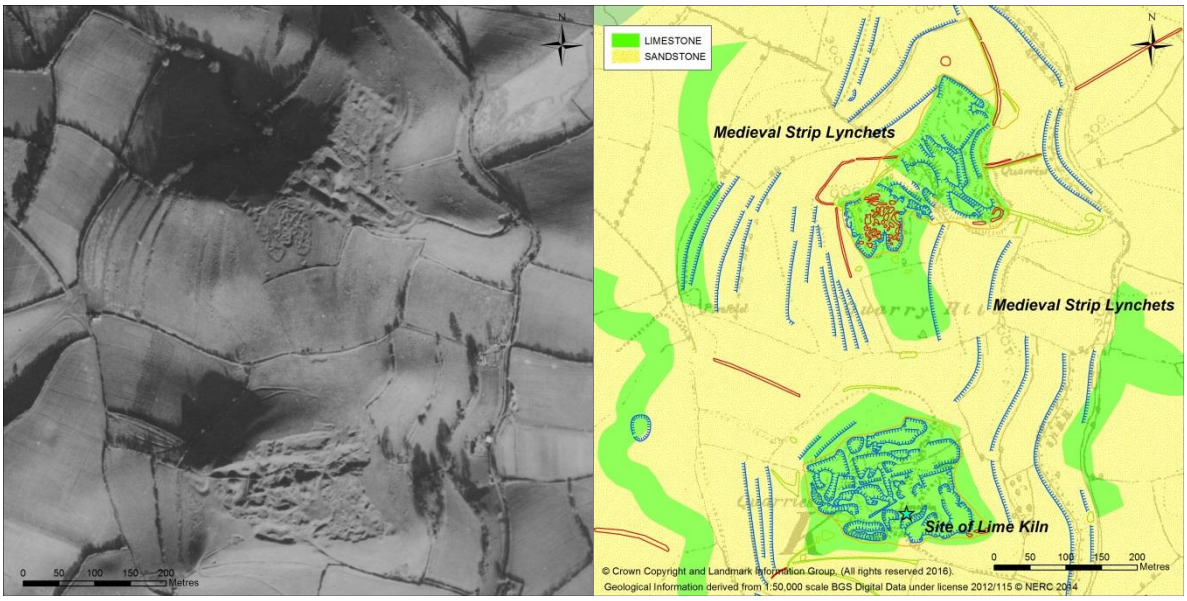


Figure 74. Post medieval limestone quarrying on Quarry Hill, Chideock

Photograph: RAF CPE/UK/2431 RP 3171 22-JAN-1948. Historic England RAF Photography.

Figure 75. Post medieval limestone quarrying on Sloe's Hill, Symondsbury

Photograph: RAF CPE/UK/2431 RP 3169 22-JAN-1948. Historic England RAF Photography.

A kilometre to the east of Quarry Hill, to the south of Symondsbury village, lies the small steep hill know as Sloe's Hill. The hill is capped with a small limestone outcrop covering approximately one hectare. The limestone would have protected the underlying sandstone from erosion and is therefore responsible for the hills distinctive profile. As with all four of the quarried hills in this area, the slopes have been cultivated

in the medieval period and there are still remnants of the medieval strip lynchets, particularly on the northeast side of the hill, and within the copse to the northwest. The entire area of the limestone outcrop was exploited in the 18th and 19th centuries and it is pock-marked by quarry hollows and dumps (Figure 75).

Figure 76. Post medieval limestone quarrying on Allington Hill, Allington

Photograph: RAF CPE/UK/2431 RP 3167 22-JAN-1948. Historic England RAF Photography.

Like Sloe's Hill, Allington Hill has evidence for both medieval strip lynchets and post medieval extraction. The extraction is clearly visible on lidar imagery (See Figure 11) as well as on the aerial photographs (Figure 76). A small curvilinear enclosure was identified on the 1940s aerial photographs on the eastern end of the hills summit. It is of uncertain date and appears to overlie some of the quarrying hollows; it may therefore be a late 19th century stock enclosure or relate to the later quarrying of the site (Figure 76).

Figure 77. Post medieval limestone quarrying on Watton Hill, Bridport

Photograph: RAF CPE/UK/2431 RP 3165 22-JAN-1948. Historic England RAF Photography.

On Watton Hill, the limestone outcrop is very restricted being barely 80m across. The fact that this such a small resource was exploited is an indication of the economic

importance and value of limestone in the Marshwood Vale area during the post medieval period (Figure 77).

7.5.3 Case study: Waddon Hill

Waddon Hill is a flat-topped prominence 3.5 km to the east of Pilsdon Pen. The level hilltop is one of a pair that overlook a gap in the Ooolitic limestone and sandstone ridge between the tributary valleys of the rivers Brit to the south, and Axe to the north. Norway Lane which connects Stock Abbott with Broadwindsor runs through this gap which is flanked by Lewesdon Hill to the west and Waddon Hill to the east.

Traces of an earthwork encircling Lewesdon Hill have been interpreted as the remains of an Iron Age Hillfort although no fieldwork has been undertaken to confirm this interpretation. Waddon Hill however was extensively excavated in the 1950s and 60s when the presence of a Roman fort dating to the first century AD was confirmed (see section 7.2.4).

Waddon Hill forms the southern edge of a limestone outcrop and the earthworks of the fort were much disturbed in the 18th and 19th centuries by quarrying. Like the outcrops to the south near Bridport, the limestone layer is only a few metres thick capping the underlying sandstone. This layer has entirely been removed over the western half of the hill (See front cover and Figure 78).

The Ordnance Survey mark a limekiln midway along the southern side of the hill on the 1st edition map. This kiln is clearly visible on aerial photographs taken in 1948 (Figure 79) which also show the limestone quarrying continuing to the north of the hill. This kiln is still extant although it is now partially hidden in trees.

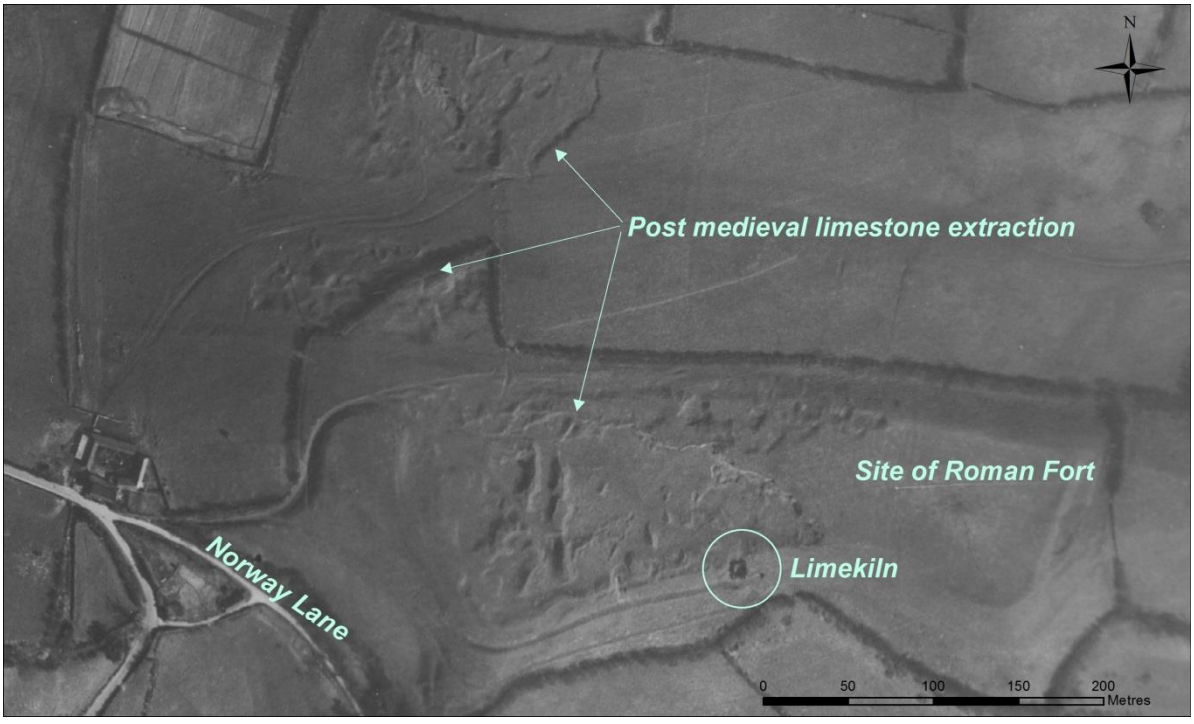


Figure 78. Post medieval limestone extraction and associated lime kiln, Waddon Hill

Photograph: RAF CPE/UK/1975 FP 1082 11-APR-1947. Historic England RAF Photography.

7.5.4 Extractive pits or dewponds?

Numerous small man-made hollows have been recorded in the Marshwood Vale. The highest concentrations of these are in the central portion of the Vale in the area underlain by calcareous mudstone (Figures 3 and 71).

In places these hollows are located in almost every field and sometimes more than one per field. Most were interpreted as extractive pits during the mapping although others were considered to possibly be dewponds.

As has previously been noted, the heavy clay soils of the Marshwood Vale are not free-draining and therefore prior to modern farming and developments in drainage in the Vale would have been generally waterlogged throughout most of the winter and spring months. Dewponds are generally a feature of free-draining pastoral areas, such as on the chalk downs, where there is a need to keep reserves of surface water for livestock to drink. It seems difficult to imagine that a lack of surface water would have presented itself as a problem to farmers within the Marshwood Vale itself and so the tentative interpretations of dewpond seem unlikely.

A very small proportion of the pits are marked on the OS 1st edition map. Those that are marked are generally as 'Old Chalk Pit' although the geology here is not chalk. Some are situated near the boundaries of fields (or straddling the hedge-line between two adjacent fields) but many others are located in the middle of the fields. If these are extractive pits, what was being extracted and for what purpose? The underlying mudstone would have been too friable for any useful building purpose such as the construction of field walls.

The average size of the pits range from 20m to 40m across, so relatively small scale, but nonetheless can take up quite a sizable chunk of each field. It is possible that some were clay pits feeding a local pottery or brick industry but it is perhaps more likely that most were marl pits. Marl or marlstone is a lime-rich mudstone which contains varying amounts of clay and silt and, like the lime (described in section 7.5.1 above); it was added to arable fields as a soil improver and to improve yields. The underlying calcareous mudstone if crushed and added to the soil would have acted as a fertilizer and therefore this seems the most likely explanation for the high number of pits encountered. As marl was slower to act than lime, it was often spread in vast quantities (Bull and Lyme Regis Museum 2010, 3); this would explain the frequency and size of the pits recorded.

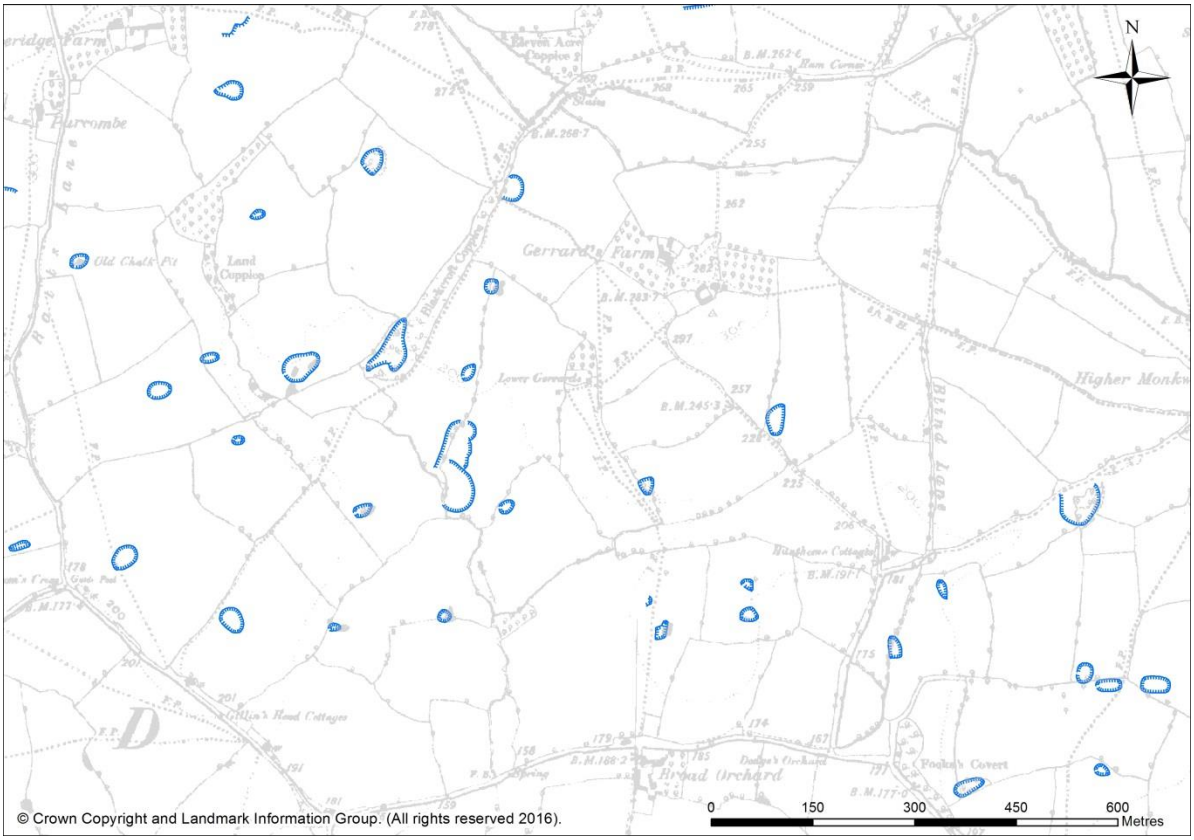


Figure 79. Marl pits in the vicinity of Gerrard's Farm, Marshwood

Environment Agency lidar imagery was available for most of the central portion of the Marshwood Vale itself (see Figure 10). The lidar DTMs enabled a view through to the ground surface in areas otherwise concealed from conventional photography by light

tree cover. There are many small coppices and broad ribbons of trees bordering the various minor streams that wind their way through the Vale before joining the River Char. Many of these appeared to have extractive hollows in the ground surface underlying the tree canopies.

Several of the coppices are marked as such on the on the OS 1st edition map and it is probable that trees were allowed to grow over the sites of old extractive pits once they were no longer in use as the hollows and heaps would have been dangerous to livestock. The ground would have had only limited value to farming and the energy required to flatten and reclaim the land back into agriculture may not have been deemed worthwhile.

It was noted however that in several places linear scarps appear to follow the edges of the ribbons of trees lining field boundaries and streams on the lidar imagery. It was not certain however if these were the result of extraction, or (perhaps more likely), due to the build-up of soil along the edge of the treeline as a consequence of repeated ploughing giving the appearance of a sharp drop in ground-level within the trees.

7.5.5 Summary

The Marshwood Vale NMP recorded evidence of extraction right across the study area. The features ranged from small pits less than 20m across to large scale quarrying over areas in excess of 3 hectares.

The majority of the extractive industry in this area is related to the requirements of the local farming industry and the need to improve the poor soil condition. The soils within the Marshwood Vale itself would have been naturally slow-drained and seasonally water-logged; this would have led to anaerobic conditions which in turn would have resulted in a tendency for acidic soils. Acidic conditions would have hampered both the production of crops and the pastoral grasslands within the Vale and the numerous small extractive pits recorded in the parish of Marshwood have been interpreted as evidence for the production of marl and it widespread local use.

Out of the low-lying Vale itself on the surrounding ridges, limestone quarrying and lime kilns were frequently encountered. These are testament to the importance of the local 18th and 19th century lime industry although earlier medieval origins for some of the features mapped cannot be ruled out.

7.6 Wartime in the Marshwood Vale

The south coast of Britain was an important frontline during the Second World War. Large areas of the surrounding countryside were requisitioned for military training camps and airfields. The threat of invasion along the South Dorset Coast was high being relatively unpopulated yet in close proximity to the important urban centres of Weymouth, Poole and Bournemouth, and its entire length was heavily fortified with anti-invasion defences. These included beach defences such as scaffolding and barbed wire, minefields, lines of anti-tank obstacles, anti-aircraft batteries, and pillboxes.

Inland, areas suitable for the operation of enemy troop-carrying aircraft were made unfit to land on by being systematically obstructed with trenches, poles, scaffolding and barbed wire. The study area did not include the coast itself, its extensive wartime defences having been previously mapped during the SWRCZA NMP project (Royall 2014). It did in places however extended southwards to within 500m of the coast and at Lyme Regis to within 100m of the shore-line.

Whilst the War would have directly affected the lives of all those living in this part of South Dorset, evidence for military structures within the Marshwood Vale itself is poor. There is however some limited aerial photographic evidence to indicate that there was a degree of military activity within the study area (Figure 80). The RAF photographs that were taken in the immediate post-war period (1946-48) were a key source for these ephemeral features which were rapidly removed or levelled soon after the end of the war.

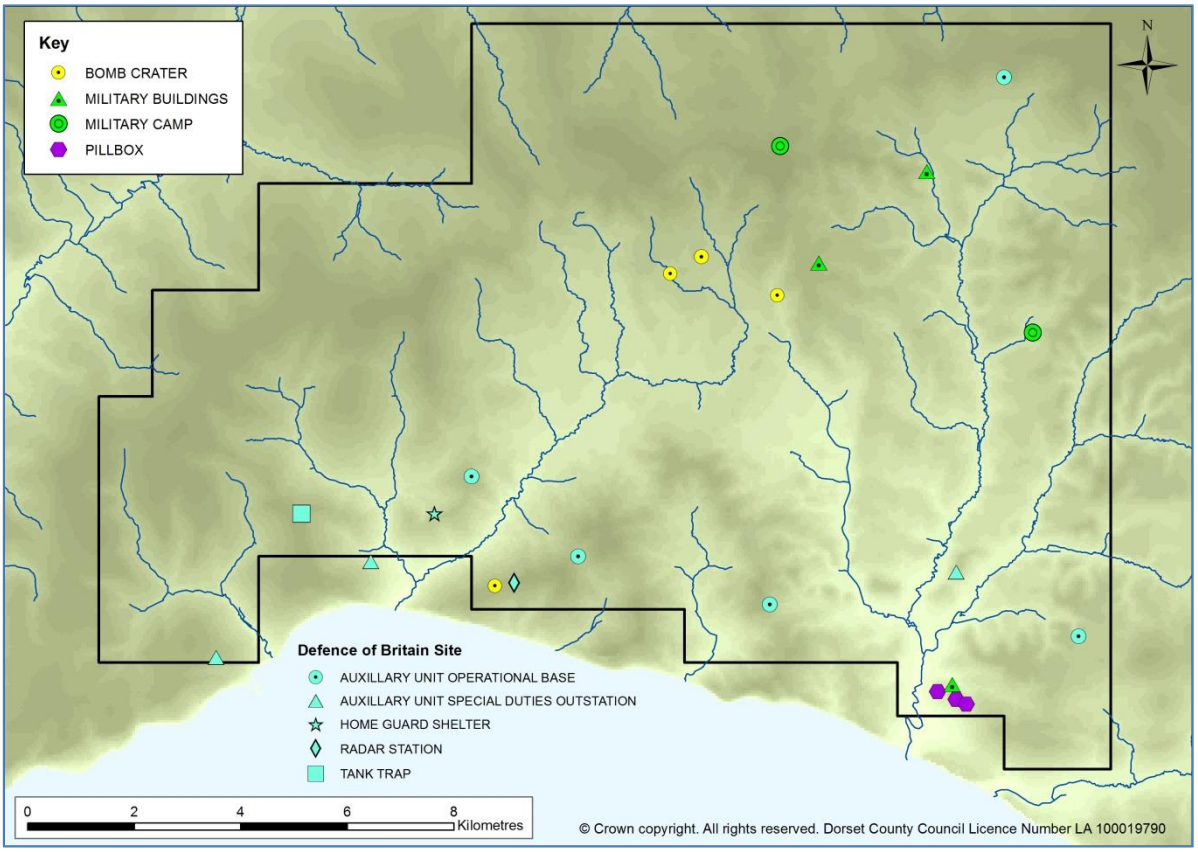


Figure 80. Second World War features recorded in the study area

7.6.1 Case study: Probable Prisoner of War camp, Fir Farm, Broadwindsor

During the Second World War over 1000 Prisoner of War (POW) camps were set up across the country. Each was allocated an official number within a numerical sequence, ranging from Camp 1 (Grizedale Hall, Ambleside) through to Camp 1026 (Raynes Park, Wimbledon) (Thomas 2003, 4). The numbering sequence was not perfect with some camps allocated more than one number or the same number being used for different locations. There were also gaps in the numbering system and it is uncertain whether

these are true gaps (no camp being allocated the number) or whether there are POW camps missing from the list, the locations of which remain unknown.

A complex of rectilinear structures was identified to the south and west of Fir Farm, Broadwindsor. The features which cover an area of over three hectares were visible as parch marks in grassland on aerial photographs taken in 1947 (Figure 80).

The site comprises four separate rectangular enclosures, each between 0.2 and 0.8 hectares in area. There are traces of internal rectangular features within each enclosure which are considered to be the sites of former buildings. Trackways run between and through some of the enclosures.

The two larger enclosures have an almost identical layout, the eastern of the two being the most complete in plan. It comprises a central track or walkway with a row of ten huts to either side. The regular grid-like pattern of the structures within the four enclosures is suggestive of a military origin and the site is considered most likely to be a prisoner of war camp.

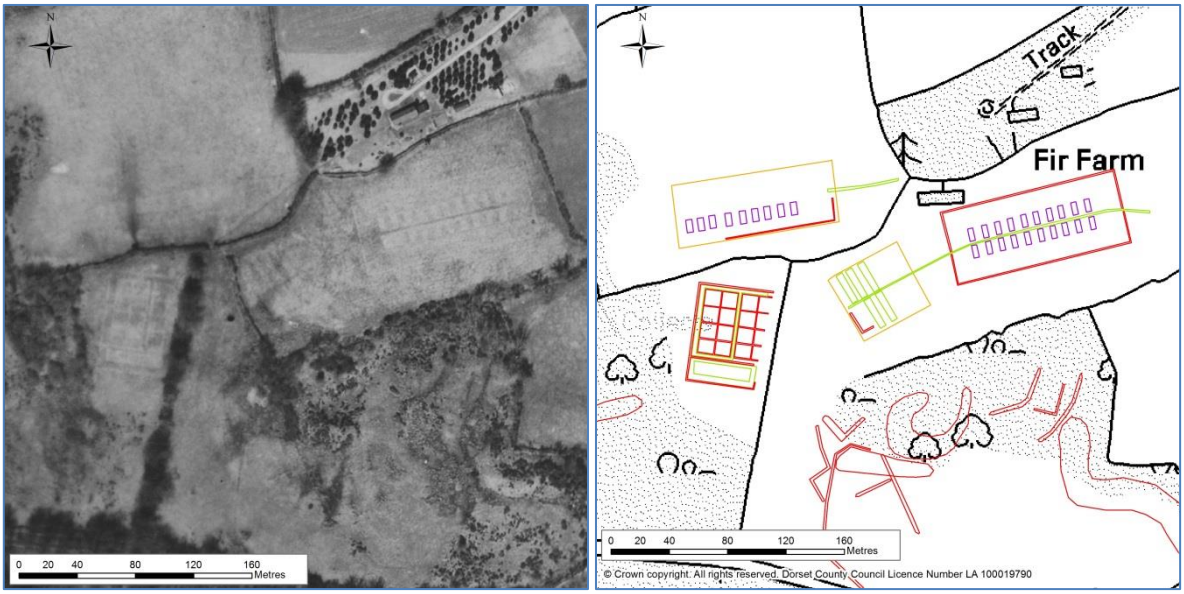


Figure 81. Probable POW camp at Fir Farm, Broadwindsor

MDO39016. Photograph: RAF CPE/UK/1975 FP 3398 11-APR-1947. Historic England RAF Photography.

Indications that the Fir Farm site is a POW camp are high. The dimensions of the platforms are approximately 9m by 3.5m. These would have perfectly housed Nissen Huts which were 3.2m across and 'Standard' POW camps sometimes used 24-ft (7.3m) span Nissen huts (Thomas 2003, 5-6). Thomas describes an example of a standard camp at Brigg in Lincolnshire:

"Built to house some 750 prisoners, and consisted of a tented camp, guards' compound, prisoners' compound, prisoners' garden plots, recreation ground and a sewage disposal works. Within the prisoners' compound a 'sterile' area was established between the inner fence and a further coiled 'Danart' barbed wire entanglement." (Thomas 2003, 5-6).

Assuming that the two larger enclosures at Fir Farm were prisoner's compounds and that each hut housed 10 internees, (average of a POW camp (*ibid*, 6)), the camp could have housed up to 400 prisoners. There is a wide gap, 14m across, between the building platforms and the outer perimeter fence which may relate to the 'sterile area' described by Thomas above. The other two enclosures may have contained guard accommodation and administrative buildings.

An alternative interpretation is that this site may have been an agricultural work camp dating from the First World War. During the course of WWI, vast numbers of German civilians and military personnel were interned in Britain. One of the first permanent

POW camps was established at a converted army camp at Poundbury, Dorchester, between 1914 and 1919, which ultimately housed over 3000 POWs at any one time. It was one of twenty-eight major camps across Britain which supplied labour for other smaller places of internment. Over 566 places of internment are known to have existed across the UK, some were small farms which were working camps fed by the larger permanent labour camps (1914-1918 Online 2016).

7.6.2 Case study: Auxiliary operational bases and outstations

The British Resistance was one of the best-kept secrets of World War Two. Between 500 and 1000 specially trained Auxiliary Units were created by Churchill's government between 1940 and 1941. Their task was to resist enemy occupation should the planned German invasion of the United Kingdom, code named 'Operation Sea Lion', be carried out (Forces War Records 2016).

Operational Bases were constructed across the south of England, each to be manned by four to eight trained men. Priority was given to those areas deemed most at risk to invasion so the first operational bases were constructed in Kent and Sussex. This later extended along the south coast as far as Cornwall. The bases were hidden underground, usually in woodland, and comprised a buried chamber with camouflaged entrance and emergency escape tunnel. The chambers were to house the unit in time of invasion and therefore would have been kitted out with beds, a toilet and cooking facilities and be fully stocked with food and water (British Resistance Archive, 2016).

Whilst officially known as operational bases, these subterranean complexes were generally termed 'hideouts' so as not to alert the enemy (or indeed fellow countrymen) as to their true purpose should their existence be discovered through eavesdropping. The secret of their existence was so great that little was known about them until the late 1960's, particularly through the research of David Lampe (2007).

Figure 82. Earthworks on Conegar Hill, Wootton Fitzpaine

MDO38916 and MDO38917. Photograph: RAF CPE/UK/2431 RS 4181 22-JAN-1948. Historic England RAF Photography.

The families of the Unit's personnel were never told of their presence and had Operation Sea Lion been carried out and succeeded, the units would have gathered at the hideout and remained encamped there until the enemy was defeated. Their mission was to attack the enemy at night and at day return to the hideout rather than to their families who may have been a threat to their secrecy and security. The auxiliaries were to effectively disappear and remain a secret resistant force until the enemy was driven out. Whilst answering to GHQ Home Forces, the units were organised as part of the Home Guard; the imminent threat of invasion faded in 1941 although most operational units remained operational and on stand-by until 1944 (Forces War Records 2016).

Several bases and outstations were constructed in Dorset and at least four bases are known within the study area (Forces War Records 2016). One such base was recorded by the Defence of Britain Project (DOB) on Conegar Hill, Wootton Fitzpaine (DOB number S0006485). The precise location of the base is not known although the given grid reference is in the dense woodland on the northern slopes of the hill (Figure 82).

Earthworks are visible on RAF photographs taken in 1948 in the more scrubby vegetation to the west (Figure 82). These features comprise a circular flat-topped mound 20m across which was highlighted during the project as possibly being the site of a previously unrecorded round barrow (see section 7.1.3 above). Two smaller earthworks lie immediately to the north of the round mound which are set 30m apart and were interpreted during the mapping stage of the project as possible pillow mounds. The western of these features appears as a crescent mound surrounding fresh soil and the eastern earthwork as a rectilinear hollow (11m across) possibly with a spoil heap flanking its southern side. Each of these features, including the round mound, are of uncertain date and function and may have some connection with the documented wartime bunker, further investigation including ground-truthing is recommended.

7.6.3 Case Study: Probable tented military camp, Melplash Netherbury

The small farming hamlet of Melplash is situated towards the eastern edge of the study area in the parish of Netherbury. The historic RAF photographs taken soon after the end of the Second World War show a complex of buildings, trackways and other features which are likely to be of military origin spread across two fields immediately to the south of Melplash Court Farm (Figure 83).

The site comprises a scatter of eight to ten Nissen huts, each 4.5 to 5m wide and between 7m and 14m long. The northern field contains three incomplete rows of up to 50 structures, each 2-3m across and situated to the south of a trackway which runs diagonally across the field towards Melplash Court. A large rectilinear compound, which is of a lighter colour than the surrounding field, takes up the central southern portion of the northern field. The compound contains a Nissen hut and four small structures set 20-26 m apart in a roughly square formation with a lighter patch 6m across offset slight towards the north-eastern of the four structures.

Figure 83. Probable military features at Melplash, Netherbury

MDO37793. Photograph: RAF CPE/UK/1974 FP 1399 11-APR-1947. Historic England RAF Photography.

The evidence suggests that this is a temporary tented encampment, possibly erected for soldiers rather than prisoners. The lines of small structures are probable bell-tents and the rectilinear compound appears to be a recreation ground with sports pitch. An associated sewerage treatment plant is visible in the southern field comprising a

circular feature with faint line (a pipeline) heading towards one of the buildings on the eastern edge of the field, presumably the toilet block.

On the northern edge of the north field is a much larger building, 27m by 7m across. This was clearly intended as a more permanent structure and it still in use today as an agricultural barn. It is conceivable that the barn was already in existence prior to the military taking over the two fields, and that it was requisitioned along with the fields during the war years. No trace of any of the other features visible on the 1940s photographs remain, the field boundary separating the two fields has since been removed and the area is now regularly ploughed and under an arable regime.

7.6.3.1 Case Study: Bomb Craters

Three groups of bomb craters and a single isolated crater were recorded within the study area. All are presumed to be the result of enemy bombing raids. At Yard Farm, Marshwood, a line of four craters are clearly visible on aerial photographs taken in 1947. One lies immediately adjacent to the lane running north through the farm and would have no doubt caused significant damage to its surface on impact. Six hundred metres to the southwest of the Yard Farm group, near Pilsdon Dairy Farm and on roughly the same alignment, lies a fifth probable crater, possibly an outlier of the same bombing raid.

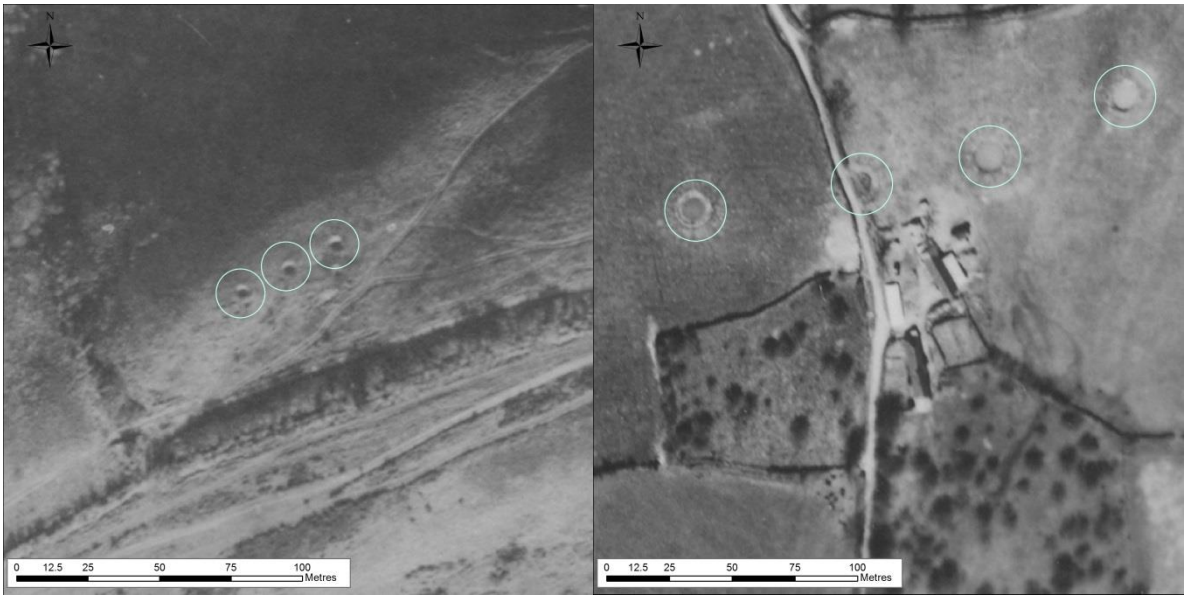


Figure 84. Lines of bomb craters at Stonebarrow, Whitchurch Canonicorum (left) and Yard Farm, Marshwood (right)

MDO38488 and MDO38277. Photographs: (left) RAF CPE/UK/2431 RP 3178 22-JAN-1948, (right) RAF CPE/UK/1974 FP 1408 11-APR-1947 . Historic England RAF Photography.

The other two groups of craters lie on Stonebarrow Hill (Figure 84, left) and immediately to the east of the possible long barrow at South Bowood (Figure 84, right). The Stonebarrow Hill group are situated just to the west of the possible site of a radar station recorded by the Defence of Britain Project although there was no sign of associated features on the available aerial photographs. The Yard Farm and South Bowood craters are between 11m and 13m across, considerably larger than those on Stonebarrow Hill which are only 5-6m in size. Whether this variation is due to the size of the bomb or the height at which they were dropped is not known.

7.7 The changing landscape of the 20th century

"…every Prince should have…. A Draught of his Country and Dominions, to see how the ground lies in the several parts of them, which highest, which lowest; what respect they have to one another, and to the Sea; how the Rivers flow, and why: how the Mountains lie, how Heaths, and how the Marches. Such a Map or Survey would be useful both in time of War and Peace, and many good observations might be made by it, not only as to Natural History and Philosophy, but also in order to the perfect improvement of the Country."

Thomas Burnet, The Theory of the Earth (London 1684)

The first systematic survey of the whole of Great Britain at a scale of one inch to six miles was commenced by the Ordnance Survey from the late 1840s onwards as part of its County Series of maps. This followed on from a long history of mapping which included a systematic trigonometrical survey of southern England commenced by the Board of Ordnance in the late 18th century under General William Roy (Seymour 1980, 1).

The Ordnance Survey 1st edition mapping provided blanket mapping for the entire project area although earlier Tithe mapping was also available for Devon. The OS 1st edition map provides baseline data in terms of the rural post medieval fieldscape of the late 19th century. Along with the parish Tithe mapping it allows landscape archaeologists and historians to attempt to identify patterns of historic landscape development between the late prehistoric and post medieval periods and forms the basis by which the Historic Landscape Characterisation (HLC) framework is produced.

Figure 85. Percentage field boundary change in Devon. Source Devon HLC Turner 2005

Figure 85 shows the relative % values for the Devon portion of the study area. Areas with little or no boundary change are shown in yellow; those areas with fewer boundaries (boundary loss) are shown in the orange to red spectrum (reds showing the greatest losses) and those with more boundaries (modern intake) are in the green

spectrum (dark green having the most additional boundaries since the 1st edition mapping).

There has been no commensurate study carried out in Dorset so the overall picture across the entire study area is unknown. As mentioned above (Section 3.1.4), the Dorset HLC data is currently incomplete and with some inherent inaccuracies, so this has not been used by the project. Whilst showing the project area is largely rural in character and that the Vale predominantly comprises enclosed land, it does not contain a consistent level of supporting data to show the different types of enclosure and their probable date of origin (although this is held in part within the HLC database). As demonstrated in Section 7.4, above, there is some fine detail shown on the OS 1st Edition mapping regarding historic field patterns and land division boundaries within the historic fieldscape of the Vale. This would bear further study and being brought into some useable form, such as HLC may provide. This would greatly enhance our understanding of historic landscape development in this area and significantly contribute to the forming of policy documents, such as Local Plans and Regional Development Frameworks.

By systematically looking at historic and more recent aerial photographs and lidar imagery, NMP is well placed to assess landscape change since the snap-shot provided by the historic OS mapping. However, as the NMP uses the OS 1st edition map as its baseline, elements of the 19th century agricultural landscape such as field boundaries, farmsteads and buildings recorded by the OS but since removed (or indeed, added) are not included in its mapping remit (see Appendix 1). This means that the NMP does not systematically record field boundaries removed since the OS 1st edition mapping and the resultant NMP plots can therefore only show those boundaries lost prior to the late 19th century.

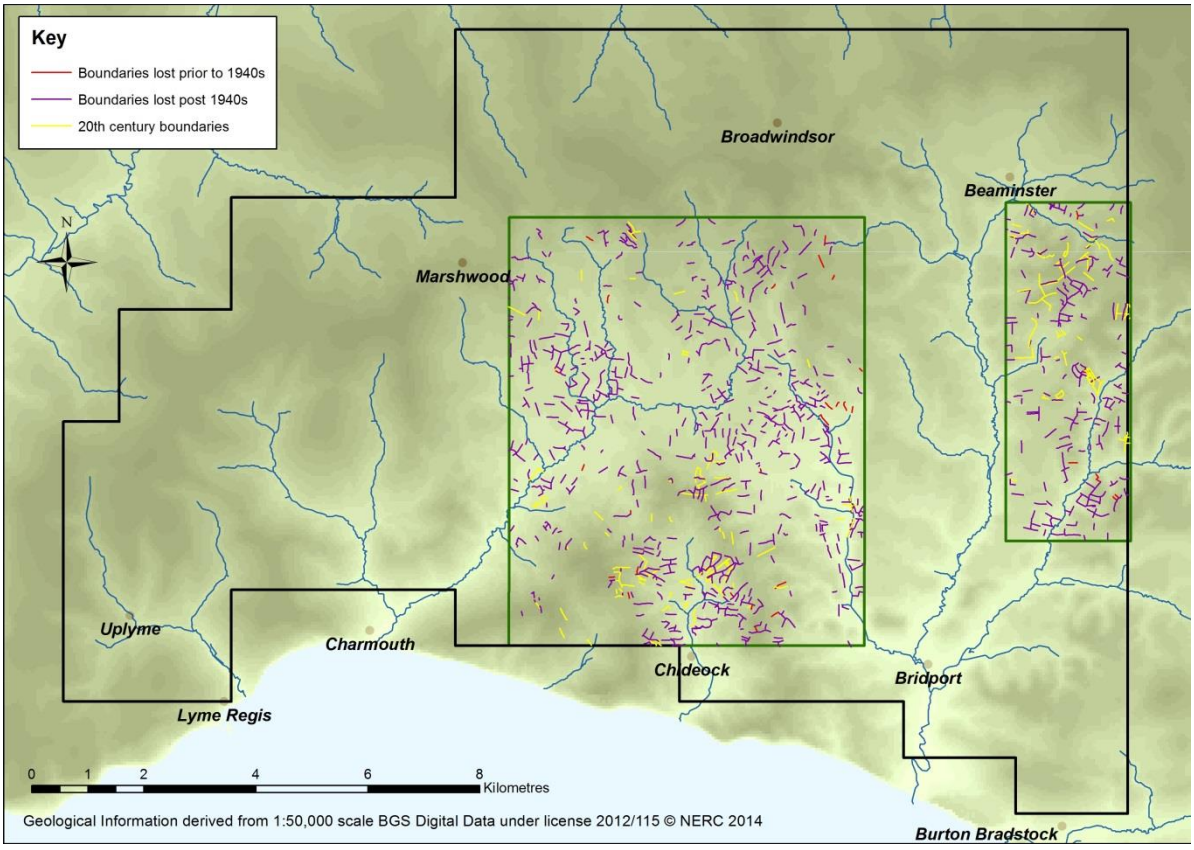


Figure 86. Loss of field boundaries marked on the OS 1st edition map for two sub-regions of the study area

One of the main stimuli for carrying out this NMP project was the increasing farm development pressure within the Vale. Widespread changes in land management have resulted in the loss of the small owner-occupied farms that once characterised the area.

Alongside this, the area has experienced boundary loss since the mid-20th century in order to create bigger fields to meet the demands of the modern farming industry (Section 2.1). Whilst this loss was not mapped during the current project (see above) it was considered appropriate that the project should broadly assess boundary loss for those parts of the study area within Dorset, illustrated with a number of case studies.

A straightforward comparison between the OS 1st edition map and the MasterMap data showed that there has been significant boundary loss over the entire study area since the late 19th century. A rapid assessment of three time-slices was made using a comparison of the OS 1st edition mapping, the RAF 1940s aerial photographs and the most recent OS MasterMap for two sub-regions of the main study area (Figure 86).

Whilst the vast majority of field boundary removal has taken place since the RAF photographs were taken in the 1940s, a small number of boundaries were removed prior to this.

What is immediately apparent, however, is that the Devon method of assessing change through the difference in numbers of fields on the OS 1st edition map compared to the present day is only part of the story. Parts of the Marshwood Vale have been remodelled since the 1940s, particularly in the areas north of Chideock, and southwest of Beaminster. Whilst the actual numbers of fields in these areas may be broadly similar to those on the OS 1st edition maps, many of the currently extant field boundaries are modern 20th century constructions. The curving post medieval boundaries which in many places would have fossilised medieval strip field systems no longer survive. This is a serious loss not just in terms of historic landscape value but also one of habitat loss and consequently a reduction of biodiversity, the broad ancient hedgerows which incorporated mature trees having been replaced by narrow single species hedges or simple fences.

7.7.1 Case study: North Chideock

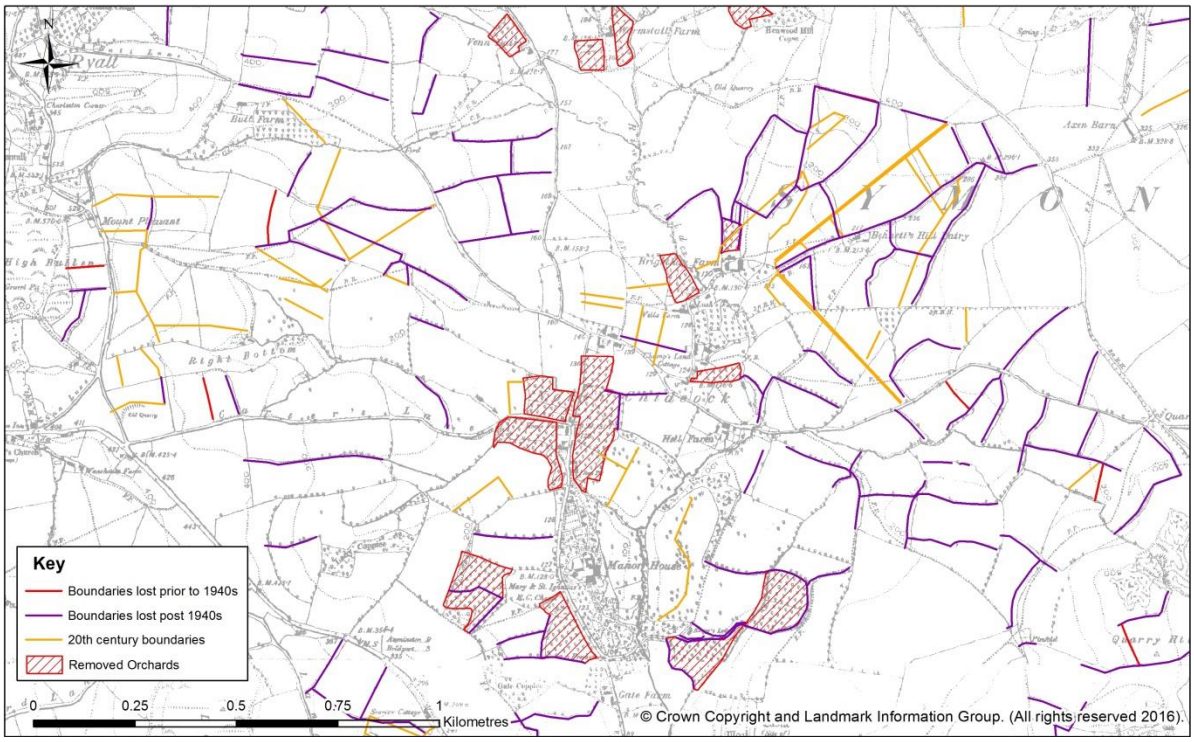
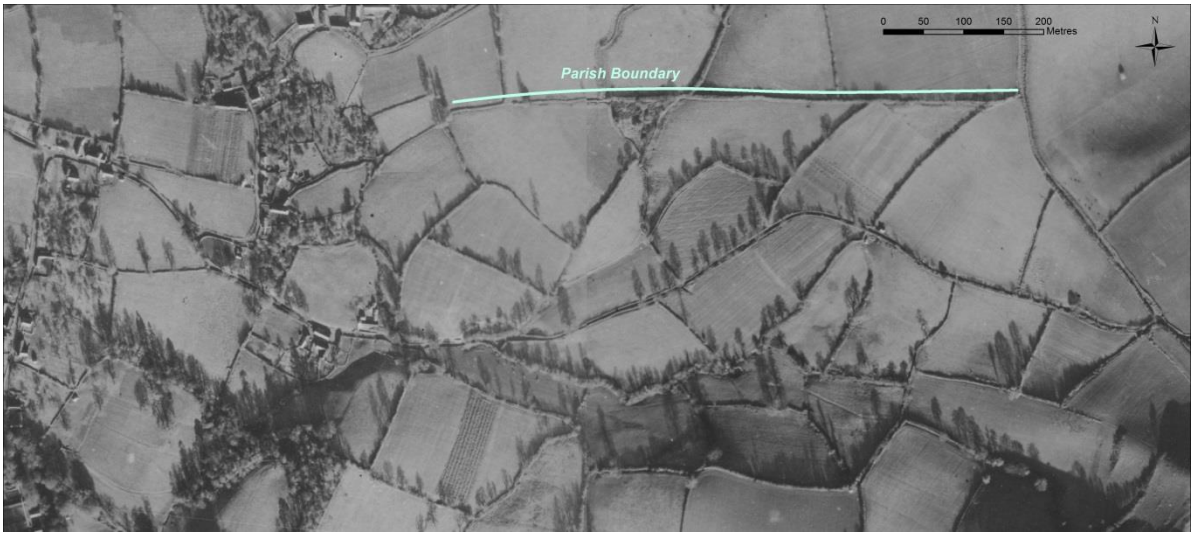


Figure 87. Field boundary loss and remodelling Chideock

The parish of Chideock on the southern boundary of the study area is perhaps one of the most affected by boundary change since the 1940s. Not only have many of the historic field boundaries been removed to make way for larger fields, but so too have the post medieval orchards that once surrounded the 15th century Manor House and the church of St Mary & St Ignatius.

As Figure 87 shows, an entire former network of curved boundaries (which once enclosed a system of small irregular fields) have been removed, particularly to the north and east of the farming hamlets associated with Chideock Manor in the centre of the image. In places modern straight boundaries have replaced the earlier hedgerows, effectively completely remodelling the landscape.

The photographs taken in 1948 and 2009 (Figure 88) demonstrate this dramatic change in the landscape. The long linear boundary running east-west through the field pattern on both photographs is the parish boundary between Chideock and Symondsbury. Even the earlier field pattern visible on the 1940s photographs does not appear to be contemporary with this boundary; the field boundaries run up to and abut it at oblique angles. The parish boundary may therefore be a much earlier feature in the landscape, possibly with origins in the medieval period or even earlier.



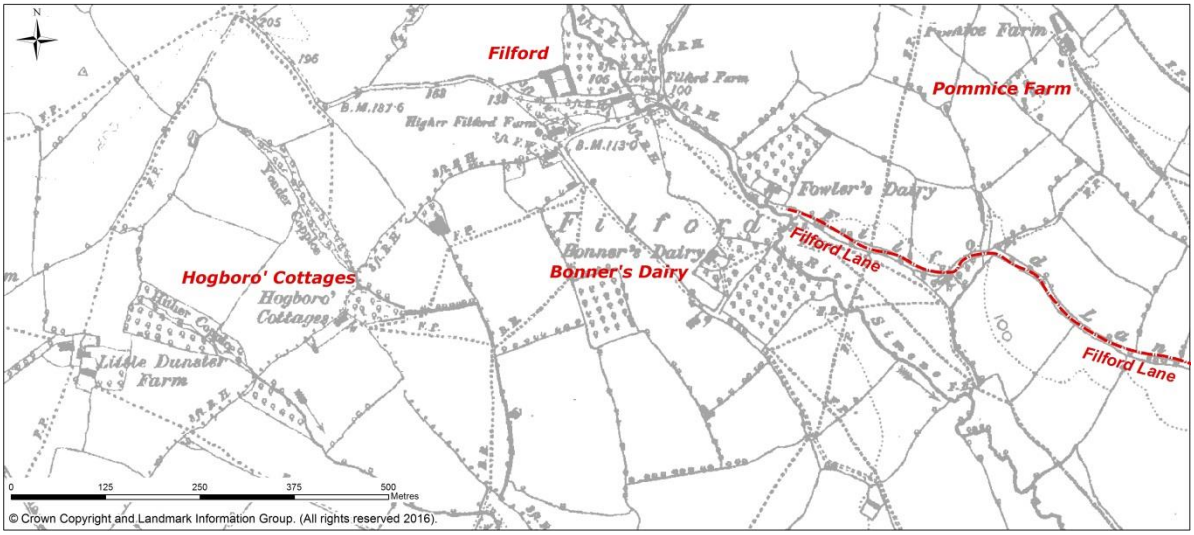
Photograph: mosaic of RAF CPE/UK/2431 RP 3171 and 3173 22-JAN-1948. Historic England RAF Photography.

Photograph: DCC VAP 2009 (mosaic of SY4193.ecw, SY4293.ecw, SY4393.ecw, SY4194.ecw, SY4294.ecw, SY4394.ecw)

Figure 88. Field boundary loss and remodelling, North Chideock

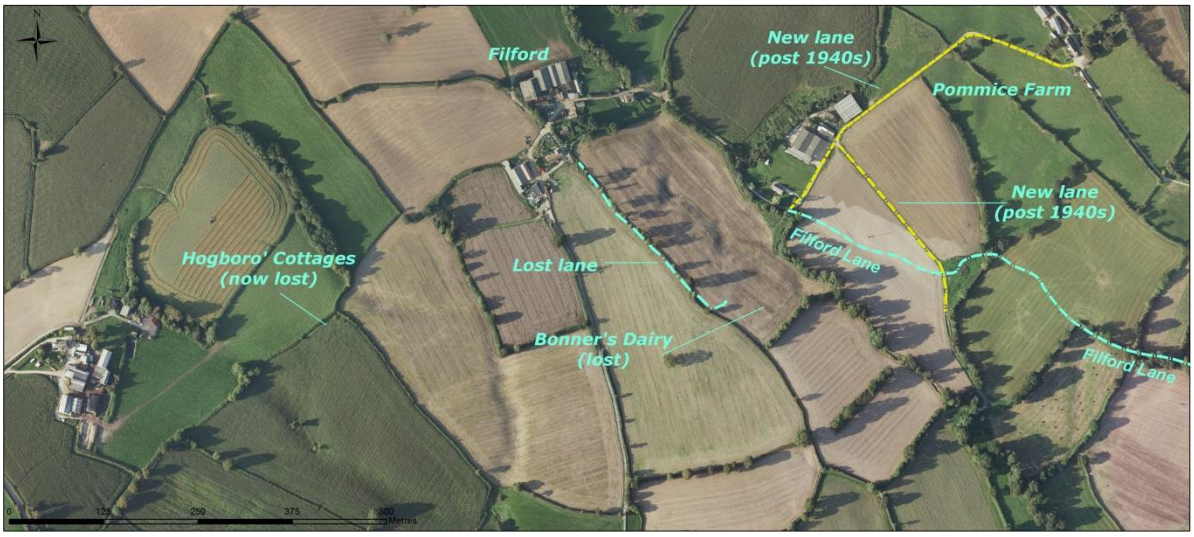
7.7.2 Case study: Filford, Netherbury

At the eastern end of the Marshwood Vale in the valley of the River Simene is the farming hamlet of Filford in the parish of Netherbury. In the late 19th century the hamlet comprised two farms (Higher and Lower Filford) with Hogboro' Cottages to the south west. The farms were served by two nearby dairies, Bonner's Diary and Fowler's Dairy and each of these scattered settlements had adjacent orchards.



OS 1st edition map c 1890.

Photograph: RAF CPE/UK/2431 RS 4216 22-JAN-1948. Historic England RAF Photography.



Photograph: DCC VAP 2009 (mosaic of SY4396.ecw, SY4397.ecw, SY4496.ecw, SY44974.ecw)

Figure 89. 20th century landscape change at Filford, Netherbury

When compared to the OS 1st edition map, the RAF photographs taken in the 1940s show a landscape largely unchanged since the later post medieval period (Figure 89). The only evidence of change is at Bonner's Dairy; the orchard surrounding the dairy

survives although the dairy buildings appear to have been demolished and the approach lane may no longer be in use.

Dramatic and far-reaching changes however occurred in the post-war years including the removal of the orchards and many field boundaries as well as the levelling of Hogboro' Cottages. The area to the east around Fowler's Dairy has seen the most change with a complete remodelling of the field pattern and the levelling and obliteration of Filford Lane. Filford Lane was once the main access route to Filford Farm from Salway Ash via Strongate Farm. By the 1970s the line of this lane had been completely destroyed and it simply vanished from the mapped landscape. From the mid 20th century, the lane was diverted north to Pommice Farm with a new offshoot to the south, which completely disrespects former historic field boundaries shown on the 1940s map, suggesting they were long removed by the time the lane was constructed.

7.7.3 Case study: Round Knoll, West Milton, Powerstock

An example of the almost complete removal of a field system can be found on the eastern edge of the study area in the vicinity of Round Knoll south of West Milton (Figure 90). Most of the field boundaries visible on the 1948 aerial photographs were removed by the 1980s and other than a few remaining scattered trees, nothing now remains of what was once a coherent historic field system.

Destruction of this historic landscape commenced prior to the late 19th century; the NMP team mapped several boundaries which fit into this system which were not recorded by the OS surveyor of the 1st edition map, presumably as they had already been removed by the time of the field survey (Figure 90, left).

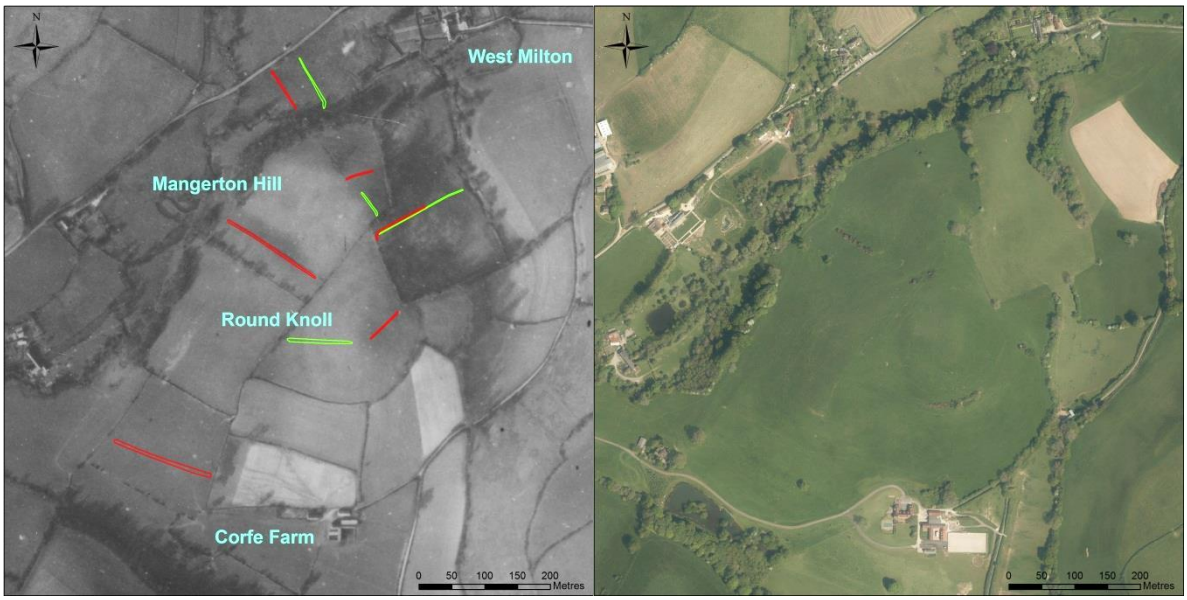


Figure 90. Destroyed field system, Round Knoll, West Milton

Photographs: (left) RAF CPE/UK/2475 RP 3160 09-MAR-1948. Historic England RAF Photograph; (right) DCC VAP 2014

7.7.4 Summary

Whilst not traditionally mapped as part of NMP projects, it is clear that historic and contemporary aerial photographs are an ideal medium to inform an assessment of 20th century landscape change. Whilst only a very rapid and broad-brushed assessment of this change (a comparison between the 1940s photographs and the modern OS Mastermap) could be carried out on the Marshwood Vale project due to time constraints, it is clear that the most far reaching changes to the historic landscape of the Vale have taken place since the Second World War.

Unlike the substantially vegetated historic field boundaries which may have had their origins in the medieval period and consequently developed over half a millennium ago, modern field boundaries are more transient, sometimes merely timber fence lines.

Whilst the OS have continually updated their original 1st edition county series with new editions published every decade or so, the continual remodelling of the 20th century landscape is in places not being recorded. Some hedge-lines visible on the historic RAF photographs were not in existence in the late 19th century and therefore do not appear on the OS 1st edition mapping. They had, however, already been remodelled and removed by the 1960s and 1970s and were therefore not recorded on the later OS mapping; they now only show as cropmarks and low earthworks on lidar imagery.

A full assessment of 20th and 21st century landscape change is possible from aerial photographic sources and there is perhaps an urgent need for a national assessment project, in addition to traditional NMP mapping, to inform management decisions, (including designations), as more and more of our ancient hedgerows are destroyed by modern farming techniques and the economic pressures of industrial farming.

7.8 The Fragile Earth

The geology of the study area is varied and ranges from fragile mudstones across the lowland of Vale itself, to a ring of harder limestones and sandstones which form the surrounding higher ridges and uplands. The variety of archaeological sites identified during the mapping differed across these changing bedrocks and associated soil types. These geological and pedological differences in part gave rise to the diverse histories and different patterns of activity across the changing landscapes (for example the distribution of lime kilns on the limestone and chalk ridges or marl pits on the mudstone – see section 7.5 above).

However these same differences can also directly affect the modern agricultural regime and these regimes themselves may skew the apparent distribution of sites by preventing the identification and accurate observation of man's past impact on the landscape.

The central portion of the Vale is underlain by calcareous mudstones which give rise to slow-draining, seasonally waterlogged clay soils. It has only been in relatively recent times (with the advent of the application of lime fertilisers, mechanical means to break up the soil and the laying out of drainage systems) that communities have been able to successfully cultivate this area on a larger scale. It is not surprising therefore that there is little evidence for permanent human settlement in the Vale prior to the medieval period with few prehistoric funerary monuments and only limited evidence for the laying out of pre-medieval field systems.

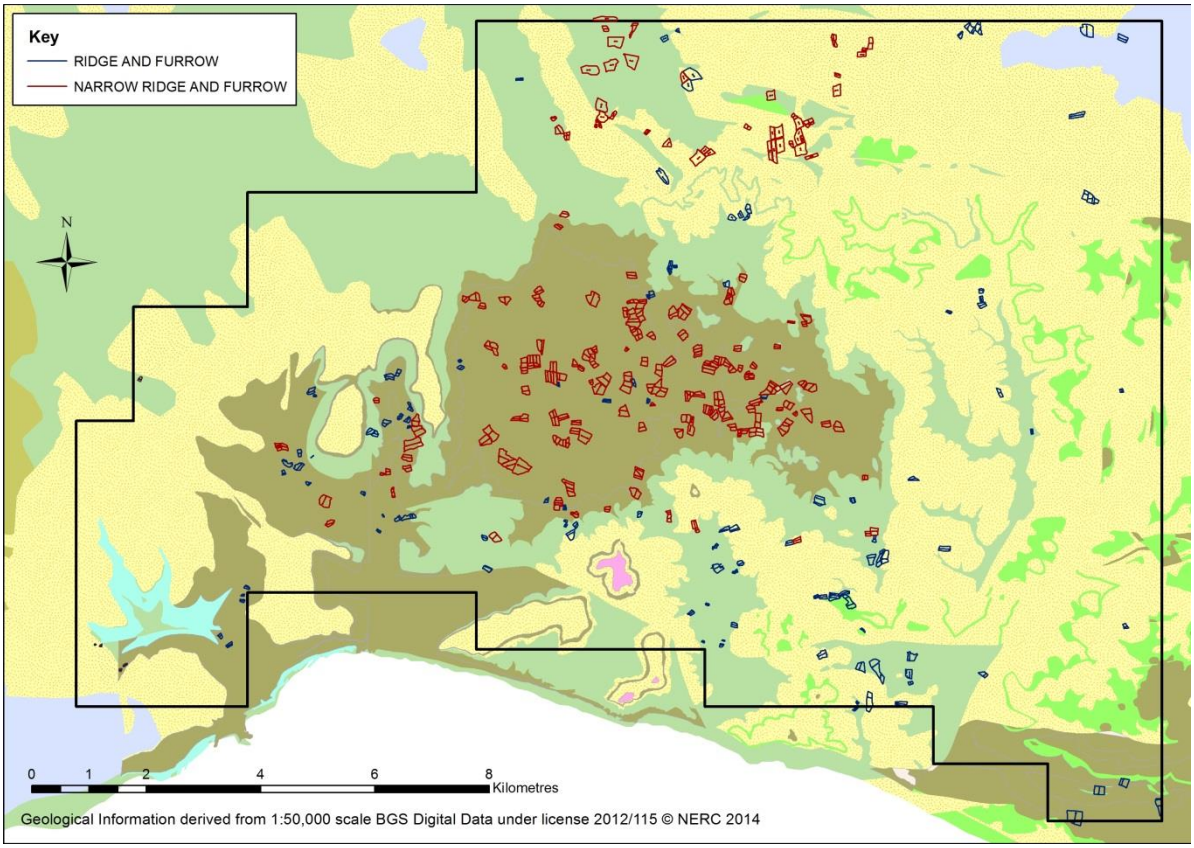


Figure 91. Ridge and furrow cultivation recorded in the study area

Note: for key to geology, see Figure 3 in this report

Figure 91 shows the distribution of post medieval narrow ridge and furrow across the study area where it is almost exclusively located on the heavy clay soils of the Vale underlain by mudstone. Does this distribution provide an accurate reflection of the overall extent of post medieval stream ploughing? It is a reasonable supposition that the heavy soils on the mudstones would have required regular ploughing even in

generally pasture areas in order to break up the soils, assist drainage and thereby improve grassland yields.

The lighter freer draining soils on the limestone and sandstones would not have required this regular intervention. However, this is not to say that post medieval narrow ridge and furrow did not once exist on those ridges surrounding the Vale. The lighter soils were no doubt more naturally suited to an arable regime and therefore the post medieval ridge and furrow earthworks would have long been levelled by more recent ploughing by the time the first aerial photographs were taken in the 1940s (when much of the Marshwood Vale itself was still under a largely pastoral regime).

It may be fair to suggest therefore that the apparent distribution of certain types of archaeological site can be skewed by later human activity and therefore are not necessarily a true reflection of their original distribution. It is also entirely possible therefore that much larger areas of the Vale were cultivated in the Roman and Iron Age periods than indicated by the small areas of field boundary mapped during the project, however traces of these systems may have since been obliterated by later medieval and post medieval agricultural activity.

7.8.1 Slumps and slides

The Marshwood Vale is a shallow bowl surrounded by Jurassic sandstones of the Upper Greensand and Dyrham formations. These have been eroded away within the vale to expose the underlying Charmouth Formation mudstones which are relatively impervious and give rise to the saturated subsoil of the area. The mudstones are greatly affected by landslides particularly on the western side of the project area. These generally occur at the spring-lines where water drains through the sandstone and is forced out onto the land-surface once it meets the impervious mudstones.

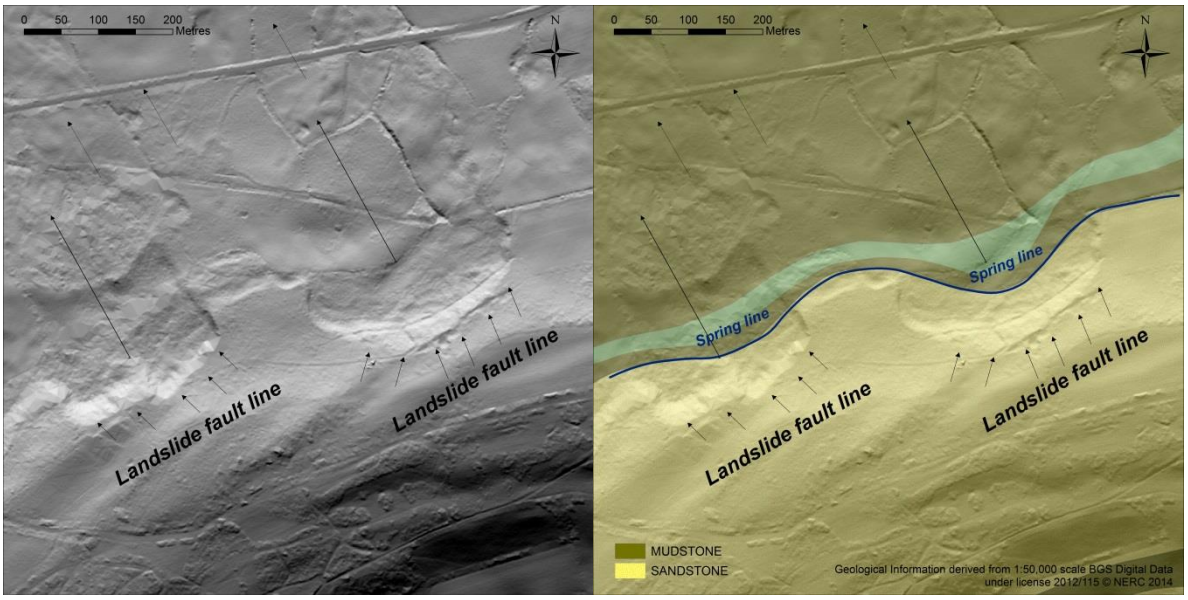


Figure 92. Distinct scarps caused by natural slumping of Greensand and mudstones at Stonebarrow Hill

© Cornwall Council 2016 based on Environment Agency (Geomatics) lidar data 2010.

Many areas of minor slumping and more major landslides were observed, these have given rise to an irregular hummocky topography. Most landslides are inactive and degraded by erosion having taken place over millions of years but others show as reasonably sharp scarps on the RAF photographs taken in the 1940s. The single-sided scarps were very similar to post medieval extraction scars (see Figure 92) and it was only the sheer scale of some of the slumped areas which identified the features as geomorphological and not archaeological origin.

Across the project area a number of different features were identified which were of uncertain origin and possibly deceptive geological formations. The areas of slumping described above were often disturbed by later quarrying which further complicated their interpretation. Where the origin of features (geological or anthropogenic) was doubtful they were generally mapped and recorded although their probably natural origin was discussed in the accompanying database record.

These possible geomorphological features included a series of irregular banks to the north of Lewesdon Hill (MDO39015) and probable parallel lines of slumping giving rise to a series of terraces that Northwood, Wootton Fitzpaine (Figure 92).

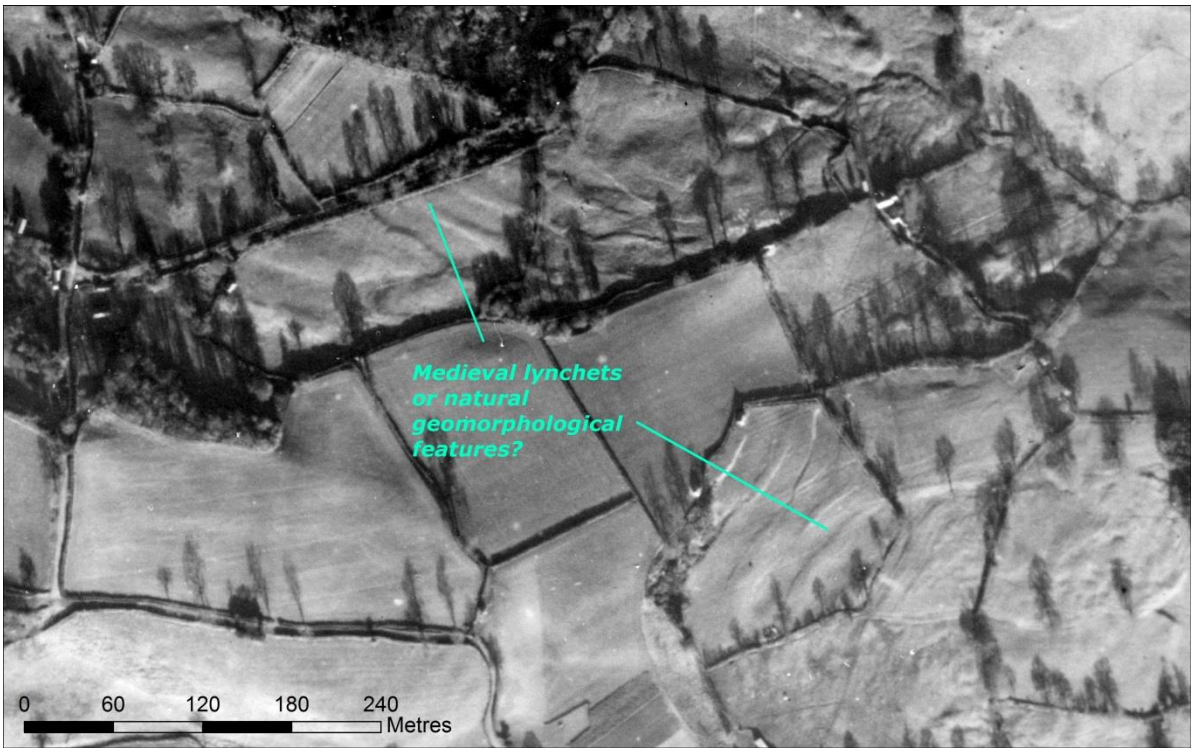


Figure 93. Whilst reminiscent of medieval or post medieval cultivation terraces, parallel earthworks at Northwood, Wootton Fitzpaine are likely to be geomorphological rather than anthropogenic in origin

MDO38628 and MDO38629. Photograph: RAF CPE/UK/2431 RS 4204 22-JAN-1948. Historic England RAF Photography.

8 Conclusions

The NMP mapping of the Marshwood Vale identified 1655 monuments of which 1534 (93%) were previously unrecognised or unrecorded in the county and national historic environment databases.

The project mapped a wide range of site types from all periods ranging from the Neolithic to the mid-20th century.

Of the 1655 sites recorded, 1244 (75%) were still extant or partially extant earthworks and 9 (0.5%) were extant or partially extant structures. Four hundred and two (24.51%) had been completely levelled or demolished and of these, 98% were visible or partially visible as cropmarks on the aerial photographs. In this respect the project fulfilled its aim of improving knowledge of the archaeological resource, by providing a fuller awareness of the range and extent of archaeological remains within the project area.

On a broad level, the results of this project will assist the management of the area's historic environment on a site-specific as well as a strategic level. By looking in detail at the areas of cropmark sites the NMP mapping will help define those parts of the study area most sensitive to threat by ploughing or urban expansion.

The main outcomes of the NMP mapping including recommendations for further survey and research are set out below.

8.1 Outcomes

The results of the mapping project have enhanced our understanding of human activity within the Marshwood Vale and its surrounding high ground. The overwhelming majority of sites recorded during the mapping project testify to the predominance of medieval and post medieval settlement, agriculture and industry within the project area. As well as being demonstrated through the numerous earthworks, cropmarks and demolished structures revealed through aerial photographs and lidar imagery, there is much of these landscapes that survives within the present-day fabric of fields, lanes, farmsteads and hedgerows and within present-day village footprints.

In addition to the plethora of medieval and post medieval settlement remains, cultivation remains and extractive features mapped by the project were a small, yet significant, number of prehistoric or Romano-British sites. The infrastructure of route ways and areas of principal settlement during the later prehistoric and Roman periods clearly favoured the higher ground surrounding the Vale but there is sufficient evidence to suggest that the wooded Vale was still accessed and exploited by prehistoric and Romano-British societies for various purposes. These appear to have incorporated aspects of ritual and ceremony, status display and social organisation, resource exploitation and control, and, potentially, military defence and control.

A small number of sites were also identified related to the use of the Marshwood Vale by the military from the early 20th century.

Overall, the results have therefore greatly improved our understanding of the character and extent of human activity within the study area from later prehistory onwards.

The contribution of the mapping project to understanding the historic character of the Marshwood Vale can be evaluated using Historic England's *Conservation Principles* (2008), which help define and assess historic character on the basis of four values:

- **Evidential value**: the potential of a place to yield evidence about the past
- **Historical value**: the ways in which past people, events and aspects of life can be connected through a place to the present
- **Aesthetic value**: the ways in which people draw sensory and intellectual stimulation from a place.
- **Communal value**: the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory.

Evidential Value

The evidential value of the project area largely resides in the medieval and post medieval rural settlement landscape, which contains both mapped and upstanding features associated with land organisation and lordship as well as the more typical and commonplace evidence for settlement, agriculture and industry.

Although clearly a rural landscape of predominantly medieval origin, there were a few sites mapped by the project which increase the evidence for prehistoric activity within the project area. A potential long barrow was identified (although see Section 7.4 for a possible alternative interpretation) as well as five new Bronze Age round barrows. The relatively low numbers of prehistoric sites and their distribution around the higher peripheries of the project area suggest that the lower lying clays of the Vale itself may have seen very little human activity during this period and that even this may have been relatively transient in nature.

Only small numbers of later prehistoric monuments were recognised, however these included eight curvilinear enclosures which are potentially new Iron Age/Romano British settlement sites. Along with the previously recorded evidence for activity within the project area during later prehistory (Middle to Late Bronze Age and Iron Age) and Romano-British periods, the evidence continues to suggest that the Marshwood Vale was an area of low population during these periods, with little, if any, evidence for permanent settlement. What evidence there is appears to be associated with the control of local communities, perhaps linked to aspects of social status and the organisation of people and resources: the concentration of hillforts along the northern edge of the Vale, for example, may have functioned as meeting places for exchange and trade as well as being well placed to well as being placed to oversee territorial boundaries and major routeways.

The uniquely recorded Roman fort on Waddon Hill may have been positioned to oversee the control of the subjugated local people following the Roman invasion, monitor resource management within the Vale and traffic along the ancient routeways through the wider area prior to construction of the principal Roman road network linking the south-west to the rest of Roman Britain. There is evidence for Roman activity and settlement closely associated with the main Roman roads that run through the project area and extending along some of the main river valleys, but there is as yet no clear evidence for Roman settlement within the Vale itself.

As in many parts of southern England, the early medieval period is poorly understood in Dorset. No sites mapped during this project could be positively identified as dating to this period. Sites relating to the later medieval period were more richly represented with 127 sites recorded. Of the medieval sites encountered, 65% were new to the Devon and Dorset HERs. The majority of new sites were agricultural features such as field boundaries, field systems and ridge and furrow fields.

The discussion of human activity in the project area during the later medieval and post medieval periods (Sections 7.3 and 7.4) has helped amplify not only our understanding of the character of the project area during these periods but also how that relates to the wider historic character of Dorset and local, regional and national processes that were taking place at the time.

Post medieval or early twentieth century sites were the most abundant with 769 monuments being mapped and recorded, of these, 749 (97%) were new to the record. The current project is perhaps one of the first to systematically record post medieval sites within the project area. A broad range of monuments were recorded from this period including agricultural, industrial, and military sites.

Some limited evidence for 20th century military activity in the Vale was identified from the RAF vertical photographs taken during and soon after the war. Further research into the impact of the Second World War using the exhaustive documentary sources from the period may prove invaluable in providing more precise dating and interpretations for the features plotted.

Historical Value

The historical value of the Marshwood Vale resides in its transition from a resource-based landscape throughout prehistory, to a feudal landscape of medieval lordship and social control that over the course of the later medieval and post medieval periods devolved to a rural agricultural landscape largely farmed by individual tenant farmers and landowners. The higher ground surrounding the Vale was the predominant area of early prehistoric monumental landscapes and settlement and it is along the higher ground that the main arteries of communication and land division also appear to have been established from the prehistoric period onwards.

The barrow cemeteries located along the higher areas of ground remain prominent and visible, illustrating the importance of these monuments in the daily lives of the communities who built and used them. They reflect ideologies about landscape, place and territoriality as well as being clues to ancestral beliefs, funerary practices and ritual during the Early Bronze Age.

The Iron Age hillforts of Pilsdon Pen, Waddon Hill, Lewesdon Hill, Lambert's Castle and Coneys Castle, also located on spurs of higher ground, illustrate aspects of tribal identity, status and power in this area. Further study of these sites may also reveal finer aspects of tribal division and social control.

The processes that governed social continuity and change within the project area as a whole incorporated changes in ritual belief and practice, changes in social organisation, and changes in domestic habits and agricultural practices. The early monumental landscapes, the major land divisions, and the patterns of settlement and enclosure that can still be identified within the present-day landscape reflect these processes and relate directly to the communities that made these; a testimony to the predominant ideologies that prevailed at the time and the social organisation that influenced their construction.

Being a predominantly agricultural landscape from the medieval period onwards, the farmsteads and small farming hamlets originating within the Vale during that time remain the most visible reminders of its social and industrial development. Interspersed amongst these are many medieval manor houses; Pilsdon, Chideock, Childhay, for example, that testify to the nature of architecture, design and layout of manor houses and their demesnes in the area. Marshwood Castle, Chideock Castle and Shipton Gorge are examples of some of the larger manors that were first established in this area. This evidence is largely archaeological rather than architectural but these sites contain much information about the location, layout and design of early medieval manorial seats. Many additional manors came into being later on in the medieval period, once the former manors of Royalty and upper aristocracy had devolved to split inheritance and division of ownership.

Associated with the early manors are the many medieval deer parks whose boundaries still survive within the winding lanes and ancient hedgerows. These long-lived boundaries (along with the remains of other forms of medieval enclosure; farmstead and manor; field and woodland) are illustrative of the changing nature of land ownership and land division over the course of the medieval period. Equally, deserted farmsteads and settlements, such as Kitty's Farm, Marshwood, Mangerton, Shipton Gorge, are illustrative of settlement shift and change during this time.

Within and around the dominant settlement landscape are aspects of military presence, during the earliest phase of the Roman invasion and then later, during the Second World War. Both phases were relatively fleeting in the longer history of the project area but both have left the physical evidence of their presence. The Roman roads that run through the area still form the main road arteries today. The prominent position of the Roman fort on Waddon Hill demonstrates that the higher ground within the project area provided an important focus for early Roman military control in this area, which was probably frontier territory at the time the fort was built.

There is very little evidence of 20th century wartime activity within the area but the intriguing military camp at Fir Farm illustrates a previously unsuspected military

history; either as a prisoner of war camp, auxiliary work camp or secret operational base. Its origin and function are not known at present but further study of this site has the potential to shed light on the types of military activity that took place in this are, as well as enhancing the broader understanding of modern wartime history in Britain. Although relatively small-scale, the evidence from Fir Farm provides a tangible link with historical events that wrought considerable physical and social change on a national and international scale, the impact of which is still evident today.

Aesthetic Value

The project area lies almost entirely within the Dorset and East Devon AONBs in recognition of the aesthetic value of the local landscape and the historic processes that helped form it. One of the primary drivers behind the mapping project was the identified threat to the historic environment as a result of increasingly intensive arable farming within the Vale, which was at risk from the impacts of changes in land management (particularly greater depth ploughing and cropping practices) and land use (particularly the removal of historic field boundaries). Although once a 'vapourish mire', the Vale is now an attractive landscape of patchwork fields and copses, narrow lanes and hidden farmsteads set within a cradle of higher ground. The contrast between the landscapes of the Vale and the higher ground which embraces it adds to the distinctive character of this part of Dorset.

Although not so immediately evident, much of the pattern of land division within the project area derives from the setting out of medieval deer parks and designed landscapes, the boundaries and open vistas created by these still informing parts of the project area to the present-day; at Broadwindsor, Marshwood, Chideock, Wootton Fitzpaine, for example.

Some of these historic changes in landscape history have been brought out by the mapping project, which has been able to demonstrate certain distinctions between the types and character of features found within these contrasting landscapes, such as the distribution of medieval strip lynchets on the higher ridges in comparison to the evidence for ridge and furrow agriculture on the lower-lying clays. The strongly defined strip lynchets along the higher rides and spurs are major elements of the landscape character of these areas, illustrative of both the agricultural processes that led to their creation and their aesthetic value as defining landscape features.

Communal Value

The results of the mapping project represent evidence for human activity within and around the Vale across a range of historic periods. This evidence also reflects a range of social ideologies and functions as well as differences in social scale, from the most humble tenant farmer to the highest elites of royalty and aristocracy. Furthermore, the prehistoric ritual monuments, later prehistoric hillforts, later prehistoric to post medieval settlements, field systems, agricultural practices, industrial sites, and Roman and Second World War military sites mapped by the project are all tangible links to the communities who lived in and around this part of Dorset from early prehistory onwards.

Many features not generally mapped by the project relate to the earliest forms of land division within the area; estate and parish boundaries, deer parks, woodland enclosures, for example. Many of these still survive within present-day landscape features except and therefore were only mapped if and where sections were visible on aerial photographs or lidar imagery. Such features testify to the patterns of land organisation that were established by local landowners during the medieval period, possibly based in some areas by preceding patterns of later prehistoric land division. This directly relates to the long history of social hierarchy and control that took place across England as a whole during the medieval period and which gives context to the processes of settlement and land management in this particular part of Dorset.

There is much evidence for present-day value of the project area within the local community. There is a Marshwood Vale magazine (http://www.marshwoodvale.com/), which features local people and events. The Marshwood Community Land Trust (http://marshwoodclt.org.uk/) was established in recent years, initially to provide

affordable housing in the area, but also to have some control and input into local development projects and community schemes. In addition to other community groups and local bodies these illustrate the distinctive character of Marshwood Vale within local consciousness and the pride in associating with it.

The mapping project of the Marshwood Vale and its immediate environs has contributed to the understanding of its historic character and how this has informed the heritage values discussed above. The significance of certain key sites in relation to these has already been recognised through designation, largely Scheduling, although revision of some of these sites is recommended to ensure they reflect up to date knowledge and understanding (see below). The project has incorporated discussion and liaison with stakeholders such as Dorset and Devon County Councils, the East Devon and Dorset AONBs and Historic England. The information and data provided by the project and the form, extent, sources and interpretation of the monuments discussed in this report are available from Dorset HER and national monument records and GIS.

8.2 Recommendations

- **Continuing aerial reconnaissance.** Specialist aerial reconnaissance has been undertaken over the project area in recent decades and a number of important new sites have been identified from this photography. In addition, a large number of remains were identified from vertical photographs taken by the OS and by the RAF in the 1940s. There consequently remains considerable potential for the discovery of archaeological sites through a continuing programme of aerial reconnaissance, particularly during the summer months. The use of NMP mapping during future aerial reconnaissance will also allow much greater efficiency by facilitating better targeting in areas of very dense archaeological remains.
- **Further NMP projects.** The significant numbers of important new sites recorded during the project demonstrate the effectiveness of NMP mapping within Dorset. This is despite there having been a long history of aerial reconnaissance over the county since the 1920s. Further NMP mapping for all parts of the county as yet unmapped would be of enormous value, especially in those areas subject to continued ploughing.
- **Further investigation of sites recorded from aerial photographs.** Although a large number of sites have been recorded from aerial photographs, a relative lack of field work and excavation means that little is known about them. In particular the date and function of many features remains uncertain unclear. A programme of ground-based investigation of a representative sample of the sites recorded by NMP, involving field walking, geophysical survey and limited excavation, would significantly enhance current knowledge of prehistoric, Roman and Saxon rural settlement.

  A selection of sites which would benefit from further ground-based investigation is included in Appendix 2. Of notable interest is the possible Neolithic long barrow at Lowness Coppice, Netherbury (MDO38306), and the possible Bronze Age round barrow at Mapperton Farm, Beaminster (MDO37774), which are still extant features in the landscape. The previously unidentified military camp at Fir Farm, Broadwindsor (MDO39016), would also particularly merit further investigation.
- **Further investigation of land division and tenure.** The project identified examples of long linear boundaries within the project area, largely confined to the higher ground to the east and north of the Vale. The study was not definitive and further study is recommended to establish patterns of land division in this area more securely and to assess how these relate to patterns seen elsewhere in Dorset (see Davey 2013, for example).

  The study of medieval manors and patterns of tenure in this part of Dorset would be recommended to further inform on the settlement of the Vale and how this area devolved from a resource-based landscape under high lordship to one

of weak lordship and smaller scattered manors, hamlets and farmsteads. This could employ documentary research into manors and their holdings as well as map regression to identify the devolution of larger holdings and the enclosure of medieval open field.

Fieldwork could be targeted to establish where associated boundaries are extant and what form these now take. As demonstrated by the remains of enclosure associated with deer parks, medieval farmsteads and manors, these may still survive within existing field boundaries, enclosure boundaries and lanes. This project has revealed only slight evidence for former high status land division visible on aerial photographs and it seems likely that there may be more evidence surviving within extant boundaries than is currently known.

Areas for further investigation might include:

- North of Beaminster, where long linear boundaries may be associated with sites such as East Hewstock Moat and Lower Buckham Farm
- Broadwindsor, where long linear boundaries may be associated with the creation of medieval open field
- Marshwood, Crekelade and Broadwindsor (Horn) deer parks, where deparking may have been followed by the division of land holdings and the creation of small farm holdings
- Wootton Fitzpaine, Higher Wootton Abbots Grange; Lower Abbots Wootton Farm, which may reveal evidence for changes in land ownership and manorial tenure
- North of Bridport where long linear boundaries may be associated with patterns of medieval or older land division

  **These suggestions are not definitive and have been made on the basis of relatively limited research and observation as part of this project*.
- **Further investigation of nucleation and village development.** The development of nucleated settlements on the higher ground surrounding the Vale during the medieval period gave rise to villages of various scales, all of which were associated with some form of commonly-farmed open field. Further study into how these types of settlement developed and how they compare or contrast with village development in other parts of the country would contribute to the broader study of medieval settlement in England and regional variation within this.
- **Enhanced Designations.** The NMP mapping has added to the numbers of important archaeological monuments within the project area. The extents of previously known sites (such as hillforts) have in some cases also been increased. It strongly recommended that the current designations (in terms of the numbers and extent of scheduled sites) are reviewed at the earliest opportunity. A list of potentially national and regionally important sites is included in Appendix 2.
- **Further investigation of field boundary and orchard loss.** Undertake further analysis on landscape change over time. NMP project teams are uniquely placed to look at all readily available historic photographs of a given area. Future NMP projects could map post-1940s boundary loss as part of the mapping phase. This level of detail would be invaluable when looking at management of the historic and natural environments on a broad and site level.

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10 Project archive

The CAU project number is HEXQPR146537

The project's documentary and drawn archive is housed at the offices of the Historic Environment Service, Cornwall Council, Fal Building, County Hall, Truro, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing the project design, project correspondence and administration.
2. This report held in digital form on the Cornwall County network and copies deposited with HE, DCC and DvCC.
3. The AutoCAD drawings held in digital form on the Cornwall County network and copies deposited with HE, DCC and DvCC.

The archaeological interpretations generated by the NMP survey and recorded on the Devon HER are the primary product of the survey. The HER monument records, accessible via the Heritage Gateway http://www.heritagegateway.org.uk/gateway/ and for those in Devon via DCC's Environmental Data online viewer: http://map.devon.gov.uk/DCCViewer/.

Historic England/ADS OASIS online reference: cornwall2-269842

Appendix 1: Methodology

The project followed current NMP standards and methodology, with a few minor variations for those parts of the project covering the county of Devon arising from the use of ArcMap GIS as mapping software. he NMP is a standard for transcribing and recording archaeological sites and landscapes from aerial photographs and other airborne remote sensed data, such as Lidar.

Sources

Aerial photograph collections

All readily available aerial photographs were consulted during the project.

The Historic England Archive (HEA) formerly part of the National Monuments Record (NMR) in Swindon holds large numbers of aerial photographs of the project area. These include vertical prints taken by the Royal Air Force (RAF) and Ordnance Survey (OS) ranging in date from the 1940s to 2001.

The HEA also holds a large collection of oblique prints; including military obliques taken by the Ministry of Defence (MOD) between 1941 and 1950 and a collection of specialist oblique prints, slides and digital images which were taken for archaeological purposes and range in date from the 1960's to the present day. In addition a small number of very earlier oblique images taken in the 1920s and 30s by OGS Crawford are held in the HEA collection. 3008 photographs were consulted from this collection. These included 2238 vertical prints, 758 specialist oblique prints and 12 military oblique prints. A loan arrangement was put in place enabling the consultation of these photographs at the office of Cornwall Council in Truro and of Devon County Council in Exeter.

Cambridge University Committee for Aerial Photography (CUCAP) holds an important national collection containing a number of vertical photographs taken for a range of non-archaeological purposes as well as specialist oblique photography resulting from archaeological reconnaissance. This important collection was unfortunately not accessible during the lifetime of the project.

In addition to the two national collections the Devon and Dorset County Councils both hold a collection of census vertical photographs taken periodically since the 1970's. The project team in Truro were provided Dorset vertical photographs in digital format ranging in date from 1972 to 2014.

Additional digital photographs available to the project included photographic tiles provided by HE from the Pan Government Agreement (PGA). Online photographic images from Google Earth and Bing were also accessed via the internet.

Lidar Tiles

Lidar tiles were provided by the Environment Agency (Geomatics) as .asc files. These were mainly 1m resolution although a small number of 50cm resolution tiles were available for the southern fringe of the project area.

Data sources

Data from the Dorset HBSMR

Data from the Dorset HER (HBSMR) was provided to the project team as a series of Arcview shape files with attached object data

Data from the NRHE

Monument data from the National Record of the Historic Environment (NRHE) AMIE database was provided to the project team for the study area by HE at the start of the project. This data included details of all archaeological sites and was provided digitally in a series of PDF files and Arcview shapefiles.

Map Sources

In addition to the current OS MasterMap data which was used as the primary source of control for the rectification and mapping. The historic 1st Edition mapping dating from the late nineteenth century was consulted to further understand the archaeology of the

project area and to aid interpretation of specific sites. For those parts of the project area in Devon, tithe award mapping was also available.

Archaeological scope of the project

Plough-levelled features and earthworks. All cropmarks and soilmarks representing buried "negative" features (i.e. ditches and pits), earthworks or stonework of archaeological origin were recorded. All earthwork sites visible on aerial photographs were recorded, whether or not they had previously been surveyed (including those marked on the OS maps), and whether or not they are still extant on the most recent photography.

Buildings and structures. The foundations of buildings and structures which appear as ruined stonework, earthworks, cropmarks, soilmarks or parchmarks were recorded. Standing roofed or unroofed buildings and structures were not normally plotted unless there was no other adequate map record. In specific archaeological contexts however (e.g. industrial and military complexes and country houses) or when associated with other cropmark and earthwork features, particularly when buildings have been demolished since the photography (even if depicted by the Ordnance Survey), then it may have been appropriate to map them in order to make an association explicit.

Ridge and furrow . All areas of medieval and post medieval ridge and furrow were mapped using a standard convention to indicate the extent and direction of the furrows. The project database included brief comment on preservation and visibility over the area mapped as well as any archaeological assessment.

Water meadows. Areas of extensive water meadows thought to pre-date 1945 were transcribed and recorded. The lines of the main drains and leats were mapped in full, plus a sufficient sample of the minor water courses to give a true feel for the extent and pattern of the whole.

Post medieval field boundaries. All removed field boundaries and field systems were plotted where they were considered to pre-date the OS 1st Edition map (c.1880) and are not already recorded on any other OS map. Where post medieval field boundaries mapped by the OS may be misinterpreted (e.g. within complex areas of archaeological features), these may have been plotted or mentioned in the text record.

Parkland, landscape parks, gardens and country houses. All park and garden landscape features (including deer parks) visible on aerial photographs but not previously recorded by the OS were be plotted. Similarly, the former existence of country houses either completely or partially demolished during the period of photography were mapped. If the house is depicted by the OS then it will not be mapped but will be mentioned in the text record. Normally the whole complex of house, garden and park was recorded using a single brief text record.

Industrial features and extraction. The aim of NMP is to provide a rapid, basic level, comprehensive survey of the extent and character of industrial remains in a landscape context. The scope for industrial recording is immense and some data already exists within national databases, local specialist recording groups and literature.

Areas of industrial archaeology were recorded using the appropriate conventions where they can be recognised as pre-dating 1945. Roofed or unroofed buildings, when associated with other mapped features within industrial complexes, may have been recorded as described above.

All extractive features believed to pre-date 1945 were mapped for those parts of the project area located in Dorset. These included large-scale features such as quarries, pits and mines, as well as small-scale extraction of resources for immediate local use (e.g. minor stone quarries and gravel extraction). Devon County Council's policy its not to record extractive features already mapped on the OS historic mapping and therefore the large quarries associated with the lime kilns of the Uplyme area were not plotted during this project.

Transport. Major transport features (i.e. disused canals and main railways) are included in the Ordnance Survey sphere of interest and subsequently appear on OS

mapping; these were therefore not mapped. Smaller features which are outside the Ordnance Survey sphere of interest were mapped, as were trackways, pathways and roadways considered

Twentieth-century military features. NMP military recording includes First and Second World War as well as Cold War features. The aim of NMP is to provide a rapid, basic level, comprehensive survey of the extent and character of the major military remains of the twentieth century. Military structures (originally designed without a roof) and roofed, or unroofed, military buildings, particularly when associated with other mapped features, were therefore mapped, especially when they have been removed or destroyed. Where an extensive site is already mapped by the OS a minimalist approach for NMP mapping was used.

Normally NMP mapping of military sites aims to be a "snapshot" of the main features of the site in 1945 or 1946. Military structures mapped include outlines of extensive features such as airfield perimeter and runways, camp perimeters as well as significant buildings and earthwork structures, and all ephemeral features such as barbed wire, lines of tank cubes, etc.

Urban areas. Major conurbations are currently a low priority for NMP projects, as such elements of the urban landscape (e.g. factories, housing, transport termini), and particularly twentieth century development, were only mapped in exceptional cases, for example where there is a direct association with features being mapped outside the urban area. In areas built up in the twentieth century, historic aerial photographs (most are from the 1940s onwards) may record archaeological features, or aspects of the landscape not recorded on historic maps. All archaeological features visible on aerial photographs of the pre-urban landscape were mapped and recorded.

Natural features. Geological and geomorphological features visible on aerial photographs were not generally mapped. In exceptional circumstances however, they were plotted but only if their presence helped to define the limits of an archaeological site or if it was considered likely that an archaeological interpretation may have already been (or in future be) made in error, in which case the true origin of the features was discussed within the project database.

Transcription

The results of the mapping were produced entirely in digital format; for areas within Dorset using AutoCAD and for Devon, Mapinfo.

Archaeological features were digitally transcribed according to a nationally agreed layer structure and using agreed line and colour conventions as specified by Historic England (Winton 2015).

Map Note Sheets (MNS) were maintained for each OS quarter sheet within the survey area. MNS record the progress of each sheet and the sources used.

Quality assurance checks were carried out on selected map sheets to ensure that all sheets were completed to NMP standards.

Project database

Data for all features mapped during the prioject was either input into the Dorset HBSMR v4 database or the Devon HBSMR v4 database. These databases automatically generated unique Project UID numbers (Prefixed MDO for Dorset and MDV for Devon) and contained fields enabling monument indexing to be carried out to HEA and ALGAO standards. Appropriate data was entered into this database for each archaeological feature mapped (data recorded included summary, description, photographic references, site type and period, locational information and details of the interpreter).

Data exchange

The mapped data was provided to the HE as AutoCAD drawings as well as GIS data in a format suitable for incorporation in to the HE Corporate GIS. All data supplied was to NMP monument recording standards and in line with HE minimum standards for monument recording.

Copies of the Project Design, Final Report and all other relevant project documentation will be deposited with HE. The PDF version of the report will be deposited with Archaeology Data Service (ADS).

Project outcomes

For those parts of the project area located within Dorset, a series of AutoCAD drawings was produced showing all archaeological features visible on aerial photographs for each of the two mapping blocks. These were converted to GIS files and incorporated into the Dorset HER. The Dorset HBSMR was updated with descriptions of all archaeological sites mapped during the project.

For Devon, NMP data was directly drawn into the HER Mapinfo GIS showing all archaeological features visible on aerial photographs and lidar. The Devon HBSMR was updated with descriptions of all archaeological sites mapped during the project.

Appendix 2: Recommendations for further work

Description	Place	HER and/or NRHE Monument No.	NGR	Assessment of significance/reason for further work/nature of further work
Potential Neolithic long barrow.	Lowness Coppice, Netherbury	MDO38306	SY 4387 9890	Possible example of rare monument type. Ground based survey (field walking, geophysics, GPR, trial trenching) to confirm interpretation.
Possible Bronze Age barrow	Mapperton Farm, Beaminster	MDO37774	SY 4929 9914	Ground based survey to assess survival and confirm interpretation. Assess potential for scheduling.
Potential site of a Bronze Age barrow, pillow mound or earthworks associated with a WWII Axillary Operations Base.	Conegar Hill, Wootton Fitzpaine	MDO38916	SY 3780 9544	Ground based survey (geophysics, trial trenching) to confirm interpretation. Possible example of a rare monument type. Assess potential for scheduling.
Possible Bronze Age barrow	Quarry Hill, Chideock	MDO38388	SY 4346 93665	Ground based survey (field walking, geophysics, trial trenching) to assess survival and confirm interpretation. Assess potential for scheduling.
Possible Bronze Age barrow	Loders Lane, Shipton Gorge	MDO37552	SY 4986 9202	Ground based survey (field walking, geophysics, trial trenching) to assess survival and confirm interpretation. Assess potential for scheduling.
Possible Bronze Age barrow	Jan's Hilll, Symondsbury	MDO38235	SY 4949 9544	No earthwork features remaining so not a candidate for scheduling, however advise ground based survey (field walking, geophysical survey and excavation) to confirm interpretation.
Possible prehistoric enclosures	Whitcombe Farm, Beaminster	MDO37969	ST 4882 0075	Ground based survey (field walking, geophysics, trial trenching) to confirm interpretation.

Possible prehistoric enclosure	Coombe Farm, Beaminster	MDO37996	ST 4978 0000	Ground based survey (field walking, geophysics, trial trenching) to confirm interpretation.
Possible prehistoric enclosure	Edd Plantation, Symondsbury	MDO38436	SY 4453 9468	Ground based survey (field walking, geophysics, test trenching) to confirm interpretation.
Potential prehistoric enclosure	Mill Batch, Wootton Fitzpaine	MDO38884	SY 3519 9569	Possible example of monument type rare within the Vale. Ground based survey (field walking, geophysics, trial trenching) to confirm interpretation.
Probable prehistoric settlement enclosure.	West of Pilsdon Pen hillfort. Broadwindsor	MDO541	ST 4030 0173	Possible scheduling of earthworks dependent upon the outcome of further field investigation, in particular geophysical survey.
Iron Age hillfort	Coney's Castle, Whitchurch Canonicorum	MD2980 List Entry 1003208	SY 3718 9744	Reassess scheduled area, possibly extend to south east to included additional earthworks.
Iron Age hillfort	Pilsdon Pen, Pilsdon	MD2018 List Entry 1019394	ST 4126 0128	Reassess scheduled area, possibly extend to south to included additional earthworks.
Deserted medieval settlement earthworks.	Mangerton, Netherbury	MDO1773 NRHE 449985	SY 487 958	Ground based survey to assess survival and confirm interpretation. Assess potential for scheduling.
Possible medieval deserted settlement	Laverstock House, Stoke Abbott	MDO38283	ST 4259 0003	Possible scheduling of earthworks dependent upon the outcome of further field investigation and survey.
Possible manor site and shrunken settlement earthworks	Court House, Shipton Gorge	MDO2443 NRHE450177	SY 4973 9132	Ground based survey of surviving earthworks to confirm interpretation. If manorial, assess potential for scheduling.
Deserted Medieval farmstead	Kitty's Farm, Marshwood	MD1641	SY 4198 9834	Ground based survey to assess survival and assess potential for scheduling.
Undated ring ditch	Axen, Symondsbury	MDO38434	SY 4368 9417	Ground based survey (field walking, geophysics) to confirm interpretation.

Undated enclosure	Allington Hill, Allington	MDO37479	SY 4588 9339	Curvilinear enclosure on 1940's photographs. Site under scrub on Google Earth and no visible. Ground based survey (geophysics and trail trenching) to confirm interpretation.
Possible POW camp	Fir Farm, Broadwindsor	MDO39016	ST 4376 0164	Parchmarks of military-style camp. Site is largely a mystery. Field investigation to include field walking and to collect oral history from current owners and neighbours.
Possible, barrow, pillow mound or auxiliary operational base	Conegar Hill, Wootton Fitzpaine	MDO38916 and MDO38917	SY 3781 9544	Field investigation to include field walking and to collect oral history from current owners and neighbours.

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