

Wessex Archaeology

A303 Stonehenge Archaeological Surveys

Stage 2 Fieldwalking Survey

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**A303 STONEHENGE IMPROVEMENT
ARCHAEOLOGICAL SURVEYS**

Stage 2 Fieldwalking Survey

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Stage 2 Fieldwalking Survey

SUMMARY

Wessex Archaeology was commissioned by the Highways Agency, through their consultant, Mott MacDonald, to undertake fieldwalking surveys of eight areas along the Preferred Route of the A303 Stonehenge Improvement in Wiltshire, between NGR SU 4050 1405 and 4142 1420. These were identified in the Stage 2 Environmental Statement Scoping Report as areas where fieldwalking had not been undertaken during Stage 1. The surveys were undertaken in three phases, November to December 2000, November 2001 and March 2002. Survey in one area (Area 2) was not possible. This report presents the results of the fieldwalking surveys and compares these with the results of previous work in the Stonehenge World Heritage Site.

The most common material types recovered were worked flint and burnt flint. The distribution of worked flint was relatively even across the survey areas, with small concentrations apparent in Areas 1, 2, 6 and 9. The burnt, unworked flint shows a similarly even distribution. The worked flint shows no significant groupings and comparison of the data with that from earlier surveys shows that the majority of the results fall within the lowest categories used by both the Stonehenge Environs Project and English Heritage's *Archaeological Assessment of the World Heritage Site and its Surrounding Landscape*. The burnt flint offers little additional information.

Very little pottery was recovered during the course of the fieldwalking. Only very small quantities of Roman pottery were recovered, mostly from Area 1, reflecting the remarkably low level of Romano-British activity attested along the Preferred Route. There is little significance in the distribution of this material.

Small assemblages of medieval and post-medieval pottery and ceramic building material were recovered from Areas 2, 3 and 10. This distribution suggests a possible focus of activity to the north of Winterbourne Stoke, probably representing the extents of arable fields manured with material derived from either the village itself or the former adjacent manor of Winterbourne Matravers, situated in the vicinity of Scotland Lodge.

Other finds recovered, including metalwork, glass and clay pipe fragments are all either of post-medieval date or undiagnostic.

The results of the Stage 2 fieldwalking suggest a low level of activity along the Preferred Route. Where areas fieldwalked lie adjacent to areas covered by these previous analyses, the results seem to confirm those of the previous work. Only small assemblages of material, which may in some cases correlate with sites whose presence is already known and which support existing knowledge of the archaeology along the Preferred Route, were recovered. However, the small size of the assemblages prevents the drawing of any firm conclusions or the identification of any new possible sites.

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ACKNOWLEDGEMENTS

The fieldwalking surveys were commissioned by the Highways Agency via their consultants, Mott MacDonald.

Wessex Archaeology are grateful to the landowners and occupiers for the co-operation in providing access to land.

The project was managed for Wessex Archaeology by Chris Moore. The fieldwalking was undertaken by teams led by Adrian Chadwick, Nicholas Cooke and Tara Fairclough, and comprising Martin Campbell, Jenny Coxon, Kirsten Egging, Peter Fairclough, Rob Goller, Gail Mabbott, Jon Martin, Simon Skittrell and Peter Smith. Emma Loader and Chris Brayne were responsible for the sampling methodology and database design. Jenny Coxon, Rob Court and Tara Fairclough undertook the initial finds processing and data entry, and Lorraine Mephram and Rob Court carried out the finds analysis. This report was compiled by Nicholas Cooke, Adrian Chadwick and Tara Fairclough. The illustrations were prepared by Rob Goller and Linda Coleman.

A303 STONEHENGE IMPROVEMENT ARCHAEOLOGICAL SURVEYS

Stage 2 Fieldwalking Survey

1. INTRODUCTION

1.1. Project Background

- 1.1.1. In July 1998 the Government announced that the A303 Stonehenge Improvement, incorporating the Winterbourne Stoke Bypass, would be developed as an 'exceptional environmental scheme'. In June 1999, following a period of public consultation, the Secretary of State announced a Preferred Route and in March 2000, Mott Macdonald, with Wessex Archaeology and Nicholas Pearson Associates, were appointed as Stage 2 Design Consultants.
- 1.1.2. An Illustrative Design for the proposed road improvement has been prepared by Mott MacDonald. This broadly follows the published Preferred Route but includes amendments where necessary to comply with highways standards and to reduce environmental impacts. In addition to this, an alternative northern alignment option for the Winterbourne Stoke Bypass has also been prepared.
- 1.1.3. Proposals for the Stonehenge improvement have been the subject of extensive study and consultation since 1991. Stage 1 studies of the various route options have included both desk-based work and field evaluation, comprising geophysical survey, fieldwalking of available land and limited trial excavation.
- 1.1.4. The Stage 2 Environmental Statement Scoping Report (ESR) identified eight areas along the Preferred Route where fieldwalking had not been undertaken during Stage 1 (**Figure 1**), between NGR SU 4050 1405 and 4142 1420. In November 2000, the Highways Agency instructed Wessex Archaeology, acting as sub-consultants to Mott MacDonald, to undertake fieldwalking surveys of these areas, in order to complete the survey of the Preferred Route. The surveys were undertaken in three phases, necessitated by delays in the granting of Scheduled Monument Clearance for one survey area and subsequently in undertaking the fieldwalking under suitable ground conditions. The first phase of fieldwork was undertaken between 27 November and 6 December 2000, with the second between 2nd and 6th November 2001, and the final phase on 7th and 8th of March 2002.

1.2. Archaeological Background

- 1.2.1. The eastern half of the Preferred Route passes through the Stonehenge World Heritage Site (WHS). However, the Wiltshire Sites and Monuments Record (SMR) also records archaeological evidence in the western half of the route. An Archaeological Appraisal of the Preferred Route (Wessex Archaeology

2001) has identified a total of 204 archaeological records within a broad Study Area, of which 61 occur within the Preferred Route corridor (see 2.1.1 below). In addition to the unique prehistoric monument of Stonehenge, the archaeological sites include burial mounds, field systems, boundary earthworks, enclosures and settlements, as well as scatters of surface artefacts and individual finds.

- 1.2.2. Stonehenge lies within one of the densest concentrations of prehistoric monuments in Europe. From at least the Early Neolithic through to the Middle Bronze Age, Stonehenge was the focus for sustained human activity, much of it of an apparently ritualistic nature. Some of this activity involved the construction of numerous monuments that included the various phases of Stonehenge and the Stonehenge Avenue, two cursus monuments, long mounds, mortuary enclosures and round barrow cemeteries.
- 1.2.3. The most visible evidence for Neolithic and Early Bronze Age activity along the Preferred Route consists of ritual and funerary monuments. In contrast, 'domestic' sites are less obvious, and evidence for structures and intensive occupation is usually sparse. During the Middle and Late Bronze Age, however, field systems and buildings associated with more permanent occupation appeared in the area, as at Winterbourne Stoke Crossroads (Richards et al. 1990: 208-210). The western part of the route remained a focus for inhabitation during the Late Bronze Age and Iron Age. Linear ditches and banks that may have defined social territories are known from surviving earthworks, aerial photographs, geophysical surveys and excavations. These techniques have also revealed traces of extensive co-axial field systems, and settlement enclosures. The Iron Age hillforts of Yarnbury Castle and Vespasian's Camp lie to the west and south of the Preferred Route respectively.
- 1.2.4. In addition to the surveys undertaken specifically for the Highways Agency during the Stage 1 studies, there have been numerous geophysical and fieldwalking surveys of areas around Stonehenge. These include the Stonehenge Environs Project (Richards 1990), work undertaken in connection with the Stonehenge Conservation and Management Project (Darvill 1991) and the consideration of sites for the proposed new Stonehenge Visitor Centre. It is notable that, in general, archaeological investigation has been concentrated within the WHS, and comparatively little work has been conducted along the western part of the route. This lack of survey may have contributed to an apparent imbalance in the archaeological record between the western and eastern parts of the routes.

2. THE STUDY AREA

2.1. Preferred Route Corridor

- 2.1.1. The Preferred Route was published in June 1999. A protected planning corridor is defined as 67 m either side of the Preferred Route centreline, and the Stage 2 fieldwalking surveys were designed to examine this corridor in the seven areas identified for survey.

2.2. Survey Areas

2.2.1. The areas surveyed are referred to here (following the numbers allocated in the Environmental Statement Scoping Report) as Areas 1, 2, 5, 6, 7, 9 and 10 (**Figure 1**). The areas were typically composed of a number of fields, referred to here using the numbers allocated by the main consultant (**Table 1** below). Certain areas were not fieldwalked as part of this exercise. This land had either been subject to previous fieldwalking work, or was not suitable for fieldwalking (i.e. lay under pasture)

Area	Location	Fields	Size
1	West of Winterbourne Stoke	10, 13, 17 (North of A303) 8, 14, 18 (South of A303)	17.2 ha total
2	North of Scotland Lodge	17, 21	8 ha
3	East of B3083	43	2.6ha
5	East of Winterbourne Stoke (north of A303)	63	1.6 ha
6	West of Longbarrow Crossroads (south of A303)	64	1.9 ha
7	East of Longbarrow Crossroads (south of A303)	80	2.2 ha
9	Stonehenge Bottom (south of A303)	95	5.4 ha
10	East of Stonehenge Road (south of A303)	110	1 ha

Table 1: Fieldwalking survey areas

3. GEOLOGY, SOILS, HYDROLOGY AND TOPOGRAPHY

3.1. The Preferred Route

3.1.1. The A303 Stonehenge Improvement has a total length of 10.8 km, starting at the end of the existing dual carriageway on Berwick Down west of Winterbourne Stoke (NGR 40510 14064). Thereafter the Preferred Route (**Figure 1**) follows the existing road before curving north to pass Scotland Lodge Farm, avoiding the Parsonage Down National Nature Reserve. It then continues to curve to cross the B3083 and the River Till north of the village. The Preferred Route crosses the line of the existing A303 to the west of Longbarrow Crossroads so as to run south of the existing road and to allow for a new junction with the A360.

3.1.2. East of Longbarrow Crossroads the route duals the existing road on the south side and incorporates a 2km tunnel where it passes Stonehenge. The new dual carriageway joins the existing Amesbury Bypass approximately 1km west of Countess Roundabout. The scheme also includes the improvement of Countess Roundabout (NGR 41540 14220).

3.1.3. The Route Corridor passes across the typically undulating chalk downland of Salisbury Plain, descending into the valleys of the rivers Till and Avon as

well as a number of dry valleys. The majority of the route lies on Upper Chalk (British Geological Survey, Sheet 282, 292), although the river valleys contain Quaternary gravels, alluvium and colluvium. Field evaluations have shown that localised areas of Clay-with-Flints, not necessarily mapped, can occur on the higher parts of the area. The topsoil or ploughsoil consists of generally friable grey-brown loams, with varying quantities of chalk and flint. In places, typically in the bottom of the dry hollows and valleys, this loam becomes much more clayey in texture.

3.2. The Survey Areas

- 3.2.1. All of the areas described in this section are depicted in **Figure 1**.
- 3.2.2. **Area 1**, to the west of Winterbourne Stoke, is relatively flat within most of the Preferred Route corridor itself, although in the fields south of the A303 the land began to fall away to the south-east into a dry valley. North of the A303, the land began to fall away northwards. This area was walked as part of the first phase of the survey.
- 3.2.3. **Area 2** is located to the north-west of Winterbourne Stoke, and to the north of Scotland Lodge. It was situated partly in a dry valley bottom, with the ground rising to the north and south-west. This area was walked as part of the first phase of the survey.
- 3.2.4. **Area 2 (Northern Route)** lies to the north of Area 2, and is designed to cover the line of the potential northern route for the road across the Till Valley. It is situated on both slopes of a dry valley, crossing these at a tangent. The ground rises to the north and south-west. This area was walked as part of the second phase of the survey.
- 3.2.5. **Area 3 (Northern Route)** lies on a south facing slope to the north of Winterbourne Stoke, and to the west of the B3083. A slight hollow runs east-west across the field. This area was walked as part of the second phase of the survey.
- 3.2.6. **Area 5**, to the north-east of Winterbourne Stoke and north of the A303, is relatively flat, although a slight hollow runs roughly east-west across the survey area. In **Area 6**, to the west of Longbarrow Crossroads and south of the A303, the ground falls away very slightly to the north. These areas were walked as part of the first phase of the survey.
- 3.2.7. The ground in **Area 7**, to the east of Longbarrow Crossroads and south of the A303, is relatively flat. In **Area 9**, to the south-east of Stonehenge and south of the A303 in Stonehenge Bottom, the survey area is situated in the bottom of a dry valley, with the ground rising to the west. To the east, the ground rises up to a ridgeline. These areas were walked as part of the first phase of the survey.
- 3.2.8. **Area 10**, south of the A303 and to the north of Stonehenge Road, West Amesbury, was walked during the third phase of survey. This area includes

two Scheduled Monuments, the Avenue and an adjacent degraded round barrow. This area was walked as part of the third phase of the survey.

3.2.9. Areas 7, 9 and 10 lay within the Stonehenge WHS.

3.3. Current Land Use

3.3.1. All of the survey areas include fields which were, or had recently been, in arable use. The collection conditions encountered in the survey areas are described in section 4.2 below.

4. METHODS

4.1. Methodology

4.1.1. The methodology adopted was generally consistent with previous fieldwalking surveys undertaken during Stage 1 and with Wessex Archaeology standard guidelines and practice.

4.1.2. As with the Stage 1 surveys, a collection interval of 25m was applied. A database was set up using Microsoft Access software and each collection interval was allocated a unique number, prior to fieldwork commencing. This differs slightly from the system applied in Stage 1, where hectare numbers and field numbers were also assigned in addition to individual collection unit numbers. The use of the Access database effectively made redundant the need for hectare units. The Area and field numbers given in section 2.2 above were employed for convenience in the field, but did not form part of the unique number sequence or database structure. Collection units were defined to cover the full 134m width of the Protected Planning Corridor; Stage 1 surveys had instead examined an area 50m either side of the centreline of the route options.

4.1.3. Collection units at 25m intervals were allocated across the entire route corridor (see **Appendix 1**) and a plan of the route was created showing the location and number for every collection unit to be walked as part of the fieldwalking exercise. Blocks of numbers were assigned to each area fieldwalked. This grid of unique collection points at 25m intervals can be extended in any direction, and new blocks of numbers assigned accordingly should further survey be required.

4.1.4. For the first phase of the survey, collection points were laid out using tapes and bamboo canes, with a dumpy level utilised to establish and maintain right-angles over long distances. In the second and third phases of survey, the transects were laid out with a Total Station surveying instrument using permanent ground markers tied in to the Ordnance Survey National Grid.

4.1.5. In order to ensure effective use of resources, a selective collection policy was adopted in accordance with standard practice. The following categories of material were not collected:

- Intrinsically undatable material, such as animal bone and slag;

- Material of obviously modern date; and
 - Metalwork not of clear archaeological origin/interest.
- 4.1.6. A policy was also adopted for the selective retention of the fieldwalking finds, in accordance with standard practice. The following categories were targeted for discard:
- All burnt, unworked flint (once counted and weighed);
 - All ceramic building material except for pieces identified as Medieval or earlier in date; and
 - All clay pipe and glass fragments.
- 4.1.7. Data will be supplied to the Wiltshire Sites and Monuments Record in the form of the Access database.

4.2. Collection Conditions

Stage 1

- 4.2.1. The ploughed fields were either covered in stubble, or had just been seeded, or in some instances, both, and soil visibility was moderate to good. However, in field 17 in Area 1, stubble and new growth obscured the ground surface and fieldwalking here was therefore not possible.
- 4.2.2. Poor light conditions and extreme weather severely hampered fieldwalking on occasions. Very heavy rain and high winds often reduced visibility and hindered the laying out of the fieldwalking grid. In particular, it was very wet and dark whilst walking the following fields: field 8 in Area 1, field 63 in Area 5, field 64 in Area 6, field 80 in Area 7, and field 95 in Area 9. This may have affected artefact recovery levels.

Stage 2

- 4.2.3. Both areas 2 (northern route) and 3 (northern route) contained new growth from seed crops and soil visibility was moderate to good. Low level sunlight was present when both survey areas were fieldwalked, however, and this may have affected artefact recovery level.

Stage 3

- 4.2.4. Area 10 was fieldwalked immediately after seeding, but prior to any growth of the seed crop. The skies were overcast, and rain previously in the week ensured that artefact visibility was ideal for fieldwalking.

5. THE FINDS

5.1. Method of Analysis

- 5.1.1. All finds collected during fieldwalking have been cleaned, marked where appropriate and quantified by material type, both by number and by weight,

within each collection unit, and records entered onto an Access database to enable the plotting of spatial distributions. **Table 2** presents overall finds totals by material type. The following sub-sections describe the nature and date range of the various finds types collected.

Finds Type	Number	Weight (g)
Worked Flint	486	4124
Burnt Flint	889	30,788
Pottery	83	910
<i>Romano-British</i>	16	163
<i>Medieval</i>	14	110
<i>Post-medieval</i>	53	637
Ceramic Building Material	488	10,000
<i>Medieval</i>	109	1853
<i>Post-medieval</i>	379	8147
Clay Pipe	2	8
Fired Clay	1	14
Glass	21	348
Metal	3	-
<i>Iron</i>	2	-
<i>Lead</i>	1	-
Slag	3	148
Stone	11	67

Table 2: Finds totals by material type

5.2. Worked Flint

5.2.1. A total of 486 pieces of worked flint was recovered. A breakdown of the assemblage by type is presented in **Table 3**.

Flint Type	Number
Flakes	360
Flake fragments	106
Blades	1
Blade fragments	2
Core fragments	5
Tools	6
Misc. retouch	1
Chips	5
TOTAL	486

Table 3: Worked flint totals by type

5.2.2. Raw material comprises locally available chalk flint. The condition of the assemblage is variable, exhibiting the frequent edge damage characteristic of a ploughzone assemblage. The degree of patination varies across the assemblage, with the majority of pieces from Survey Areas 6, 7, 9 and 10 being heavily patinated, varying in colour from white to a mottled bluish

grey. Flint from Survey Areas 1, 2 and 5 is more variable, and includes a higher proportion of unpatinated and lightly patinated pieces.

- 5.2.3. Technologically the assemblage exhibits the general characteristics of the Early/Middle Bronze Age, although it is possible that some earlier material is also present. Flakes are generally squat, thick forms, with frequent hinge terminations and prominent bulbs of percussion indicative of hard hammer technique, although there are a very small number of narrow, blade-like flakes. Core material is scarce but appears to consist entirely of fragments of unprepared cores. Retouched forms comprise six end scrapers and another possible retouched piece, none of which are chronologically distinctive.
- 5.2.4. The distribution of the worked flint is shown on **Figures 2-3**. The general level of flint frequency remained relatively constant across the various Survey Areas, with small clusters noted in Areas 1, 2, 6 and 9.

5.3. Burnt Flint

- 5.3.1. Burnt, unworked flint was recovered in some quantity from across the areas fieldwalked, but concentrated in Survey Areas 1 and 2 (**Figures 4-5**). This material type is intrinsically undatable, but is frequently associated with prehistoric activity. In this instance the identifiable concentrations coincide with the slightly higher frequencies of worked flint in Areas 1 and 2, although not with the clusters noted in Areas 6 and 9.

5.4. Pottery

- 5.4.1. A relatively small quantity of pottery was recovered from across the areas fieldwalked. The small assemblage includes material of Romano-British, medieval and post-medieval date, with the latter making up more than half the total quantity. No prehistoric pottery was recovered. The distribution of the Roman, medieval and post-medieval pottery is shown on **Figure 6**.
- 5.4.2. Romano-British wares comprise mainly coarsewares (greywares, oxidised sandy and grog-tempered wares), with one sherd of samian and one sherd from a colour-coated ware of uncertain source. Apart from the samian (later 1st or 2nd century AD), there are no diagnostic sherds to enable closer dating within the Romano-British period. Sherds were recovered from Survey Areas 1, 2, 3 (northern) and 7, the largest quantity deriving from Area 1 (7 sherds).
- 5.4.3. The medieval sherds include eight coarse sandy wares, mostly comparable to Laverstock types from the Salisbury area; three finer sandy glazed sherds (one slip-decorated); two coarse calcareous sherds (including one jar rim), probably from a source in north Wiltshire; and one coarse sandy/flint-tempered sherd of a type found commonly along the Kennet Valley in west Berkshire and north-east Wiltshire. A broad date range of late 12th to 14th century is likely for these medieval wares. All of the medieval pottery came from Survey Area 2, coinciding with concentrations of medieval ceramic building material (see below), and of post-medieval pottery and ceramic building material.

- 5.4.4. The remaining pottery is of post-medieval or modern date, and includes glazed and unglazed earthenwares (mostly of Verwood type, from east Dorset), English stoneware, and refined redware (a teapot lid).

5.5. Ceramic Building Material

- 5.5.1. Ceramic building material was collected in some quantity. The majority is of post-medieval or modern date, and includes fragments of roof tile (peg tile) and brick, plus one fragment from a plain, glazed floor tile.
- 5.5.2. Approximately one quarter of the assemblage, however, is of possible or probable medieval date – this comprises fragments of roof tiles (peg tiles) in relatively coarse, poorly wedged fabrics; one fragment is glazed. In addition, one very abraded fragment from a medieval slip-decorated floor tile (design illegible) was recovered. The medieval ceramic building material was collected mainly from Area 2, where it coincided with concentrations of medieval pottery (see above), and post-medieval pottery and ceramic building material. The distribution of the medieval and post-medieval ceramic building material is shown on **Figure 7**.

5.6. Other Finds

- 5.6.1. Other finds collected comprise two clay pipe stem fragments, one undiagnostic fragment of fired clay (undated), seven fragments of stone (all post-medieval roofing slate), two iron nails and a piece of lead waste (probably post-medieval), and a small quantity of post-medieval bottle glass.

5.7. Discussion

- 5.7.1. The most common material types recovered were worked flint and burnt flint. The distribution of worked flint was relatively even across the survey areas, with small concentrations apparent in Areas 1, 2, 6 and 9. The burnt, unworked flint shows a similarly even distribution. Although concentrations coincided with those of the unworked flint in Areas 1 and 2, no correlation was found with the worked flint concentrations in Areas 6 and 9.
- 5.7.2. The Preferred Route crosses a landscape of extensive prehistoric activity. Of particular note, Areas 1 and 2 lie to the south-west and north-east respectively of a substantial multi-period enclosure complex located to the west of Scotland Lodge (Area C1). Fieldwalking here during Stage 1 identified Neolithic and Bronze Age components to this activity. The worked flint assemblage from Areas 1 and 2 is technologically consistent with this date range, but the absence of diagnostic material prevents further correlation. A further concentration of worked flint, that in Area 9, lies close to Stonehenge itself. Previous work in this Area has included fieldwalking of a 25m wide strip adjacent to the A303 (Wessex Archaeology 1991, Area E). This also recovered worked flint consistent with a Bronze Age date. The concentrations of worked flint are generally insignificant in comparison with

those identified by the Stonehenge Environs Project (Richards 1990, Figure 10; see section 6 below).

- 5.7.3. Only very small quantities of Roman pottery were recovered. This reflects the remarkably low level of Romano-British activity attested along the Preferred Route, with no evidence of continuity of use within the Stonehenge ritual landscape. The greatest quantity of Roman pottery was recovered from Area 1. Fieldwalking in 1994 (Wessex Archaeology 1994) of the multi-period enclosure complex in the adjacent Field 17 to the east identified a Romano-British phase of activity. However, the numbers of sherds from Area 1 are too small to allow any concentrations to be identified or any further conclusions drawn.
- 5.7.4. The small assemblage of medieval pottery and ceramic building material was recovered from Areas 2, 3 and 10. Areas 2 and 3 lie some 500m to the north of Winterbourne Stoke and the small quantities of 12th to 14th century material recovered may represent medieval manuring of arable fields, rather than the presence of more substantial medieval activity in this location. Similarly, Area 10 lies close to West Amesbury and alongside Stonehenge Road, the former line of the A303 here; again, the presence of such material here is not surprising. By contrast, Areas 5-9 are devoid of this material, reflecting the traditional use of this part of the route as downland grazing.
- 5.7.5. Other finds recovered, including later ceramic building material, metalwork, glass and clay pipe fragments are all either of post-medieval date or undiagnostic.

6. COMPARISON WITH PREVIOUS SURVEY RESULTS

6.1. Introduction

- 6.1.1. The Stage 2 fieldwalking along the line of the proposed A303 Stonehenge improvement has been undertaken using 25 x 25m collection units. The results from these units have been reworked to allow comparison with the results of previous fieldwalking surveys in the vicinity, which employed similar but not identical collection and depiction parameters.

6.2. The Stonehenge Landscape

- 6.2.1. In the Stonehenge landscape, fieldwalking has been used extensively to locate the scenes of former human activity and broadly to identify assemblages of different character and date. When tested by excavation, surface artefact scatters do not always reveal a wealth of structural evidence beneath them and consequently the scatters themselves have some value in shedding light on former human activities at a particular location. The comparison of lithic assemblages from sealed deposits with those from surface scatters with greater precision was of limited success.
- 6.2.2. It is doubtful whether all of the artefact scatters in the vicinity of Stonehenge would satisfy the selection criteria for national importance (English Heritage

2000). They are not included in English Heritage's specific approach to designated sites within the WHS (English Heritage 2001), and because they contain objects which justify the WHS inscription, their locality may confer upon them a greater value than might be the case if they were situated elsewhere. Hence, some judgement is necessary on the relative importance of these scatters. It may be suggested that the main criteria for the recognition of relative importance are delineation, density and diversity.

6.3. Delineation

- 6.3.1. Any settlement site is likely to be represented over a considerable area. Conversely, the artefacts from a single collection unit are unlikely to represent such a site. It is suggested therefore that only a consistent level of finds from several contiguous collection units should be regarded as indicative of substantial settlement or industrial activity. The absolute size of an important scatter will, however, vary according to the nature of the artefacts (for example, important scatters of Mesolithic flints are more likely to be spatially constrained than the products of a Bronze Age settlement).

6.4. Density

- 6.4.1. Fieldwalking in the Stonehenge area has not adopted a consistent approach to collection or the presentation of results. Nonetheless, it is possible to use the results to identify areas of variable densities of surface finds.
- 6.4.2. The Stonehenge Environs Project (SEP, Richards 1990) normally employed a collection method in which each hectare of land was divided into 8 collection units or (quadrats) each 50m long and 25m apart. Analysis of the results led to the separation of 4 degrees of density for the collection of flint: 0–10, 11–39, 40 – 89 and 89+ flints / 50m quadrat. The least dense areas (0–10 flints) were omitted from the plotting for clarity.
- 6.4.3. Subsequent fieldwalking, between 1992 and 2002, has used collection units which are 25m long and 25m apart - i.e there have been two collection units for each SEP quadrat, or 16 per hectare. This method would therefore produce densities equivalent to those of the SEP of 0-5, 6-19, 20-44 and 45+ flints per 25m quadrat. Elsewhere, however, densities have been plotted as 0-2, 3-4, 5-8, and 8+ flints / 25m.
- 6.4.4. In 1995, English Heritage and Wiltshire County Council collated the SEP data to quadrat (50m x 50m) level (Blore et al 1996, 5.4); no detailed methodology is given, but presumably two neighbouring collection units were added together. This collation should not have affected the densities calculated for the SEP, because 2 totals of flints would be divided by 2 quadrats walked. However, three degrees of density were recognised and plotted: 1-12, 13-35, 35+ flints / 50m walked. This exercise did not include the results from 1992 – 2002 (see 6.4.3 above).
- 6.4.5. Without once again reworking the data, it is suggested that a density of 1 – 12 flints / 50m walked (or the slightly lower density of 3 flints/ 25m walked) is effectively ubiquitous in the Stonehenge landscape and cannot, therefore,

be used to locate specific areas of activity. However, areas where several neighbouring collection units consistently provide greater densities might be regarded as significant. This differentiation must be tempered, however, by qualitative information (see 6.3.1 above regarding Mesolithic material).

6.5. Diversity

- 6.5.1. A surface scatter might be regarded as important if it contains significant quantities of different materials (for example, struck flint, burnt flint and prehistoric pottery; or Roman pottery and ceramic building material). A further important criterion is whether the surface scatter is associated with other evidence (e.g. aerial photographic features or geophysical anomalies) that is likely to be coeval with the artefacts.

6.6. Conversion of Recent Fieldwalking Results for Comparative Analysis

Method

- 6.6.1. In order to allow comparison with the results of these previous analyses, it was necessary to combine the results of the stage 2 fieldwalking. Only the figures for burnt flint and flint were re-calculated, as these appear to have been the only categories of this data subject to this level of study.

- 6.6.2. For initial comparison with the results of the SEP, the figures for the worked flint recovered from the Stage 2 fieldwalking were combined – i.e. two 25m transects were combined to create one 25 x 50m transect. This was done on a north-south axis, to match that of the earlier work, and starting in the south-west corner of each hectare. The resulting figures were then used to plot the results of the fieldwalking in accordance with the degrees of density identified in the SEP. The distribution of worked flint plotted in 25 x 50m quadrats is shown on **Figure 8**.

- 6.6.3. In order to compare the results of the Stage 2 fieldwalking with those published by Blore et al (1996), it was necessary to combine these 25 x 50m transects to match the collection unit size. In the absence of a detailed description of the methodology by which the results were combined in order to achieve the published results, the simplest course of action was taken. Starting in the south-west corner of each hectare, the results for each 50 x 50 m block were totalled up, and divided by 2 (thereby match the frequency of lines walked in Richards' work). The results of this can be seen in **Figure 9**.

Results

- 6.6.4. Plotting of the worked flint recovered during the course of the Stage 2 fieldwalking according to the categories used by Richards (1990, **Figure 8**) shows that only three of the 25 x 50 m quadrats fieldwalked during the course of the Stage 2 works contained between 11 and 39 flints. Of these, two contained 11 worked flints and the third 13. None of the 25 x 50m quadrats contained more than 13 flints, and the results therefore fall within the lower end of the range of densities revealed by the SEP.

- 6.6.5. In discussing the significance of this, however, it should be noted that a small number of the 25 x 50m quadrats plotted from the Stage 2 fieldwalking do not actually represent the combination of two conjoining 25m transects, as the second stretch of walking lay beyond the area of study. In addition, some stretches of the work were undertaken in unfavourable conditions. Nevertheless, the picture shown is likely to be an accurate one. The worked flint recovered during the fieldwalking generally falls into the lowest level of activity, at between 0 and 10 flints per quadrat. This, combined with the fact that the three highest results do not conjoin, suggests that the worked flint recovered during the course of the Stage 2 fieldwalking does not form a significant assemblage. Indeed, the assemblages seem rather low for the area of study, although similarly barren areas were noted in Richards' work (1990, Fig. 10).
- 6.6.6. Plotting of the worked flint recovered during the Stage 2 fieldwalking using the three categories of density used by Blore et al (1996, **Figure 9**) shows that all of the results fell within the lowest category of density. In many cases, it was impossible to base the results of a 50 x 50m quadrat on the combined results of four conjoining 25 x 25m sections due to the restrictions of the areas walked. However, it is likely that the results would probably have been the same were this possible.

7. DISCUSSION

7.1. Summary

- 7.1.1. The results of the Stage 2 fieldwalking point to a low level of activity along the Preferred Route. As described above, the worked flint recovered shows no significant groupings. Indeed, the majority of the results fall within the lowest categories used by the SEP and Blore et al (1996). Where areas fieldwalked lie adjacent to areas covered by these previous analyses, the results seem to confirm those of the previous work. Significant areas of high density worked flint have been noted within the WHS, but little that lies along the current line of the A303.
- 7.1.2. The burnt flint offers little additional information. The main concentrations of burnt flint are located in Areas 1 and 2 at the western end of the route, which lie either side of the large oval enclosure recorded in Area C1 and (Area 1) along the ridge towards the Iron Age hillfort at Yarnbury. These concentrations may suggest an increase in prehistoric activity in this area. Previous fieldwalking in Area C1 (Wessex Archaeology 1992) identified a more significant concentration over the enclosure itself.
- 7.1.3. Very little pottery was recovered during the course of the fieldwalking. Indeed, nowhere was more than a single sherd of any particular date recovered from a single fieldwalking unit. Inevitably any conclusions drawn on such scanty evidence are tentative. There is little significance in the distribution of the Roman pottery, with small quantities recovered from four of the areas walked.

- 7.1.4. The distribution of post-medieval, and in particular medieval pottery, points to a possible focus of activity in Areas 2 and 3, to the north of the village of Winterbourne Stoke. These finds are unlikely to represent settlement, however, but more likely the extents of the fields manured with material derived from either the village of Winterbourne Stoke or the adjacent manor of Winterbourne Matravers in the vicinity of Scotland Lodge. This distribution is mirrored in that of medieval and post-medieval ceramic building material, which was recovered both here in Areas 2 and 3 and in Area 10, at the eastern end of the scheme. Undated cropmarks likely to represent the remains of field systems have been identified in both Areas 2 and 3 (Wessex Archaeology 2001).
- 7.1.5. The fieldwalking survey has produced small assemblages of material, which may in some cases correlate with sites whose presence is already known and which support existing knowledge of the archaeology along the Preferred Route. However, the small size of the assemblages prevents the drawing of any firm conclusions or the identification of any new possible sites.

8. ARCHIVE

8.1. Location

- 8.1.1. The project archives, which include all finds and records are presently stored at the offices of Wessex Archaeology in Salisbury under the project references 48066 and 50275. It is intended that the archives will be transferred to the Salisbury and South Wiltshire Museum, 65 The Close, Salisbury, Wiltshire SP1 2EN, in due course.

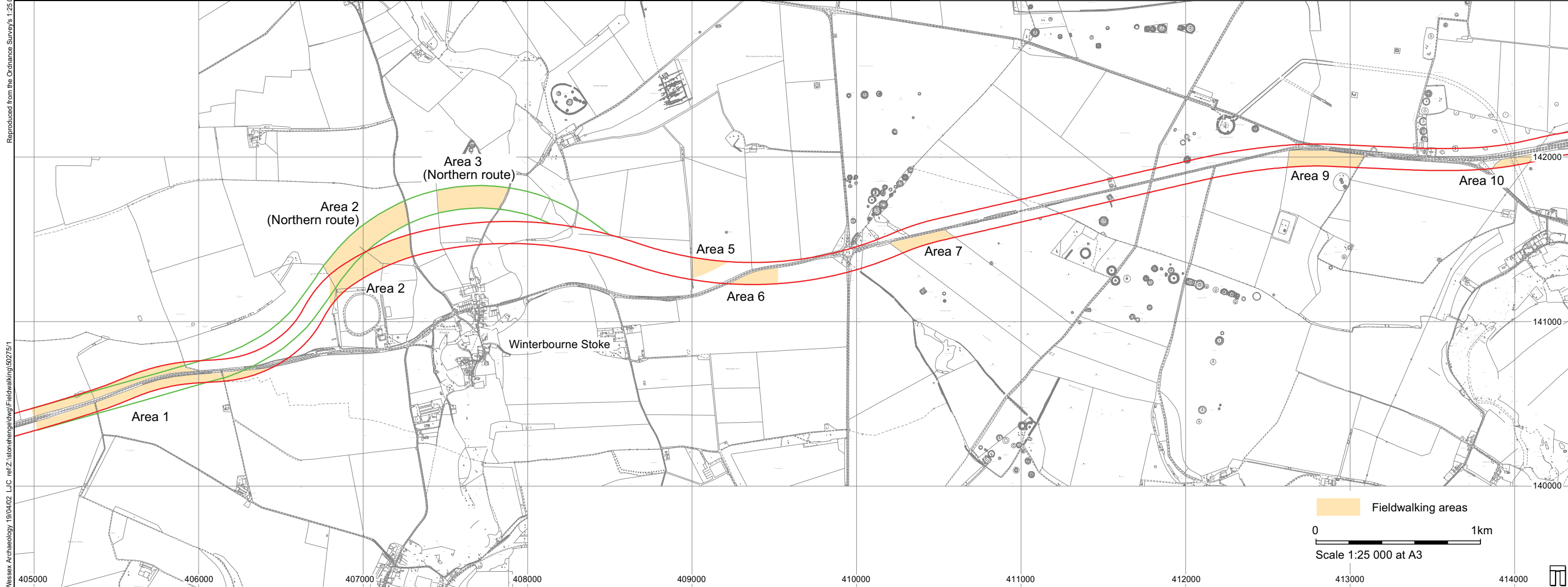
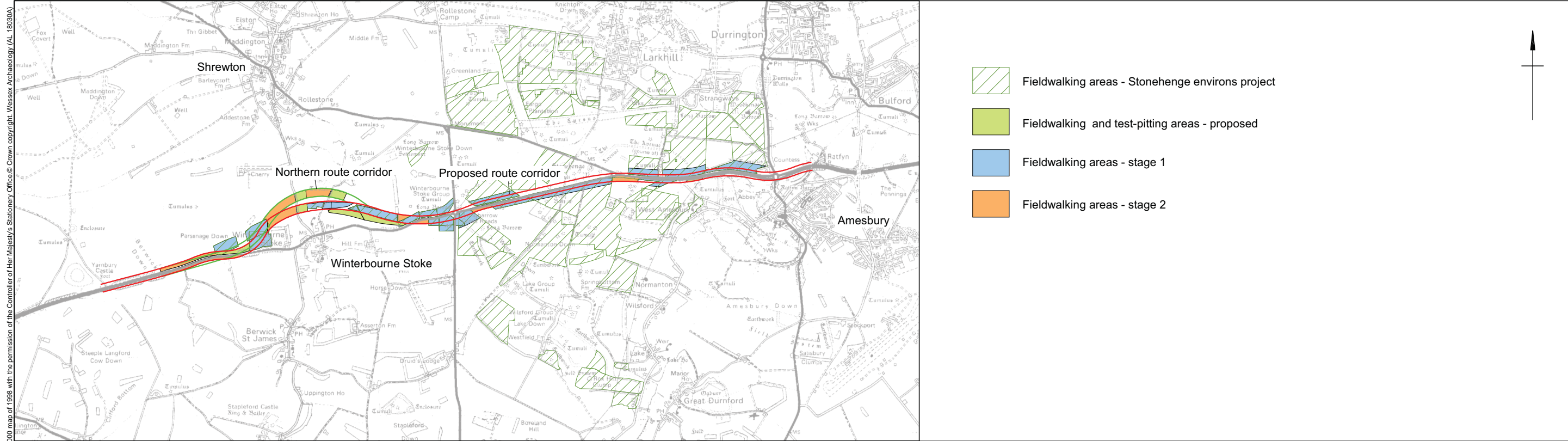
9. BIBLIOGRAPHY

- Blore, F, Hitchen, M and Vallender, J, 1995, *Archaeological Assessment of the World Heritage site and its surrounding landscape*. Portsmouth. English Heritage Central Archaeology Service (3 vols.)
- English Heritage, 2000, *Managing Lithic Scatters: Archaeological guidance for planning authorities and developers* EH guidance paper 2000/01
- English Heritage, 2001, *Review of Scheduling Procedures in the Stonehenge Area 1993-95*, HSLAC paper 2001/26
- Richards, J., 1990, *The Stonehenge Environs Project*. English Heritage Report 16. London: English Heritage.
- Wessex Archaeology, 1991 in Darvill 1991: *Stonehenge Conservation and Management Project - Environmental Statement*, Appendix I
- Wessex Archaeology. 1992. *Fieldwalking survey and environmental sampling between Stonehenge Down and Parsonage Down, Wiltshire*. Unpublished report: Wessex Archaeology ref. 34852.

- Wessex Archaeology. 1992. *A303 Amesbury-Berwick Down: pink and grey routes*. Unpublished report: Wessex Archaeology ref. 35734.
- Wessex Archaeology. 1993. *Contoured flint distribution analysis. Coneybury Hill, Amesbury, Wiltshire*. Unpublished report: Wessex Archaeology ref. 35736.01.
- Wessex Archaeology. 1993. *A303 Alternative Routes. Coneybury Hill: contoured flint distribution based on material collected during the Stonehenge Environs Project*. Unpublished report: Wessex Archaeology ref. 35756b.
- Wessex Archaeology. 1994. *A303 Amesbury to Berwick Down. Brown and Brown alternative routes. Field evaluation: fieldwalking: Stage 1*. Unpublished report: Wessex Archaeology ref. 37874.01.
- Wessex Archaeology. 2000. *A303 Bypass, Winterbourne Stoke, Wiltshire. Fieldwalking evaluation*. Unpublished report: Wessex Archaeology ref. 47422.01.
- Wessex Archaeology 2001. *A303 Stonehenge Improvement: Archaeological Appraisal*. Unpublished report: Wessex Archaeology ref. 48066

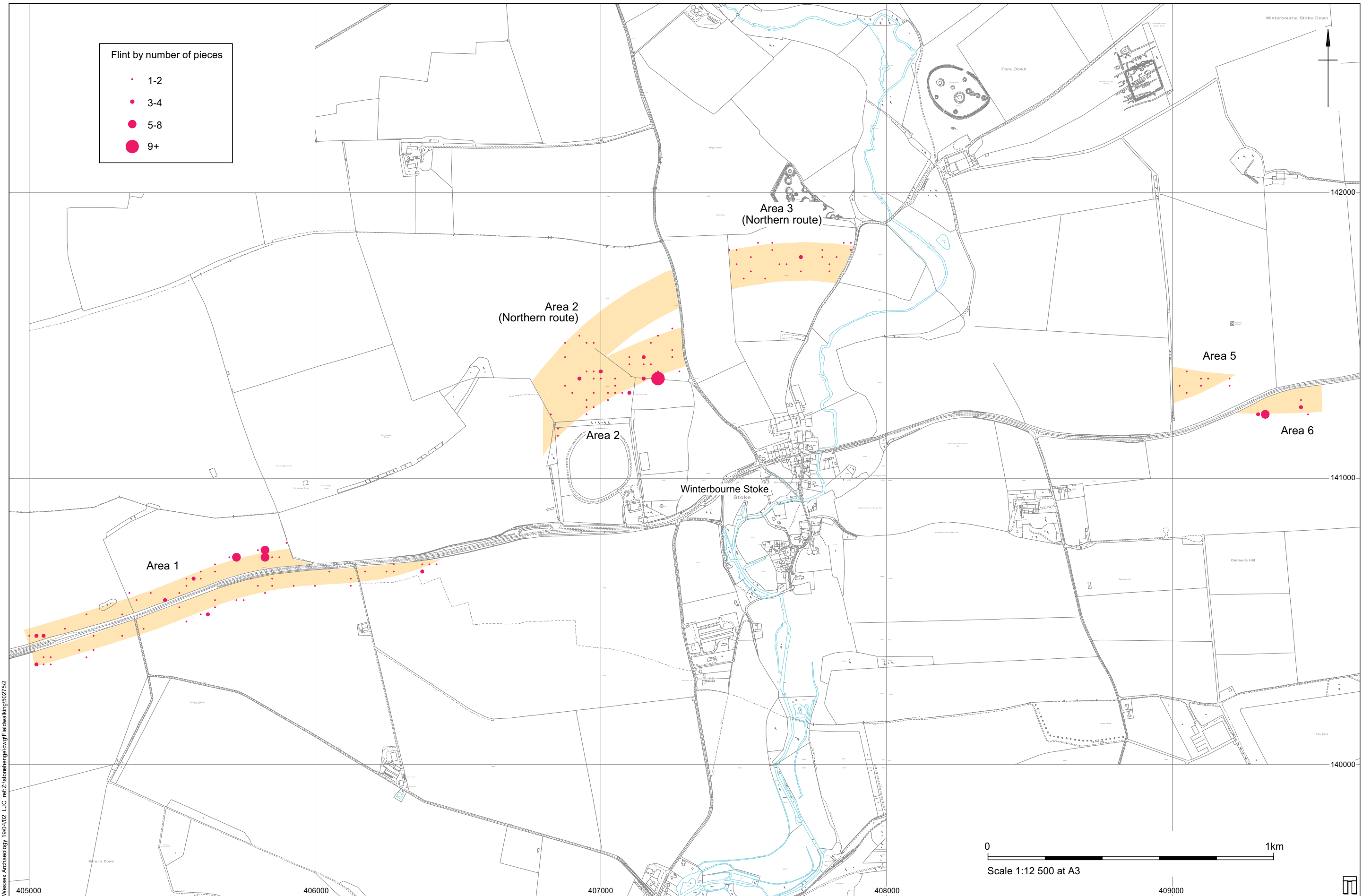
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Wessex Archaeology 19/04/02 LJC ref: (stonehengeplan)Fieldwalking(5/27/1



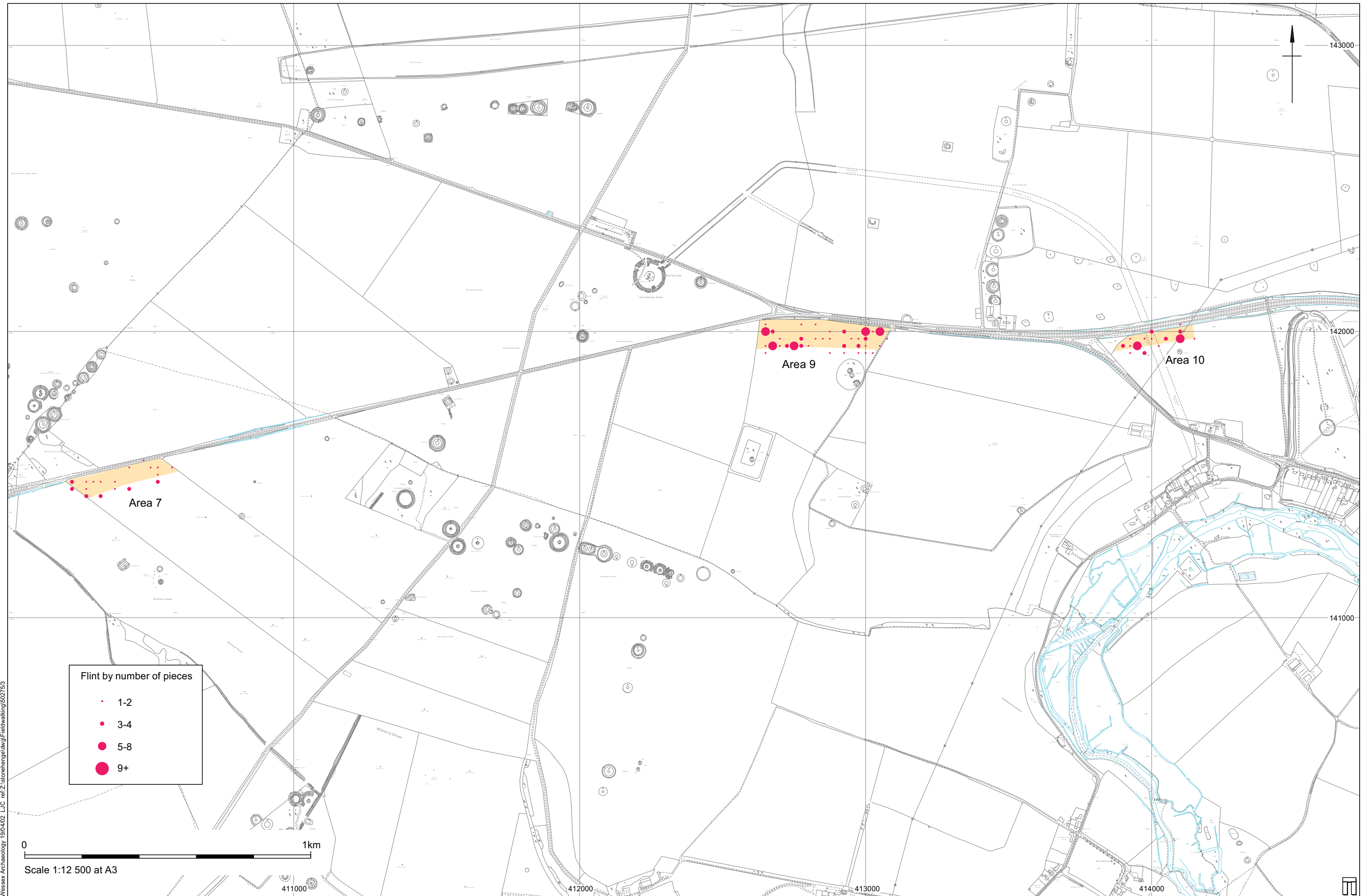
Location of survey areas

Figure 1



Distribution of worked flint Areas 1-6

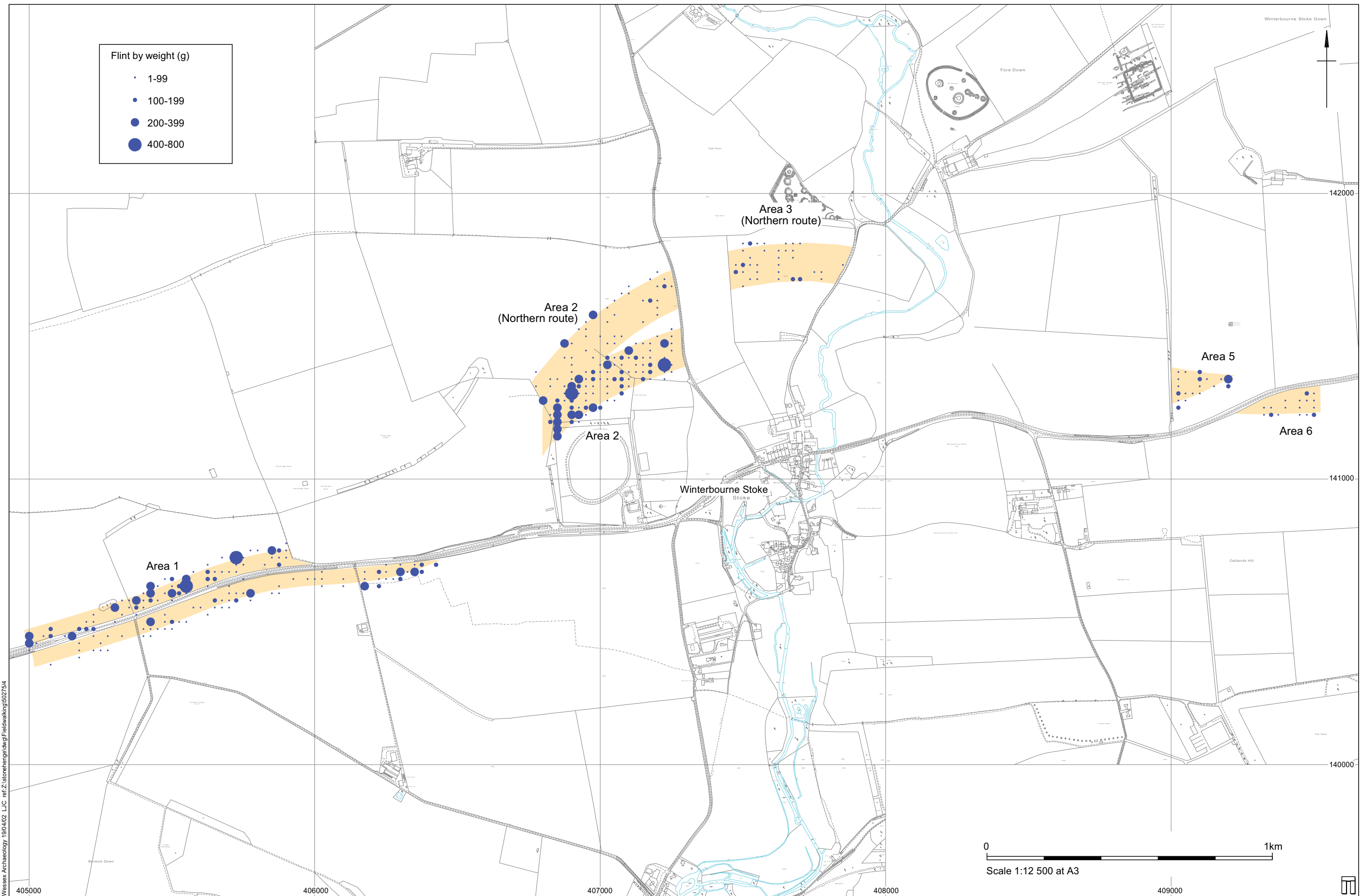
Figure 2



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Distribution of worked flint Areas 7-10

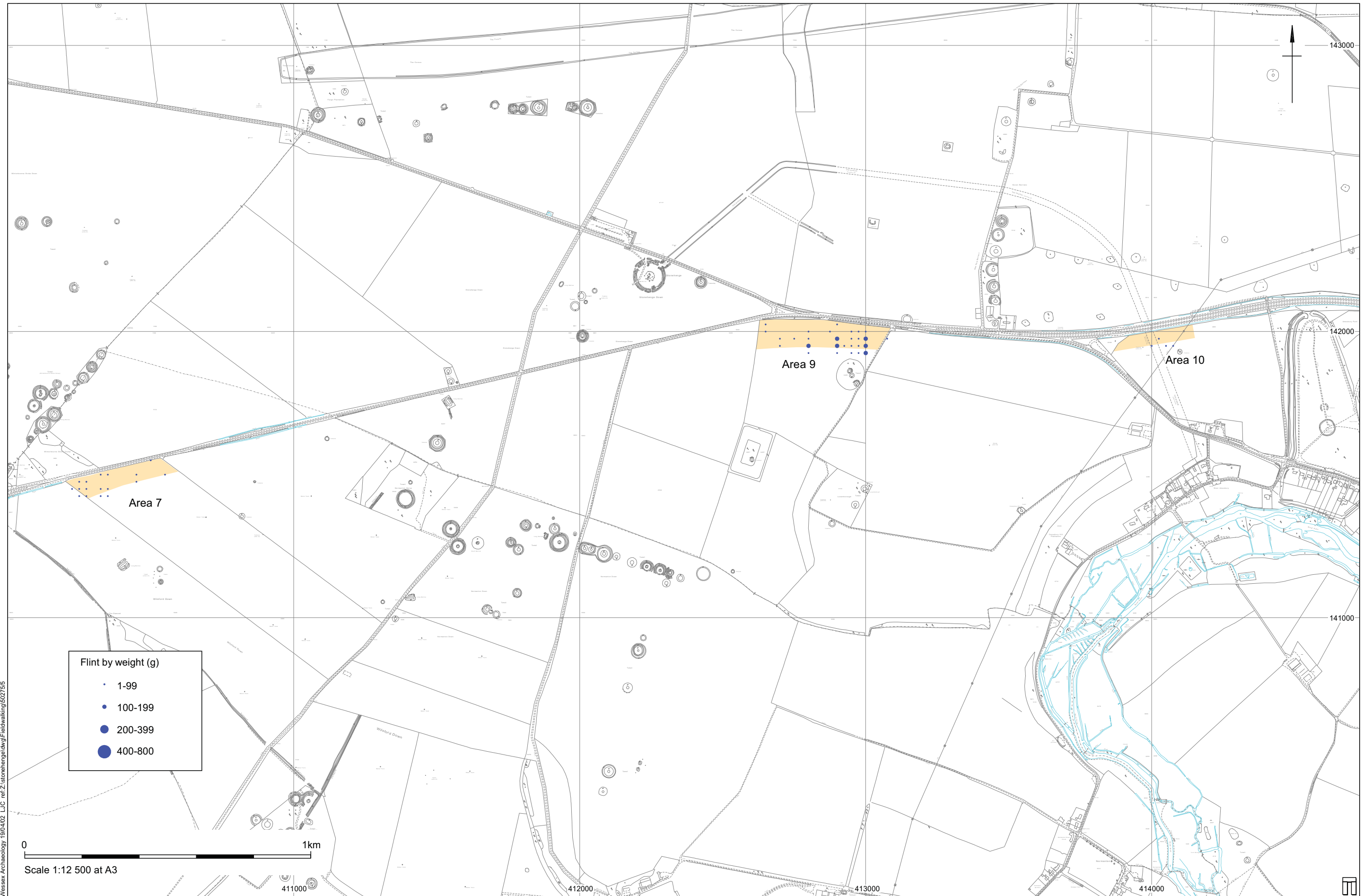
Figure 3



Distribution of burnt flint Areas 1-6

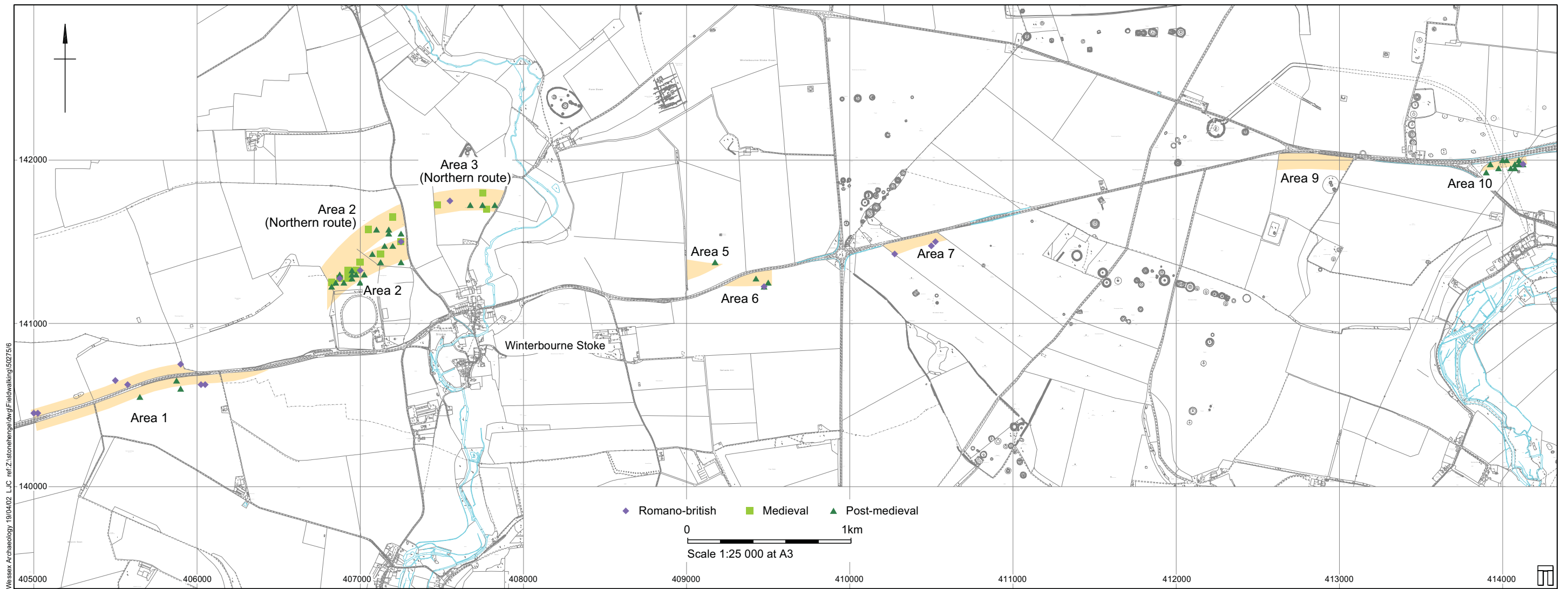
Figure 4

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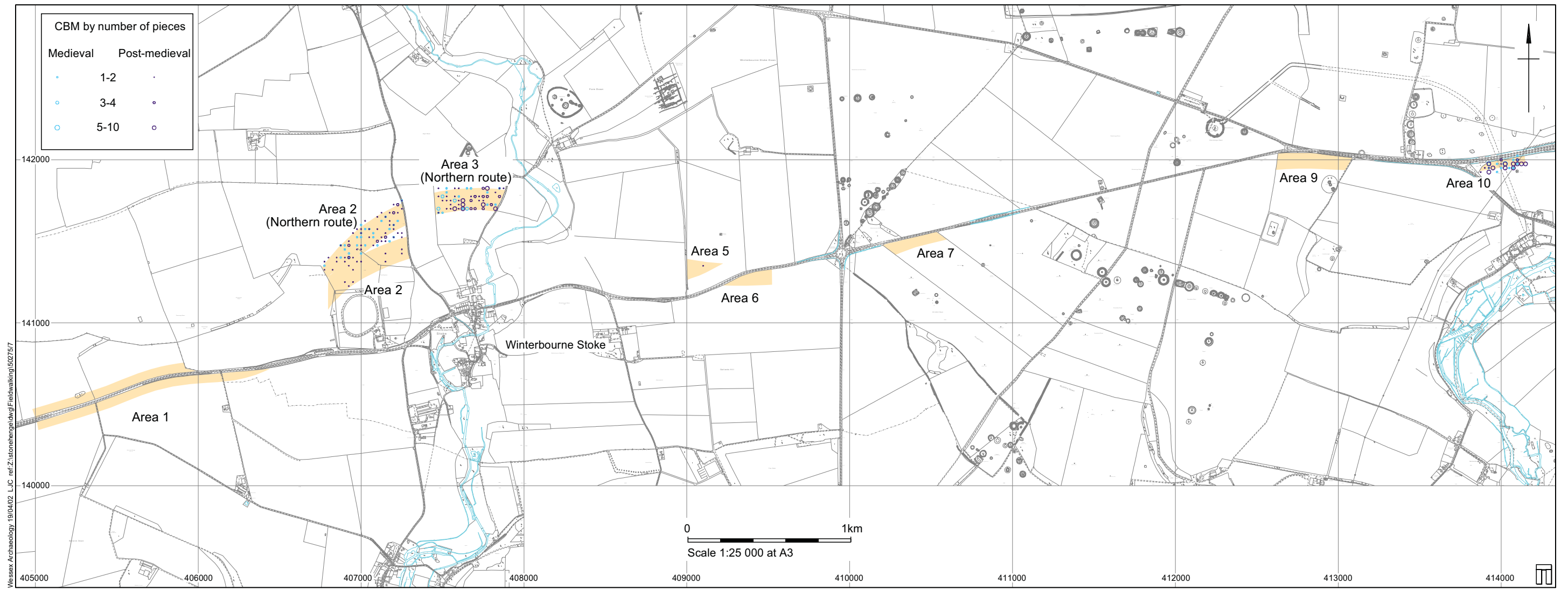
Distribution of burnt flint Areas 7-10

Figure 5



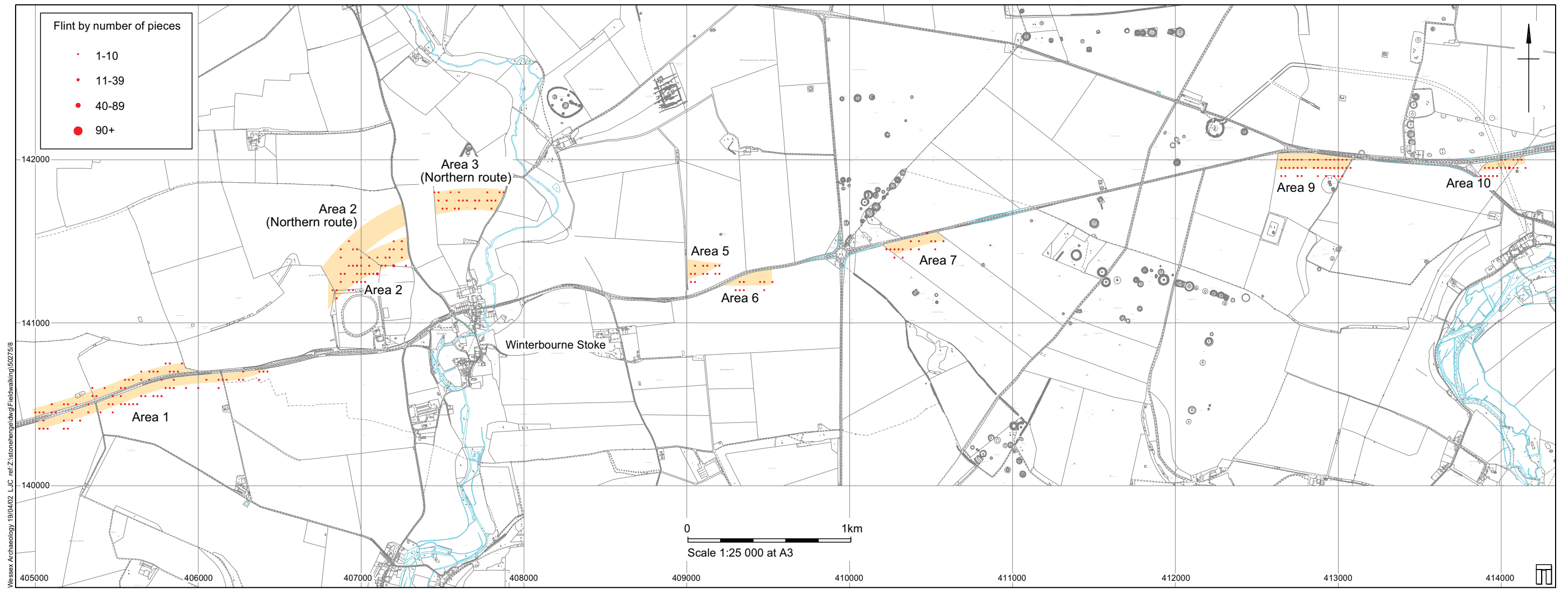
Romano-British, Medieval and post-medieval pottery distribution

Figure 6



Medieval and post-medieval CBM distribution

Figure 7



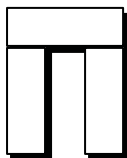
Worked flint plotted in 25 x 50 metre quadrats (for comparison with Richards 1990)

Figure 8



Worked flint plotted in 50 x 50 metre quadrats (for comparison with Blore et al 1995)

Figure 9



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