CONDITION ASSESSMENT OF THE SHIRE DITCH, THE MALVERN HILLS, HEREFORDSHIRE AND WORCESTERSHIRE

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INVESTOR IN PEOPLE
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Condition assessment of the Shire Ditch, the Malvern Hills, Herefordshire and Worcestershire

Tom Vaughan

With contributions by Neil Rimmington

Part 1 Project summary

An archaeological condition assessment was undertaken of the Shire Ditch (also known as the Red Earl's Dyke) on the Malvern Hills (NGR: SO 76145 37075 - 76896 45796), on behalf of the Malvern Hills Conservators, with additional funding support from the Countryside Agency. The project aimed to determine the current state of preservation of the monument, the nature of current and potential erosion factors, its vulnerability and methods of remediation.

The full length of this Scheduled Ancient Monument (SAM), is more than 8km, as defined in the Worcestershire Historic Environment Record. It commences south of Hollybush Hill and terminates south of Happy Valley / Green Valley, north of Worcestershire Beacon. The ditch lies within the Malvern Hills Area of Outstanding Natural Beauty (AONB) and designated Site Of Special Scientific Interest (SSSI). In addition it is subject to the five Malvern Hills Acts of Parliament. Each of these frameworks aims to protect different aspects of the environment of the hills, and as such they detail prescriptions, which may constrain the management recommendations.

A descriptive written and digital photographic record were undertaken and tied into the National Grid via GPS. Individual Management Units were created, distinguished variously by the topography, earthwork form and/or current state of preservation. The land use, ground cover and conditions in conjunction with existing and potential adverse factors were then described, from which practical recommendations could be made for remediation and prevention of further deterioration of the feature.

The recommendations for remediation fall into six different categories, namely: general monitoring; management of trees, scrub and bracken; management of recreational activities; management of grazing; management of burrowing animals; and repair of erosion. Two specific areas - Hangman's Hill and Broad Down - have been highlighted with detailed recommendations for remediation drawn up. Generic remediation methods have been listed for the other management units. Finally, further archaeological investigations are proposed, which would provide a better understanding of the monument as existing and its relationship with a number of surrounding features within the historic landscape.

Part 2 Detailed report

1. Background

1.1 Reasons for the project

An archaeological condition assessment was undertaken of the Shire Ditch (also known as the Red Earl's Dyke) on the Malvern Hills, Herefordshire and Worcestershire (NGR SO 76145 37075 - 76896 45796; Fig 1), on behalf of the Malvern Hills Conservators (MHC), with additional funding support from the Countryside Agency.

1.2 Project parameters

The project conforms to *Managing Earthwork Monuments* (Rimmington 2004) and the *Standard and guidance for archaeological field evaluation* (IFA 1999).

The project also conforms to a brief prepared by Worcestershire Historic Environment and Archaeology Service (HEAS 2005a) and for which a project proposal (including detailed specification) was produced (HEAS 2005b).

It forms an active part of the Malvern Hills AONB Management Plan (2004-2009), and the Strategic Objectives identified in Section 7: Historic Environment, specifically (MHC 1999; MHC 2004, 47):

- 7.5.1 Support measures which protect features which contribute to the AONB's historic environment;
- 7.5.3 Co-ordinate information and awareness of the historic environment to alleviate the impact of pressure from development and human activity;
- 7.5.5 Identify priorities for conservation to help reduce the number of properties and sites at risk from decay and neglect.

Discussion of the construction methods and historic chronology of the monument are beyond the scope of this project. These aspects have been summarised previously (Vaughan 1993, 33-34; EH 2000a; EH 2000b, 14-15; EH 2000c, 8-9).

1.3 Aims

A condition assessment is defined as a 'point in time statement of circumstances appertaining to a particular site' (Rimmington 2004, 14).

The aims of the condition assessment were to build on previous, broader descriptions of the condition of the monument, providing a detailed assessment of the current state of preservation, the nature and vulnerability to current and potential erosion factors, and to recommend practical methods of remediation to prevent and reverse continuing erosion and damage to segments of the earthwork (HEAS 2005a).

2. Methods

2.1 Documentary search

Prior to fieldwork commencing a search was made of the Worcestershire Historic Environment Record (HER) and Herefordshire Sites and Monuments Record (SMR). In addition the following sources were also consulted:

Cartographic sources

- 1970s Malvern Hills Conservators/Ordnance Survey, 4 part map of the Malvern Hills, *c* 1:10,000
- 1996 Ordnance Survey Explorer, Malvern Hills and Bredon Hill, sheet 190, 1:25,000
- 1997 Ordnance Survey Landranger, Worcester and the Malverns, sheet 150, 1:50,000
- 2001 Ordnance Survey Map showing the area of jurisdiction of the Malvern Hills Conservators, 1:25,000
- 2005 Ordnance Survey Superplan digital maps, 1:1250 and 1:2500

Documentary sources

- Site archives (from earlier surveys: English Heritage 2000a, 2000b and 2000c).

2.2 Fieldwork methodology

2.2.1 Fieldwork strategy

A detailed specification has been prepared by the Service (HEAS 2005b). As a result of the documentary search, adjustments were made to the fieldwork strategy.

Fieldwork was undertaken between 17th November and 16th December 2005. The site reference numbers and site codes are HSM 43068 and WSM 34769.

The area assessed was as defined in the brief (HEAS 2005a). It was walked from south to north, commencing south of Hollybush Hill and terminating south of Happy Valley / Green Valley, north of Worcestershire Beacon, using the Worcestershire Historic Environment Record data and English Heritage survey as the primary guides. Although a series of earthworks exist south of Holly Bush Quarry, one of which is noted in the HER, the English Heritage survey did not positively identify them as the Shire Ditch (EH 2000a). Thus it was not considered to be possible to develop management recommendations at this stage, and the project commenced on Hollybush Hill.

The details of each management unit area were recorded on a *pro forma* sheet devised after consultation with Adam Mindykowski (Worcestershire Historic Environment Countryside Advisor) and Neil Rimmington (Herefordshire Countryside Advisor - Archaeology). A blank sample of which is included as Appendix 2. The Management Units were distinguished by changes in topography, the form of the earthwork, or variations in the nature of the ground cover and vulnerability to erosion.

In addition to the written record, 1:1250 Ordnance Survey Superplans were annotated and digital photographs taken of typical areas within each unit, in addition to specific features

(such as benches, quarries, severe erosion points, intersecting paths, etc). Everything was located with ten-figure grid references, using a global positioning system (GPS).

2.2.2 Terminology

The following terms are used in the *pro formas:*

Description

The form of the monument within this Management Unit; the usage, the ground cover, visibility and vegetation; specific features; erosion factors; and other general observations

Survival

The visible components within the Management Unit.

In its basic form the monument comprises three elements: the ditch, bank and counterscarp. Where all three exist the survival is 'good'; only two, the survival is 'medium'; only one, the survival is 'poor'; where there is no defined earthwork the survival is listed as 'below ground only'. Where segments of the monument comprise more than one bank and ditch, this has been highlighted and the survival rating amended accordingly.

Condition

The state of preservation of the surviving elements of the monument within the Management Unit, measured as 'high' (<15% affected), 'medium' (*c* 15-30% affected) or 'low' (>30% affected).

Vulnerability

A description of the specific threats and adverse factors affecting the Management Unit.

Significance

The significance of the Management Unit relative to the rest of the monument. Measured as 'high', 'medium' or 'low', determined by the original form (e.g. single or multiple bank and ditch), the state of preservation, the survival of buried soil profiles and any association with other features (e.g. hill fort, post-medieval field boundary, boundary marker or stone).

Risk

The risk to the significance of the Management Unit. Measured as 'high', 'medium' and 'low' indicating the active nature of the threat from the adverse factors.

Priority

The priority of remediation works, described in Section 6, based on the above factors and measured as 'high', 'medium' or 'low'.

2.3 The methods in retrospect

The methods adopted allow a high degree of confidence that the aims of the project have been achieved. On occasion the GPS was unavailable (due to unsuitable alignment of satellites, tree cover, etc), in which case only an approximate position was marked on the plans.

3. Topographical and archaeological context

The background to the monument has been discussed previously (Vaughan 1993, 33-34; EH 2000a; EH 2000b, 14-15; EH 2000c, 8-9). In summary:

The Shire Ditch, also known as the Red Earl's Dyke, was constructed *c* AD 1287 for Gilbert de Clare, the Earl of Gloucester, to distinguish his wife's dowry lands on the Malvern Chase to the east, from those of the Bishop of Hereford to the west. To this end the ditch and associated banks were dug along almost the entire length of the ridge of the Malvern Hills.

In places the ditch has been truncated or entirely removed, particularly during 19th and 20th century quarrying, but also during alteration to cuttings across the hills and the construction of paths and bridleways, particularly in the Victorian period, when the hills became a leisure attraction associated with the water cure.

There is some debate over the date of sections of the ditch, particularly in relation to Midsummer Hill hillfort, where one of the ditches has been argued to underlie the Iron Age ramparts and be of Late Bronze Age origin. This would indicate that the Red Earl may, at least in part, simply have reused and reworked an existing prehistoric landscape feature. There is also some debate on the full extent of the ditch, which may continue beyond the generally accepted alignment (particularly to the south). For the purposes of this project, the area investigated runs from Hollybush Hill in the south, to Happy Valley / Green Valley, north of Worcestershire Beacon, in the north.

The county boundary between Herefordshire and Worcestershire generally utilises the alignment of the ditch, which is thus recorded under a number of different Herefordshire SMR and Worcestershire HER reference numbers, variously distinguished due to changes in topography and/or the form of construction (Appendix 1).

The ditch lies within the Malvern Hills Area of Outstanding Natural Beauty (AONB) and designated Site Of Special Scientific Interest (SSSI). The ditch itself is a Scheduled Ancient Monument (SAM 244), although it is bisected by a number of public bridleways across its alignment. In addition it is subject to the five Malvern Hills Acts of Parliament (1884, 1909, 1924, 1930 and 1995). Each of these frameworks aims to protect different aspects of the environment of the hills, and as such they detail prescriptions which may constrain the management recommendations (Sections 5 and 6).

4. Adverse factors

The adverse factors identified as affecting, or with the potential to affect, the monument are:

- Erosion due to use as a footpath or bridleway (by walkers, bikers and horses)
- Erosion by water action of exposed/bare surfaces
- Redeposition of material caused by water action or landslip
- Importation of material to consolidate paths
- Weathering, loss of vegetation and soil, due to wind, rain, ice or frost
- Erosion due to use as an animal track
- Stock scrapes
- Erosion around an animal feed or water trough
- Root disturbance caused by trees, bracken and scrub
- Silting and infilling caused by the build up of vegetation and soil
- Animal burrows
- Disturbance due to walls or fencing (temporary and permanent)
- Quarrying (on-going or disused)
- Other mechanical disturbance (e.g. vehicular damage)

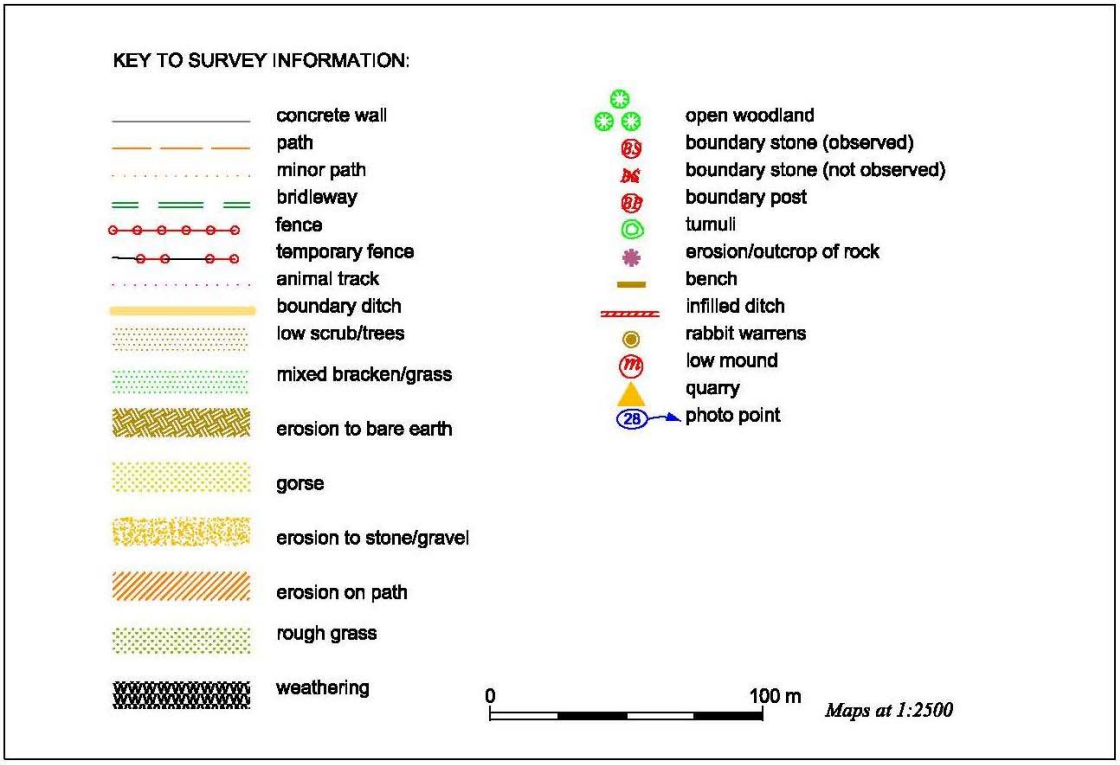
5. Results

The descriptions of each Management Unit are presented in tabular form and refer to the adjacent annotated Ordnance Survey Superplan maps at 1:2500. The key to the plans is set out below.

The codes in the remediation recommendations refer to the generic management options in Section 6 below.

A number of plates are included in Appendix 1. The entire digital photographic record is included as an accompanying cdrom disc. The exact position and orientation of each photograph is noted on the maps.

Unit 1 was assigned to an area identified in Worcestershire HER (WSM 03719), north of Raggedstone Hill, south of Hollybush, NGR: SO 75983 36743 - 75993 36777. However it was ruled out of consideration for the current project following consultation with Neil Rimmington and MHC (see Section 2.2.1 above; photos 1 and 2 on the accompanying cdrom).



Management Unit: South end of Midsummer Hill	**NGR (from - to)** SO 75983 36733 - 76152 37081	**Number** 2
Site Owner Eastnor Estate / Malvern Hills Conservators	**HER/SMR ref.** WSM 03719	

Description
Between east edge of Hollybush Quarry and Midsummer Hill hill fort rampart to north.
Under short grass with occasional hawthorns, low scrub and bracken
Occasional bare earth.
Fenced off with no footpath or stock access
Location confused by terrace to east
Banks well defined; ditch somewhat silted
Occasional rabbit burrow & extensive droppings

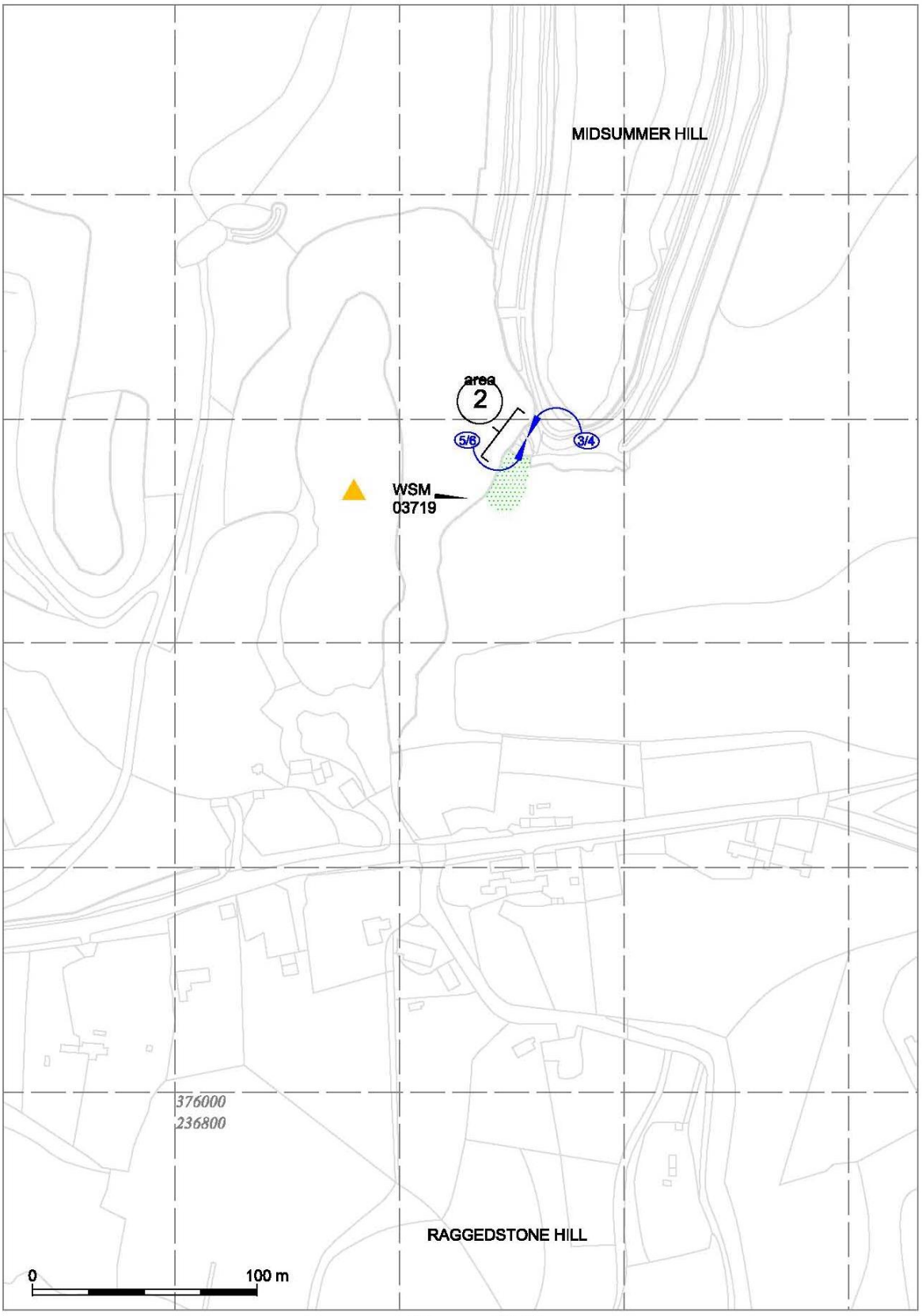
Survival **Visible components**	Good
Condition **% affected**	Good

Vulnerability
Minor weathering
Minor rabbit activity
Erosion over quarry edge

Significance **Within the monument**	High
Risk **to significance**	Low
Priority **Based on factors above**	Medium
Remediation	Monitoring - M3

Figure

Plates	**Photos**
1	3-6



Management Unit 2

Management Unit: North end of Midsummer Hill	**NGR (from - to)** SO 76097 37632 - 76136 37684	**Number** 3
Site Owner Eastnor Estate / Malvern Hills Conservators	**HER/SMR ref.** WSM 03721	

Description
Short segment under pathway, north of Midsummer Hill hill fort.
Possible double bank and ditch (EH 2000).
Bank to west (or silted/eroded west ditch) is under footpath; worn flat with no ground cover and to bare earth and gravel; is cut through hill fort counterscarp bank.
Ditch to east is silted; under open woodland of moss, grass, leaf mold and occasional trees
Footpath veers off to north-west at north end.

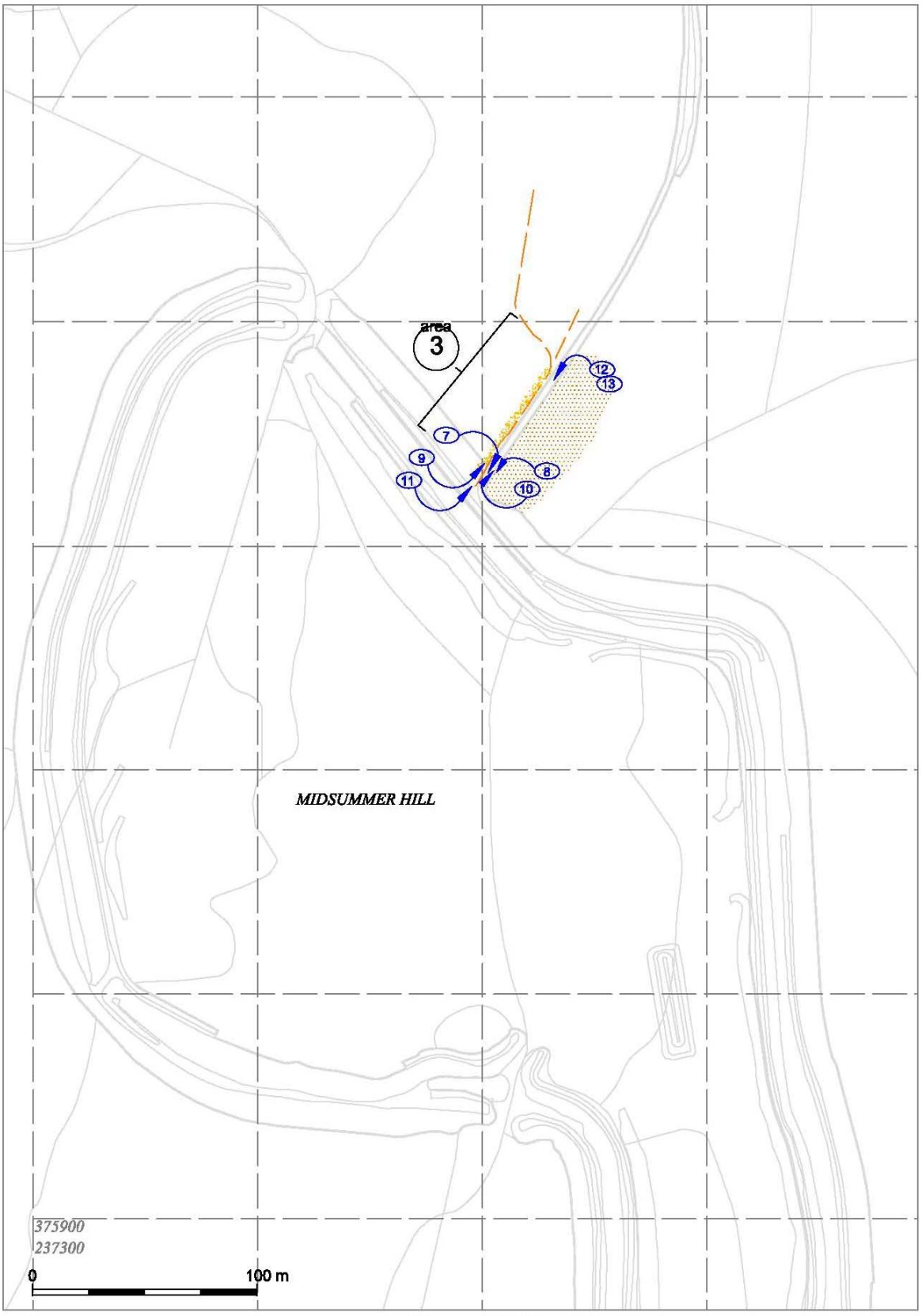
Survival **Visible components**	Good
Condition **% affected**	Good

Vulnerability
Tree roots
Erosion along foot path
Silting

Significance **Within the monument**	High
Risk **to significance**	Medium
Priority **Based on factors above**	High
Remediation	Removal of saplings - S3 Clearance of scrub in ditch - S2 Monitoring of foot path - M3

Figure

Plates	**Photos**
-	7-13



Management Unit 3

Management Unit: North end of Midsummer Hill	**NGR (from - to)** SO 76136 37684 - 76136 37974	**Number** 4
Site Owner Eastnor Estate / Malvern Hills Conservators	**HER/SMR ref.** WSM 03721	

Description
North end of Midsummer Hill down to the Gullet Cutting.
Bank to west is under minor footpath to south end; worn flat as ridge to west
Ditch to east is generally under bracken, saplings and scrub; inaccessible at mid point; very silted and indeterminate within northern half down slope;
Little or no defined bank to east.
Mid point of ridge is under open woodland with clearings, e.g. SO 76187 37789, where bank comprises bare rock under roots, leaf mold and moss.
Northern half is under mature trees with occasional grass clearings and patches of scrub.
Within northern third down slope there is no defined ditch, the bank comprises a shallow earthwork of bare rock and moss on the ridge below trees and occasional scrub.
A dense screen of holly trees lies directly above the Gullet Cutting.

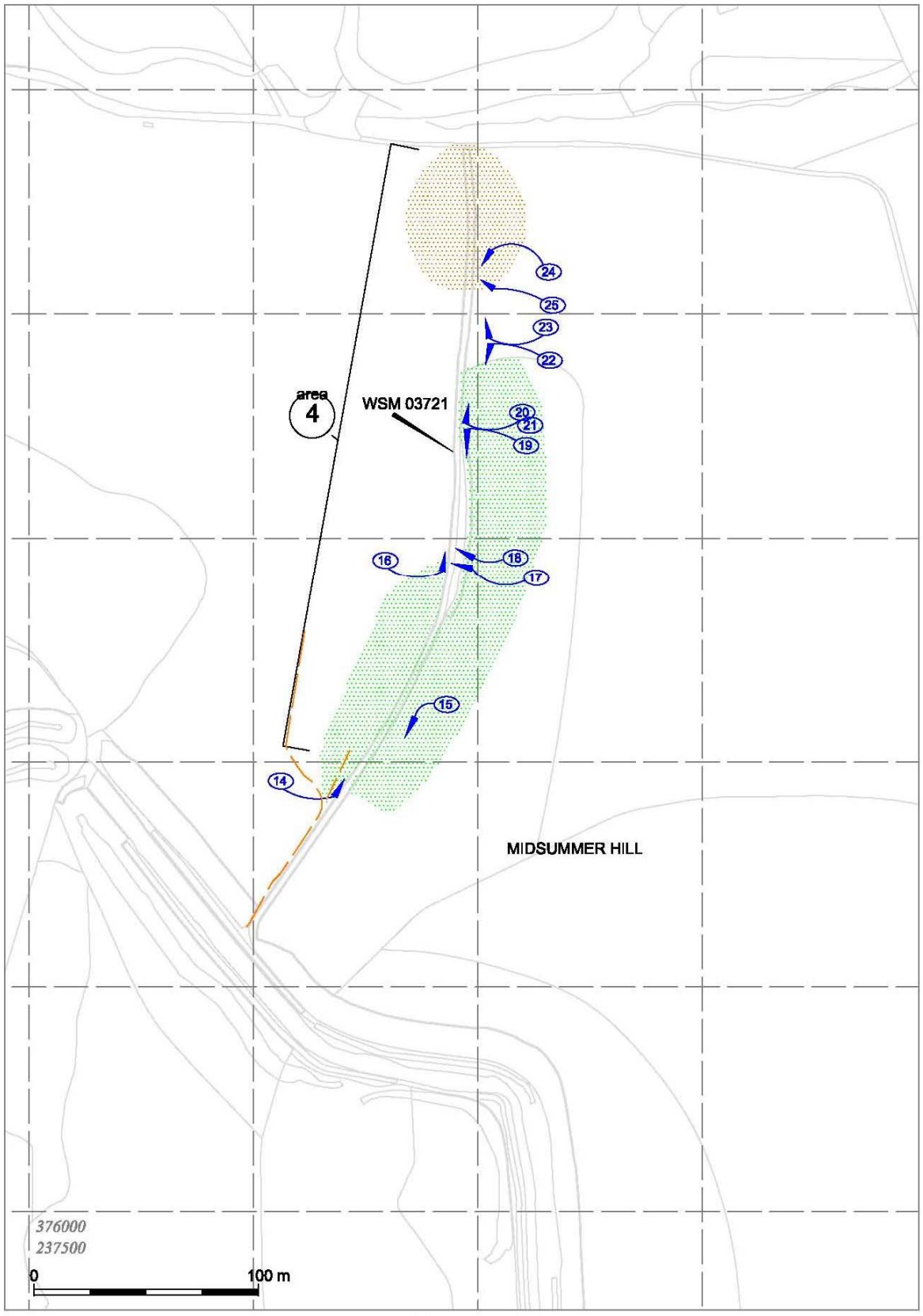
Survival **Visible components**	Good-poor
Condition **% affected**	Good/medium

Vulnerability
Tree roots
Scrub - bracken
Minor rabbit activity
Minimal silting from vegetation
Erosion down slope

Significance **Within the monument**	Medium
Risk **to significance**	Low
Priority **Based on factors above**	Medium
Remediation	Removal of saplings - S3 Clearance of scrub - S2 Monitoring of rabbit activity - M2 & B2 Monitoring of weathering - M3

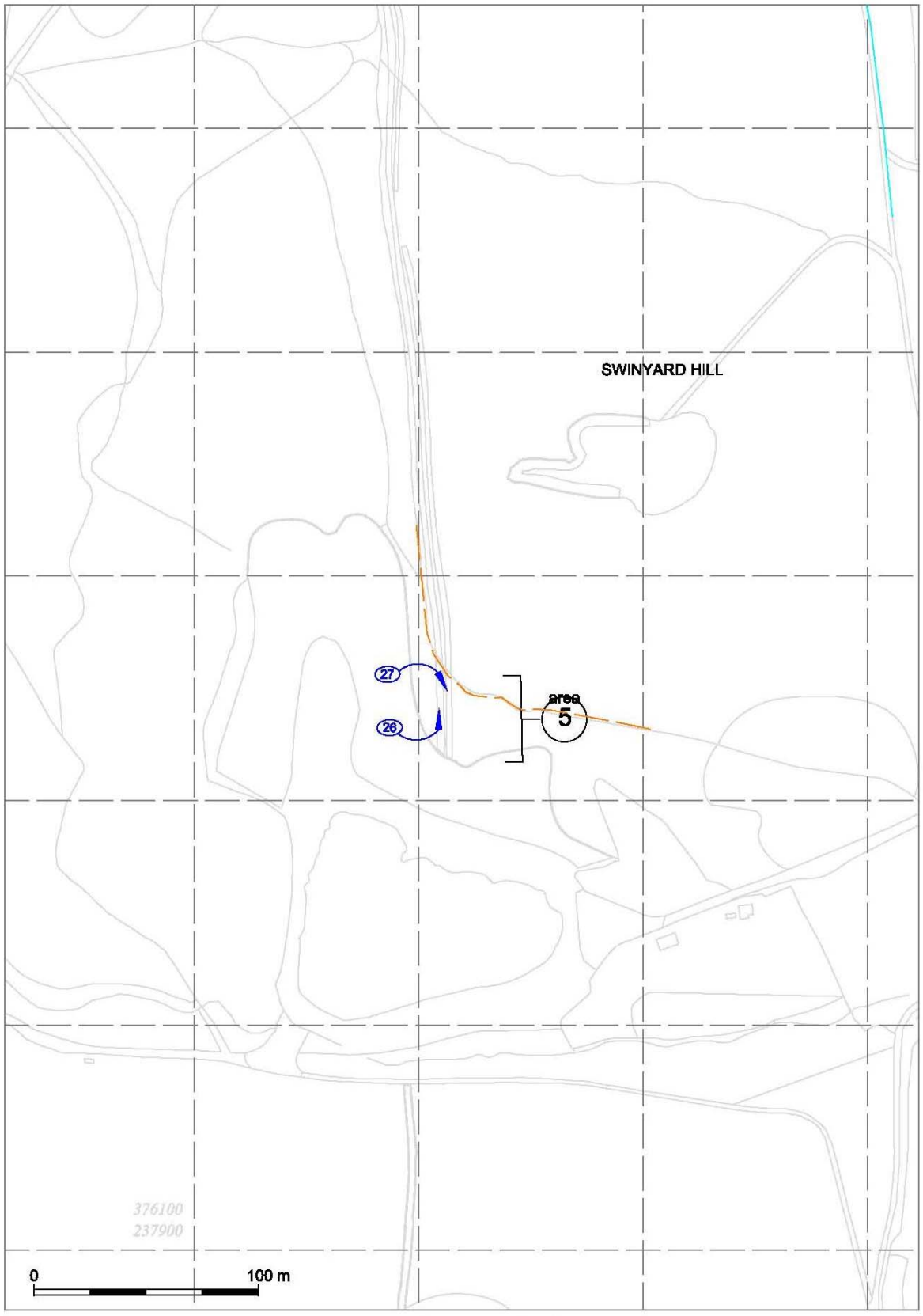
Figure

Plates	**Photos**
2	14-25



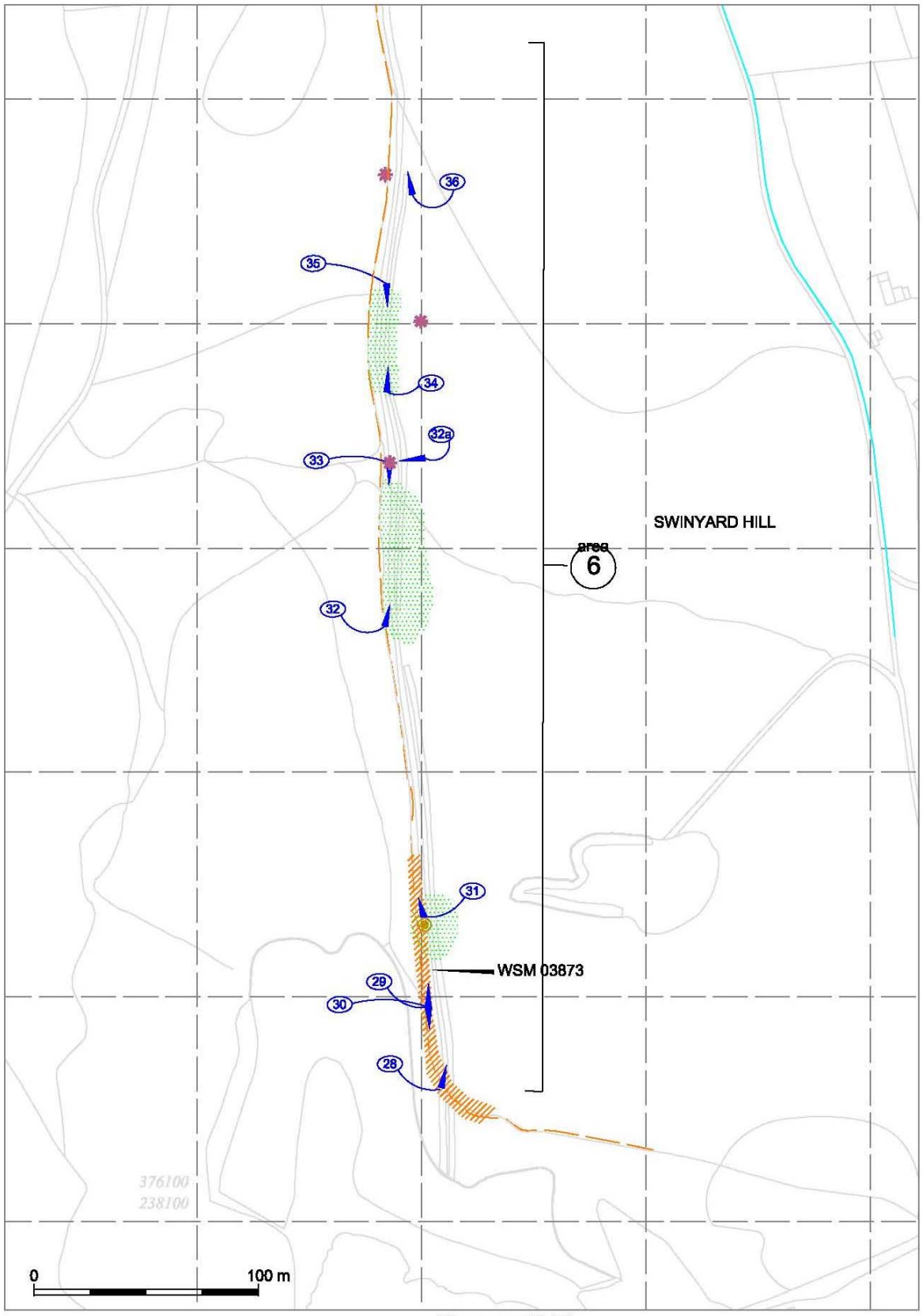
Management Unit 4

Management Unit: Swinyard Hill	**NGR (from - to)** SO 76209 38133 - 76208 38158	**Number** 5
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03873	
Description South end of Swinyard Hill adjacent to Gullet Quarry. Banks and ditch fenced off from main path along Swinyard Hill (Area 6). Under short grass Occasional rabbit burrows, rock outcrops and loose soil. Ditch is silted. Curtailed by quarry edge to south-west. No footpath or stock access		
Survival **Visible components**	Good	
Condition **% affected**	Good	
Vulnerability Minor weathering Erosion on quarry edge Minor rabbit activity Silting		
Significance **Within the monument**	Medium	
Risk **to significance**	Medium/Low	
Priority **Based on factors above**	Low	
Remediation	Monitoring - M3	
Figure		
Plates -	**Photos** 26 & 27	



Management Unit 5

Management Unit: Swinyard Hill	**NGR (from - to)** SO 76208 38158 - 76199 38627	**Number** 6
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03873	
Description South side of Swinyard Hill up to peak. Footpath cuts across ditch and then along bank to west, occasional bike tracks, worn to short grass with bare rock and soil (10-40%). Occasional severe erosion along sections of path and at peak - worn to bare rock and soil Ditch to east very shallow and silted, occasional sections obscured by dense bracken. Occasional rock outcrops. Occasional rabbit burrows.		
Survival **Visible components**	Poor/medium	
Condition **% affected**	Good	
Vulnerability Weathering of ridge and peak Minor rabbit activity Footpath erosion		
Significance **Within the monument**	Medium	
Risk **to significance**	Medium/low	
Priority **Based on factors above**	Medium/low	
Remediation	Repair path erosion - RE1-4 Cut back sections of bracken to widen spread of traffic - R2 Monitor rabbits - M3	
Figure		
Plates 3 & 4	**Photos** 28-39	



Management Unit 6

Management Unit: Swinyard Hill	**NGR (from - to)** SO 76199 38627 - 76169 38863	**Number** 7
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03722 / 03873	

Description
North of Swinyard Hill.
Footpath along west bank, generally eroded to bare rock and soil.
Patches of bank weathering and depositing material into ditch to east.
Ditch to east slightly shallow and silted, largely obscured by dense bracken to south, under long grass to north.
Bench cut into bank at SO 76189 38710

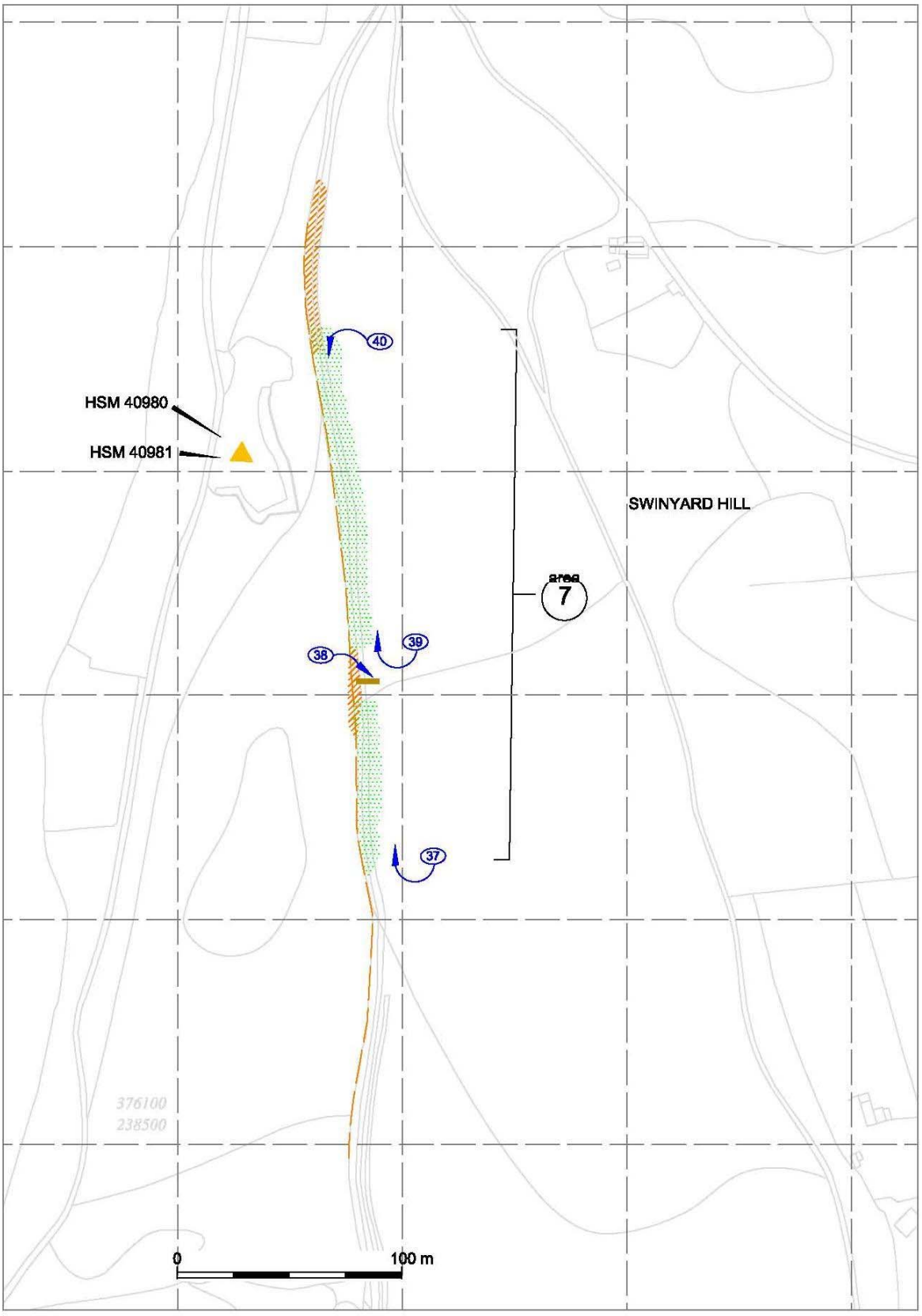
Survival **Visible components**	Good
Condition **% affected**	Good

Vulnerability
Silting
Root activity
Weathering and erosion along bank/ridge

Significance **Within the monument**	Medium
Risk **to significance**	Medium/Low
Priority **Based on factors above**	Medium/Low
Remediation	Repair path and bank erosion - RE1 Cut back sections of bracken to widen spread of traffic - S2 and R2 Monitor - M3

Figure

Plates	**Photos**
-	37-40b

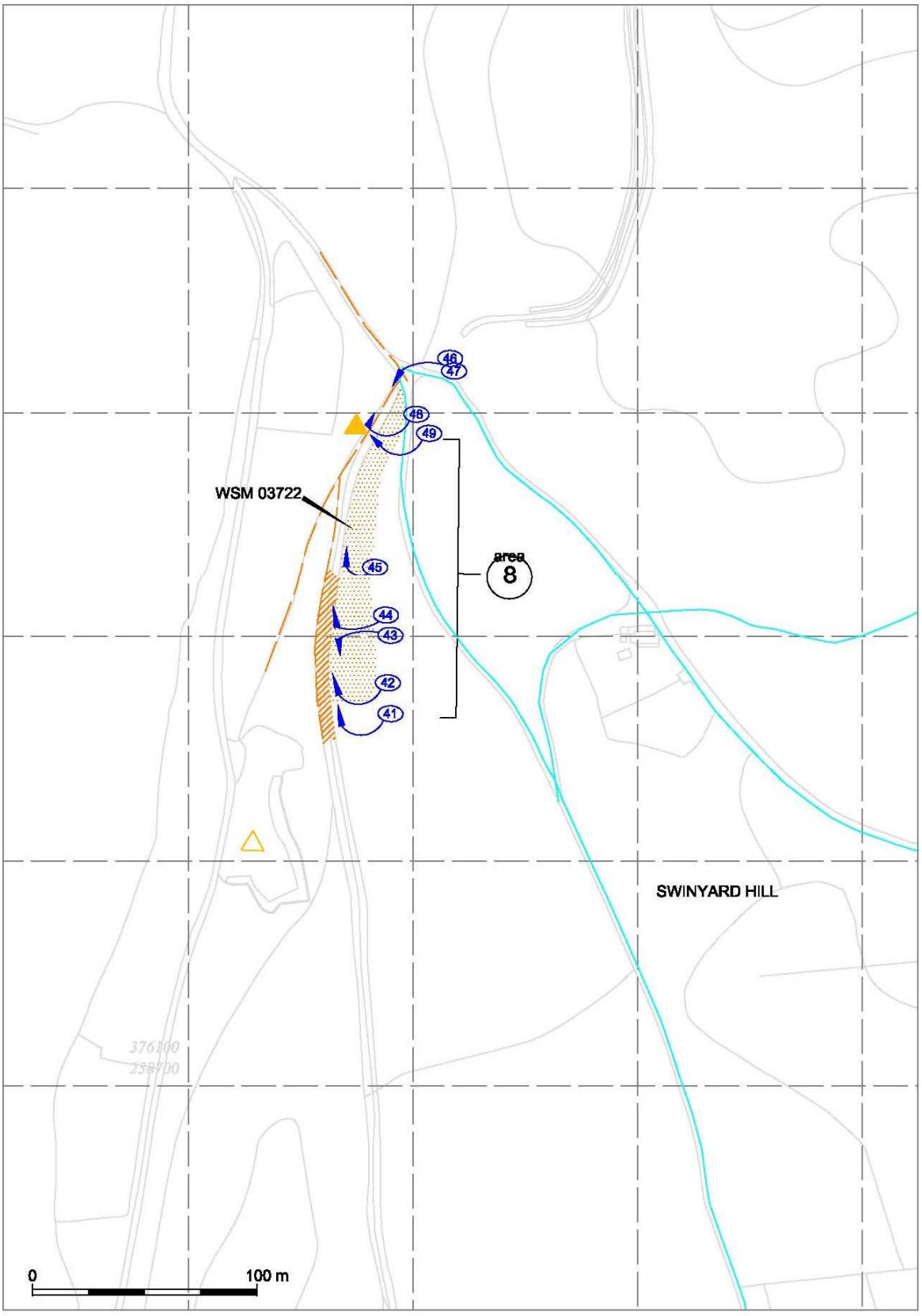


Management Unit 7

Management Unit: Swinyard Hill	**NGR (from - to)** SO 76169 38863 - 76194 39013	**Number** 8
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03722	

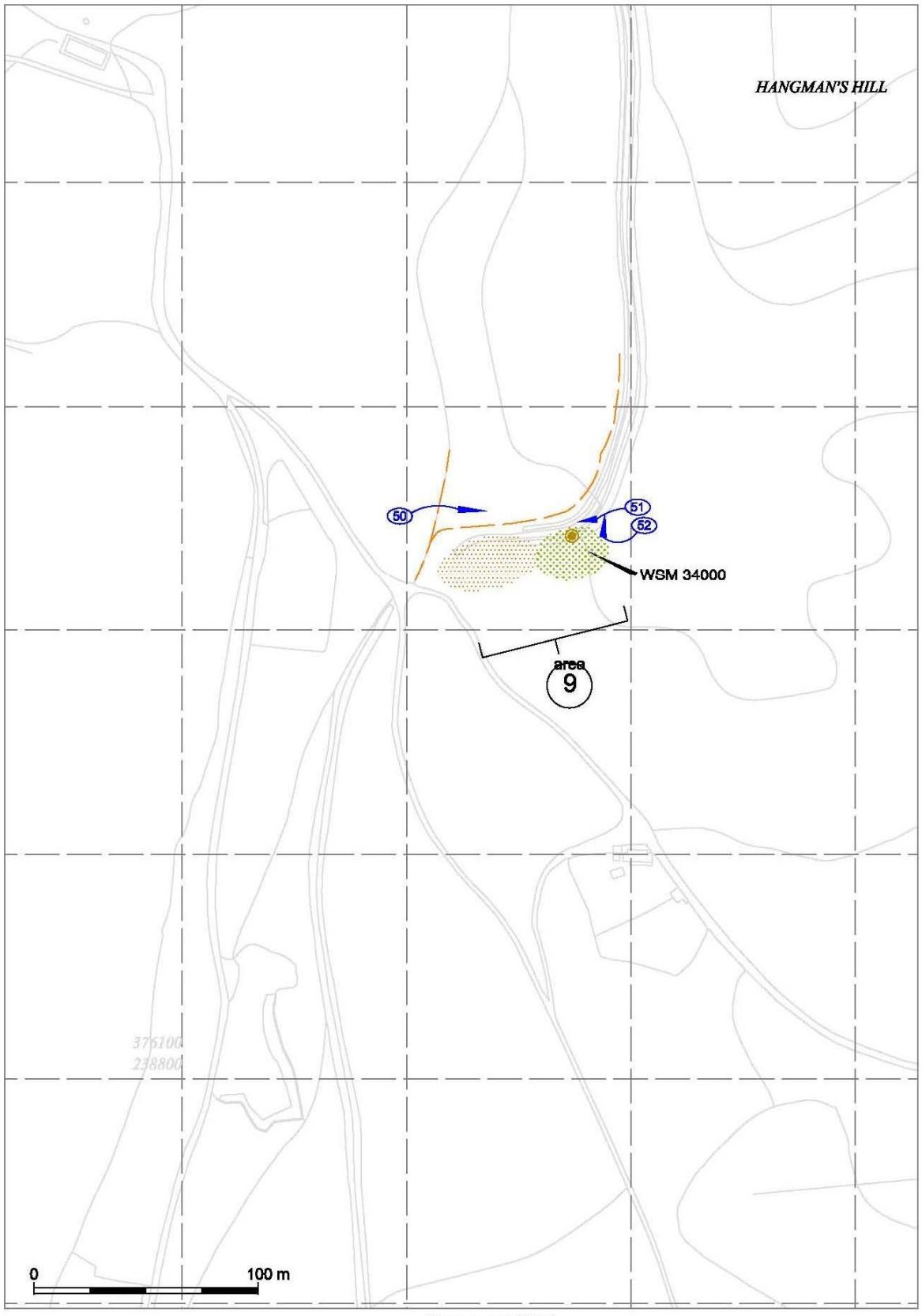
Description Northern-most end of Swinyard Hill down to Silurian Pass. Ridge to west under short grass with frequent bare rock and earth Path below ridge along bank, worn flat and eroded to gravel and bare earth. Ditch further down slope under dense trees and scrub and inaccessible but clearly defined to north end. Occasional rabbit activity on east side of ridge Sections of bank have extensive bare rock and earth with evidence of water erosion Quarry on ridge at SO 76177 38994	
Survival **Visible components**	Poor/medium
Condition **% affected**	Poor/medium
Vulnerability Weathering of ridge and path Erosion and wear to footpath Silting and root activity in east ditch	
Significance **Within the monument**	Medium
Risk **to significance**	Medium/high
Priority **Based on factors above**	Medium
Remediation	Clear scrub and saplings from ditch - S2 Repair of erosion to bank and ditch - RE2 Encourage traffic away from ditch footpath - R3 (within constraints of MHC Acts) Monitor - M3
Figure	

Plates	**Photos**
5	41-49



Management Unit 8

Management Unit: Hangman's Hill	**NGR (from - to)** SO 76220 39034 - 76284 39045	**Number** 9
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03722	
Description From the Silurian Pass up south side of Hangman's Hill to the ridge. Ditch to south is inaccessible under dense gorse and scrub to east and low scrub and trees to west Bank well defined and under scrub to south-west; eroded to bare earth to north-east Main path adjacent to north-west is extensively eroded to bare rock and soil, with deep water rivulets HER notes rabbit warren and marker adj. to ditch at SO 76276 39040, WSM 34000 - not observed; possibly under gorse to east? No trace of earthworks on Silurian Pass saddle below Hangman's Hill: area is disturbed by a deep hollow way		
Survival **Visible components**	Unclear	
Condition **% affected**	Good/medium	
Vulnerability Erosion to bank and adj. path Silting of ditch Root activity Potential rabbit activity		
Significance **Within the monument**	Medium	
Risk **to significance**	High/medium	
Priority **Based on factors above**	High	
Remediation	Reseed bank - R1 Deter traffic along bank - R3 Reinstate existing path 1 RE4 Gorse removal from sections of ditch - S2 Monitor rabbits - M3 See also Section 6.7.1	
Figure		
Plates 6	**Photos** 50 & 51	



Management Unit 9

Management Unit: Hangman's Hill - Broad Down	**NGR (from - to)** SO 76284 39045 - 76266 39470	**Number** 10a
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03722	

Description
Hangman's Hill ridge to Broad Down.
Well-preserved section.
Slightly silted ditch with main bank to west; few weathered mature hawthorn on bank and patches of scrub within ditch.
Under short grass with very occasional weathering, patches of brambles, gorse and hawthorn trees.
Occasional sheep scrapes and rabbit burrows, e.g. SO 76300 39100.
Main path lies to west on wide ridge.
Discrete sections where minor path lies within ditch and along west bank suffering extensive erosion to bare rock and soil with water rivulets near peak
Boundary stones within ditch toward south end and at north extent, SO 76306 39112 and 76272 39471
Field boundary to west intersects with bank at SO 76299 39267.
Ordnance Survey Superplan notes boundary stone at c SO 76283 39354, but not observed.

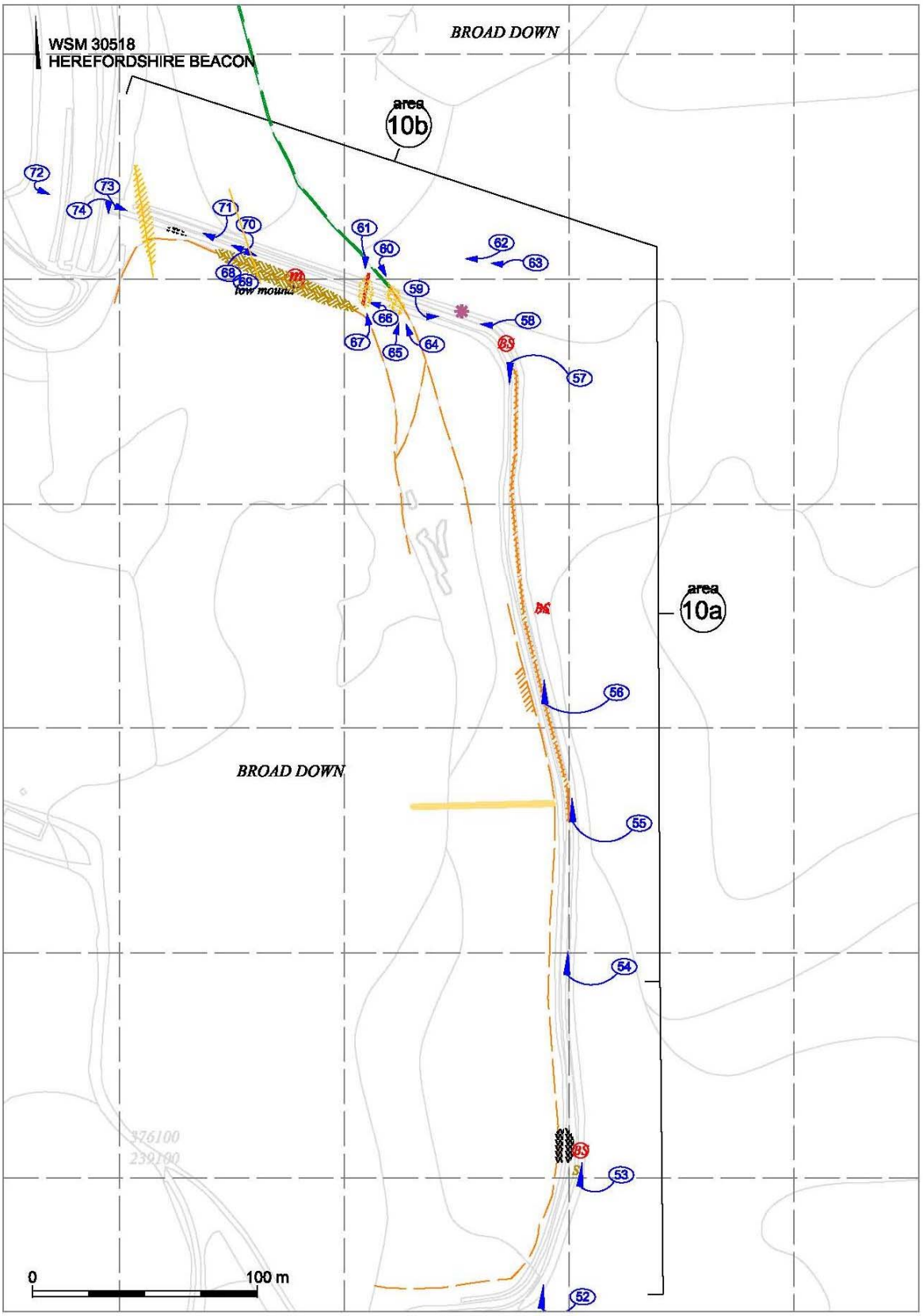
Survival **Visible components**	Good
Condition **% affected**	Good

Vulnerability
Minor weathering
Discrete patches of severe erosion to bank and ditch
Minor rabbit activity and sheep scrapes

Significance **Within the monument**	High/medium
Risk **to significance**	Medium/high
Priority **Based on factors above**	High/medium
Remediation	Monitoring of rabbit activity - M3 and B2 Insertion of patches of scrub to encourage walkers/bikers away from monument - R1 and R3 (within constraints of SSSI) Reseed and reinstate soil within eroded ditch and along bank - RE1

Figure

Plates	**Photos**
-	52-61



Management Unit 10

Management Unit: Broad Down - Herefordshire Beacon	**NGR (from - to)** SO 76266 39470 - 76104 39535	**Number** 10b
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03722	

Description
Broad Down saddle to Herefordshire Beacon British Camp hill fort ramparts.
Well-preserved section.
Slightly silted ditch with main bank to south-west.
Under short grass with occasional weathering and a rock outcrop toward the south-east end.
Two major paths cross the ditch on the saddle:
At SO 76231 39480 a path diagonally across bank and ditch, down to bare rock and gravel with extensive weathering to the exposed sides
At SO 76209 39491 a wide gravelled Bridleway, with a ramp deliberately infilling the ditch.
At SO 76159 39513 to the west, a sheep track diagonally crosses the ditch, alongside outlier of bracken, wearing down to bare earth
Main path lies to south-west up to south entrance into British Camp; worn to bare earth (with patches of imported gravel) on saddle and recently reinstated by MHC up to hill fort.
At SO 76100 39533 below hill fort ramparts, a narrow minor path cuts diagonally across ditch, worn to bare soil and gravel with water borne erosion into ditch.
Outcrop of bracken within ditch from north at west side of saddle

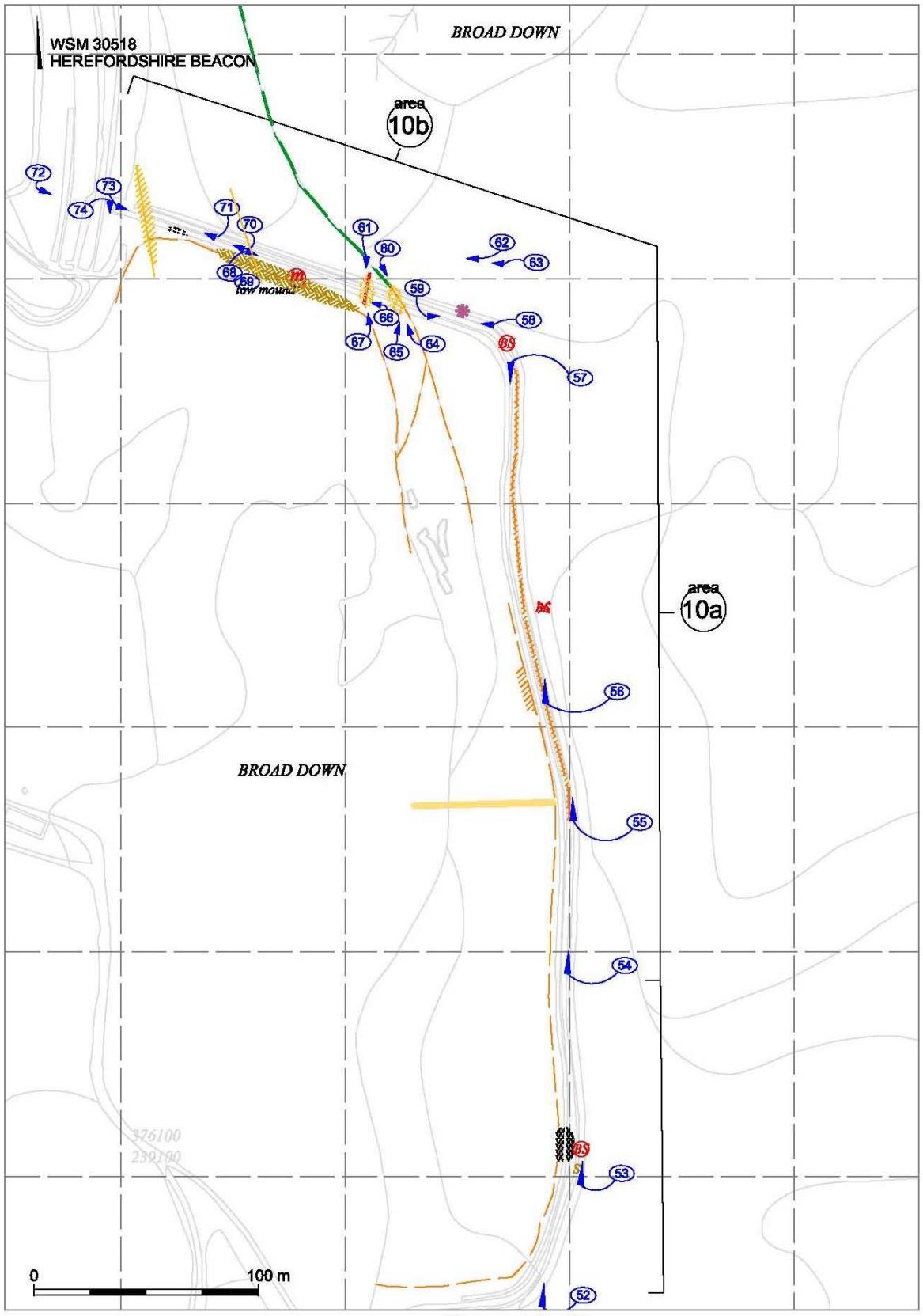
Survival **Visible components**	Good
Condition **% affected**	Good

Vulnerability
Weathering
Footpath erosion across ditch and on saddle
Water erosion from rampart path

Significance **Within the monument**	High
Risk **to significance**	Low
Priority **Based on factors above**	High
Remediation	Deter use of minor paths and emphasize Bridleway - R1 and R3 Cut back bracken to reroute animal track - S2 Reseed and reinstate minor path scars - RE3 Monitor animal activity - M3 See also Section 6.7.2

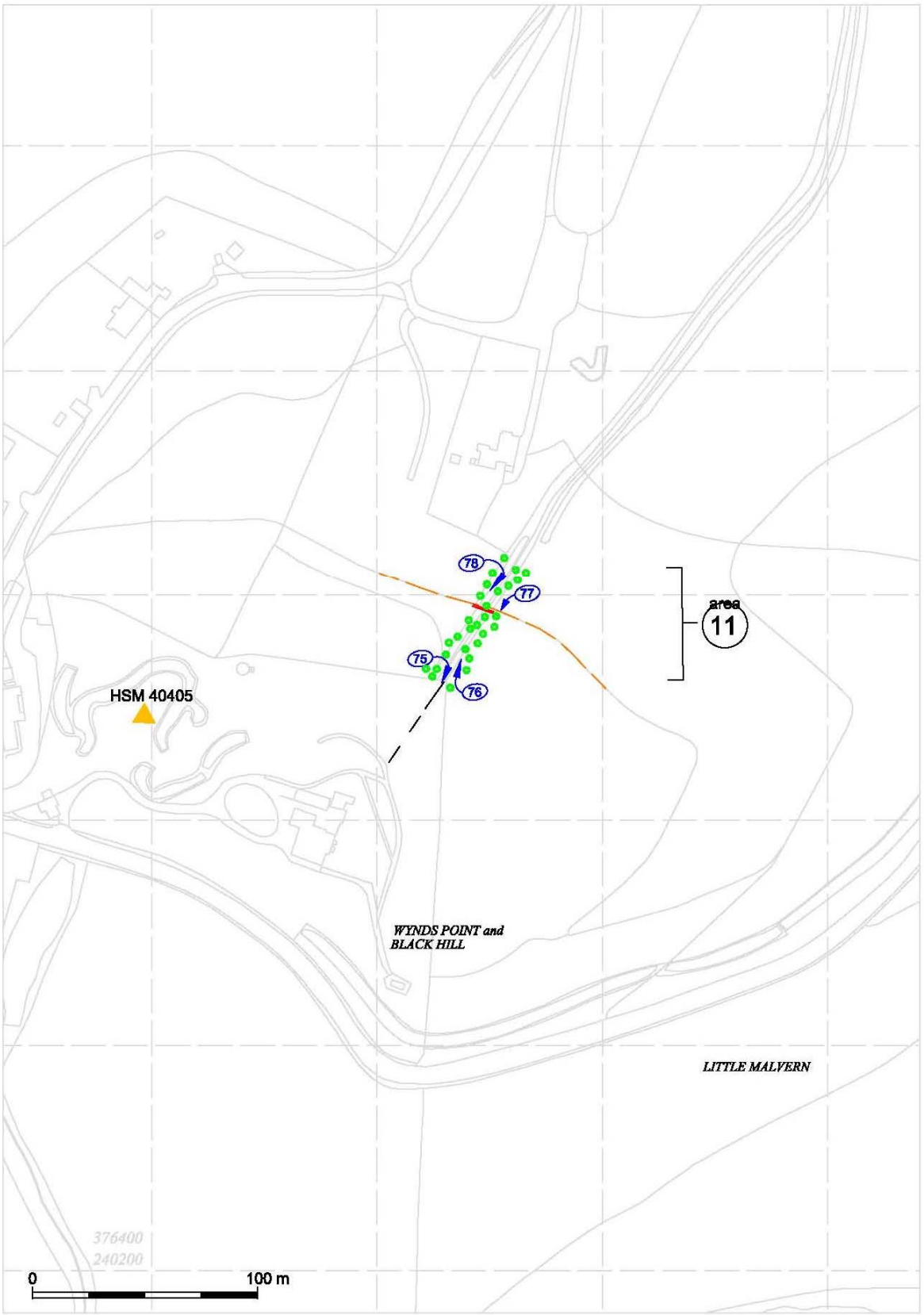
Figure

Plates	**Photos**
7	62-74



Management Unit 10

Management Unit: Black Hill	**NGR (from - to)** SO 76535 40466 - 76556 40512	**Number** 11
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03750 / HSM 3818	
Description Wynds Point at the south end of Black Hill. Recorded elsewhere as commencing at north edge of Wynds Point quarry, further south, at SO 7653 4047, within private un-accessed woodland (EH 2000). Shallow silted ditch and eroded bank to west. Within open woodland, groundcover of leaf mold. At SO 76553 40492 a minor, little utilised path bisects in-filled ditch.		
Survival **Visible components**	Medium/Poor	
Condition **% affected**	Medium/Poor	
Vulnerability Root activity Silting Footpath		
Significance **Within the monument**	Medium	
Risk **to significance**	Medium/Low	
Priority **Based on factors above**	Medium/Low	
Remediation	Remove saplings - S2 or S3 Clear leaf mold - S2 or S3 Monitor - M3	
Figure		
Plates -	**Photos** 75-78	



Management Unit 11

Management Unit: Black Hill	**NGR (from - to)** SO 76556 40512 - 76744 40888	**Number** 12
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03750 / HSM 3818	

Description
South end of Black Hill, opposite Little Malvern.
Heavily silted main ditch is largely below bracken, scrub and occasional trees; along northern third, the scrub has been cut back to edge of ditch, where an animal track now runs along the ditch, worn to bare earth.
Main path lies along bank, which is worn flat to gravel and bare earth.
Ridge to west is occasionally weathered with rock outcrops and water rivulets.
Occasional rabbit burrows and an extensive sheep scrape at SO 76667 40633 on bank.
Benches on concrete plinth cut into ridge at SO 76611 40591 and ditch at SO 76742 40881.

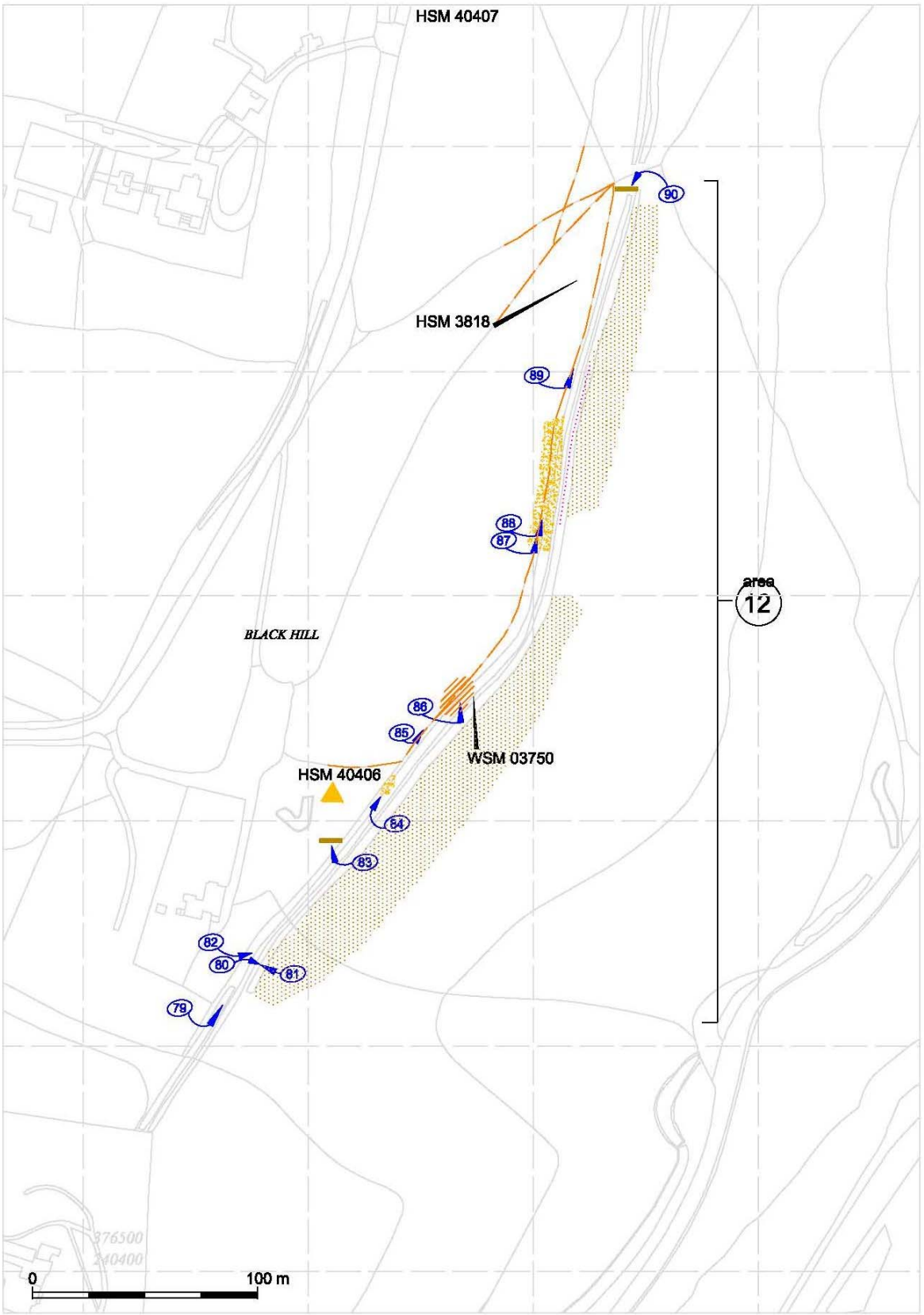
Survival **Visible components**	Poor
Condition **% affected**	Poor

Vulnerability
Silting of main ditch
Root activity within main ditch
Footpath along bank
Minor sheep and rabbit activity
Weathering on ridge

Significance **Within the monument**	Medium
Risk **to significance**	Medium
Priority **Based on factors above**	Medium/Low
Remediation	Clear scrub from ditch - S3 and R2 Reseed and reinstate weathered outcrops - RE2 Reinstate water eroded sections - RE4 Monitor rabbit activity - M3

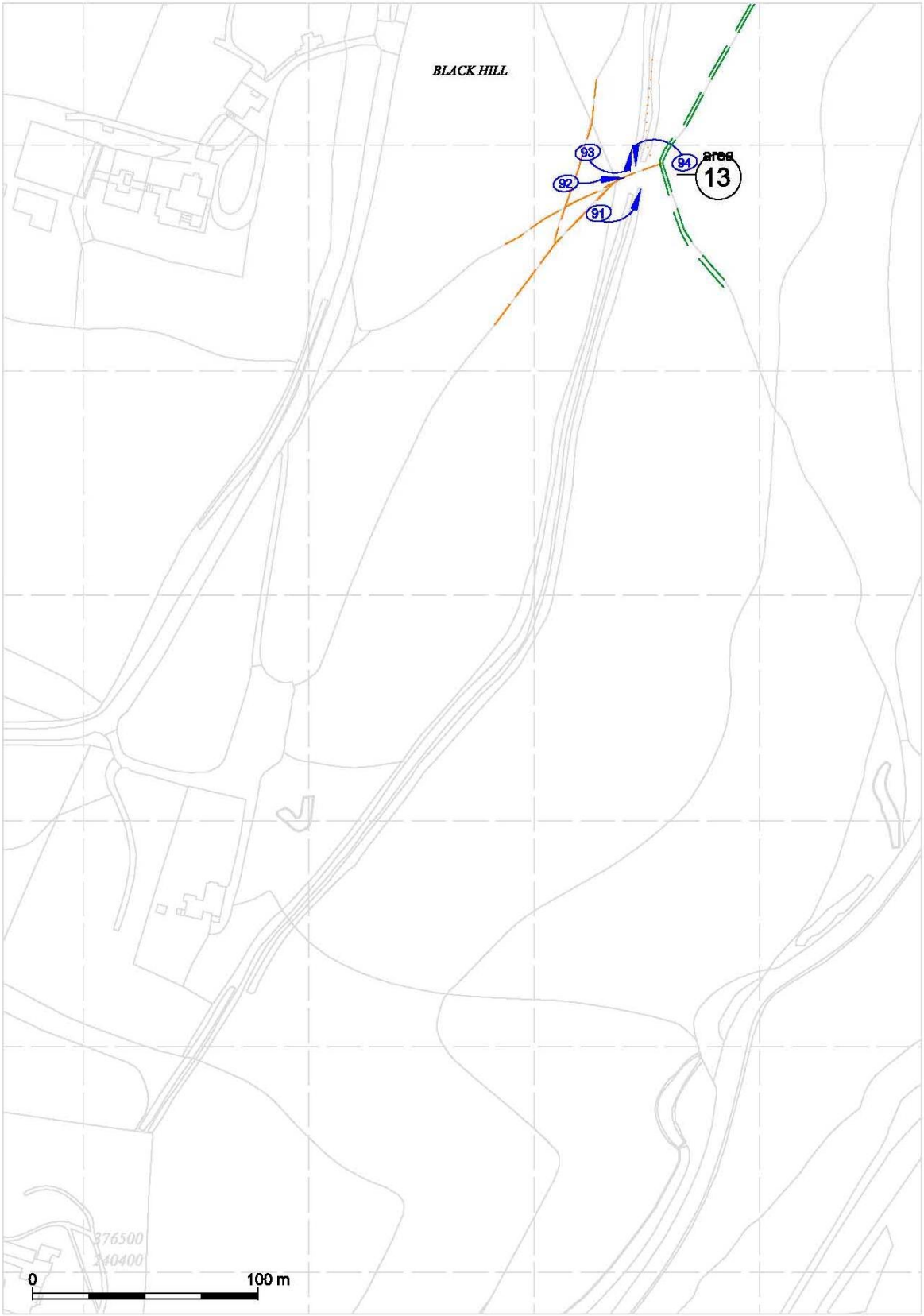
Figure

Plates	**Photos**
-	79-90



Management Unit 12

Management Unit: Black Hill	**NGR (from - to)** SO 76742 40889	**Number** 13
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03750 / HSM 3818	
Description Location of conjoining paths cutting diagonally across ditch on south side of Black Hill. Path worn down to bare earth and gravel Bank sides under short grass		
Survival **Visible components**	Poor	
Condition **% affected**	Poor	
Vulnerability Footpath erosion		
Significance **Within the monument**	Low	
Risk **to significance**	Medium/Low	
Priority **Based on factors above**	Medium/low	
Remediation	Monitor - M3 Strengthen path surface - RE2 and/or R4	
Figure		
Plates -	**Photos** 91-93	



Management Unit 13

Management Unit: Black Hill	**NGR (from - to)** SO 76742 40889 - 76814 41367	Number 14
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03750 / HSM 3818	

Description
Peak and upper ridge of Black Hill.
Bank to west under footpath, worn flat, to bare earth, gravel and occasional rock outcrops.
Ditch to east is shallow and generally under short grass with scrub cut back on lower slopes.
Animal track along southern c220m of ditch adj. to scrub, worn to bare earth
Quarry fence, with concrete posts along middle of ditch for c 95m on peak
Frequent weathering on slope of bank at peak
At SO 76814 41170 a bench within ditch near peak
At SO 76839 41315 an iron boundary marker below peak
Minor track in ditch north of boundary marker, wearing to bare earth, with scrub and trees adj. to east.

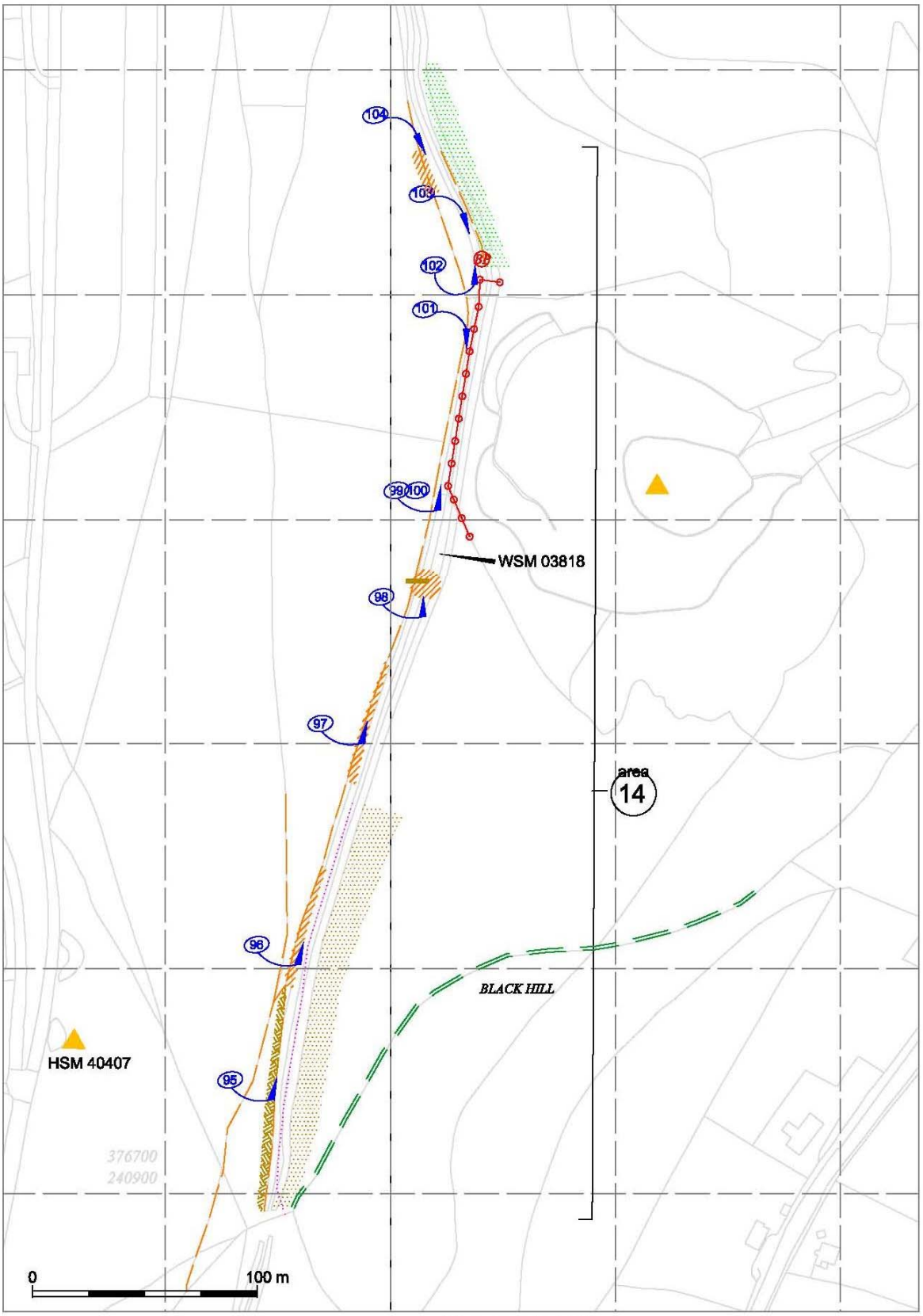
Survival **Visible components**	Good
Condition **% affected**	Good/poor

Vulnerability
Weathering at peak and along bank path
Footpath erosion on bank, minor path in ditch to north and animal track in ditch to south

Significance **Within the monument**	Medium
Risk **to significance**	Medium
Priority **Based on factors above**	Medium
Remediation	Deter path within ditch - R3 Repair of weathering - RE1 Cut back scrub further away from ditch to move animal track - R2 and/or G1 Monitor - M3

Figure

Plates	**Photos**
8	94-104



Management Unit 14

Management Unit: Pinnacle Hill	**NGR (from - to)** SO 75983 36733 - 76152 37081	**Number** 15
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03822 / HSM 3751	

Description
From saddle north of Black Hill to peak of Pinnacle Hill.
Bank to west under footpath, worn flat, to bare earth, gravel and occasional rock outcrops.
Ditch to east is shallow and generally under grass and moss with bracken and scrub encroachment on saddle at south end.
At SO 76797 41484 and 76819 41641 bridleways cut across the ditch, worn down to bare gravel and soil.
At SO 76797 41481, 76800 41558 and 76814 41946 boundary stones and iron markers lie within ditch.
Occasional rabbit burrows lie south of the summit.
At SO 76828 41682 and 76793 42079 severe weathering of ridge and path within ditch, with water erosion evident.
At SO 76844 41797 minor weathering of bank and ditch.
Temporary electric fence along east side of ditch for grazing stock
Erosion from animal tracks of counterscarp bank esp. at SO 76821 41950
At SO 76791 42106 and 76791 42122 two tumuli on peak, very weathered, southern one excavated in antiquity; path on bank adj. is eroded to bare gravel and earth.

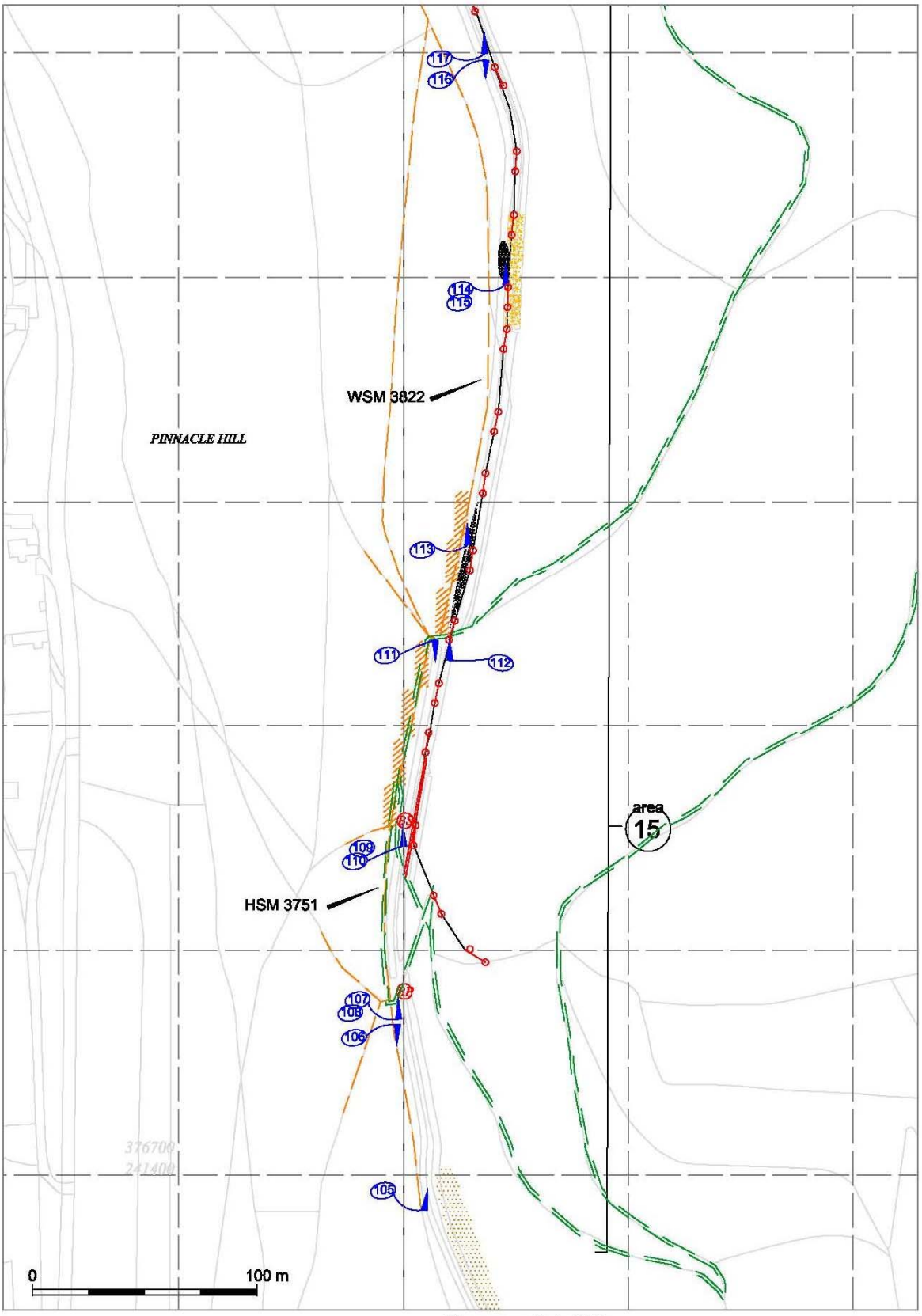
Survival **Visible components**	Medium/poor
Condition **% affected**	Medium/poor

Vulnerability
Weathering esp. along bank and ridge
Minor rabbit activity
Footpath erosion along bank and sections of ditch

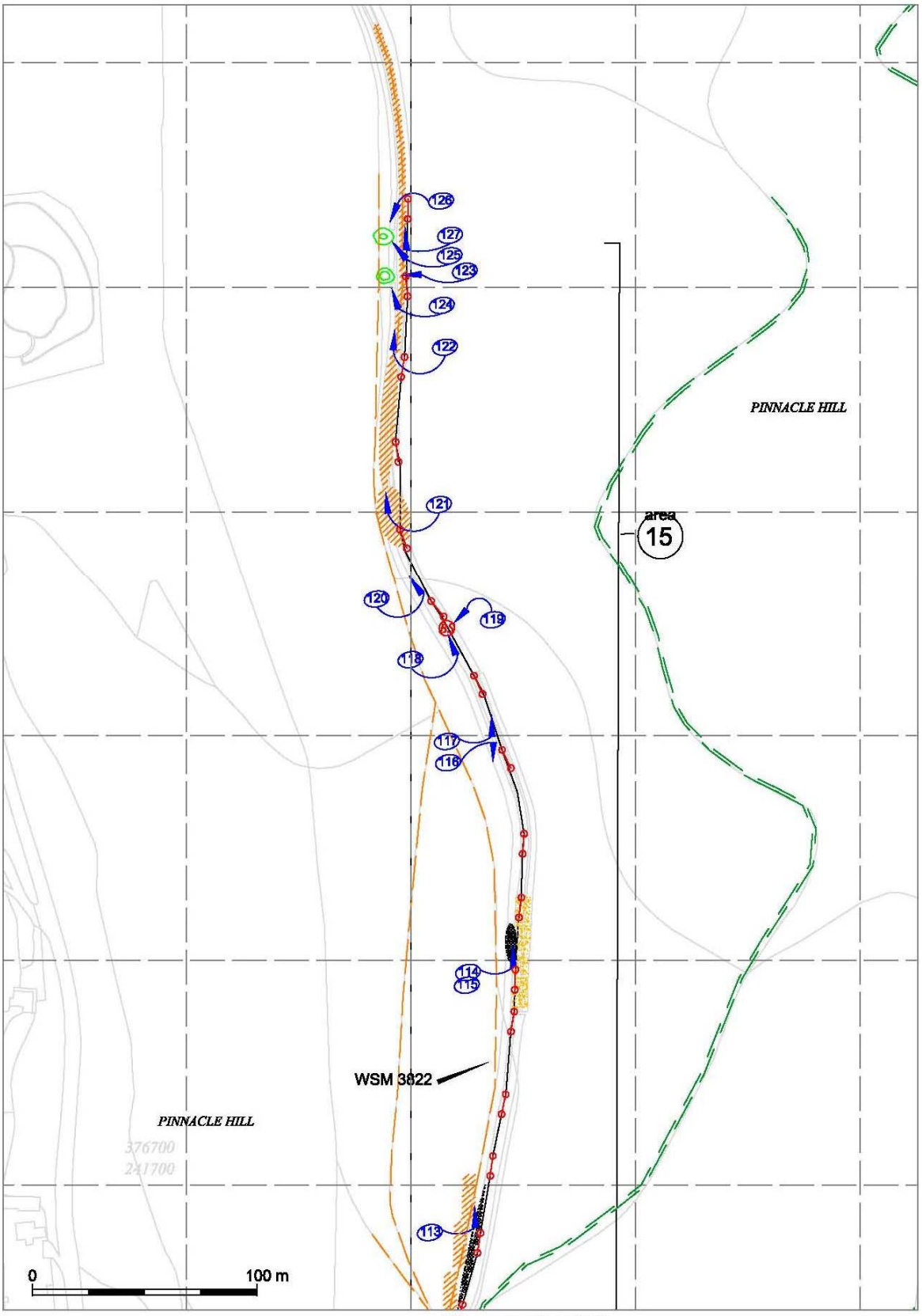
Significance **Within the monument**	Medium
Risk **to significance**	Medium
Priority **Based on factors above**	Medium
Remediation	Deter footpath along bank with temporary boundary - R3 Reseed and reinstate weathered and eroded sections - RE1-4 Move temporary fencing east, below ditch counterscarp - G2 Monitoring of burrows - M3

Figure

Plates	**Photos**
-	105-126



Management Unit 15 (a)



Management Unit 15 (b)

Management Unit: Pinnacle Hill	**NGR (from - to)** SO 76789 42122 - 76819 42406	**Number** 16
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03823 / HSM 3822	

Description
From the peak of Pinnacle Hill down to the saddle to the north, west of the Holy Well.
Bank below ridge with ditch to east.
Main path on bank largely worn flat, to bare earth and rock with water erosion, down to saddle where it crosses over to ridge path and minor path continues along this side.
Grazing and scrub fenced off with temporary electric fence along silted ditch with animal track along, eroded to churned earth.
Ditch to east is steep and under pasture to south and scrub to north
Temporary water bowser and trough located within bank on saddle at SO 76797 42390.
At SO 76773 42334 a bank adjoins outer ditch from east - possible unrecorded field boundary?

Area terminates at north end of saddle where footpath forming a Bridleway to the north-east crosses ditches: at this point no earthworks are extant, the ridge slopes down to either side; the Bridleway may utilise the outer ditch which has been altered and lost until further north (Area 17).

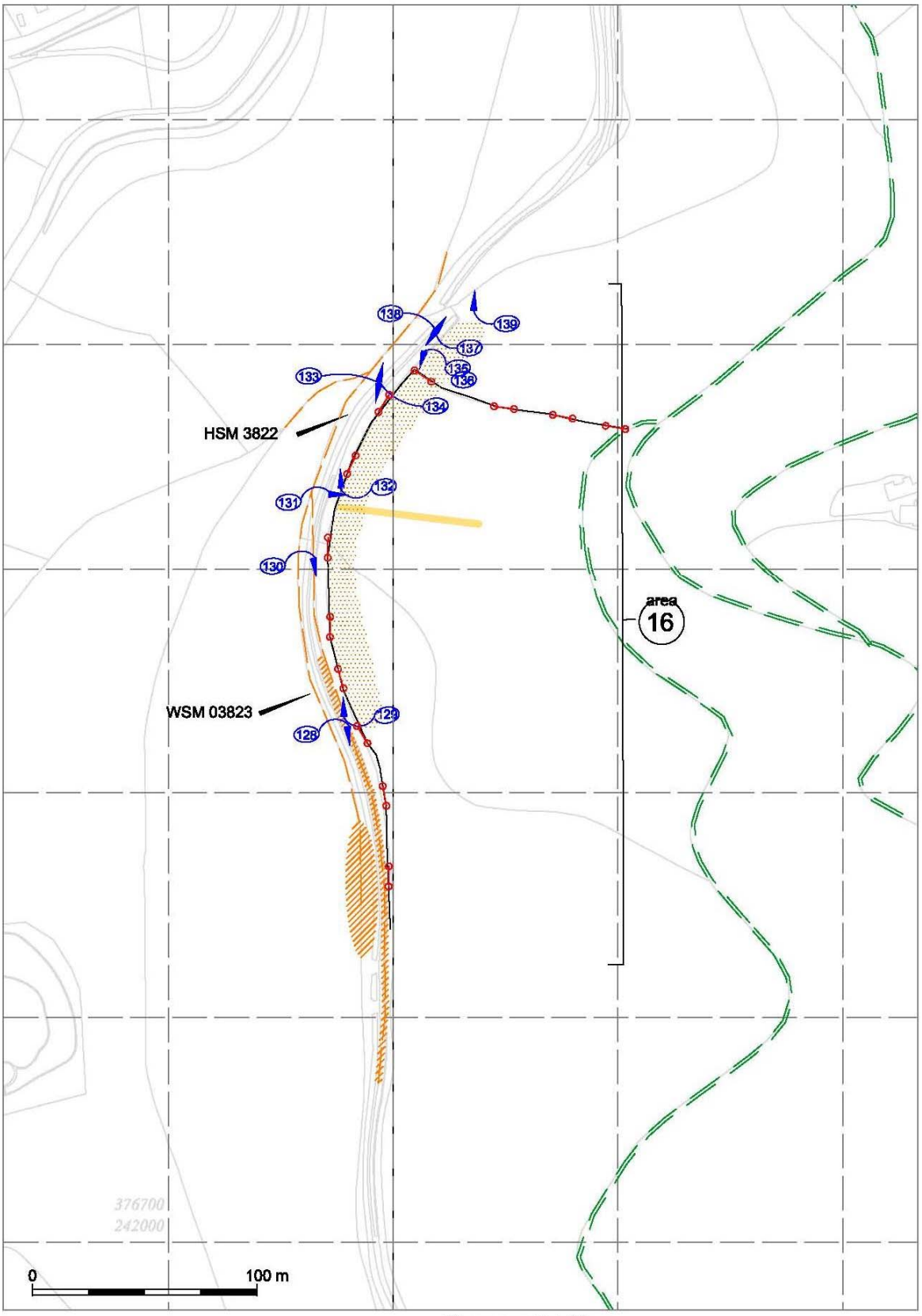
Survival Visible components	Medium/Good
Condition % affected	Medium

Vulnerability
Weathering esp. along bank and ridge
Footpath and water erosion along bank and sections of ditch
Silting and root damage to ditch
Stock erosion of ditches

Significance Within the monument	Medium
Risk to significance	Medium/High
Priority Based on factors above	Medium/High
Remediation	Deter footpath along bank with temporary boundary - R3 Reseed and reinstate weathered sections - RE2 and RE4 Cut back scrub further away from outer ditch - G3 Move temporary fencing east, below ditch counterscarp - G2 Resite temporary bowser - G2 Monitor - M3

Figure

Plates	**Photos**
9	127-137



Management Unit 16

Management Unit: Jubilee Hill	**NGR (from - to)** SO 76837 42427 - 76879 42711	**Number** 17
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03823 / HSM 3823 and 3824	

Description
From the saddle north of Pinnacle Hill, over the peak of Jubilee Hill, north to the saddle, south of Perserverance Hill; east of Thirds Land.
Bank ill-defined and ditch heavily silted.
Footpath follows ridge, worn to bare earth and gravel along full length.
Ditch largely inaccessible below bracken and brambles along east side of ridge up to SO 76881 42668; then under grass to north extent.
Visible section of ditch at SO 76883 42461 very eroded with rabbit burrows and loose soil
From SO 76903 42493 northwards a double bank and ditch exist.
Quarry, HSM 40398, recorded at SO 7690 4255, but under scrub so not accessible.
Quarry cuts ditch at SO 76887 42684, down into bedrock, next to side path
Bench lies within upper ditch at SO 76880 42690.

Area terminates to north where ridge path and the Bridleway path to east link up, thus destroying any visible earthworks. The ditches continue further north (Area 18)
Area terminates toward south end of slope where quarry (with bench on concrete plinth) at SO 76843 42427 cuts into hillside; the ditch is extant further south beyond the Bridleway up to the saddle, which utilises and altered the outer ditch up to saddle (Area 16).
Bridleway noted on OS Superplan within Shire Ditch, as distinct from footpath along ridge, but there is no separate parallel path within this area

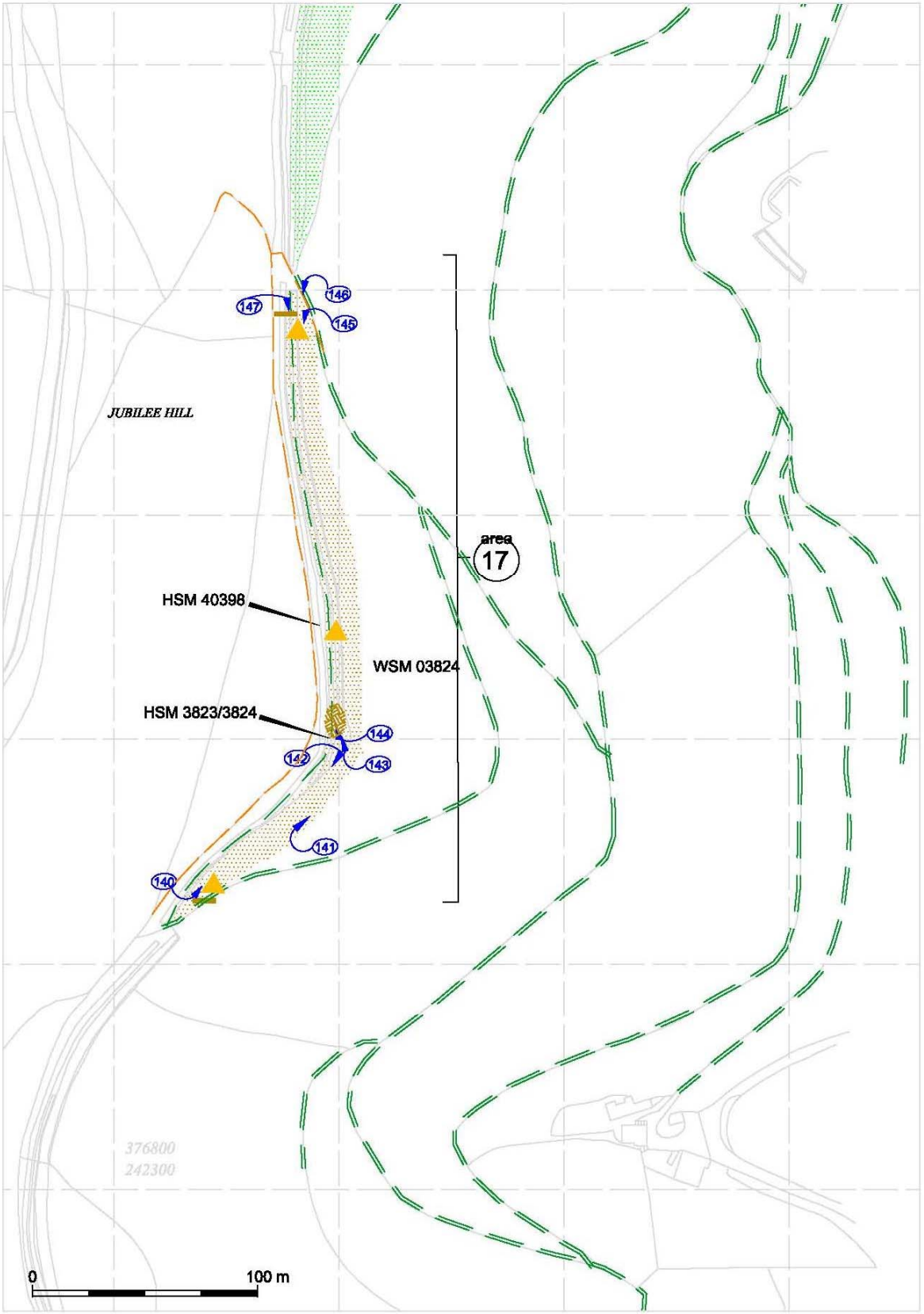
Survival **Visible components**	Medium/poor
Condition **% affected**	Medium/poor

Vulnerability
Weathering of slope and outer ditch
Rabbit activity
Silting and root damage to ditch

Significance **Within the monument**	Medium/low
Risk **to significance**	Medium
Priority **Based on factors above**	Medium/low
Remediation	Cut back scrub away from outer ditch - S3 Reseed weathered ditch and slope - RE1 and/or RE2 Deter rabbits - B1 Monitor - M3

Figure

Plates	**Photos**
-	138-147



Management Unit 17

Management Unit: Perserverence Hill	**NGR (from - to)** SO 76879 42711 - 76916 42941	**Number** 18
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03824 / HSM 3824	

Description
From the saddle north of Jubilee Hill, up the south side of Perserverence Hill to the peak; north-east of Thirds Lane.
Footpath follows ridge, worn to bare earth and gravel along full length.
Ridge at peak eroded to bare rock.
Shallow bank on east side of ridge, under grass and occasionally used as path and worn to bare earth.
Rock outcrop at SO 76887 42822 within bank with frequent water erosion up to peak.
Ditch heavily silted and largely inaccessible under bracken and scrub or under long grass where cut back.
Animal track alongside bracken within ditch toward south end for c 80m, worn to bare earth.
Counter scarp bank of ditch scoured to bare earth and rock by vehicle/quad bike at SO 76916 42905.
Occasional rabbit burrows within bank.
Area terminates to south where ridge path and the Bridleway path to east link up, thus destroying any visible earthworks. The ditch continues further south (Area 17)

Survival **Visible components**	Medium/Good
Condition **% affected**	Medium/Good

Vulnerability
Minor weathering
Minor rabbit activity
Potential land slip

Significance **Within the monument**	Medium
Risk **to significance**	Medium/High
Priority **Based on factors above**	Medium/High
Remediation	Clear scrub from ditch - S3 and G3 Monitor rabbits - M3 Reinstate and reseed eroded path on bank - RE1 Discourage use of bank path with barrier to south - R3 (within constraints of MHC Acts)

Figure

Plates	**Photos**
-	148-153

Management Unit 18

Management Unit: Perserverence Hill	**NGR (from - to)** SO 76916 42941 - 76925 43702	**Number** 19
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03825 and 03826 / HSM 3825 and 3826	

Description
From the peak of Perserverence Hill to the Wyche Cutting.
Main path along bank on east side of ridge, worn flat down to bare earth, gravel and rock with extensive water erosion along much of length up to SO 76905 43329.
To north, bank forms minor path, under grass with only occasional minor erosion.
Ridge to west is under moss and grass, frequently eroded and weathered to bare rock, with occasional rabbit burrows.
Ditch removed by path to south-east at SO 76929 43129
Ditch largely inaccessible under bracken and scrub with occasional trees south of bisecting field boundary at SO 76929 43207.
Boundary stone in ditch at this point.
Between this field boundary and another at SO 76904 43282 to north there is no defined ditch and bank appears modified.
South of adjoining field boundary at SO 76921 43413 ditch is not evident around rock outcrop.
Four small quarry pits along ridge between SO 76927 43479 and 76936 43589
Minor path or animal track from north-east bisects ditch at SO 76938 43507; no erosion.
North of SO 76938 43527 ditch is irregular and winding along east side of ridge - disturbed by adj. quarrying?
North of SO 76941 43595 ditch is under bracken
Ephemeral ditch reappears at SO 76942 43661, under long grass and scrub bushes, fenced off for quarry on south-east side of the Wyche Cutting.

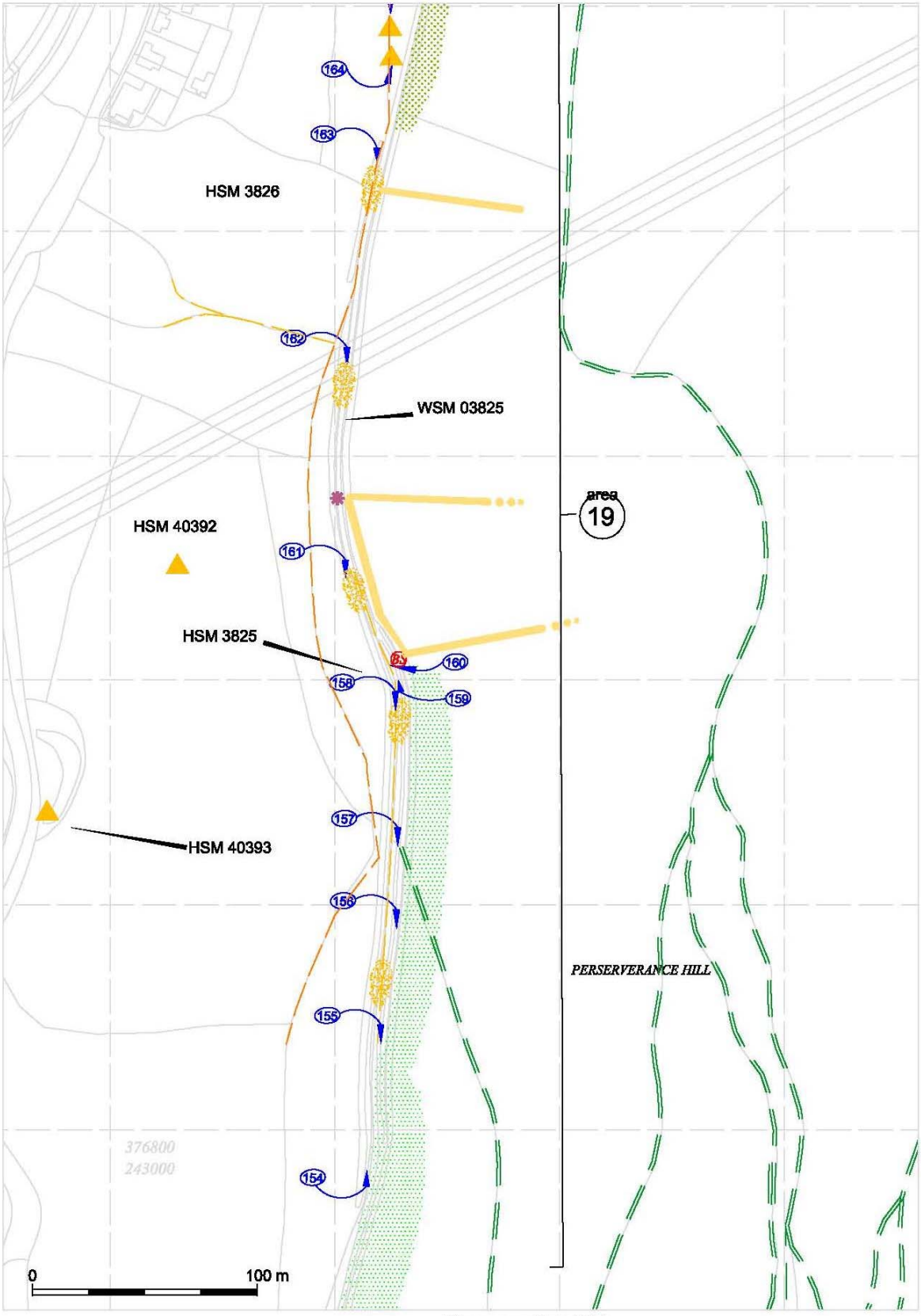
Survival **Visible components**	Medium
Condition **% affected**	Medium/poor

Vulnerability
Weathering and water erosion
Minor rabbit activity
Footpath erosion

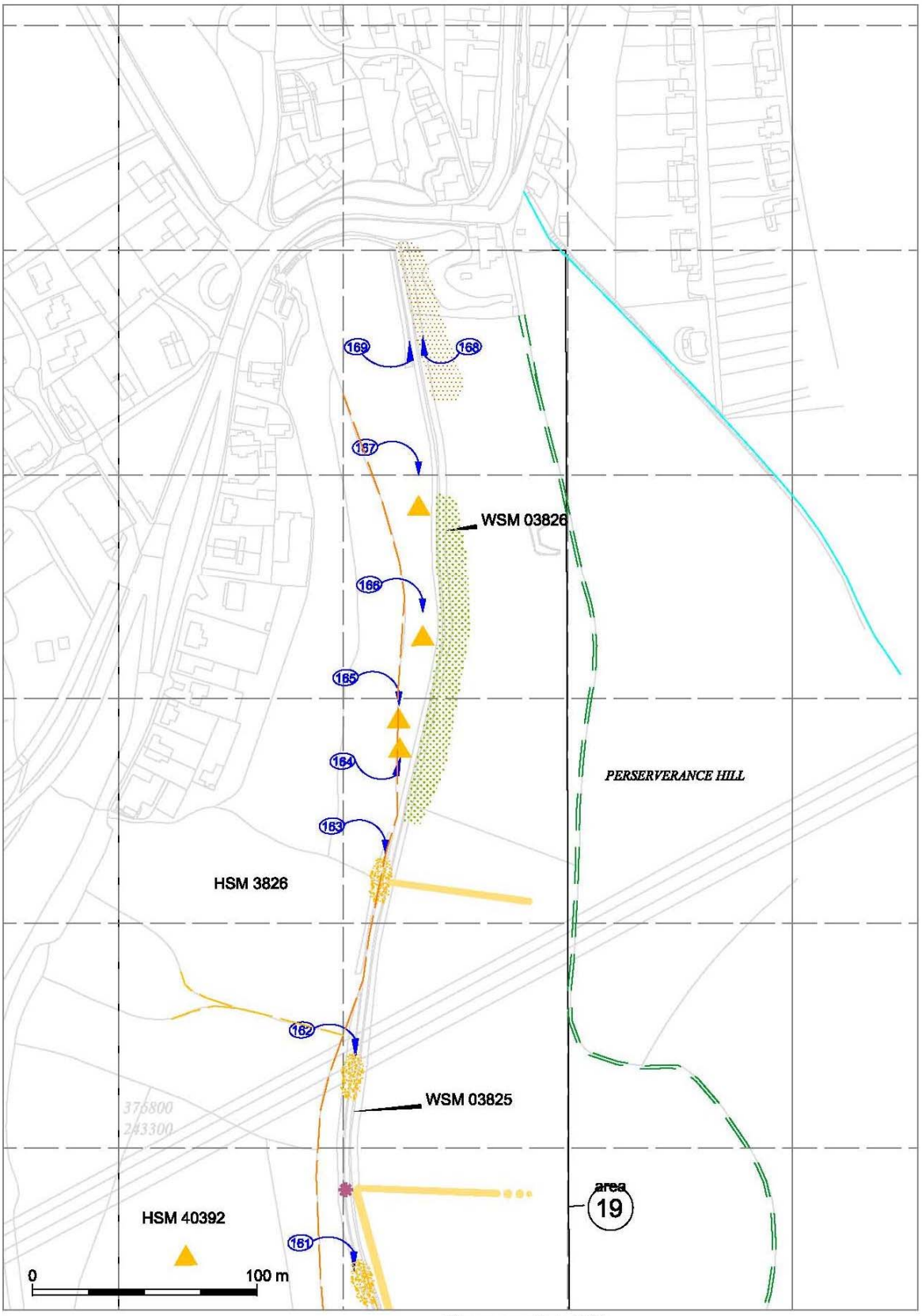
Significance **Within the monument**	Medium
Risk **to significance**	Medium/High
Priority **Based on factors above**	Medium/High
Remediation	Clear scrub from ditch - S3 Discourage use of bank path - R3 Reinstate and reseed eroded path on bank - RE1-4 Reinstate weathered bank - RE1 and RE2 Monitor - M3

Figure

Plates	**Photos**
-	154-169



Management Unit 19(a)



Management Unit 19(b)

Management Unit: Wyche Cutting to the Gold Mine	**NGR (from - to)** SO 76906 43894 - 76914 44120	**Number** 20
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03819 / HSM 3819	

Description
North of houses to the north of the Wyche Cutting, up to the Gold Mine saddle, west of Upper Wyche and Wyche Quarry.
West bank is footpath, worn flat to bare rock, gravel and soil.
West side of ridge under gorse, with occasional irregular paths up to main ridge worn to bare earth and gravel with water erosion, e.g. SO 76901 43900.
Ditch to east under open woodland of trees, occasional scrub and leaf mold.
Concrete wall within ditch at south end, from SO 76910 43906 to 76899 44059; bisects ditch and bank path at SO 76900 44018; main path joins summit path.
Quarry appears to have entirely removed ditches between SO 76899 44059 and 76912 44043
At north end, possible multiple ditches inaccessible under dense gorse & grass northwards, but appear well-defined from saddle.
Short deep trench on ridge toward north end, west of main monument is probably quarry related.
Area terminates south of saddle where all earthworks have been removed by quarrying and later footpaths and bridleways.

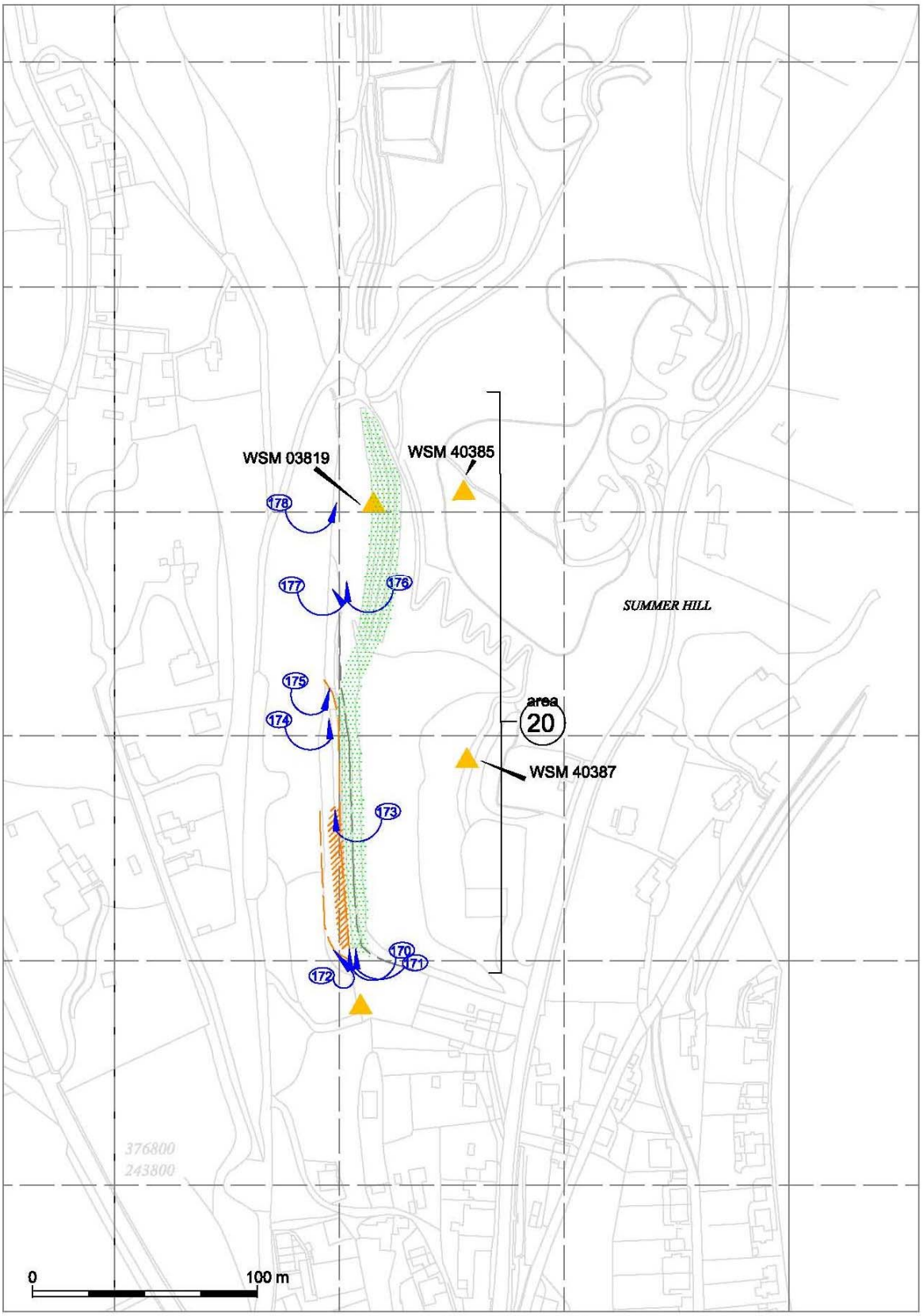
Survival **Visible components**	Medium/Good
Condition **% affected**	Medium/Good

Vulnerability
Minor weathering and water erosion to bank
Erosion in footpath ditch
Silting and root disturbance to east and multiple ditches

Significance **Within the monument**	Medium
Risk **to significance**	Medium/Low
Priority **Based on factors above**	Medium
Remediation	Encourage access away from bank path and reroute along ridge - R3 Deter access across bank - R1 Reseed and reinstate bank path - RE1-4 Clear dense scrub and trees within east and multiple ditches to north - S2 Monitor - M3

Figure

Plates	**Photos**
-	170-178



Management Unit 20

Management Unit: Summer Hill	**NGR (from - to)** SO 76911 44237 - 76934 44741	**Number** 21
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03820 and 03752 / HSM 3821	

Description
From the Gold Mine saddle, up the south side of Summer Hill to the peak; east of Earnslaw Quarry, Malvern Common and The Firs.
No defined ditches due north of saddle - area inaccessible under gorse and scrub.
Bridleway along bank, worn flat to bare earth and soil.
Water plant has truncated ditch to east between SO 76918 44258 and 76916 44303.
Bank and ditches truncated by path to water plant at SO 76904 44272 with imported gravel.
Unclear if there is a ditch north of water plant; inaccessible under gorse and trees.
Bank variously under grass, gorse and scrub; bridleway along ridge to west.
Extensive water erosion within bridleway at SO 76915 44406, 76915 44457, 76916 444505 and to north summit.
Irregular paths across bank at SO 76913 444386 and 76913 44482 worn to bare earth and gravel.
Minor path from north-east cut through possible east ditch at SO 76915 44473; bare rock in west ditch adj.
Possible west ditch northwards from SO 76911 44551, generally grassed with occasional gorse; weathered north of SO 76904 44604.
Minor path/animal track across bank and west ditch at SO 76904 44604, worn to bare earth and stone.
Field boundary from south-east adjoins ditch at SO 76934 44728.
Area terminates north of peak where worn path on bank turns north-west across west ditch and onto ridge (continued as Area 22).

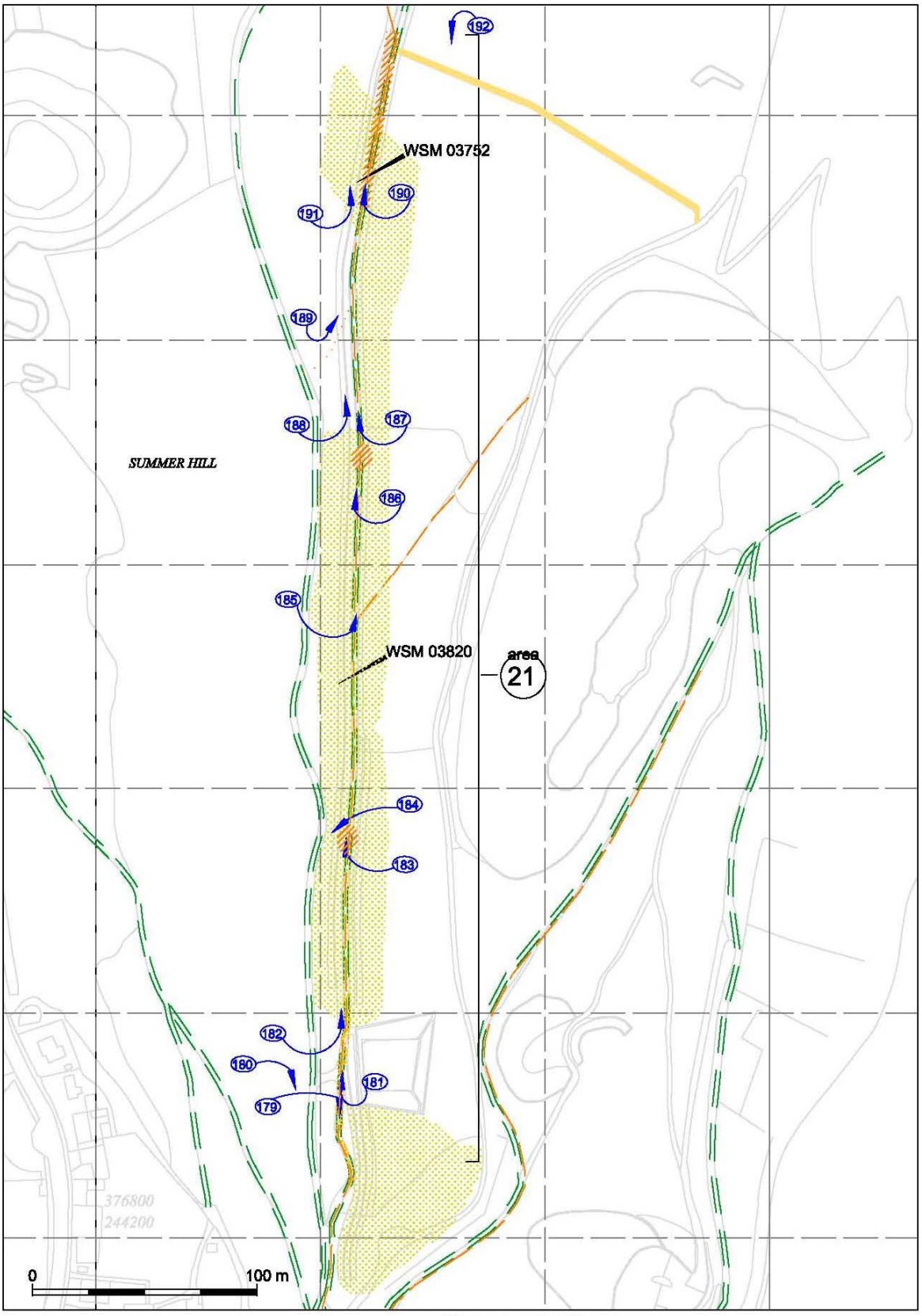
Survival Visible components	Medium/poor
Condition % affected	Medium/poor

Vulnerability
Weathering of bank on summit
Footpath erosion
Water erosion

Significance **Within the monument**	Medium
Risk **to significance**	Medium/High
Priority **Based on factors above**	Medium/High
Remediation	Deter access across bank - R1 Deter access along bank path and reroute along ridge - R3 Reinstate water eroded sections - RE4 Clear gorse and scrub to south end - S2 or S3 Monitor - M3

Figure

Plates	**Photos**
10	179-192



Management Unit 21

Management Unit: Summer Hill	**NGR (from - to)** SO 76934 44735 - 76931 44851	**Number** 22
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03821 / HSM 3821	

Description
From the peak of Summer Hill northwards to the saddle, south of Worcestershire Beacon.
South end of area defined by change of alignment of path across ditches and onto ridge to west.
Bank very silted and flat, under short grass; ditch to east lower on slope, under grass and occasional scrub.
Possible mole hills on bank at SO 76938 44775.
Rock outcrop in ditch at SO 76946 44789.
Bank largely peters out at SO 76932 44821 and becomes very ephemeral
Bank ill-defined on ridge, eroded?
Bench cut into bank at SO 76930 44845.
Temporary water bowser located south of bench, for water trough to east down slope.
Footpath follows ridge, worn to bare earth and gravel along full length.
Area terminates to north at the intersection of three Bridleways and a path on the ridge, obliterating all earthworks.

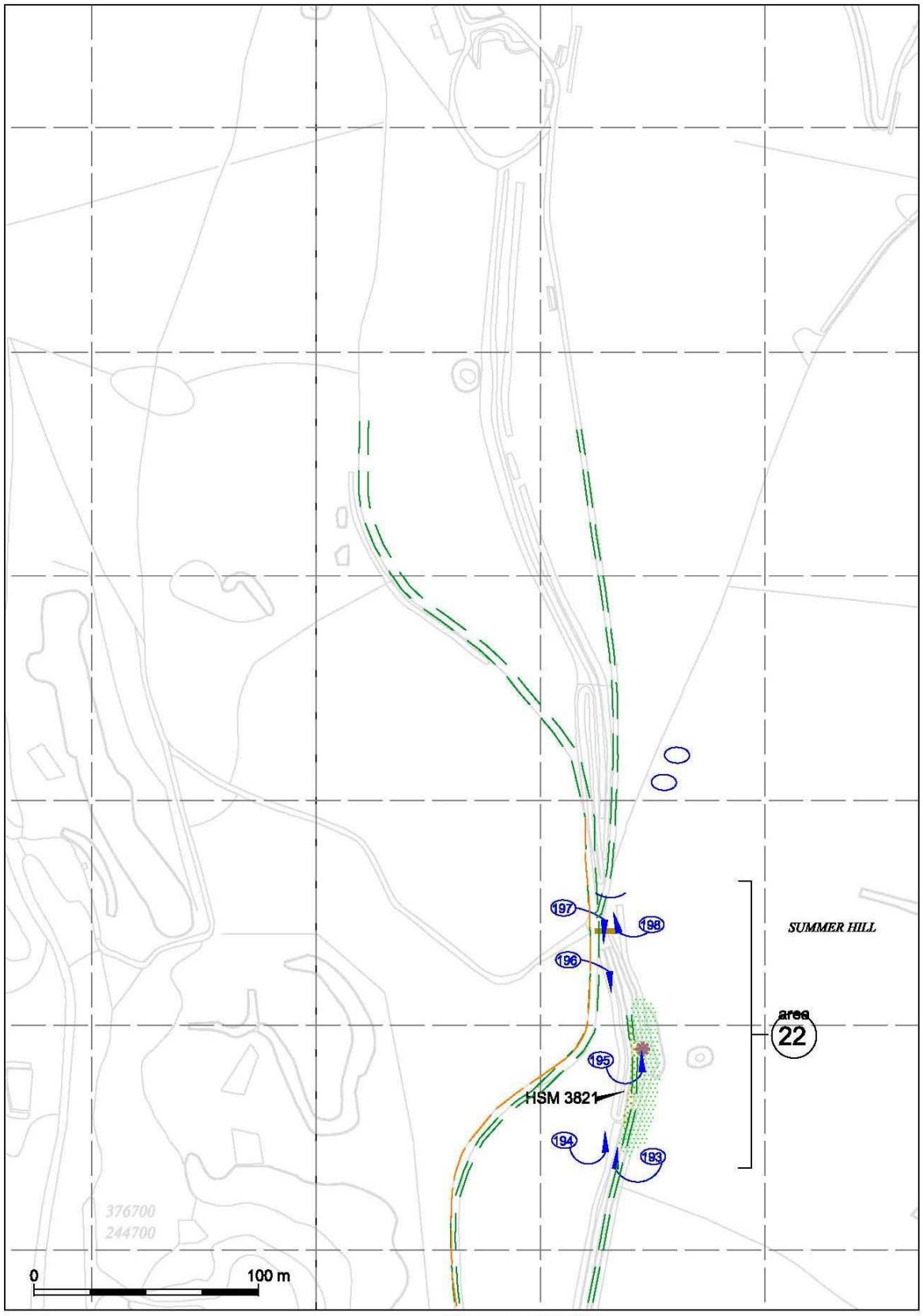
Survival **Visible components**	Medium
Condition **% affected**	Medium/poor

Vulnerability
Minor animal activity
Minor weathering
Silting

Significance **Within the monument**	Medium
Risk **to significance**	Low
Priority **Based on factors above**	Low
Remediation	Resite temporary fencing and bowser away from ditch - G2 Clear ditch - S2 or G3 Reinstate eroded sections - RE3 or RE4 Monitor - M3

Figure

Plates	**Photos**
-	193-198



Management Unit 22

Management Unit: Worcestershire Beacon	**NGR (from - to)** SO 76926 44860 - 76895 45204	**Number** 23
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03816 and 03821	

Description
From the saddle north of Summer Hill, north up slope to peak of Worcestershire Beacon.
The intersection of three Bridleways and a path joining on the ridge define the south end of this area, obliterating all earthworks.
Main ridge path is a Bridleway to west of ditches.
Two separate ditches at southern end, both are generally under long grass with occasional rabbit burrows to east.
Ditches unify at SO 76920 44965, under long grass to summit.
Bench cut into east ditch at SO 76930 44930 adj. to path, minor erosion to bare earth to east.
Rock outcrop in ditch at SO 76888 45034.
From SO 76882 45057 the gravel path on bank to west is eroding gravel into grassed flat ditch to east.
Ditch bisected by path at SO 76890 45188, in-filling ditch and occasionally worn to bare soil and gravel.
Possible quarry disturbance in ditch south of path, at c SO 76890 45180.
Not possible to define ditch north of path where is a wide shallow quarry with a bench located to west side.

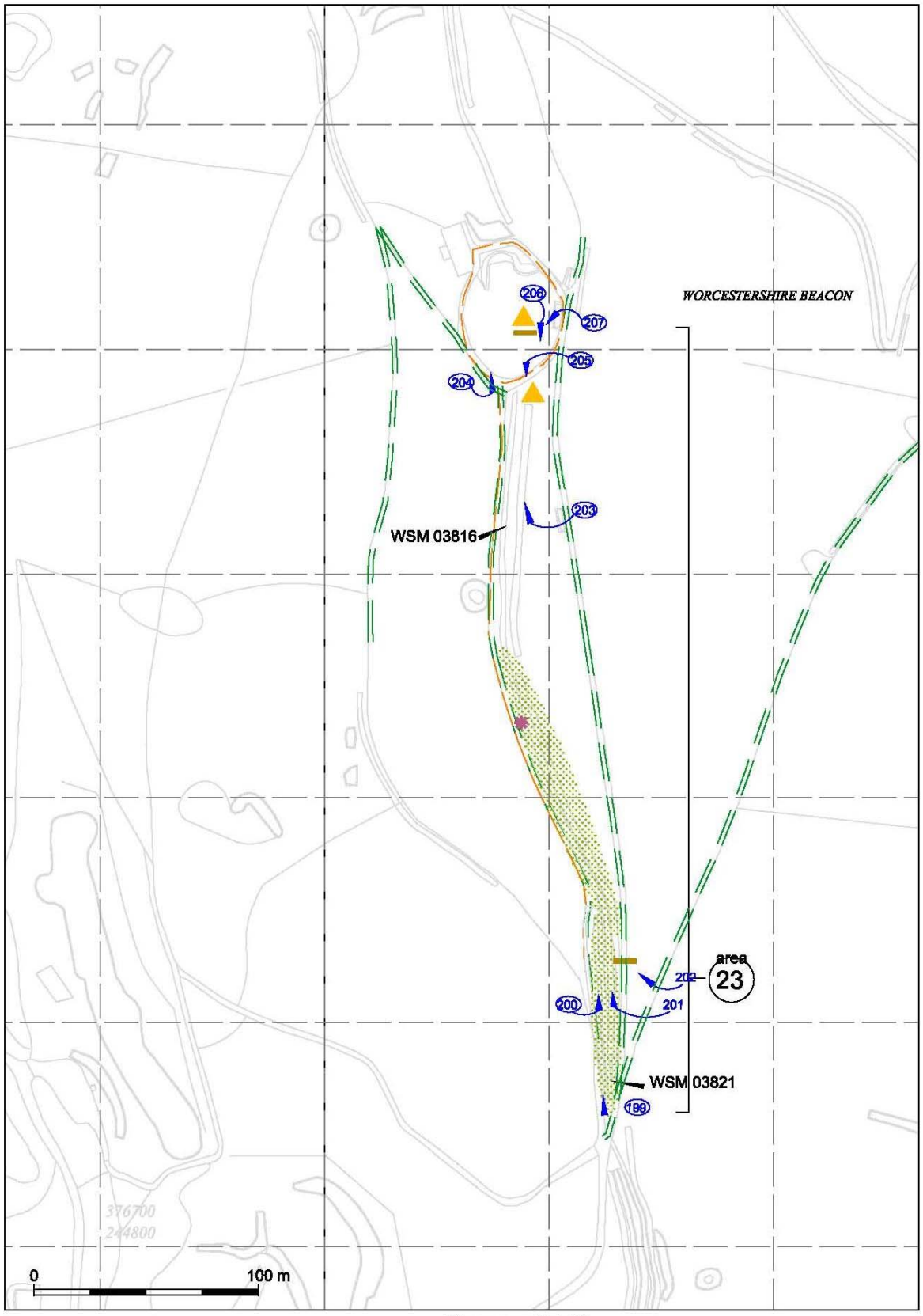
Survival **Visible components**	Medium/poor
Condition **% affected**	Medium

Vulnerability
Minor weathering and erosion from path to west
Minor rabbit activity
Silting

Significance **Within the monument**	Medium
Risk **to significance**	Medium/low
Priority **Based on factors above**	Medium/low
Remediation	Monitor rabbits and eroded section - M3

Figure

Plates	**Photos**
-	199-207



Management Unit 23

Management Unit: Worcestershire Beacon	**NGR (from - to)** SO 76885 45253 - 76861 45435	**Number** 24
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03816	

Description
From main path by rock outcrop at peak of Worcestershire Beacon down slope to north; separated from Area 25 by Bridleway.
Possible double ditch below peak; west ditch (or worn bank?) is under path worn down to bare rock, gravel and soil, with water erosion down steeper gradient, e.g. SO 76865 45291; east ditch is under long grass.
Bench at SO 76876 45260 cut into west bank
Quarry in west ditch at SO 76854 45306
Single defined ditch only from SO 76856 45364 southwards.
Ditch bisected by a rarely used Bridleway at SO 76856 45364 over a rock outcrop, where banks and ditch are eroded down to bare rock.
At south end single ditch is generally under long grass with very occasional erosion to bare earth.
Bank to west under grass worn to bare rock under minor path.
Minor bank to east under grass with less bare rock
Bisected by main Bridleway at SO 76858 45385, completely in-filling ditch and truncating banks

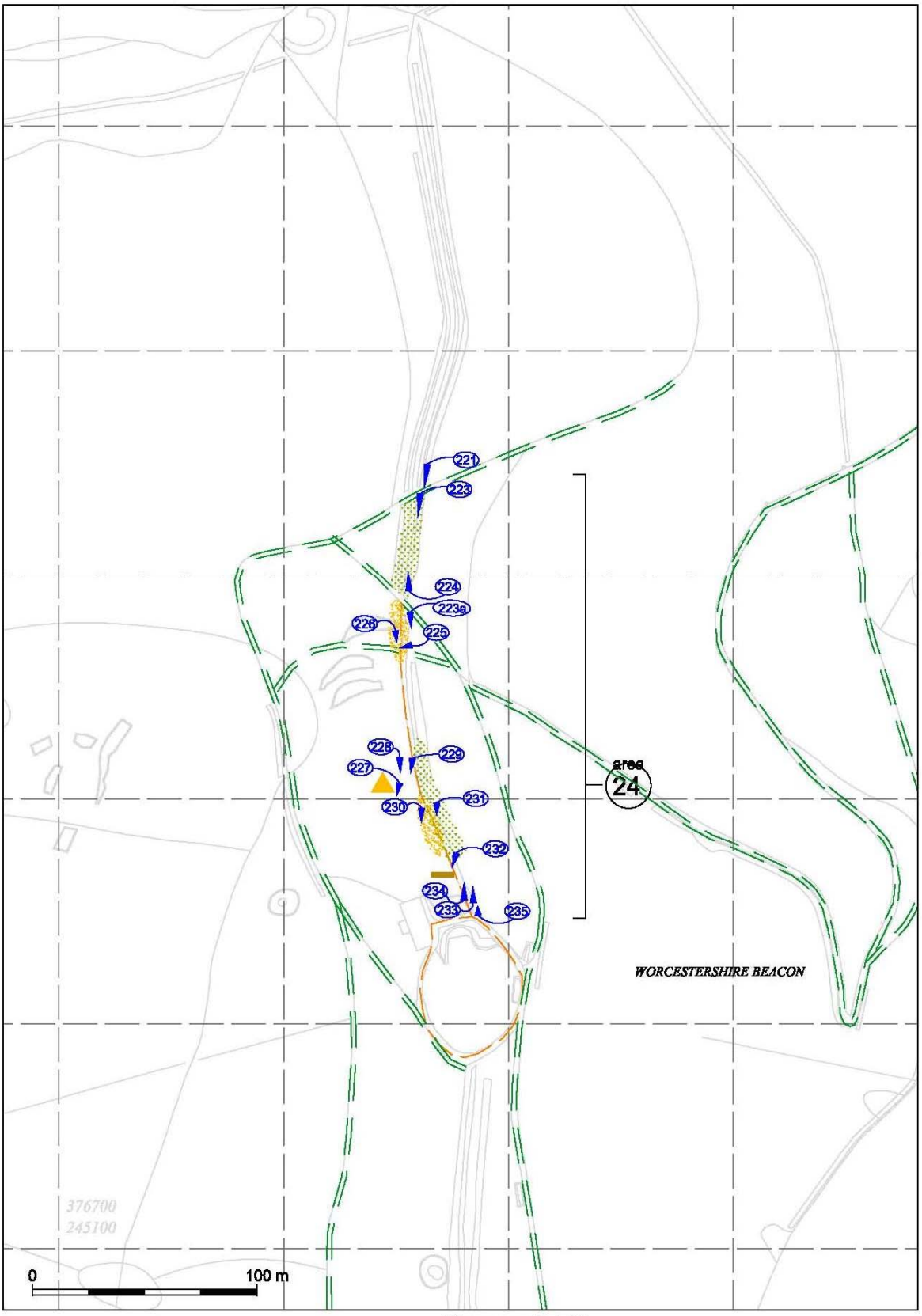
Survival **Visible components**	Poor
Condition **% affected**	Poor/Medium

Vulnerability
Weathering and water erosion on path down steep gradient
Footpath erosion

Significance **Within the monument**	Medium
Risk **to significance**	Medium/High
Priority **Based on factors above**	Medium/High
Remediation	Reseed and reinstate path and ditch - RE2-4 Deter access along bank path - R3 (within constraints of MHC Acts) Monitor erosion on Bridleways - M3

Figure

Plates 11 & 12	**Photos** 223-235



Management Unit 24

Management Unit: Worcestershire Beacon	**NGR (from - to)** SO 76860 45439 - 76862 45646	**Number** 25
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03816	

Description
North slope of Worcestershire Beacon north to saddle south-east of Sugarloaf Hill; separated from Areas 24 and 26 by Bridleways.
Bridleway to south completely in-fills ditch and is worn to bare soil.
Wide ditch generally under long grass, occasional bushes with very occasional erosion to bare earth.
Banks either side, generally under short grass with minor paths with occasional ware to bare earth and water erosion, most severe at north end of east bank.
Path on west bank is a Bridleway.

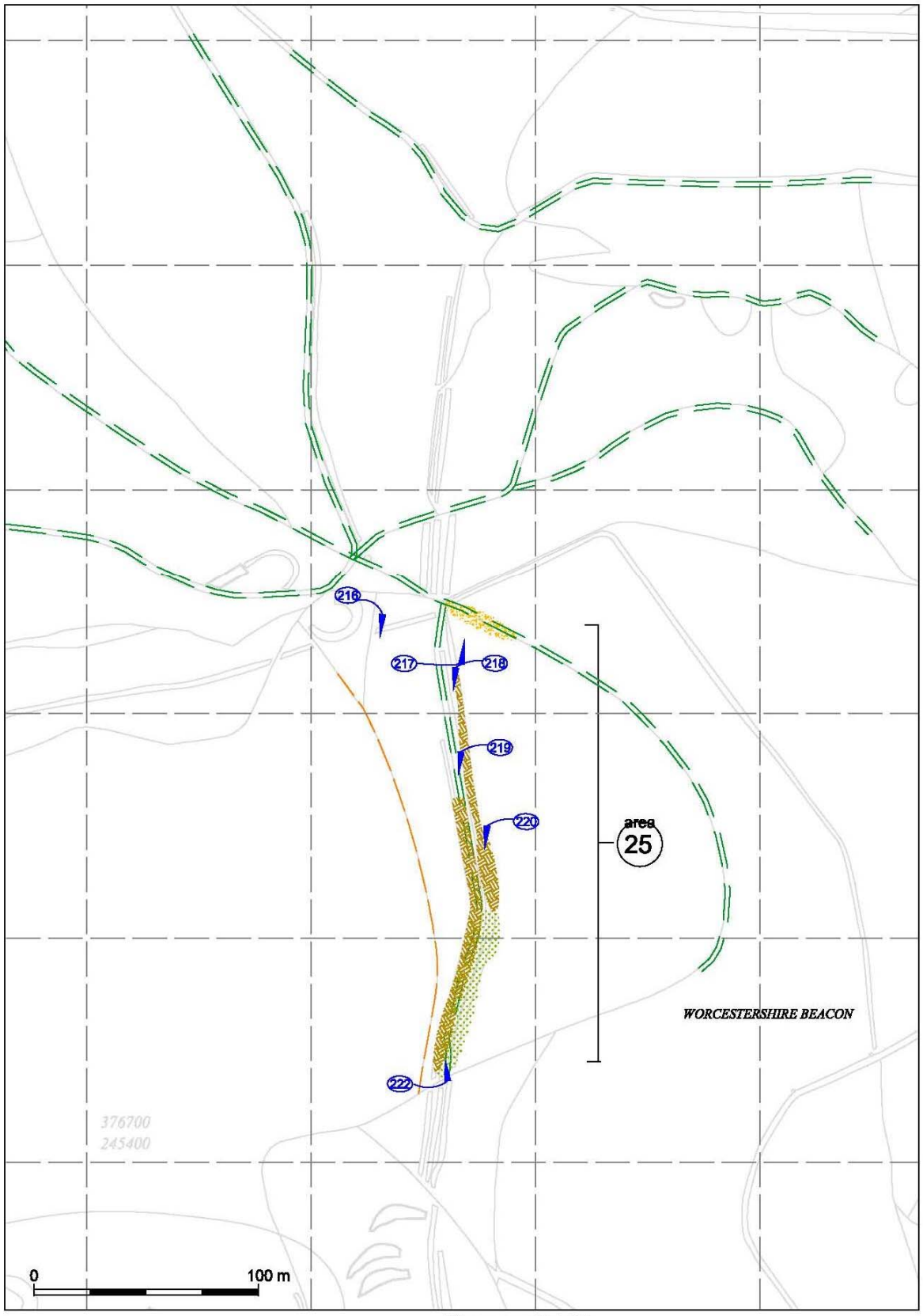
Survival **Visible components**	Medium/Good
Condition **% affected**	Good

Vulnerability
Erosion along paths and from main perpendicular Bridleway to south
Silting

Significance **Within the monument**	Medium
Risk **to significance**	Medium/low
Priority **Based on factors above**	Low/Medium
Remediation	Reseed and reinstate path and ditch - RE2-3 Deter access along bank path - R3 Monitor erosion on Bridleways - M3 Clear ditch - S2 or S3

Figure

Plates -	**Photos** 216-222



Management Unit 25

Management Unit: Sugarloaf Hill	**NGR (from - to)** SO 76858 45651 - 76896 45796	**Number** 26
Site Owner Malvern Hills Conservators	**HER/SMR ref.** WSM 03816	

Description
From the saddle south-east of Sugarloaf Hill down to the south side of Happy Valley/Green Valley, west of St Ann's Well.
Bridleway to south of area completely in-fills ditch and is worn to bare gravel and soil.
Ditch with banks to either side, under long grass with frequent gorse bushes.
Bench on west bank at SO 76853 45654
Bisected by perpendicular Bridleway at SO 76858 45686, worn to bare earth and rock
Minor path up west side of ditch between two east-west paths, patches worn to bare earth.
Minor Bridleway alongside west bank, cuts across ditch at SO 76862 45745, ditch silted and banks eroded but stable under grass and no present erosion.
Ditch obscured by scrub and woodland north of minor path
Area terminates where north end of ditch is truncated by quarry within woodland.

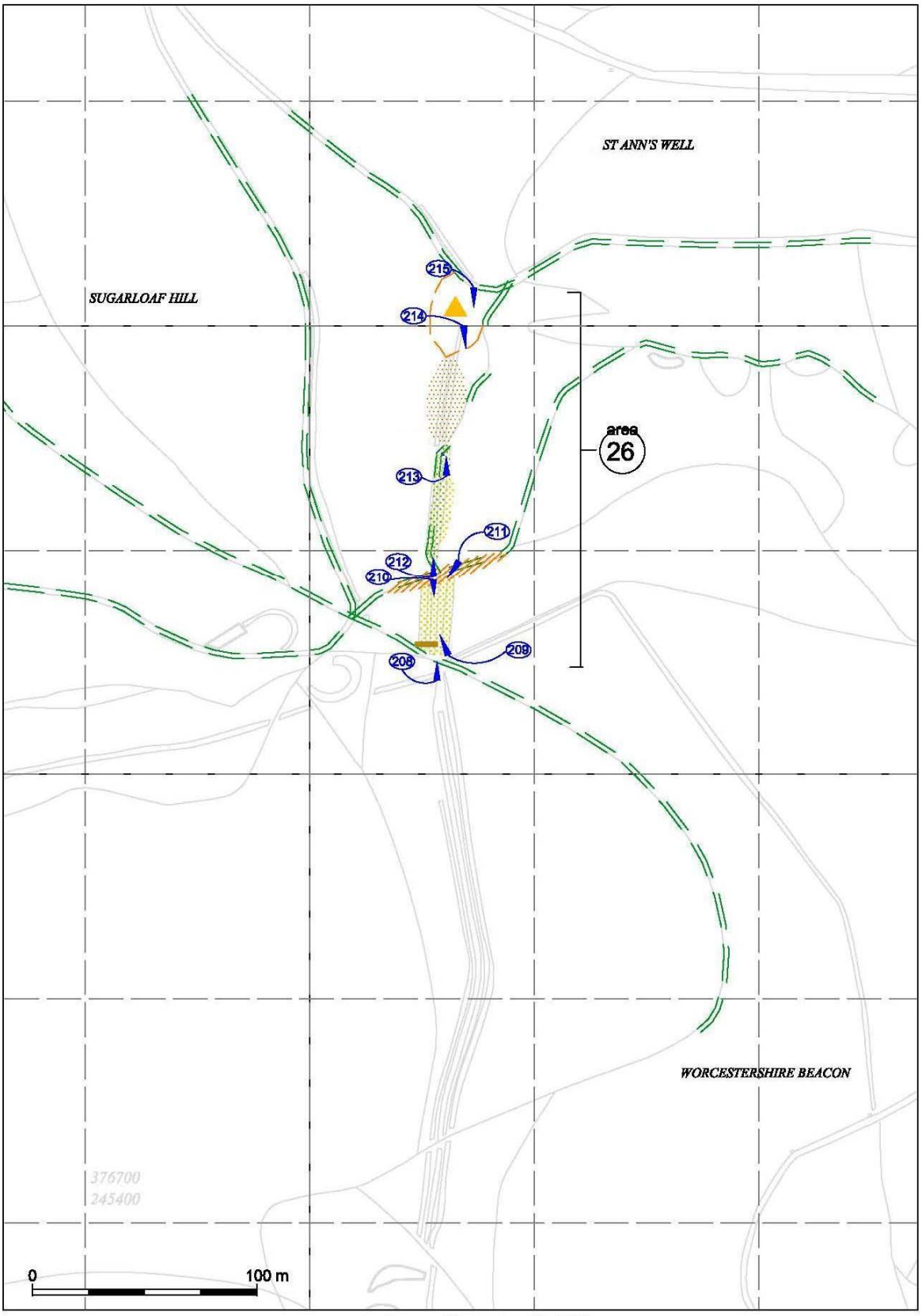
Survival **Visible components**	Medium/Good
Condition **% affected**	Medium/Good

Vulnerability
Erosion across Bridleways
Silting

Significance **Within the monument**	Medium
Risk **to significance**	Low/medium
Priority **Based on factors above**	Low
Remediation	Monitor - M3 Clear gorse - S3 Thin out woodland - S3

Figure

Plates	**Photos**
13 & 14	208-215



Management Unit 26

6. Recommendations, by Neil Rimmington

The following section of the report outlines the general management issues and aims for the Shire Ditch (hereafter the Ditch) and provides a coded list of generic management options that are employed in the management unit tables. The scope for each form of remediation is limited by practical factors, such as topography (e.g. the width of the ridge and the steepness of the slope), and legal factors, such as the alignment of bridleways, the scheduled monument status of the ditch, the Malvern Hills Acts of Parliament and the sites of special scientific status.

Before commencing specific works the advice of English Heritage, English Nature and the Environment Agency should be sought to indicate whether consent is required for the proposed works.

6.1 Monitoring

The following sections provide recommendations for dealing with specific management issues that affect the preservation of the Ditch. To achieve effective management of the Ditch, a monitoring programme that can identify early signs of deterioration and trigger the appropriate management is essential. The monitoring interval recommendation is based on the attributes of the management units identified in the condition survey. It is envisaged that the monitoring would be undertaken by staff of the MHC or another competent agency. In general terms the monitoring intervals would be as follows:

- *More than one monitoring visit per year* should be implemented where there is an identified management issue that will alter within the year (e.g. the extent of erosion from recreation) and the more regular monitoring period will help understand the impact of the issue and devise suitable remediation.

- *An annual monitoring visit* is recommended where there is a high/medium vulnerability to the monument and that vulnerability may alter within the course of one year (e.g. development of erosion from recreation or livestock).

- *A 2-3 year monitoring visit* interval is recommended where there is high/medium vulnerability to the monument and that vulnerability may alter slowly over the course of a number of years (e.g. scrub/bracken extent).

It is recommended that the condition of the whole monument should be re-assessed at a five-year interval in the first instance. If the monument does not exhibit a significant change during that period then the whole monument should be re-assessed on a ten-year monitoring cycle.

The time of year of the visit should reflect the management issue to be assessed:

Winter – Livestock erosion, erosion by water action

Spring – Burrowing animals (early spring prior to significant vegetation growth)

Summer – Bracken, scrub

Autumn – Recreational erosion

Generic management options

M1 Establish a specific monitoring programme.

M2 Maintain an annual monitoring regime.

M3 Maintain a 2-3 year monitoring regime.

6.2 Management of trees, scrub and bracken

Trees, scrub and bracken have an impact on the Ditch in a number of ways;

- The shallow depth of the archaeological deposits mean that the root action of all trees, scrub and bracken has a significant impact on the survival of key archaeological elements such as the buried soil horizon sealed at the time of the construction of the Ditch. This will contain information on the date of, and environment at the time of the construction of the Ditch. It will also impact on the evidence of the different phases of the Ditch, such as where it was built over an earlier feature or where it was rebuilt, repaired or altered.

- The presence of trees, scrub and bracken on or in the vicinity of the Ditch influences both the recreational routes of people, the routes taken by livestock and the use of the monument for shelter. This can lead to incised routes through the monument, which are often further exacerbated by wind and water action.

- Wind action on trees has the potential to uproot them and the archaeology that the roots have exploited. The resultant hollow also alters the appearance of the monument.

- The presence of deciduous vegetation and subsequent leaf drop leads to the silting of the Ditch, which reduces the visibility of the monument.

- The presence of trees, scrub and bracken on the monument reduces its visibility.

The following guiding principles should be adopted in managing trees, scrub and bracken on the Ditch.

- Sapling trees should be removed to prevent further root disturbance to archaeology.

- Mature trees are generally considered stable, as they will have established their root system. Therefore they should be managed to reduce the impact of wind loss or associated erosion through use by livestock.

- Areas of bracken and scrub should not be allowed to increase in extent on the monument and should be targeted for reduction to improve preservation and visibility of the monument.

- If the material cleared from the monument is to be burnt then this should be done off the monument allowing a buffer of around 5m between the monument and the burn site.

- Regrowth of trees and scrub from stumps should be prevented (either with an herbicide or another method within the constraints of the Environment Agency).

- The use of machinery (e.g. bracken rolling or ground flailing) should be carefully managed to avoid damage to the monument.

- Cleared areas need to be monitored for grass re-establishment and in areas where grass cover is light it is prudent to over-seed with an approved grass mix and cover with a protective layer.

- Trees, scrub and bracken form a natural element to the landscape of the Malvern Hills. Therefore, the control of vegetation on the Ditch should aim to maintain the natural feel of the landscape and not to create hard artificial lines that look out of place.

In some instances the retention of patches of scrub may be of benefit to the management of the monument as a control on recreational use. It is therefore recommended that where recreational use is likely to lead to erosion of the monument if full removal is implemented, then patches of scrub be retained to divert use away from the monument.

The most rapid and effective method of reducing bracken coverage would be the application of an herbicide, such as asulam or glyphosate. Asulam is recommended as this targets only bracken and other ferns. Due to the steep slopes the most practical method would be knapsack-spraying application, though on more level areas ATV mounted boom sprayer application or weed-wiping techniques could be utilised. However the importance of the area for its water sources create a further constraint on the use of a herbicide and where the bracken control is in the vicinity of a water body then an application to the Environment Agency (form WQM2) will have to be made prior to carrying out the work. Alternatively another method may be required.

Generic management options

S1 Complete removal of trees, scrub and/or bracken and the establishment of an appropriate grass sward.

S2 Thinning of the tree, scrub or bracken density and the creation of a grass sward.

S3 Removal of trees, scrub and/or bracken, whilst retaining discrete areas to manage recreational use.

S4 Management of mature tree to alleviate specific management problem.

6.3 Management of recreational activities

The Malvern Hills is a popular area for recreation. They are used for a variety of recreational activities that include walking, horse riding and mountain biking. This has led to erosion of the monument where routes cross or follow the monument. This erosion compromises the long-term preservation of the monument as routes become incised and are exacerbated by wind and water erosion. It also leads to a change in form of the monument as compaction creates additional terrace features and past recreational damage heals.

The general principles for managing recreational impacts on the Ditch are as follows:

- Where the erosion has exposed the underlying bedrock then management should aim to prevent the encroachment of this eroded area on to surrounding surviving parts of the monument.

- Where incised routes cross the monument then management should both aim to prevent further damage to surrounding parts of the monument and where the incised route has not exposed bedrock (and therefore the potential for archaeological remains to survive exist) to prevent further incision.

- Where routes are along the monument and have not exposed the bedrock then management should aim to encourage use of routes away from the monument or provide a protective layer over the monument where this is unachievable.

- Reduce recreational pressure through vegetation management (e.g. clearing adjacent scrub and bracken).

If it is acceptable in terms of the nature conservation objectives of the Malvern Hills then more wear tolerant species of grass could be used to reduce the vulnerability of areas to recreational pressure. A potential species is smooth stalked meadow grass, which is both

wear tolerant and drought resistant, though the advice of English Nature (to be incorporated in Natural England later this year) as consent giving agency will need to be sought.

Generic management options

R1 Manage to prevent the spread of recreational wear onto surrounding parts of the monument.

R2 Management of vegetation to broaden area of recreational use to spread existing pressure.

R3 Repair of existing desire line and installation of advisory diversion to encourage people onto alternative routes away from monument.

R4 Provision of a protective layer within the eroded path to protect underlying archaeology.

6.4 Management of grazing

Grazing is an important element in managing and maintaining the important acid grasslands of the Malvern Hills. Over recent years, the Malvern Hills Conservators have been encouraging an increase in the amount of grazing and in managing the effectiveness of it. In addition to the nature conservation benefits of the grazing, the action of browsing and trampling have a benefit to conservation of the Ditch by controlling the regeneration of scrub and reducing the density of existing stands of scrub and bracken. Grazing has been introduced and well established in the north and central sections of the Malvern Hills, but is less well established in the south. The increase and effective management of grazing the south section would have much benefit to the conservation of the Ditch.

The use of grazing can have deleterious effects on the preservation of the Ditch, mainly due to the concentration of livestock in sensitive locations causing poaching and erosion of the ground surface. This can be caused by several factors that include focal points such as water troughs, feeding stations, and vegetation that provides shelter or a scratching post. The location of fencing can also be an influence on poaching where the enclosed area has limited grazing available and animals search the periphery for better grazing.

In order to avoid the deleterious effects, the following guiding principles should be adopted with respect to grazing:

- Where practicable water troughs and feeding stations should not be located on or within 10m of the monument.
- Fencing should only cross the monument.
- Fencing placed along the length of the monument to create enclosed grazing of an adjacent area not on the monument may be placed up to 2m from the monument.
- Fencing placed along the length of the monument to create enclosed grazing of an area that includes the monument must be placed at least 5m from the monument.
- Vegetation that causes erosion through its use by livestock for shelter or as scratching posts should be removed.

Generic management options

G1 Introduce or improve grazing management to assist in the control of bracken and scrub.

G2 Where practicable re-site water trough, feeding station or fence location away from the monument.

G3 Remove tree, scrub or bracken to reduce livestock impact

6.5 Management of burrowing animals

Burrowing animal activity on the Ditch is largely restricted to rabbits. The shallow nature of the soils and archaeology seems to control populations through the absence of suitable burrow locations. Therefore the main impact on the monument is the occasional high density of scrapes, formed by the marking of boundaries between discrete rabbit colonies or the testing of areas for establishing new burrow. Where this high density exists then the monument is vulnerable to wind and water erosion and the scrapes should be in-filled and reseeded where the scrapes show signs of wind and water erosion.

Where a burrow system does establish it will be significantly detrimental to the monument, as it will target the softer deposits of the buried soil horizon at the base of the monument. The rabbit population should be controlled and the burrow system blocked.

B1 Manage burrowing animal populations to avoid the monument and repair old burrows

B2 Refill scrapes to prevent further erosion

6.6 Repair of erosion

Where erosion has developed on the monument and there is a benefit to the preservation of underlying and surrounding archaeology or to its setting then repair is recommended. It is recommended that repair involve the following basic procedures:

- Mark the interface between the *in situ* archaeology and the repair infill with a distinctive marker layer (to be agreed with English Nature).
- Infill with a locally sourced soil.
- Reseed with appropriate grass seed mixture.

In all cases the materials used should be acceptable for the nature conservation interests of the location.

The natural soil of the Malvern Hills is nutrient poor and acidic, which will make grass establishment slow and they also have a high sand content, which makes them easily removed by wind and water erosion. Therefore, where the monument is on a steep slope (slopes greater than 15%) it is advisable to provide a protective cover to prevent erosion during grass establishment. The preferred options would be either to install coir protective matting or use a germination blanket. The coir matting is biodegradable and once installed is left in place. The germination blanket is laid over the re-seeded area until germination and then removed and re-used on another site.

In some cases with recreational routes, the damage is likely to re-occur and the alteration of the route is not possible. In these cases the repair should form a protective layer (often called a sacrificial surface) to the buried and surrounding archaeology. A basic method that can be used is as follows:

- Mark the interface between the *in situ* archaeology and the repair infill with a distinctive marker sand. This sand also forms surface a bedding surface for the applied aggregate.

- Mix 20mm angular aggregate with soil, grass seed and if permissible a slow release fertiliser to assist with grass establishment.

- Infill repair with mixed material and compact.

The voids between the aggregate will provide pockets for the grass to established and be protected from the shear effect of passing feet. In all cases the materials used should be acceptable for the nature conservation interests of the location.

A variant on this method may be required on steeply sloping sites where material is likely to be subject water erosion. In these cases a cellular plastic retaining fabric can be used to prevent the repair material being washed away. The laying of this fabric will require the excavation of a tray prior to its installation. This excavation will need to be done by a professional archaeologist.

Generic management options

RE1 Carry out basic erosion repair.

RE2 Carry out basic repair with protective cover to reduce erosion.

RE3 Install protective layer (sacrificial surface).

RE4 Install protective layer (sacrificial surface) with cellular plastic retaining fabric.

6.7 Priority areas

Two specific areas have been highlighted for remediation:

6.7.1 Unit 9, south end of Hangman's Hill, by Neil Rimmington

NGR: SO 7627 3904

Management issue

The route used by walkers includes the bank of the Shire Ditch. This has led to its erosion and of the bank top and if left to continue will result in its removal as a visible feature. This issue is likely to have developed due to two factors:

- The route behind the bank has become incised due to water action and the surface has a certain proportion of loose natural gravel. This has created an uncomfortable walking surface and the bank provides a more comfortable alternative.

- The bank provides a better view than the route behind.

Aim of works

To divert the walked route off the bank of the Shire Ditch and onto the route behind.

Solution

The solution is to make the route along the bank more difficult to follow and make the route behind more comfortable.

To make the route along the bank more difficult to follow it is recommended that the scrub on the approach from the north be allowed to develop over the bank in a narrow band to divert people off the bank. In addition the desire line on the bank should be dressed with a locally sourced soil and re-seeded. Care needs to be exerted in this dressing not to alter the form of the monument and therefore the dressing should be limited to that necessary to create a slight domed profile.

The route behind needs improvement to provide a better walking surface. An aggregate path should be installed using the methodology below. It may be necessary to install stone crossbars to divert water across the path and prevent it from eroding this new surface. If these need to be dug into the ground surface then these should be done under archaeological supervision.

- Lay a marker sand to identify the interface between the *in situ* archaeology of the rear of the bank/current path surface and the re-instated material.

- Install an aggregate mix path (20mm aggregate mixed with soil, grass seed and slow release fertiliser).

Constraints

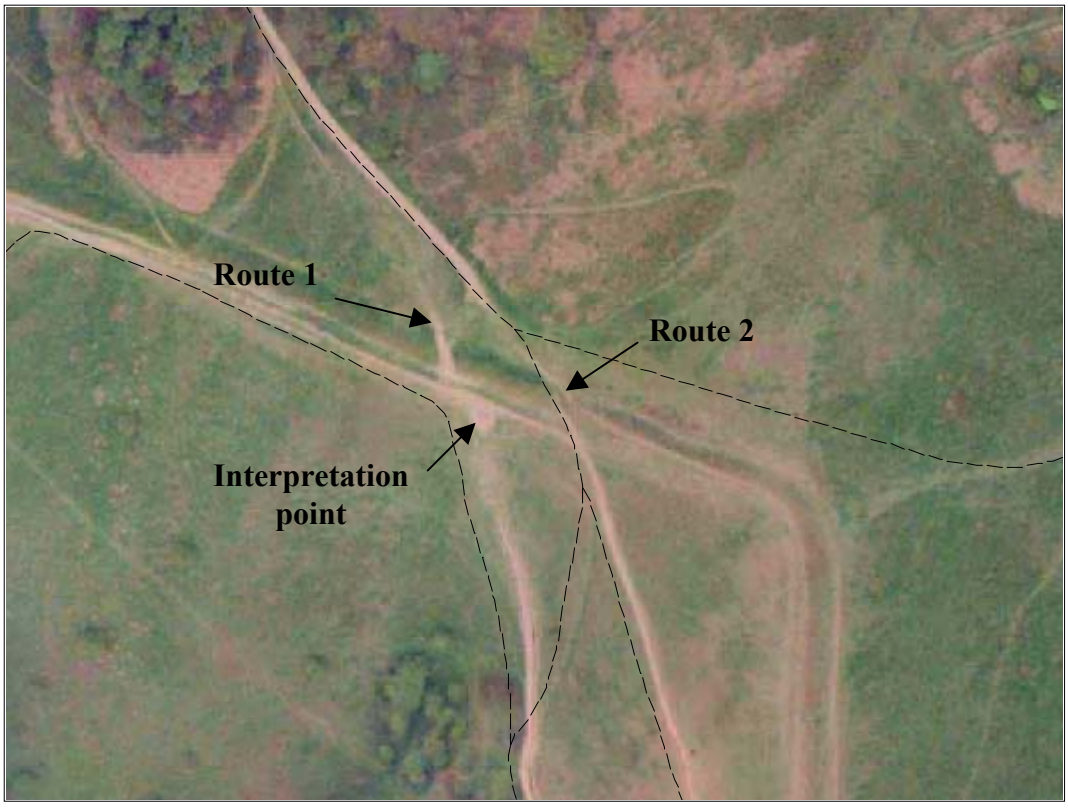
Works will require Scheduled Monument Consent and consent for works within a Site of Special Scientific interest. Contact English Heritage and English Nature respectively regarding these.

6.7.2 **Unit 10b, Broad Down, by Neil Rimmington**

NGR: SO 7622 3949

Management issue

The Shire Ditch is crossed by two recreation routes that have eroded the main and counterscarp bank of the monument. The continued use of these routes is causing further incision of the route and erosion on the sides. Route 1 is influenced by the location of an interpretation point immediately south of the Ditch. Route 2 is a Public Bridleway in Worcestershire, but is not defined in Herefordshire.



Plan of site. Images Copyright to Herefordshire Council © 2006 Simmons Aerofilms Ltd

Aim of works

To encourage use of one route, re-instate the form of monument and provide a protective surface at the other location.

Solutions

Two options exist depending on the successful use of route 1 or 2. The general methodology used is the same for both. However, if the closure of route 1 is chosen then the interpretation point should be re-sited alongside route 2, leaving a buffer of at least 5m between the new location and the bank of the Shire Ditch. Route 2 is a public bridleway and will need an official diversion whilst works are in progress. The official closure of route 2 as a Public Right of Way is not required as access along that route is not restricted and most traffic will choose to use the new route 1.

The successful use of route 2 will create more disturbance to archaeological deposits than *vice versa*. It is therefore recommended that use of route 1 be encouraged However, it is recognised that the natural route for continuing the surfaced bridleway that approaches from the Worcestershire County side is through route 2 and therefore this may be preferred. These

options should be discussed with English Heritage for their impact on the archaeology, English Nature for the effect on surrounding nature conservation interest and the Worcestershire County Council Public Rights of Way team.

General methodology

- Carry out topographic survey of the two routes to aid design, confirm likely impact on archaeology and provide estimates of quantities of materials (a topographic survey was carried out in advance of the footpath works to the immediate west of this site and may assist in this work depending on level of detail and availability).

- Excavate material that has been displaced from the main and counterscarp banks of the Shire Ditch into the ditch of the route to be closed under archaeological supervision and store for re-use in reinstatement.

- Lay a marker deposit (to be agreed with Environment Agency) to identify the interface between the *in situ* archaeology and the re-instated material.

- Use excavated material from ditch to fill and re-profile the banks. If additional soil is required use a local soil of similar properties.

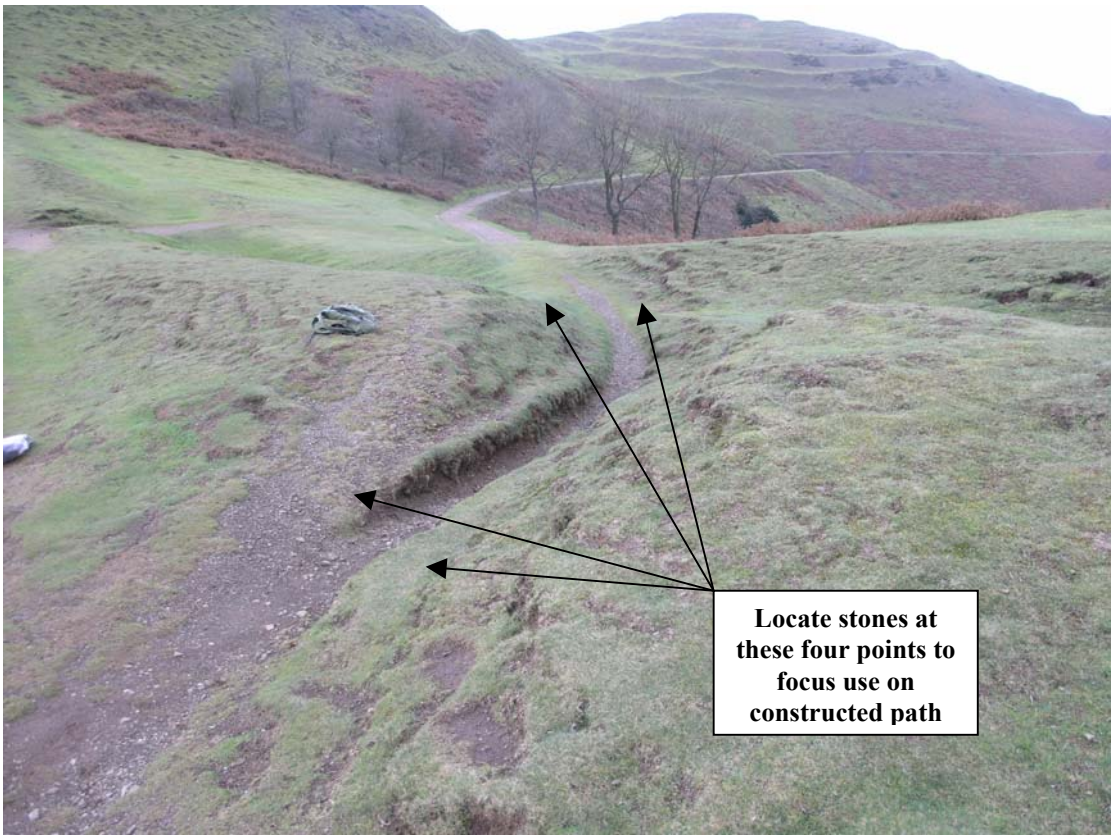
- Re-seed and cover with protective matting or germination blanket while grass germinates and establishes.

- Excavate a tray for the creation of an improved route through route to be kept open and angle back the bank on both sides to achieve a more stable profile. This must be done by a professional archaeologist.

- Lay a marker layer of sand.

- Install a large stone (30cm) at the each of the four locations where the foot of the bank slope meets the excavated tray. These will act as diversionary aids to discourage use of the bank either side.

- Install an aggregate mix path (20mm aggregate mixed with soil, grass seed and slow release fertiliser).



Constraints

Works will require Scheduled Monument Consent and consent for works within a Site of Special Scientific interest. Contact English Heritage and English Nature respectively regarding these.

6.7.3 **Additional areas, by Tom Vaughan**

The following areas are also highlighted as priorities for preservation and/or further investigation:

Well-preserved section of double bank and ditch:

- Unit 17, Jubilee Hill, SO 76905 42493 and northwards

Intersection with hill fort ramparts:

- Unit 2, Midsummer Hill, SO 76152 37081
- Unit 3, Midsummer Hill, SO 76097 37632
- Unit 10b, Herefordshire Beacon, SO 76104 39535

Tumuli on ridge:

- Unit 15, Pinnacle Hill, SO 76791 42106 and 76791 42122

Adjoining field boundaries:

- Unit 10a, Hangman's Hill, SO 76299 39267, to west

- Unit 16, Pinnacle Hill, SO 76773 42334, to east
- Unit 19, Perserverence Hill, SO 76929 43207 - SO 76904 43282, to east
- Unit 19, Perserverence Hill, SO 76921 43413, to east
- Unit 21, Summer Hill, SO 76934 44728, to south-east

Boundary stones/markers:

- Unit 9, Hangman's Hill, SO 76276 39040, in HER (WSM 34000), but not observed
- Unit 10a, Hangman's Hill, SO 76306 39112, boundary stone
- Unit 10a, Hangman's Hill, *c* SO 76283 39354, on OS Superplan, but not observed
- Unit 10a, Broad Down, SO 76272 39471, boundary stone
- Unit 14, Black Hill, SO 76839 41315, iron boundary marker
- Unit 15, Black Hill, SO 76797 41481, iron boundary marker and boundary stone
- Unit 15, Black Hill, SO 76800 41558, boundary stone
- Unit 15, Pinnacle Hill, SO 76814 41946, boundary stone
- Unit 19, Perserverence Hill, SO 76929 43207, boundary stone

Minor quarries (pre 19th century?):

- Unit 8, Swinyard Hill, SO 76177 38994
- Unit 17, Jubilee Hill, SO 76837 42427
- Unit 17, Jubilee Hill, SO 7690 4255, in SMR (HSM 40398), but not observed
- Unit 17, Jubilee Hill, SO 76887 42684
- Unit 19, Perserverence Hill, four on ridge between SO 76927 43479 and 76936 43589
- Unit 24, Worcestershire Beacon, SO 76854 45306
- Unit 26, east of Sugarloaf Hill, head of Happy Valley / Green Valley, SO 76896 45796

7. Recommendations for further archaeological investigation

It is recommended that further survey be undertaken of areas of the alignment, which were ill-defined, were unclear at the time of the fieldwork, or were outside the scope of the present project. Thus further fieldwork would seek to define:

- Traces of earthworks on Chase End Hill and Raggedstone Hill down to Hollybush (EH 2000a, 2)
- Traces of the ditch north of Herefordshire Beacon down to Wynds Point (EH 2000c, 9).
- The survival of the ditch within private land, north of Wynds Point (former quarry; EH 2000a, 4)
- Possible continuation of the ditch north of the small quarry above Happy Valley/Green Valley, east of Sugarloaf Hill.

Geophysical prospection, such as LIDAR, may be of use in identifying the exact alignment and form of these, and other, segments of the monument.

It would greatly help to clarify the situation regarding the survival of the ditch, if a series of small-scale archaeological evaluations were undertaken at specific points, to determine the original construction and form of the monument - thus allowing for exact determination of the state of preservation of the entire monument, as well as to distinguish the medieval from possible earlier alignments and later Victorian pathways and landscaping. Such evaluation work would take the form of simple 1-2m wide hand-dug trenches across the existing monument, and subsequently reinstated to the existing state.

Areas most suitable for trenching fall into two camps: those that are best preserved and have the greatest potential for archaeological deposits and the survival of the monument near to its original form; and those suffering continuing loss, where a rescue investigation is urgent, to provide a permanent record before the segment is entirely lost.

As aforementioned, the present project provides a ‘point in time statement of circumstances’ (Section 1.3 above). Although no systematic in-depth photographic survey of the monument has been undertaken previously, there is potentially a wealth of historic photographic material held by the County Record Offices. This has the potential to provide the basis for a retroactive condition assessment archive of the state of the monument over at least the last century and to allow for comparison with the present condition and hence even extrapolation into the future.

In addition, further survey and/or limited excavation might help to resolve the relationship between the Shire Ditch and the ramparts of Herefordshire Beacon and Midsummer Hill hill forts and the occasional east-west aligned linear banks.

8. Publication summary

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, the Service intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An archaeological condition assessment was undertaken on behalf of Malvern Hills Conservators client at of the Shire Ditch on the Malvern Hills, Herefordshire and Worcestershire (NGR SO 36152 37081 - 76896 45796; HER ref WSM 34769; SMR ref HSM 43068). The full length of this Scheduled Ancient Monument, as defined in the Worcestershire HER, commences south of Hollybush Hill and terminates south of Happy Valley / Green Valley, north of Worcestershire Beacon. A descriptive written and digital photographic record were undertaken and tied into the National Grid via GPS. Individual Management Units were created, distinguished variously by the topography, earthwork form and/or current state of preservation. The land use, ground cover and conditions in conjunction with existing and potential adverse factors were then described, from which practical recommendations could be made for remediation and prevention of further deterioration of the feature.

The recommendations for remediation fall into six categories, namely: general monitoring; management of trees, scrub and bracken; management of recreational activities; management of grazing; management of burrowing animals; and repair of erosion. Two specific areas - Hangman's Hill and Broad Down - have been highlighted with detailed recommendations for remediation drawn up. Generic remediation methods have been listed for the other management units. Finally, further archaeological investigations are proposed, which would provide a better understanding of the monument as existing and its relationship with a number of surrounding features within the historic landscape.

9. The archive

The archive consists of:

27	Monument Condition Assessment sheets
240	Digital photographs
27	Ordnance Survey super plan sheets (annotated)
1	Computer disk

The project archive is intended to be placed at:

Malvern Hills Conservators

Manor House

Grange Road

Malvern

Worcestershire WR14 3EY

Tel Malvern (01684) 892002

10. Acknowledgements

The Service would like to thank the following for their kind assistance in the successful conclusion of this project, Ian Rowat (Director Malvern Hills Conservators), David Armitage (Acting AONB Officer), Adam Mindykowski (Worcestershire Historic Environment Countryside Advisor) and Neil Rimmington (Herefordshire Countryside Advisor - Archaeology).

11. Personnel

The fieldwork and report preparation was led by Tom Vaughan. The project manager responsible for the quality of the project was Simon Woodiwiss. Illustration was undertaken by Laura Templeton. Neil Rimmington contributed the recommendations and undertook additional fieldwork. The voluntary assistance of Elizabeth Mitchell-Dawson with the fieldwork is also greatly appreciated.

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13. Abbreviations

HER	Historic Environment Record (Worcestershire equivalent to the SMR).
HSM	Numbers prefixed with 'HSM' are the primary reference numbers used by the Herefordshire County Sites and Monuments Record.
NMR	National Monuments Record.
SMR	Sites and Monuments Record (Herefordshire equivalent to the HER).
WCRO	Worcestershire County Records Office.
WSM	Numbers prefixed with 'WSM' are the primary reference numbers used by the Worcestershire County Historic Environment Record.

Appendix 1: Plates

Plate 1: Unit 2, view south south west of ditch toward Holly Bush Quarry (photo 3).

Plate 2: Unit 4, view south west of eroded bank on north side of Midsummer Hill (photo 24).

Plate 3: Unit 6, view south of erosion to bank and ditch on Swinyard Hill toward the Gullet Quarry (Photo 30).

Plate 4: Unit 6, view south of bracken on bank and eroded path on Swinyard Hill ridge (Photo 35).

Plate 5: Unit 8, view south of erosion to path on bank on Swinyard Hill (Photo 43).

Plate 6: Unit 9, view west of erosion to bank on south end of Hangman's Hill (Photo 51).

Plate 7: Unit 10b, view west north west eroded bridleway across bank and ditch on Broad Down saddle, east of British Camp (Photo 66).

Plate 8: Unit 14, view north of silted ditch and flattened bank with bench on Black Hill (Photo 98).

Plate 9: Unit 16, view south south east of water erosion to path on bank on Pinnacle Hill (Photo 128).

Plate 10: Unit 21, view north of water erosion to path on bank, gorse on ridge and bracken in ditch on Summer Hill (Photo 187).

Plate 11: Unit 24, view south of rock outcrop and erosion to ditch, below quarry on Worcestershire Beacon (Photo 228).

Plate 12: Unit 24, view south west of quarry, with water erosion to ditch, on Worcestershire Beacon (Photo 227).

Plate 13: Unit 26, view west south west of bridleway across banks and ditch east of Sugarloaf Hill (Photo 211).

Plate 14: Unit 26, view north north east of path across banks and ditch east of Sugarloaf Hill (Photo 212).

Appendix 2: Monument Condition Assessment sheet - blank sample

Site code HSM 43068 / WSM 34769	**Project number** P2817	**Site name** SHIRE DITCH, MALVERN HILLS: CONDITION ASSESSMENT

Management Unit	**NGR (from - to)**

Site Owner	**Site Occupier**

Description
Monument form
Ground cover & vegetation
Visibility
General observations

Survival **Visible components**	**Good**	**Medium**	**Poor**	**Below ground only**	**Other**
Condition **% affected**	**Good**	**Medium**	**Poor**	**Other**	
Vulnerability **Nature of current & potential impacts**					
Significance **Within the monument**	**High**	**Medium**	**Low**	**Other**	
Risk **to significance**	**High**	**Medium**	**Low**	**Other**	
Priority **Based on factors above**	**High**	**Medium**	**Low**	**Other**	

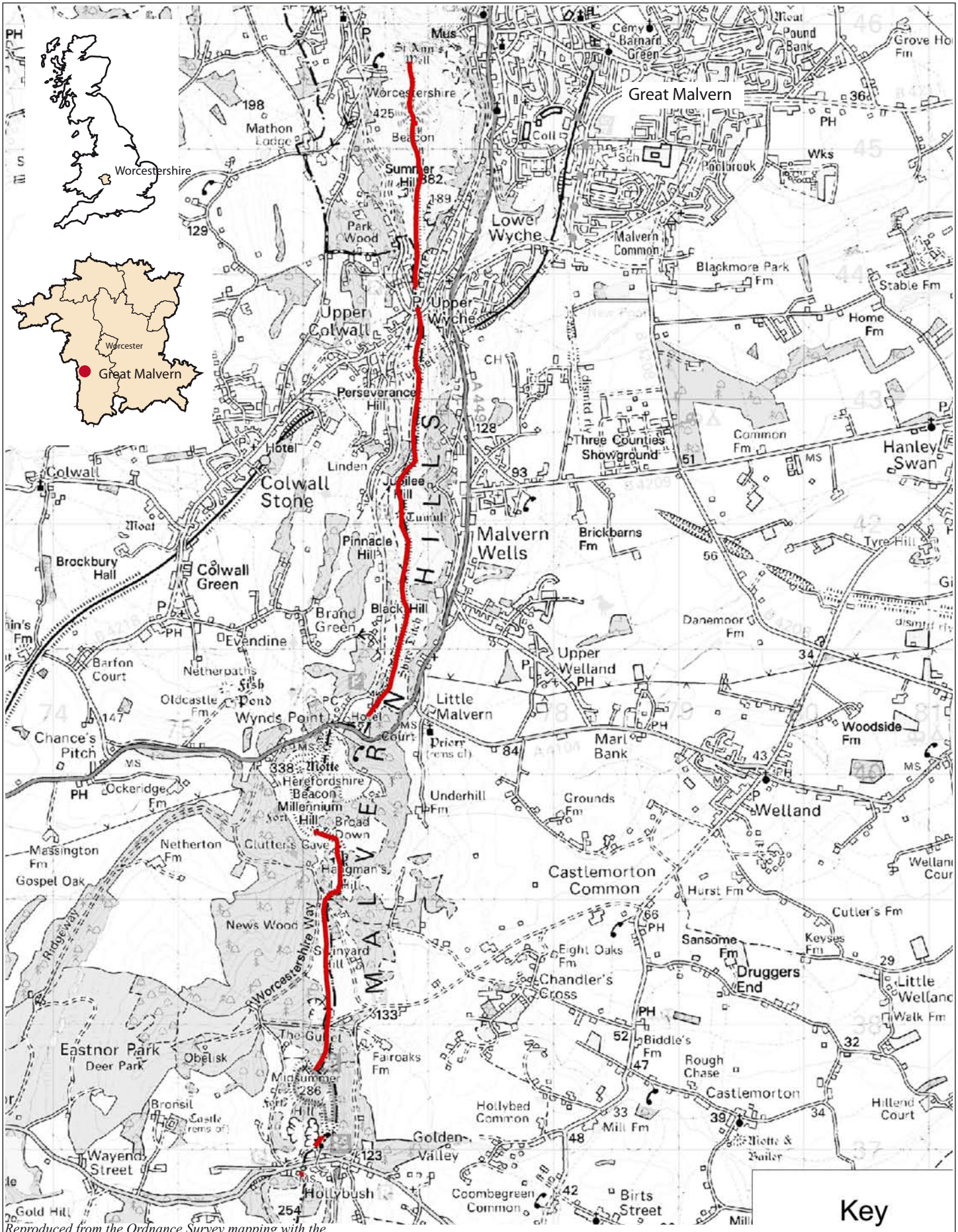
Number of observations

Photo no.	**NGR**	**View**	**Description / location**

Undertaken by	**Date**	**Sheet of**

Appendix 3: Herefordshire SMR information

Report Name and Title	Condition assessment of the Shire Ditch, the Malvern Hills, Herefordshire and Worcestershire	
Contractors Name and Address	Worcestershire Historic Environment and Archaeology Service, Woodbury, University of Worcester, Henwick Road, Worcester, WR2 6AJ	
Site Name	The Shire Ditch, Malvern Hills, Herefordshire and Worcestershire	
Grid Reference	SO 76145 37075 - 76896 45796	**Planning Application Number** n/a
SMR number/s of site	HSM 43068 / WSM 34769; SAM 244	
Date of Field Work	11-12/05	
Date of Report	06/02/06	
	NUMBER AND TYPE OF FINDS	
Pottery	**Period** n/a	**Number of sherds**
Other	**Period** n/a	**Quantity**
	NUMBER AND TYPE OF SAMPLES COLLECTED	
Sieving for charred plant remains	**No of Features sampled** **No of buckets** n/a	
C14/scientific dates	**No and Type** **Result** n/a	
Pollen	**No of Columns/spot samples** **Name of pollen specialist** n/a	
Bone	**Number of buckets sieved for bone** **Quantity Recovered** n/a	**Period**
Insect	**No of Columns/spot samples** **Name of pollen specialist** n/a	
Other	**Type and specialist** Neil Rimmington (Herefordshire Countryside Advisor - Archaeology).	
Summary of the report	*The full length of this Scheduled Ancient Monument, as defined in the Worcestershire HER, commences south of Hollybush Hill and terminates south of Happy Valley / Green Valley, north of Worcestershire Beacon. A descriptive written and digital photographic record were undertaken and tied into the National Grid via GPS. Individual Management Units were created, distinguished variously by the topography, earthwork form and/or current state of preservation. The land use, ground cover and conditions in conjunction with existing and potential adverse factors were then described, from which practical recommendations could be made for remediation and prevention of further deterioration of the feature.*	



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Location of the site *Figure 1*