

A Condition Survey of the Archaeological Sites of the Willsworthy Freehold, Dartmoor Training Area

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A CONDITION SURVEY OF THE ARCHAEOLOGICAL SITES OF THE WILLSWORTHY FREEHOLD, DARTMOOR TRAINING AREA, DEVON

1 INTRODUCTION

The MoD freehold at Willsworthy covers approximately 1450ha of which the vast majority is open moorland, the remainder being enclosed pasture on the northern and southern fringes. Of the 184 recorded archaeological sites twenty nine, mostly attributable to the Bronze Age though some dating to the medieval period, are Scheduled as Ancient Monuments and protected under the Ancient Monuments and Archaeological Areas Act of 1979.

1.1 Previous Work

An Integrated Land Management Plan (ILMP) was commissioned from RPS Clouston by the MoD in 1998. The archaeological element was sub-contracted to the Royal Commission on the Historical Monuments of England (RCHME). A further, refined, plan specified a five yearly series of actions aimed at monitoring the condition of the archaeological resource and encouraging its conservation. Namely:

Review current maintenance condition survey programme for scheduled sites and revise if desirable.

Produce and revise a threat assessment for all Scheduled Ancient Monuments and ensure that measures are in place to prevent damage.

Extend threat assessment to cover non-scheduled sites.

Develop system for regular condition surveys of non scheduled sites.

Gather detailed information on potential vehicle damage to archaeological sites.

To fulfil these objectives an Archaeological Baseline Condition Survey was undertaken in 2000 and 2001 by English Heritage (EH). This survey was undertaken by the Field Monument Warden (scheduled monuments) and the Archaeological Investigation Section (all other monuments). The survey involved the revisiting of all previously recorded upstanding archaeological features at which time they were assessed for active damage and potential threat. These assessments were supplemented, when possible, by ground photography either of the monument, an element of the site or its location.

The first Archaeological Condition Survey was carried out in 2007 (Probert 2007) during which every site was revisited, including those recorded as not found by previous investigations. Photographs were taken of each site or, more

often, an element of the site or its location. The site and its immediate surroundings were assessed for damage, military use and potential threats. Details were recorded on a standard DIO condition form.

2 SECOND ARCHAEOLOGICAL CONDITION SURVEY NOVEMBER 2012-FEBRUARY 2013

2.1 Background and methodology

As stated by former RCHME and EH investigations (RCHME, 1998, English Heritage 2001) Willsworthy is an average Dartmoor landscape with a higher than usual level of military remains. The development of the landscape has been dealt with by the same sources.

The latest investigation is part of the ongoing monitoring and management programme sponsored by Defence Estates (DIO) and implemented by Landmarc Support Services. The purpose of the work is to provide an updated comprehensive condition assessment for all known archaeological sites at the Willsworthy Range that were visited during the 2013 survey.

As with the 2007 survey every site was visited, photographed and assessed for actual and potential damage. The location and direction of each photograph was recorded and is available as an ESRI GIS file on the accompanying CD. The standard DIO condition forms are synthesised in the appendix to this report and are also available as .doc and pdf files on the accompanying CD.

The 1998 RCHME survey was conducted to OSGB36 standard and, as such, a resurvey of the archaeological landscape was deemed unnecessary though the extents of each site are also presented to the same standard in ESRI format on the attached CD.

All monument reference numbers referred to in this report are those assigned by the National Monuments Record (NMR).

2.2 Physical change on the Willsworthy freehold 2001-2013

The MoD Willsworthy estate is a dynamic landscape, not only does it provide troop training facilities but it is also a working agrarian unit. Several changes in the non-military land use of the area have been implemented since the 2001 survey. Fenced enclosures have been created in the former fields of Doetor, Standon and Redford Farms and to the east of Yellowmead. In addition it is understood that with the exception of Doe Tor Common livestock is banned from the Willsworthy Freehold. It also appears as though the amount of off-road vehicular activity has been reduced or any disturbance mitigated by the use of specialist vehicles

3 SUMMARY OF FINDINGS

3.1 Introduction

The findings of the 2013 survey are summarised in Fig. 1 (actual numbers of monuments) and Fig. 2 (percentages). The number of stable monuments forms

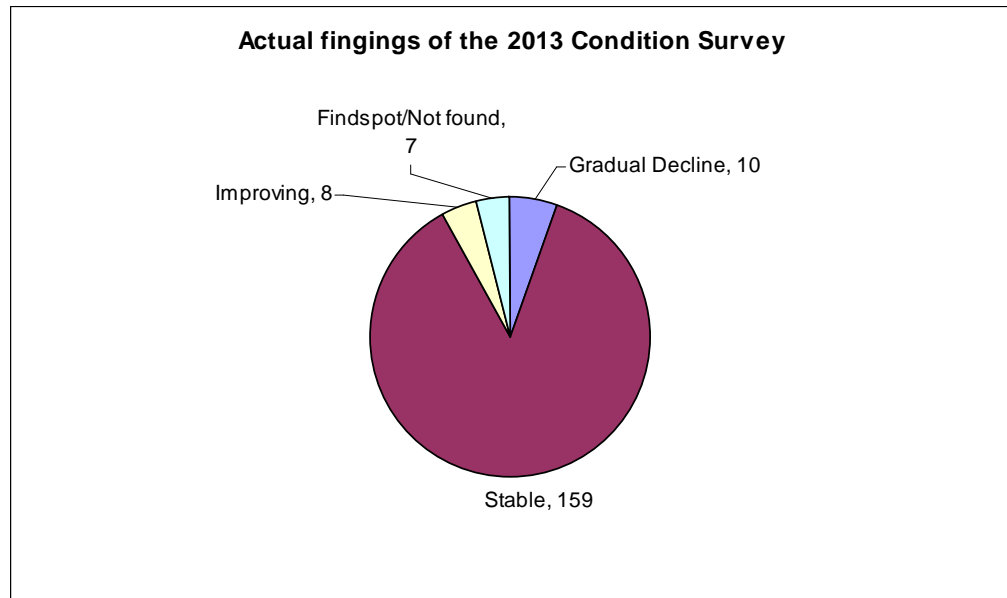


Fig 1 Actual findings of the 2013 Condition Survey

the bulk (159 monuments or 87%) of the sample while those in gradual decline constitute only 10 or 5%. Monuments whose condition is considered to be improving form 4% of the dataset.

Several of the monuments recorded by previous surveys are now completely obscured by vegetation. Given the overall state of the freehold their presence and stability has been assumed.

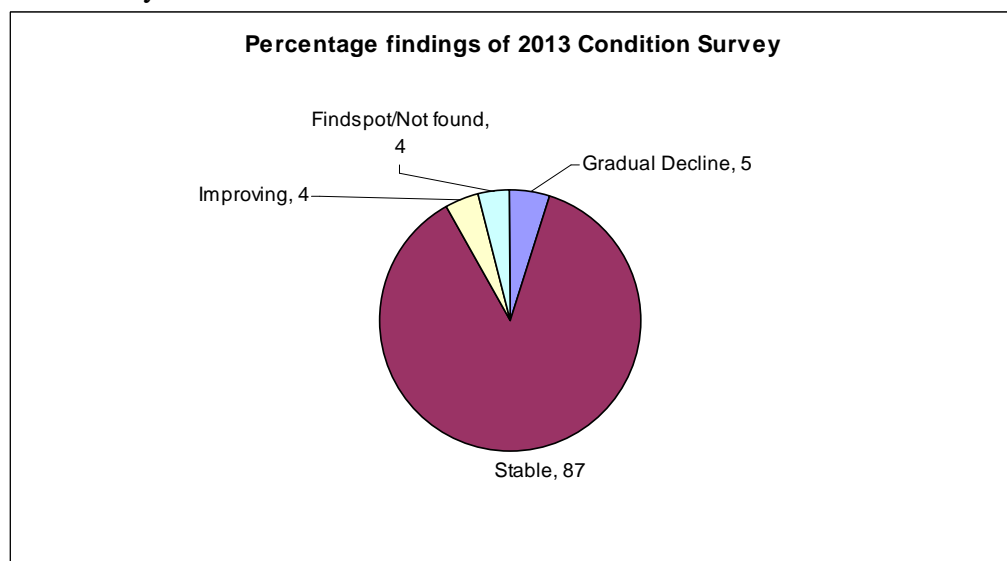


Fig 2 Percentage findings of the 2013 Condition Survey

3.2 Gradual Decline

The 10 monuments in this category are affected by a number of factors:

3.2.1 Gradual structural decay

The majority of the 20th century military remains are constructed from concrete and/or blockwork often with significant ferrous components. These structures were probably envisaged as short life assets and have not been used for several decades. Given the Dartmoor environment it is inevitable that without a sustained maintenance programme the materials from which these features are constructed will decline. Cement rendering and blockwork are spalling while ferrous components such as tramway rails, sleepers and target mechanisms are rusting. It is envisaged that most of the components will reach a state of stability while the ironwork will disappear in the fullness of time. In the majority of cases the actual rate of decline appears to be minimal. Indeed the changes visible on the small battlefield range, 1159777, that lies within the Yellowmead area are so small as to move the features into the stable category. The ruined cottage, 1147055, within Standon Farm has been cleared of vegetation since the 2007 Condition Survey which has removed a considerable threat to its structural integrity though the unmortared walls may suffer further collapse until a state of stability is achieved.

In a similar situation are the peat cutters' mounds, 1160678, on Standon Hill. These will eventually erode or compact and be assimilated back into the surrounding peat.

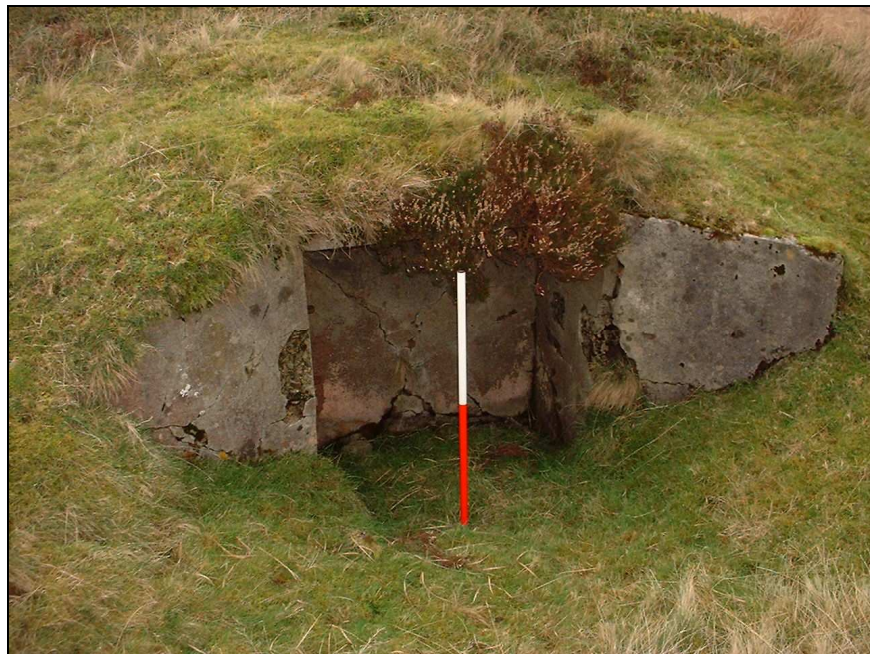


Fig 3 Spalling concrete and render on former battlefield range 1156692

3.2.2 Livestock damage

Although the greater part of the Freehold is supposedly livestock free there has been a change in the amount of damage caused by cattle. A number of sites, all boundary stones, are still used by straying cattle as rubbing posts and as such the hollows at their bases are actively eroding. In extreme circumstances the stones may become unstable and topple. Examples are boundary stones 1150912 and 1150941 in the area of the old camp at Willsworthy. In 2007, these stones were assessed as improving, in that the vegetation within the hollows was regenerating. The most recent assessment has returned them to the gradual decline category as the hollows are again devoid of grass and display hoofprints.



Fig 4 Boundary stone 1150912. Erosion hollow again active as a result of livestock using it as a rubbing post

3.2.3 Vandalism

The stony matrix of the large prehistoric cairn, 440579, to the north of Hare Tor, has been rearranged to form a secondary cairn on top of the existing feature. This feature was reported in the 2001 and 2007 assessments and the damage rectified. However, the cairn has been rebuilt in the intervening years. Such action is in contravention of the Ancient Monuments and Archaeological Areas Act of 1979. It is not thought that this is a result of the military use of the area.



Fig 5 Detail of recently constructed cairn on prehistoric monument 440579 north of Hare Tor

3.2.4 Summary

Of the 10 monuments in this classification four are of military origin and are best subject to a policy of benign neglect as is the cottage at Standon Farm. In the long term the peat mounds on Standon Hill will disappear. The exclusion of livestock would make a significant change to the stability of the boundary stones while the levelling of the visitors' cairn from the prehistoric feature north of Hare Tor would resolve this issue in the short term.

3.3 Stable

The majority of the archaeological resource consists of monuments in a stable condition. In general the condition and state of survival of most archaeological features are determined by their remote positions, distance from the main footpaths and the foci of military and civilian activity. They are generally in a good state though several may become vulnerable to damage from vegetation related threats 3.3.1 and 3.3.2

3.3.1 Footpaths and bridleways

The reduced stocking levels have resulted in a significant increase in the areas covered by shrubs such as gorse and heather and purple moor grass. This unchecked growth has engulfed several large areas making some monuments difficult to find, as on White Hill, and completely obscuring others, especially on Nattor Down. While this, in the majority of cases, does not pose a threat to

the archaeology the increased difficulty of traversing these areas on foot and horseback has resulted in the channelling of traffic onto the relatively few clear paths. Several of these skirt the fringes of vulnerable archaeological sites with the potential of encroaching onto them with only the slightest change of course. The exceptionally wet weather 2012 has exacerbated this problem with several tracks, particularly that on Nattor Down from the car park to Ger Tor becoming wider as livestock, walkers and riders skirt the muddier zones. Continued monitoring of this area is necessary to arrest any potential threat to the prehistoric monuments, 440702, 440705 and 1158162, to the northwest.

There is small scale footpath erosion to the banks enclosing the former farm at Reddaford, 440733, as walkers and animals take a short cut to the site of the farmhouse. The replacement of the fallen stonework and the blocking of the gaps with cut scrub would address the problem.



Fig 6 Reddaford Farm 440733. Erosion to boundary bank.

3.3.2 Firebreaks

As part of its continuing programme of vegetation management DIO/Landmarc have created a number of firebreaks across the range to assist in controlled burns and to contain unplanned conflagrations. The majority of these pose no

threat to the archaeology though in 2007 those on White Hill were in conflict with two of the clusters of small cairns.

In recent years a more sympathetic cutting regime has ensured the stability of these sites and they have attained stable status. There is no reason why this condition should not be maintained as long as the firebreak regime is maintained.

3,3,3 Military activity

Significant damage to the historic environment as a direct result of military training is a thing of the distant past though the 2013 assessment has recorded two examples of minor damage threatening the stability of archaeological features.

The remains of a small rectangular structure, 1159602, on the right bank of the River Tavy has suffered from digging activity. Two small areas have been disturbed in the interior and one adjacent to the exterior of the southeast corner. It is thought that this is the result of ground preparation prior to cooking in the field. There is also military litter on the site. The reinstatement of the excavated material should be considered and, if further activity is planned in this area, the presence of the site mentioned at briefings.



Fig 7 Interior of small unidentified structure 1159602. Area of turf removed and discarded ration pack

A granite trough, 1149362, at Standon Farm is used as a barbecue pit and repository for rubbish. Both activities should cease.

3.3.4 Summary

Aside from the specific cases mentioned above some small scale footpath erosion of the larger linear monuments is inevitable and, while restricted to a small number of crossing points, is to be tolerated. Apart from some selective monitoring and minor remedial action there is no reason why the features in this classification should decline in the immediate future.

3.4 Improving

As stated above, improving sites constitute 4% of the monument total of the 2013 assessment. This is down from 10% in the previous assessment largely as a result of DIO/Landmarc acting on the direct recommendations of the 2001 and 2007 surveys and also as an indirect result of the attempt to exclude livestock. The majority of the sites previously in this category have progressed to stability.

The continuing improvement of the features in this category is heavily dependant on the exclusion of livestock from the freehold. Half of the sites are boundary stones where the formerly bare basal hollows are grassing over though still vulnerable. Poaching scars on a line of seven Bronze Age cairns, 440672, on the flank of White Hill have been regenerating since the 2007 assessment and it is envisaged that by the time of the next survey they will have achieved stability. The same result is expected with the remains of Hamlyn's Newtake, 1143702, the large Post medieval enclosure to the west of Ger Tor. Of particular note is the scheduled medieval settlement (440736), probably the precursor to Redford Farm which also continues to improve. At the time of the 2013 Condition Survey sheep were straying into the area and congregating around this feature using the gorse covered banks as shelter and increasing the risk of poaching. If livestock cannot be completely excluded the gorse should be cut back to ground level to make this feature less attractive.

Another success at Willsworthy has been the channelling of pony trekking and solitary horse riders on to largely metalled routes away from some of the more vulnerable monuments. This appears to have been a side effect of the enclosures created since the 2001 Baseline Survey.



Fig 8 Medieval settlement 440736. Gorse to be cut if livestock continues to stray



Fig 9 Vegetation regenerating over poaching scar on one of the cairn group 440672

4 COMPARISON OF FINDINGS

4.1 2007 and 2013 Surveys

The relative quantities of each condition type in the 2007 and 2013 Condition Surveys can be seen in Figs 10 and 11.

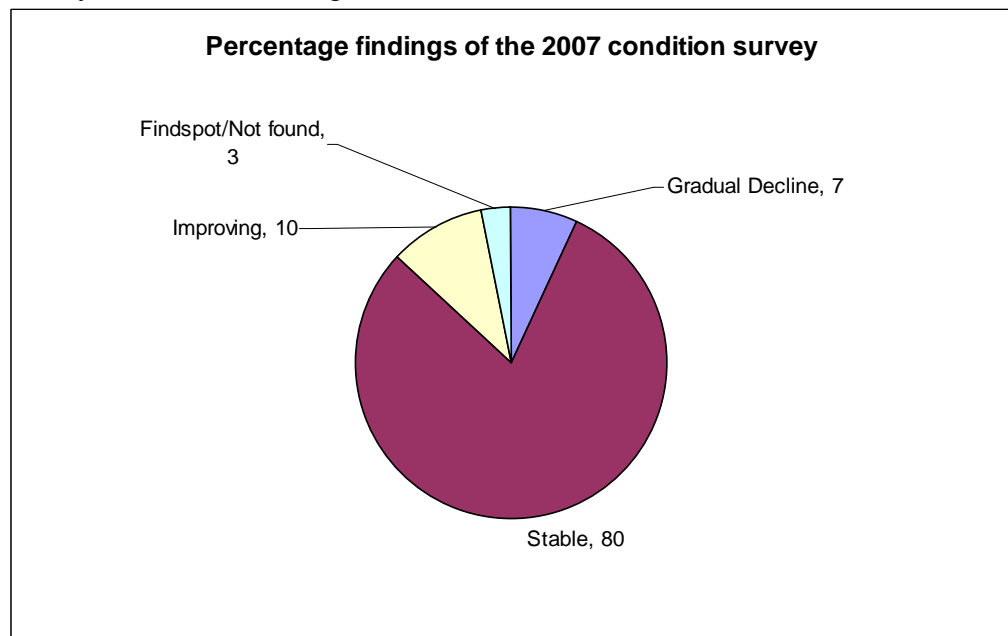


Fig 10 Percentage results of 2007 Condition Survey

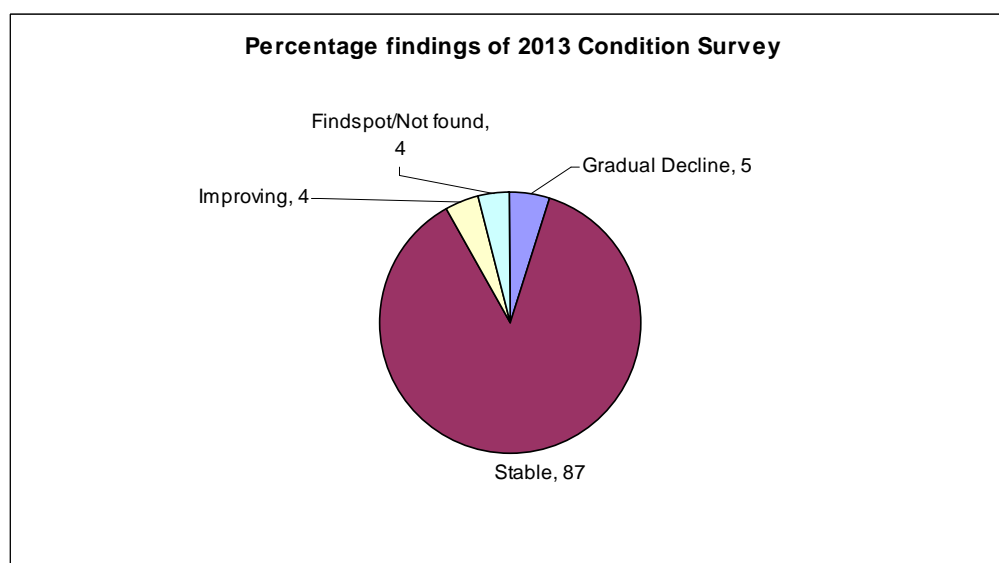


Fig 11 Percentage results of 2013 Condition Survey

The figures are unambiguous and show an improvement in the condition of the heritage resource on the Willsworthy Freehold. The stable category has expanded to 87% of recorded sites at the expense of the gradual decline and improving categories. If the seven findspots/erroneous records are removed the percentage of stable sites rises to 90.

4.2 Scheduled Ancient Monuments

Fig 12 shows the condition of the Scheduled Monuments (SM) within the Willsworthy Freehold. It must be noted that the principal numbering scheme in this assessment is that of the National Monuments Record (NMR) which is inclusive of all recorded sites irrespective of protected status. Differences in investigation records mean that each NMR record may contain more than one Scheduled Monument.

NMR No	SM No	NGR	Condition	Stability
440579	20339	SX 517784557	Good	Gradual Decline
440585	22240	SX 592183863	Good	Stable
440591	22241, 22244, 22245, 22246, 22316	SX 490083343	Good	Stable
440611	22355	SX 568783102	Good	Stable
440614	22313	SX 756383118	Good	Stable
440621	22315	SX 501582082	Good	Stable
440624	20368	SX 500782510	Good	Stable
440627	28784	SX 553181468	Good	Stable
440637	22314	SX 545882581	Fair	Stable
440667	20350	SX 438084840	Fair	Stable
440672	20341, 20345, 20347-9	SX 304783656	Fair	Improving
440675	20346	SX 320383701	Poor	Stable
440678	20343/4	SX 343083855	Good	Stable

440684	22249	SX 406383542	Fair	Stable
440687	20340	SX 371484193	Fair	Stable
440699	22353	SX 214082871	Fair	Stable
440702	22248/9	SX 421883001	Fair	Stable
440705	22248	SX 098082864	Fair	Stable
440710	22248	SX 392482876	Good	Stable
440736	22354	SX 334983101	Good	Improving
440742	22248/9	SX 469381878	Fair	Stable
440749	20353	SX 362584527	Fair	Stable
440758	20342, 20351, 20364-7	SX 261483860	Good	Stable
440761	22249	SX 414283349	Good	Stable
440764	22247	SX 465083378	Fair	Stable
440770	22249	SX 418283490	Good	Stable
440778	34477	SX 474281360	Fair	Stable
902434	22342, 22343, 22345, 22347-9	SX 352284054	Fair	Stable
1143706	20351	SX 340583744	Fair	Stable

Fig 12 Tabulated condition and stability of Scheduled Monuments, 2013 Condition Survey

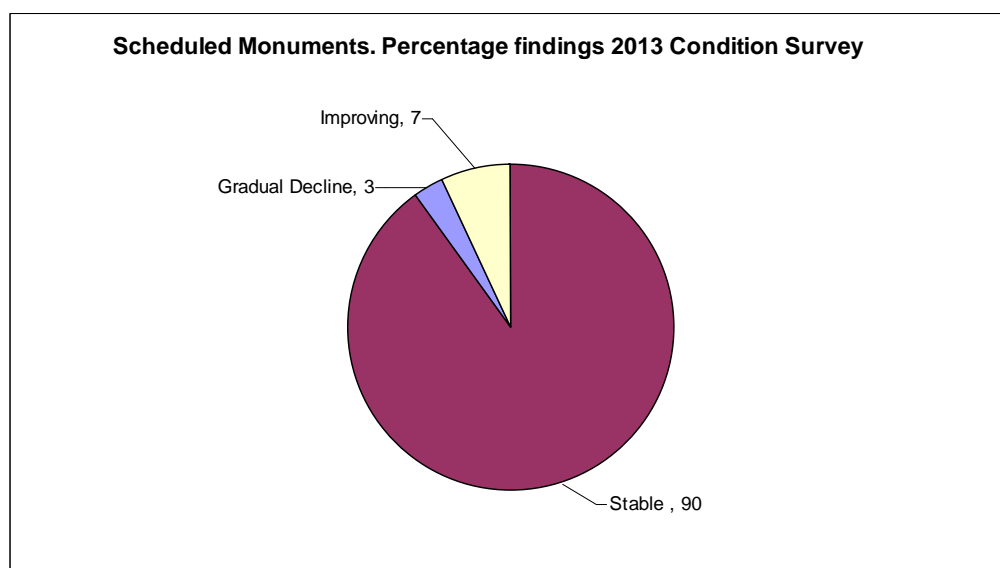


Fig 13 Relative stability of Scheduled Monuments, 2013 Condition Survey

The data in Figs 12 and 13 remain unchanged from the 2007 Condition Survey.

It is clear that most change is manifested in the non-Scheduled Monuments, the largest element of the dataset. Of these the most vulnerable and the most likely to move between categories are the numerous boundary stones that lie in and around the freehold. They are most susceptible to damage that may threaten their stability and they are also the fastest type of site to recover given the right conditions. Other sites, in particular the cairn group 440672 and the medieval settlement 440736, have been in an improving state since, and more likely before, the 2007 Condition Survey.

4.3 2001 and 2013 Surveys

Comparisons between the results presented by this assessment and those of the 2001 baseline survey are difficult to draw as the 2001 Archaeological Baseline Survey has no previous body of information to refer to. Consequently there were no improving sites in 2001 and several ambiguous sites that were placed in a stable/gradual decline category. These ambiguities were resolved by the 2007 Condition Survey. The main conclusion is that in both cases there is a solid core of stable sites. The percentage results are presented below.

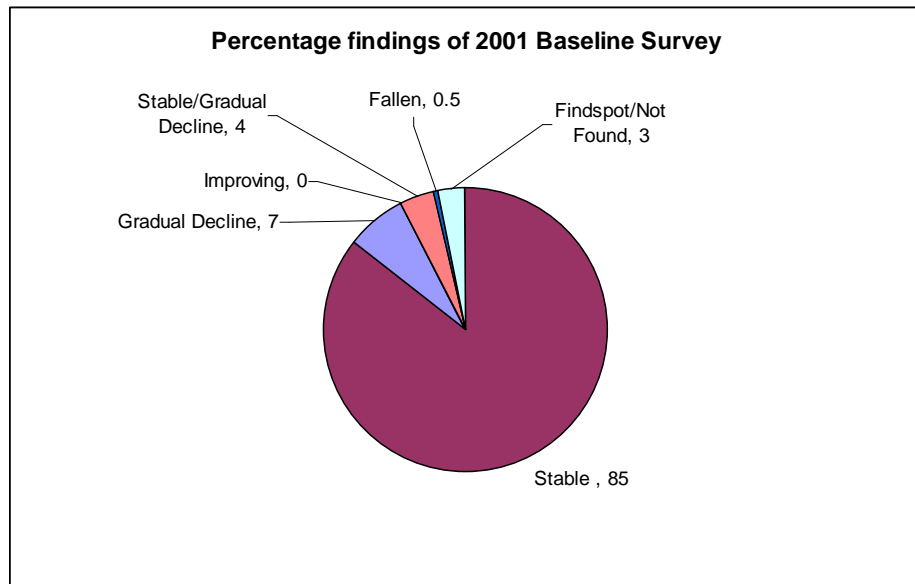


Fig 14 The relative proportions of stability of all sites in the 2001 Archaeological Baseline Survey

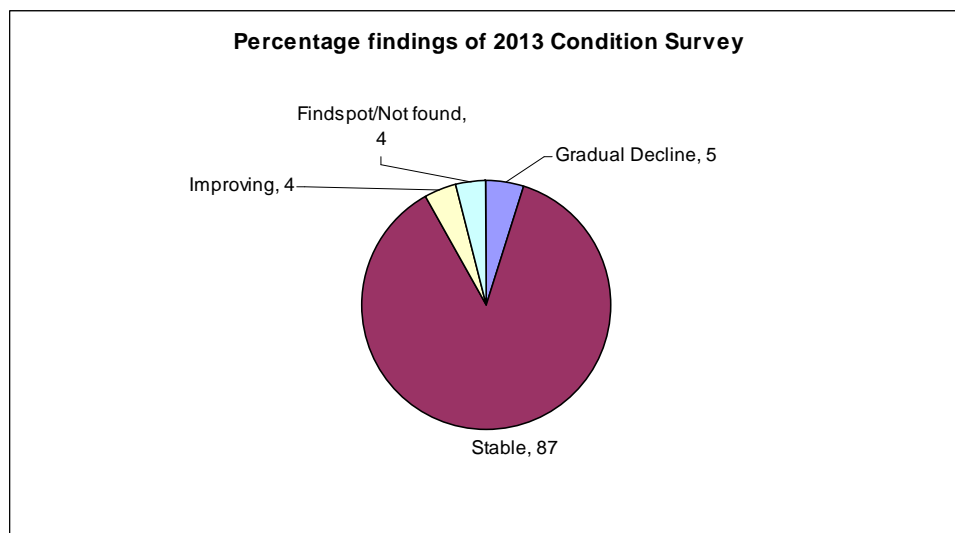


Fig 15 The relative proportions of stability of all sites in the 2013 Condition Survey

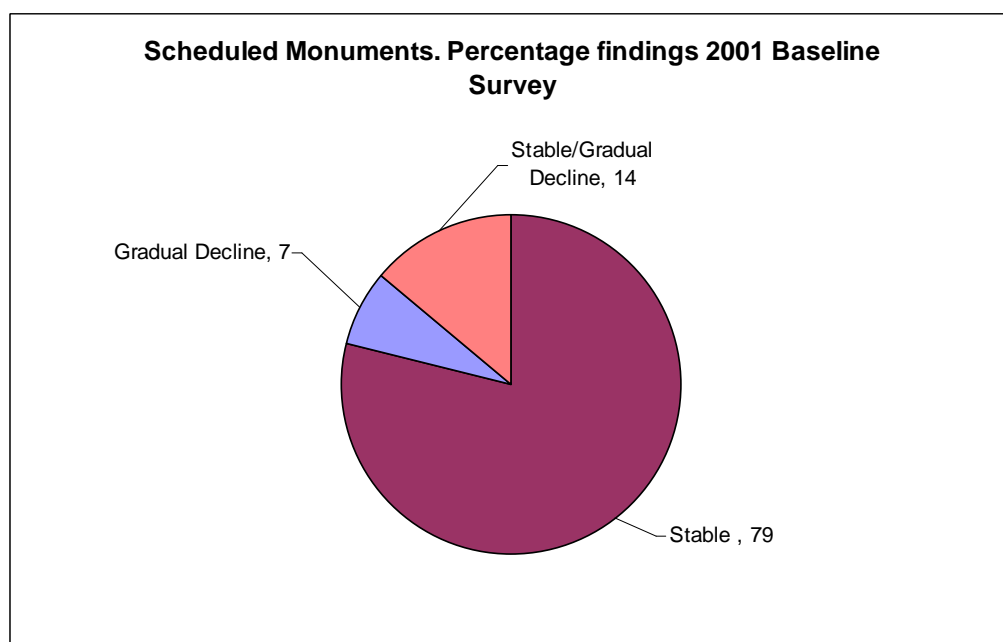


Fig 16 The relative proportions of stability of Scheduled Monuments in the 2001 Archaeological Baseline Survey

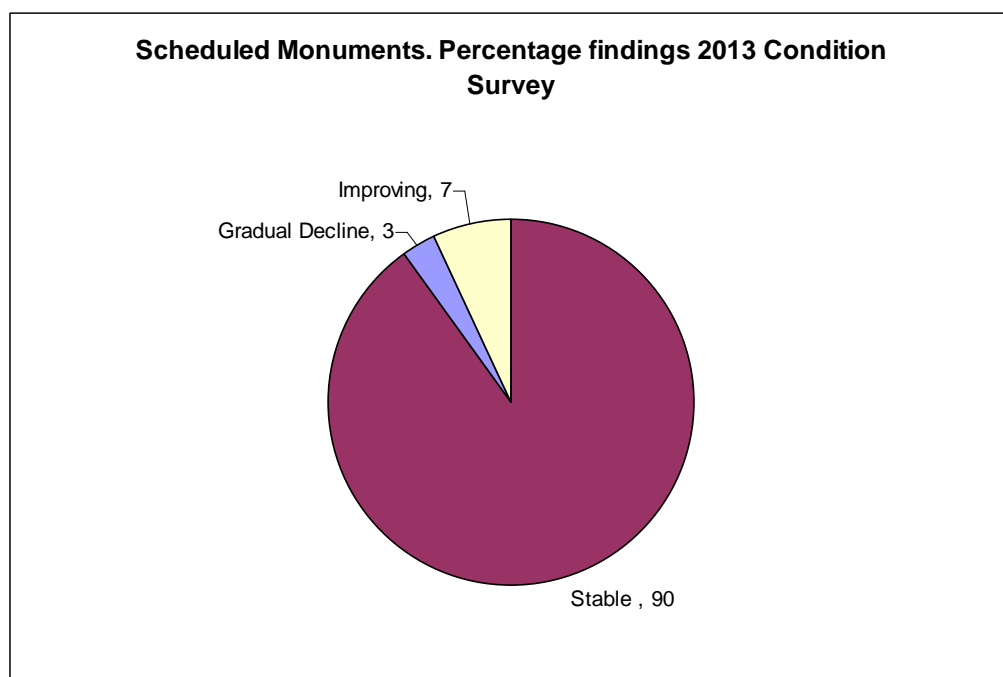


Fig 17 The relative proportions of stability of Scheduled Monuments in the 2013 Condition Survey

5 CONCLUSION

There has been little apparent physical change to the Willsworthy landscape in the period 2007 to 2013 though the quality of the heritage resource has demonstrably improved.

The vast majority of the recorded archaeological sites are regarded as stable though there remains an element of gradual decline, particularly amongst the more recent military remains. Preservation/restoration of the latter is not a viable option. Their decline via a policy of benign neglect is to be accepted.

Not only has the gradual decline category itself declined but also the improving category as several sites have been reclassified as stable. These changes are the direct result of the implementation of the recommendations of the 2001 survey coupled to the indirect benefit of later decisions by DIO/Landmarc to establish enclosures and the attempt to exclude livestock. Continued adherence to these policies and practices should sustain the improvement of the heritage resource,

Simon Probert
09 March 2013

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Appendix Synthesised summary of DIO field sheets