



DARTMOOR TRAINING AREA

Environmental Appraisal

Cultural Heritage

6

6. Cultural Heritage

6.1 Introduction

6.1.1 The landscape of Dartmoor is rich in Archaeological remains. Military training has the potential to have a detrimental effect on individual monuments and the wider historic environment. For this reason the effects of military training have been subject to an assessment carried out by Martin Brown FSA MIFA BA, Environmental Adviser (Archaeology) to Defence Estates.

6.2 Context

Technical Context

6.2.1 The cultural heritage or historic environment includes a wide variety of sites and features, both visible and buried that are the product of past human activity in the landscape. The range of sites and features can include buried archaeological deposits, standing buildings, industrial heritage and artefact scatters, as well as industrial and military remains. In addition, the character of the landscape formed over centuries of human activity, with its boundaries, field patterns and woodlands may be seen as the frame within which the individual sites sit, with the components combining to create the historic environment.

6.2.2 The presence of cultural heritage features, whether protected by legislation or not, may be a material consideration within the planning process or other mechanisms for decision making concerning a range of activities, including military training. In cases such as this one, where the cultural heritage may be identified as a significant issue, a range of responses may be employed, including a variety of data-gathering exercises, including the desk-based assessment, which brings together existing information in order to consider the effect of the proposed operation on the historic environment. Such a survey will identify the nature of features likely to be involved. This requires the following considerations:

- monuments may be affected directly by activities but there may also be indirect effects, such as effects on the settings of monuments; and
- the desk-based assessment (DBA) only includes currently available information concerning the cultural heritage but it is important to recognise that there is potential for further, as yet unknown features to survive within the study area.

6.2.3 However, other methods may be employed, including condition assessment for identified monuments. Like the DBA this sort of survey will only look at previously identified sites, primarily Scheduled Monuments (SM). Identified sites will be visited and their survival and general condition assessed and reported on. This is a repeatable survey that may be revisited, with the original survey becoming a benchmark against which later results may be compared to measure standards of monument condition and rates of decline/improvement across an area.

6.2.4 In addition, geophysical survey or targeted excavation may be used in particular circumstances. These techniques may be employed to answer specific questions about a

site, such as its extent or the nature of damage sustained from burrowing animals, or to confirm the presence of archaeological remains,

Legislative Context

Scheduled Ancient Monuments

- 6.2.5 The 1979 Ancient Monuments and Archaeological Areas Act is central to archaeological resource management, as amended by the National Heritage Act 1983, which consolidated all previous Ancient Monuments legislation that had originated with the Ancient Monuments Protection Act 1882. The 1979 Act enables the Secretary of State for Culture Media and Sport (DCMS) to maintain a schedule of nationally important historic sites.
- 6.2.6 The consent of English Heritage (EH) is required to carry out works to SMs. Specific consent has to be given for any works resulting in the alteration, demolition or destruction of or any damage to a SM.
- 6.2.7 It is a criminal offence to carry out works to a SM without appropriate consent. Should any such works also require planning permission it is advised that EH be contacted to advise on Scheduled Monument Consent prior to submission of any planning application.
- 6.2.8 In respect of SMs, Defence Estates (DE) works in partnership with EH to document archaeological sites. The entire area of DTA has been subject to an archaeological baseline survey and a rolling programme of re-survey has recently begun to document changes in monument condition and to target any necessary management works.

Listed Buildings

- 6.2.9 Buildings deemed to be 'listed' are included on statutory lists of buildings of 'special architectural or historic interest' compiled by the Secretary of State for Culture, Media and Sport under the Planning (Listed Buildings and Conservation Areas) Act 1990. The Secretary of State usually acts on advice from EH.
- 6.2.10 Listing ensures that the architectural and historic interest of a building is carefully considered before any alterations (internal or external) are agreed. However, listing is not intended to fossilise a building. The sustainable future of a building afforded by putting it to good use is desirable and informs much guidance given by EH.
- 6.2.11 Although there are currently no listed buildings within DTA there are a number of historic buildings that are probably of listable quality. DTA has undertaken to take due regard for these buildings and has already commissioned an historic building survey of Okehampton Camp from specialist contractors Wessex Archaeology.

Designation Review

- 6.2.12 In 2004 EH began a review of both Scheduling and Listing as mechanisms for the protection of the historic environment under the umbrella of the Designation Review. This process is being carried out in response to Department of Culture, Media and Sport (DCMS) consultation paper: Protecting the Historic Environment - Making the System Work Better (2003).
- 6.2.13 Both EH and DCMS agree that present levels of protection should continue. However, there is a recognition that the system, which has evolved over a century, needs to be modernised and streamlined to take account of different components of the historic environment including statutorily protected sites, as well as other designations including conservation areas and registered sites, such as gardens or battlefields. English Heritage believes the review should *"deliver both a unified designation system and a unified*

regulatory regime for the integrated management of the historic environment." (English Heritage 2003, 1.4)

- 6.2.14 The EH proposals go on to say that "English Heritage believes that an integrated consent regime incorporating statutory management agreements is key to the implementation of the proposed new single list. Indeed, it would become an imperative once the first item combining more than one component – say a listed building on a scheduled site in a registered park or garden - was placed on the new list". (Op. Cit., 8.1)
- 6.2.15 This would ensure a streamlined system replacing the current situation where multiple applications for consents may be required for a single operation affecting a single building or monument with multiple designations.
- 6.2.16 The EH Response recommends a new system that includes management agreements for a raft of works necessary to the sustainable use and maintenance of historic structures and monuments. In effect these agreements will allow effective integrated management of complex sites with multiple designations, allowing a raft of consents for agreed management and limited change over a given period of time. This could include pest control, scrub management or internal reconfigurations of modular office space in an historic building.

Planning Context

- 6.2.17 In addition to the legislation affecting the monuments and listed building protected by statute there are two Planning Policy Guidance notes (PPGs) that offer guidance on how archaeological remains, listed buildings and the wider historic environment should be dealt with in a local government planning context. This guidance is given by central Government in the following documents:
- Planning Policy Guidance Note 15: Planning and the Historic Environment (Department of the Environment) 1994 (PPG15)
 - Planning Policy Guidance Note 16: Archaeology and Planning (Department of the Environment) 1990 (PPG16)
- 6.2.18 Under the terms of these documents the effect of development on the historic environment should be a material consideration in any planning decisions and likely effects must be considered and mitigated. The physical effect of a development on underlying or neighbouring archaeology is considered in PPG16 while the wider effects on historic landscape and buildings are covered by PPG15. These commitments are further reinforced in relevant local planning policies.
- 6.2.19 The Office of Communities and Local Government has announced its intention to review both PPGs discussed here within the programme of streamlining the planning process but no date has been set for review, reporting or change.

Planning Policy Guidance Note 15: Planning and the Historic Environment

- 6.2.20 PPG15 was written in order to assist local authorities in the preparation of policies for the conservation of the landscape and buildings within it.
- 6.2.21 The guidelines identify categories and principles to which Planning Officers should adhere, including the need for adequate development control on development proposals which would affect historic sites and structures, including listed buildings, conservation areas, parks and gardens, battlefields or the wider historic landscape.

Planning Policy Guidance Note 16: Archaeology and Planning

- 6.2.22 PPG16 was written in order to aid local authorities in considering the value of the archaeological resource and to establish a procedure for the adequate investigation and conservation or preservation of those remains. It asserts that archaeology is a material consideration in the planning process. Where archaeology is likely to be an issue early consultation with archaeological specialists is recommended. Although the presumption of preservation in situ is described as the ideal situation, mechanisms for investigation and recording of archaeological remains are set out.
- 6.2.23 Until recently MoD enjoyed Crown Exemption to the planning legislation, including these PPGs but is now bound by them.

Table 6.1 Planning Policy: Cultural Heritage

Policy Reference	Policy Content
DNPALP Policy BL8	The conversion and/or change of use of buildings, outside Local Centres and Selected Rural Settlements will be permitted where the natural beauty, cultural heritage or rural character of the area is conserved.
DNPALP Policy MD1	Planning permission will not be granted for major development which would be damaging to the scenic beauty, the natural systems and landforms, the wildlife and cultural heritage or the quiet enjoyment of the National Park, unless after the most rigorous examination it can be demonstrated that there is an overriding national need which cannot reasonably be met in any other way.
DNPALP Policy MD2	Objections will be raised to proposals for the use of additional areas of land for military training, or for new military buildings or structures, or for new, renewed or intensified uses of land and buildings, where such proposals would be damaging to the wildlife, natural beauty, cultural heritage or the quiet enjoyment of the National Park.
DNPMP Policy AH1	Archaeological and historical features will be protected against damage or loss
DNPMP Policy AH2	Conservation and positive management of archaeological sites and historic features will be encouraged.
DNPMP Policy AH3	Artefacts of archaeological or historical importance will be protected against loss, damage or deterioration and be properly conserved, preferably in situ or where necessary in storage.
DNPMP Policy AH4	Protection of landscapes of archaeological/historical interest, in their entirety, will be sought.
DNPMP Policy AH5	The recording and advancement of knowledge of the archaeological and historical resources of Dartmoor will be promoted.
DNPMPD Policy AH.G1	All Premier Archaeological Landscapes (PALs) identified in the Moorland Vision will be brought into active management with their condition improving.
DNPMPD Policy AH.G2	There will be a 5% reduction in the number of Scheduled Monuments at high or medium risk
DNPMPD Policy AH.G3	There will be a developing, accessible and easy to use Historic Environment Record (HER) providing comprehensive coverage of the historic environment.
DNPMPD Policy AH.G4	Positive action will be taken in at least 150 cases to safeguard or improve the condition of archaeological features or artefacts
DNPMPD Policy HB.G1	A broad Cultural Heritage Strategy will guide all aspects of cultural heritage conservation and enhancement within Dartmoor National Park
SWRSS Policy ENV3	Development should conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park or Area of Outstanding Natural Beauty.
DLP Policy CO2	In Dartmoor National Park, the conservation and enhancement of the natural beauty, wildlife and cultural heritage will be given priority over other considerations in the determination of development proposals.
MoD Internal Policy: JSP 362	The Defence Lands Handbook (Chapter 6) provides guidance to Defence Estates on both policy and responsibilities toward the historic environment and cultural heritage. JSP 362 is supported by In Trust and On Trust: The Strategy for the Defence Estate. Chapter 6: 6.2:15 lays a clear responsibility on Heads of Establishment to be aware of issues that could potentially have an effect on the cultural heritage and to seek appropriate advice in respect of its care. In addition they should ensure that

Policy Reference	Policy Content
MoD Internal Policy	<p>appropriate management systems, including Environmental Management System (EMS) and, as appropriate, an Integrated Land/Rural Management Plan (ILMP/IRMP). The ILMP for DTA has recently been completed. 6.2:17 also acknowledges the necessity for MoD to work with statutory bodies, such as EH and with other key stakeholders, such as DNP, where sites of importance without legislative protection but that might require sensitive management have been identified and at 6.9:85 commits MoD to engagement with such key stakeholders in respect of wider cultural heritage issues</p> <p>In Trust & On Trust. The Strategy for the Defence Estate (June 2000) sets out the following over-arching policy statement: <i>“Whilst meeting defence requirements MoD will continue to maintain, protect and where possible enhance the cultural heritage value of the estate. Thus, whilst historic buildings may not always be ideal for modern defence usage, MoD will continue to devise creative ways of using them that are both sympathetic and practical”</i></p>

6.3 The Scope of the Assessment

Technical Consultations

- 6.3.1 Following the publication of the Scoping Report formal responses were received from the following members of the archaeological community:
- EH;
 - DNPA Archaeologist and
 - Tom Greeves, Archaeologist, on behalf of the Dartmoor Society.
- 6.3.2 The issues raised by each of these respondents were discussed at Cultural Heritage Working Group (CHWG) meetings. While the consultation confirmed the scope of the assessment in its overall approach to the cultural heritage it also emphasised the need for any assessment of the cultural heritage of DNP to include the landscape as a cultural artefact. This should, in turn, promote considerations of the industrial and military effects on the landscape in the past, including systems of tin leats and the sites of former Army camps from the Victorian and World War 1 and 2 eras, as well as associated training sites. Also discussed was the Condition Monitoring programme for archaeological sites, it was felt that the results of the imminent resurvey of Willsworthy should be included in the final assessment, if possible, in order to provide comparisons in condition and to offer insights into DE stewardship of DTA.
- 6.3.3 The Willsworthy survey will revisit material from one of a number of EH surveys that have extensively studied DTA. The initial EH baseline surveys and other academic studies mean that DTA has been extensively researched and while there will always be undiscovered remains, current knowledge affords a detailed picture of the archaeological site types to be found across DTA. As the list of archaeological sites documented in the EH volumes are considered to be a comprehensive record of the resource, lists of sites are not reproduced here. Instead the Appraisal will provide an overview of the history and significance of DTA and the potential effects on the cultural heritage of the continuation of military training. Copies of these reports are available for public consultation in a variety of locations including Okehampton and Tavistock libraries, the DNPA Historic Environment Record (HER), the National Monuments Record (NMR) at Swindon and via the Dartmoor Society.

Effects Requiring Further Consideration

6.3.4 Effects on cultural heritage may be direct, such as the loss of assets as a result of erosion or troop activity, or indirect, such as encroachment on the setting of monuments. The significance of any effect depends on the scale of the event, the importance of the feature and the potential effects of any event on the feature. The importance of the feature is the key factor here - not all sites and monuments are of equal importance. Identification of importance may be based on legislative protection, local designation or professional judgement.

Potential Receptors

6.3.5 Potential cultural heritage receptors include:

- standing archaeological remains, including stone rows;
- any sub-surface features of potential archaeological interest;
- built heritage, including observation posts, farmsteads and range buildings, and
- areas of culturally significant landscape (most, if not all of the open moor)

6.3.6 Activities that could affect these receptors include:

- military activities such as vehicle movements, troops walking, bivouacking, digging, stock clearance and live firing;
- agricultural activity such as stock grazing and rubbing, and traffic movement
- public access, whether on foot, bicycle, horses or in off road vehicles;
- flora and fauna such as rabbits burrowing, scrub encroachment or roots
- water, rain and frost.

6.3.7 The Appraisal will only consider those activities which relate to military activities.

Effects Scoped-in in the Scoping Report

6.3.8 The following effects were scoped-in in the Scoping Report

- Effects, including the direct loss of, or damage, to historic structures or upstanding archaeological monuments within DTA, or effects on their setting resulting from the activities identified.
- Effects, including the direct loss of, or damage, to known buried or archaeological features, including earthworks, or effects on their settings from the possible use of stones from cairns or abandoned buildings as material for bivouacs.
- Effects on previously unknown archaeological features resulting from their loss, whether total or partial as a result of the above activities.
- Direct effects on the setting of archaeological sites
- Effects on the historic built estate within DTA from military activities.

Effects Subsequently Scoped-in to the Appraisal

6.3.9 Following consultation it has become apparent that consideration of the cultural heritage of DTA needs to adopt a more landscape-based approach. However, no further survey work is required to support this at this stage as sufficient information is held in the Devon

Historic Landscape Characterisation and the DNP Premier Archaeological Landscapes (PALs) designation. As a result, the following effects will be considered.

- Direct disturbance to areas of culturally significant landscape resulting from the military activities above.
- Direct disturbance of areas of historic landscape, notably land designated as PALs.
- The effects of agricultural practice and grazing patterns.

Effects Not Requiring Further Consideration

Effects Scoped-out in the Scoping Report

6.3.10 No effects were scoped-out in the Scoping Report but it was identified that both the EH and the Wessex Archaeology surveys clearly demonstrated that the current training regime on DTA poses little threat to the historic environment and that there is little evidence of current damage from military activities. However, to demonstrate that this is the case, information from the recent and previous surveys on the condition of monuments and the likely causes of damage have been considered in the EA.

Effects Subsequently Scoped-out of the Appraisal

6.3.11 No other effects have been scoped-out of the appraisal.

Information Gaps

6.3.12 An area as large and culturally significant and with many upstanding archaeological remains as Dartmoor has attracted a great deal of attention from early antiquarians to the present day. Extensive research was carried out for the baseline surveys that underpin the Scoping Report and for the historical overview presented in that document. While it was unrealistic to review all the studies completed about the archaeology of Dartmoor over the last 200 years, key sources were consulted, principal among these were the NMR, which includes EH data and DNPA HER. If further archaeological remains are identified, they will be incorporated into existing records.

6.3.13 DE is committed to repeat baseline surveys on the archaeological sites on DTA every five years. This revisiting of the baseline data will address gaps in the data concerning changes to both the condition of individual monuments and trends in overall monument condition.

6.3.14 There is currently no comprehensive survey of the military archaeology on Willsworthy where it is densest but there are plans to remedy this situation.

6.4 Environmental Management Measures

Measures Incorporated to Mitigate Potential Significant Effects

6.4.1 A variety of measures have been designed to mitigate the effects of military activities on cultural heritage features on DTA.

6.4.2 The DTA ILMP, developed with the Statutory Bodies, recognises as a strategic aim the protection of archaeology. Specific objectives have been agreed and an action plan set out. The ILMP sits within the wider EMS that establishes the environmental management of DTA, including issues of pollution and fire, as well as cultural and natural heritage. In addition, DTE SW SOs set out procedures in respect of archaeological sites. The importance and fragility of the archaeological heritage are underlined and reference is

made to the DTA maps, which show some upstanding SMs. The map is, particularly in the light of the EH survey, believed to be deficient but it is due for review in 2008/09. In addition, it is made clear to troops that these and other archaeological sites must not be disturbed or damaged. The proscriptions of the SOs can now also be supported and better enforced by the Training Area Marshals, who will support Comdt DTA in ensuring proper use of the DTA.

Site Mapping

6.4.3 DTA maps are produced by MoD and are available to authorised users. The maps have upstanding SMs marked on them with a blue cross; this convention is standard across the DTE. This mapping is important because, unlike some other training areas, there is no physical signage or palisading of monuments to draw the attention of users to sites that should be avoided. The map legend includes the symbol and refers troops to DTE SW SOs for clarification and further instruction. However not all significant sites or blocks of landscape may be marked. As has been noted above the maps are due for review.

Education

6.4.4 In order for troops to avoid damage to archaeological sites that are not physically marked on the ground they need to know what to look for. The cultural heritage of DTA is presented to troops in a variety of ways, including information posters visible in a number of locations around Okehampton and Willsworthy Camps, HQ DTA's information/briefing room and numerous copies of the DNPA Guide to the Archaeology of the Open Moor which are made available to allocated users. In addition, archaeology is listed as a resource available to training troops in the Outside Activities section of the DTE South-West User Guide. All exercising troops receive a brief which includes cultural heritage

Data Collection

6.4.5 In addition to the large scale EH baseline assessments described above there are a number of mechanisms designed to collect data about the cultural heritage:

6.4.6 SMs are subject to both external and internal scrutiny. Every 5 years DE has undertaken to either carry out or commission monument condition assessment designed to report on the condition of each monument. These surveys are carried out by heritage professionals. In addition MoD's Service Provider will monitor monument condition as part of their management regime for the estate. The results of such surveys, particularly the DE led condition assessments, are used to target resources and conservation efforts. The English Heritage Field Monument Warden also periodically visits all Scheduled sites in order to check on their condition and to advise on management.

6.4.7 In addition to scrutiny of SMs, both DE and MoD's Service Provider may have oversight of non-scheduled archaeological sites, in order to ensure their preservation. This is the case on DTA where Scheduled sites comprise only a small part of the resource.

6.4.8 An archaeological survey of Okehampton Camp was undertaken in 2003. This identifies buildings and earthworks within the Camp, ascribing interpretation and date to each one. This document is intended to assist Comdt DTA when issues arise relating to refurbishment or demolition and should ensure that the historical value of each structure is taken into account.

6.4.9 There is no formal mechanism for the assessment of wider historic landscapes. Such a methodology may be developed in partnership with the DNPA and other landowners in respect of PAL). The PAL designation is intended, in part, to be a management tool for the designated upland areas within the National Park (see above).

Monument Condition Reporting

- 6.4.10 DE is charged with annually reporting to the Secretary of State on the condition of SMs on the MoD Estate. This monitoring helps ensure adherence to the 1979 Ancient Monuments and Archaeological Areas Act. Monitoring also provides condition data that is one of the MoD's Key Performance Indicators for Sustainable Development and is reported in the MoD Biennial Heritage Conservation Report⁴⁰. Condition reporting has been a requirement since 2000 when it first appeared in the Estate Strategy⁴¹. The survey results can also be used to guide management work, such as scrub cutting to ensure the continued preservation of archaeological deposits.
- 6.4.11 In order to provide effective data on monument condition, extensive surveys of DTE's larger training areas have been undertaken. At DTA, DE worked in partnership with EH, which had begun a mapping programme across Dartmoor, to ensure effective recording of archaeological sites, including both SMs and other sites without statutory protection. This survey included physical description of the site with an assessment of the condition of each site. The areas comprising DTA were surveyed between 2001 (Willsworthy) and 2005 (Ringmoor). There is a commitment on behalf of DE to ensure that surveyed sites are subject to resurvey on a five yearly rolling programme. On DTA the survey work is being funded through the Rural Elements of the Estate Strategy (REES) budget which funds environmental works on the DTE. The re-survey of Willsworthy was undertaken during summer 2007. This revisiting of the baseline data will address gaps in the data concerning changes to both the condition of individual monuments and trends in overall monument condition. The results of the English Heritage surveys have been summarised in the Scoping Report and they indicate that in recent years little damage to archaeological sites can be directly attributed to the military activities undertaken on Dartmoor.

Signage

- 6.4.12 On some DTE sites archaeological sites are marked with signs, fences or palisades. Although this is a successful method of marking sensitive and fragile sites this approach has not been adopted on DTA for a number of reasons. The signs and palisades would add clutter to the landscape and both they and fencing would be incompatible with the open moorland of Dartmoor. This approach has been discussed and agreed with DNPA. In addition, while palisades are particularly useful in preventing vehicle incursions across sites this is not considered to be a potential source of monument damage on DTA.

Land Management

- 6.4.13 There are potential agricultural threats to the cultural heritage. However on land used under license from an external landlord the military user is responsible only for damage incurred during training. On MOD Freehold land the situation is more complex and it is the responsibility of MOD/DE and their tenants to take account of responsibilities toward the heritage resource.
- 6.4.14 On a local level stocking rates can be a problem for sites. Over-grazing, where stock levels are too high has long been identified as an issue, particularly where poaching occurs around feed rings or water troughs. Similarly animal behaviour can become an issue, particularly where monuments, such as standing stones, are utilised for rubbing.

⁴⁰ This document sets out historic environment data for the Defence Estate, including monument condition and listed building condition.

⁴¹ "The Defence Estate Strategy 2006: In Trust and On Trust" is a document providing a single focus for the strategic development of Defence Estates. It replaces the 2000 strategy.

Over stocking will also almost certainly lead to erosion of earthworks as animals cross them, creating tracks or shelter in hollows, creating poaching leading to scarring. Stock levels and the condition of archaeological sites and their immediate settings should be monitored to ensure problems do not arise. Where problems are identified these can be dealt with between DE staff and the tenant. Any necessary remedial work should be undertaken as soon as possible after damage is notified to prevent a worsening situation developing.

- 6.4.15 Undergrazing is also an issue that must be addressed. Without adequate grazing the open moor will see natural succession to scrub and eventually to woodland. In addition to damage to sites from roots, scrub and young trees will provide cover for rabbits and, in time, badgers, whose burrows can seriously compromise the archaeological integrity of a site. Before the succession of woody species the ingress of bracken with its highly disruptive root systems can also be anticipated. Finally the landscape effect of such profound landscape change cannot be underestimated as it would alter a view relatively unchanged in over a thousand years. It would also alter the landscape setting of monuments and has the potential to obscure sites, particularly the extensive industrial sites, such as metal extraction complexes.
- 6.4.16 There is no easy remedy to the issue of under-grazing as it may be driven by external forces, including the economics of upland agriculture, epidemic and even by climate change. Wherever possible sustainable land management practices should continue to be employed and appropriate stocking levels agreed.

Access

- 6.4.17 Informal public access cannot be so easily managed and it is perhaps inevitable that some damage from vehicles, horses or walkers will always occur. DTA staff assist DNPA archaeologists and Rangers with monitoring historical sites, assessing risk and preventing damage.

Summary of mitigation

- 6.4.18 In summary, the following measures are currently implemented as part of the management of military training:
- maintaining monuments in good condition;
 - alerting and educating troops to the presence of archaeological sites and their fragility;
 - ensuring training takes account of the cultural heritage by implementing no dig areas, out of bounds areas and prevention of inappropriate use of sites;
 - Effective Monument Condition survey programme on 5 yearly resurvey programme;
 - targeted management of archaeological sites;
 - ensuring appropriate grazing levels;
 - prevention of erosion of sites by troops on foot or in vehicles;
 - prevention of damage to archaeological sites from firing;
 - ensuring appropriate mapping of archaeological sites;
 - prevention of use of archaeological sites as bivouacs; and
 - prevention of monument damage by general public.

6.4.19 The following additional measures have also been identified:

- promotion of appropriate management of PALs in partnership with statutory bodies and stakeholders;
- identification and protection of elements of military heritage on Willsworthy;
- responding to changes in heritage protection; and
- production of cultural heritage sensitivity map to assist with management of MoD's responsibilities and briefing allocated user.

6.5 Assessment of Potential Effects

Data Collection and Survey Work

- 6.5.1 The principal data source for the EA is the EH baseline survey of DTA, which has involved the collation of surveys undertaken across DTA over a number of years, including the Monument Condition Surveys intended to set baselines for the quinquennial programme of resurvey and reporting on archaeological monuments on the defence estate. The first quinquennial monument condition survey review of Willsworthy is taking place during 2007. These surveys present data from the National Monuments Record and the Dartmoor National Park Historic Environment Record. Supplementary information was obtained from local independent archaeologists.
- 6.5.2 Since 2001 EH has been undertaking surveys across DTA as part of a wider survey of the whole of Dartmoor. These Archaeological Baseline Condition Surveys include data on a range of sites, both Scheduled and sites not under legislative protection, gathered from the DNP Sites and Monuments Record and, where appropriate, EH records, including Field Monument Warden reports. Each site was then visited and its dimensions and condition recorded and its location mapped. Although the brief of the project was not to specifically seek out new sites a number of these were encountered during fieldwork and were duly recorded. These surveys comprise monument condition baseline surveys and were undertaken in order to gather information in support of the Biennial Stewardship Report, which is prepared by DE in order to document the condition of the estate. Okehampton (2004), Ringmoor (2005), Merrivale (2004) and Willsworthy (2001) were surveyed by EH with a partial survey of Cramber in 2002. A full EH survey of Cramber Tor was completed in 2006. These surveys will be repeated on a five year programme and the first, which is of Willsworthy Training Area, was undertaken in August 2007. Both original data and subsequent surveys are recorded on a Monument Condition recording form, the form of which has been agreed between DE and the national heritage bodies of the UK. Repeated use of the form provides comparable data across the defence estate over time and space.
- 6.5.3 The baseline surveys described here include all known features. New features identified during further surveys and condition assessment exercises will be added to the database of archaeological sites and will be included in further surveys.

Current Conditions

- 6.5.4 The conclusion drawn from the surveys of is that the heritage in the care of DE on DTA is well managed. As was stated in the Scoping Report it is the opinion of EH staff involved in the original surveys that the general condition of archaeological sites and monuments within DTA was good.

- 6.5.5 While the EH reports do not directly seek to attribute damage there are examples of erosion presented and some comments made in each report about the likely source of that damage. It is evident from the surveys that in the past military activities were not undertaken on a sustainable basis and that damage to monuments, whilst not a regular occurrence did occur. In recent years, management measures have been implemented (see below) and the net result has been a marked diminution in incidences of attributable military damage to monuments. These initiatives have included raising awareness of the historic environment with users and management of vehicle use. These measures have brought about an improvement in the situation on the ground and, as a result in the condition of monuments on DTA. For example, the EH view of the Willsworthy area was that "*...the MoD now presides over a mostly stable archaeological landscape*". Furthermore, this survey noted that, monument damage, where recorded, was, for the most part, considered the fault of visitors and stock, rather than the military. In this area, some boundary stones have been used for rubbing by stock and were becoming undermined as a result. Where there is damage, it is vital that further study and interpretation of the data is continually carried out so that damage can be properly attributed and further steps taken to prevent it.

Okehampton

- 6.5.6 The Okehampton survey reported that no instances of military damage had been recorded and that visitor damage appeared to pose a more serious threat to the archaeological resource. In the Okehampton area the Wessex Archaeology survey suggests that there is little cause for concern in terms of damage to archaeological remains from military activities.

Willsworthy

- 6.5.7 In respect of military remains EH believes Willsworthy to have a nationally important assemblage of military archaeology going back over a century and more. A survey of the military remains in this area is planned in order to document and ascribe value to this significant archaeological component to the landscape in the Willsworthy area. It is probable that, as on other DTE sites, that some of these military remains will be candidates for protection through Scheduling legislation.
- 6.5.8 Although the formal results of the Willsworthy re-survey have not yet been received informal comment from the contractor is that the condition of monuments has improved since 2001.

Merrivale

- 6.5.9 Merrivale presents the most concern of the areas surveyed. EH has made a targeted recommendation concerning the exclusion of troops and vehicles from specific monuments. This has been made a priority and is being addressed as part of training management. However, in general Merrivale is said to possess 'a largely stable heritage resource'. Although some erosion has been identified in this area it is felt to relate principally to stocking levels and is, as such, not the direct responsibility of DE/DTA. Both DTA and the landowner have been alerted to their responsibilities and DNPA have seen copies of the reports. These reports will form the basis for further remedial and management works.

Cramber

- 6.5.10 The Cramber report also identifies a stable environment with monuments mostly in either fair or good condition. Such damage as was recorded is primarily the result of stock but again some erosion is the result of visitors.

Ringmoor

6.5.11 Ringmoor has the densest concentration of archaeological remains on DTA. The Ringmoor report describes the majority of monuments as stable and in comparable condition to similar sites elsewhere across Dartmoor and beyond DTA. No recent military digging has been reported. A small number of monuments were noted as causes of concern but their situation appears relatively easily remedied and in at least one case is again the result of visitor erosion.

Significance Evaluation Methodology

Overview

6.5.12 The evaluation of significant effects on a particular cultural heritage asset depends on a combination of the importance or value of the feature in question and the likely scale of change attendant upon the particular event.

Sensitivity or Value

6.5.13 Although the Scheduled or Listed status of an archaeological site or historic building may be seen as an indicator of national importance it should be noted that due to on-going programmes of designation and restrictions on designation imposed by the heritage protection legislation not all nationally important sites are protected by heritage protection legislation. In addition there is, as yet, no adequate legislation to protect large areas of landscape deemed to have cultural heritage sensitivity. However DNPA and other stakeholders, including EH, have established the PALs designation (See above in **Paragraph 6.3.9**) to denote significant areas of historic landscape.

Sites of National Importance

6.5.14 SM are of national importance and should be preserved in situ within an appropriate setting. Other sites deemed to be of national importance are those which fulfil the criteria for Scheduling, as set out in the EH criteria for protection under the appropriate legislation, which are based on survival, rarity, documented information and value within a class of monuments and within a group of sites in a specific area.⁴²

Sites of Regional or Local Importance

6.5.15 Sites either not warranting protection through scheduling or not suitable for legislative protection may still have a local or regional significance.

6.5.16 Some areas of DNP, including areas within DTA have recently been designated as PALS (see above in **Paragraph 6.3.9**). Although this designation carries no legislative force it underlines the particular importance and sensitivity of certain parts of the landscape. This designation is helpful because Scheduled status is neither an appropriate nor effective method for the preservation of blocks of landscape and a local notification can serve to highlight their importance. The existence of PALs reinforces comments made by all stakeholders that the significance of Dartmoor as a cultural heritage asset must be considered at landscape level, rather than at the level of individual monuments. The PALs designation seeks to highlight the significance of parts of the moor. Currently no formal mechanism for designation as a PAL exists, reflecting the more intuitive and collaborative approach to designation so it cannot be presented here.

⁴² <http://www.english-heritage.org.uk/server/show/conWebDoc.2436>

6.5.17 There is no formal protection for landscape on cultural heritage/historic environment grounds so local designations like this have a value, albeit limited, in protecting the heritage. Were historic features or deposits to be affected by development they would be protected under the remit of PPG16 but outside this framework there is no formal protection beyond Scheduled status. Other designations, such as PAL are merely advisory.

Non-Statutory Registers

6.5.18 EH maintains non-statutory registers of both historic Parks and Gardens and of Battlefields but no part of DTA is included on either register. As has been noted above DNP has recently designated a non-statutory list of PALs that includes some of the land within DTA.

Other Sites

6.5.19 The assessment of importance of those sites not carrying a designation is a matter of professional judgement. Such assessments may draw on a number of factors, including: condition, period, rarity, historical and archaeological documentation and association with other sites either by monument class or period. Non-designated sites may be considered as largely being of regional or local importance but as noted above not everything of national importance has been subject to designation; military remains are particularly well-represented in this respect as their importance has only lately been recognised.

Assessment of Effects and Evaluation of Significance

6.5.20 The magnitude of effect on a particular cultural heritage asset is crucial to the evaluation process of the significance of any effect. Magnitude is here defined as the extent to which any effect changes or damages the key characteristics of the asset. For example the loss of part of a Stone Row would significantly compromise its integrity and intrinsic value, as well as its contribution to the wider landscape character. By contrast the unavoidable loss of a section of medieval field boundary need not have such a significant effect, provided that there was adequate recording as well as sufficient portions of the feature remained to ensure it retained its intrinsic value and contribution to the wider character of the landscape.

6.5.21 The setting of a monument may also be significantly affected by activities or developments not otherwise harmful to an individual site or monument. This is of particular importance in an area such as DTA where, as has already been noted, the importance of individual sites is more than enhanced by the landscape of which they are a part.

Effects on Historic Structures or Upstanding Archaeological Monuments

6.5.22 It is considered that effects on historic structures or upstanding archaeological monuments, in (including the setting of such features) from erosion resulting from vehicle and troops (on foot) movements as well as from overgrazing are not significant. This opinion is based on the EH surveys which are discussed above and which show that where there is damage and erosion it is limited in scale and that, more importantly, the wider areas are well managed.

Effects on Known Buried or Archaeological Features

6.5.23 Effects, including the direct loss of, or damage, to known buried or archaeological features, including earthworks, or effects on their settings from military activities such as disturbance from military digging, the creation of bivouac sites and the effects of ammunition are not significant. Currently there are no reports of damage to monuments

through digging. Bivouac sites have been an issue in the past but the education programme seems to have reduced the incidence of improper use of archaeological sites. No reports of damage through the use of archaeological sites as targets have been received in recent years.

Effects on Previously Unknown Archaeological Features

6.5.24 Effects on previously unknown archaeological features resulting from their loss, whether total or partial as a result of disturbance from military digging, the creation of bivouac sites and the effects of ammunition are also considered not significant. The EH surveys did identify some new sites and other archaeologists working on DTA/DNP have also reported previously unknown archaeological remains. So far none has been reported as suffering damage. Elsewhere on the DTE troops do occasionally report findings made during exercises but there have been no such reports from DTA.

Effects on the Setting of Archaeological Sites

6.5.25 Military training is not having a significant effect on the setting of archaeological sites. The EH reports do not comment adversely on the setting on monuments, nor has the DNPA Archaeologist raised this as an issue. Military training is not having a significant effect on the historic built estate within DTA. In part this is because to date not enough attention has been paid to the historic buildings but this situation is being remedied. Where building surveys have been undertaken, such as in the Okehampton Camp, the results are being used to ascribe value to buildings and to guide their management.

Effects on the Historic Landscape

6.5.26 It is considered that there are significant effects on the historic landscape as a result of undergrazing but this is a process being driven by external forces affecting UK agriculture. However military training activities are not having a significant effect on historic landscape. Despite occasional incidents where vehicle tracks leave temporary marks in the landscape, these recover quickly and leave no lasting trace. Indeed, this process is part of a millennia long process of activity on and access to the moor by a variety of users, including the military.

6.6 Summary of Significance Evaluation

6.6.1 As described in the preceding section military training is considered to be having few significant effects

6.6.2 Although there are a number of potentially significant effects that could affect receptors, the current evaluation, principally underpinned by the monument condition surveys, is that at current levels military training is having little discernible effect on the cultural heritage of DTA. In some cases, erosion that may be the result of military vehicles or foot passage cannot be proved and may equally be the result of public access or agricultural activities. Agriculture does, in many ways, give the greatest cause for concern in that there is erosion attributable to animals on some sites. However, the recent Willsworthy survey seems to suggest that this situation has improved. Conversely, the potential for undergrazing to have a significant effect on the cultural heritage is recognised.

Table 6.2 Summary of Significant Effects: Cultural Heritage

Receptor and summary of predicted effects	Type of effect ¹	Significance ²	
Historic structures and upstanding archaeological monuments: Effects from erosion resulting from vehicles, troop movements on foot and overgrazing.	-ve	NS	The EH surveys show that where there is damage and erosion it is limited in scale and that, more importantly, the wider areas are well managed
Known buried or archaeological features: Direct and indirect effects from military digging, the creation of bivouac sites and the effects of ammunition.	-ve	NS	There are no recent reports of damage from these activities.
Previously unknown archaeological features: Direct effects (loss or damage) from digging, creation of bivouac sites and ammunition.	-ve	NS	There have been no reports of damaged to recently discovered sites and remains.
Archaeological sites: Indirect effects on setting from military training	-ve	NS	EH Reports have not identified any adverse effects on the setting of such features.
Historic Landscape Character: Effects from the presence of military activities	-ve	NS	It is considered that military training does not leave a lasting trace on the historic landscape.
Key/footnotes:			
1.Type of effect	-ve = negative + ve = positive N = Neutral ? = unknown	2.	S Significant or NS Not-significant