



DARTMOOR TRAINING AREA

Environmental Appraisal

Addendum Report



DEFENCE ESTATES
Delivering Estate Solutions to Defence Needs

January 2008

Report for

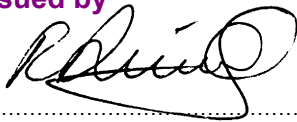
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DARTMOOR TRAINING AREA

Environmental Appraisal

Introduction

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1. Introduction

1.1 Background

- 1.1.1 The Ministry of Defence (MOD) uses land within Dartmoor National Park (DNP), known as the Dartmoor Training Area (DTA), for military training. Much of the land upon which the MOD trains is privately owned and training is undertaken under license from landowners including the Duchy of Cornwall. This license expires in 2012.
- 1.1.2 As part of the re-negotiation of the license, the Secretaries of State for Defence and for Environment, Food and Rural Affairs (DEFRA) require confirmation that:
- there is a clear military need for military training on Dartmoor; and
 - the management of DTA for military activities will continue to be sensitive to environmental, farming and public access issues and is thus sustainable in the long term.
- 1.1.3 An Environmental Appraisal (EA) was produced in October 2007 in support of the re-negotiation of the license. The EA sought to appraise the environmental effects of military training and identify measures required to manage any adverse effects so as to avoid or minimise them. The MOD has a comprehensive set of measures in place to control the effects of military training and these were taken into account in the appraisal.

1.2 Approach and purpose

- 1.2.1 As the EA followed a similar process to that of an Environmental Impact Assessment (EIA) as set out under the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999* (hereinafter referred to as the 'EIA Regulations'), the EA was issued to various stakeholders and publicised through the DTA website. This was done so that consultation on the EA could take place, as would be done by a local planning authority (LPA) when it receives a planning application accompanied by an Environmental Statement (ES).
- 1.2.2 The addendum report provides a response to the comments raised by stakeholders through the consultation process, where it is considered a response is required. Where relevant, the report also incorporates information unavailable at the time of the EA publication and in this respect updates the findings of the October 2007 report, as would be required at the request of a local planning authority.
- 1.2.3 Responses to technical subject areas have been provided by the technical lead in specific case, as follows:
- Military Training Need and Definition: **Defence Training Estates**
 - Training Facilities and Activities, Dartmoor Land Use: **Headquarters Dartmoor Training Area**
 - Cultural Heritage, Nature Conservation, Public Access and Recreation: **Defence Estates Environmental Support Team**

- Air Quality, Landscape and Visual effects, Noise, Socio-economics, Geology and Groundwater, Surface Water: **Entec UK Ltd**

- 1.2.4 The comments received from stakeholders have been divided by topic and a response provided under the relevant chapter. The original comment is shown in italics and the response is outlined below the relevant comment.
- 1.2.5 No comments were received in relation to the traffic and transport chapter of the EA and therefore there is no chapter relating to this topic.
- 1.2.6 The EA report and the addendum report will be presented to the Dartmoor Steering Group (DSG) in January 2008 for their consideration and comment prior to submission to the Secretaries of State for Defence and Environment.

1.3 Aim of the Appraisal

- 1.3.1 The aim of the EA was listed in the Scoping Report (SR) at paragraph 1.1.8. The aim is to describe the likely significant environmental effects of continuing military activities beyond 2012 and evaluate their significance using defined criteria. The findings will be used to identify whether any management measures, in addition to those already in place, are required in DTA in order to further mitigate any residual environmental effects of military activities.
- 1.3.2 The SR also states at paragraph 1.1.5 that the focus of the EA will be the continuation of light force training beyond 2012 within the existing boundaries of DTA. The Appraisal will be based on the premise of no increase in levels of military activity, or change to the number of live firing days currently (2006) permitted. The level of military activity considered in the EA will be similar to that which will occur when there are low levels of overseas deployment, as this is the steady state required to meet the training need. Consultation

1.4 Consultation Response

- 1.4.1 A number of issues have been raised in responses to the EA report which were not included by stakeholders in either the SR or by participation in the Working Group (WG) process. Where further work is required the MOD will continue to take these matters forward through additional work, through the Environmental Management System (EMS) and Integrated Land Management Plan (ILMP), and will use the mechanism of the Dartmoor Working Party (DWP) to report where necessary.
- 1.4.2 Consultation responses have been received from the following stakeholders:
- Council for National Parks (CNP) ;
 - Dartmoor Commoners Council (DCC);
 - Dartmoor National Park Authority (DNPA);
 - Dartmoor Preservation Association (DPA);
 - Devon County Council;
 - The Dartmoor Society(DS);
 - The Environment Agency (EA);

- Natural England (NE);
- Open Spaces Society (OSS);
- Ramblers Association(RA); and
- Ramblers Association (Devon Area) (RA DA).

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DARTMOOR TRAINING AREA

Environmental Appraisal

Introductory Chapters

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2. Introductory Chapters

2.1 Introduction

- 2.1.1 Comments in relation to the introductory chapters in the EA Report were raised by CNP, DNPA, DS, NE, OSS and RA DA. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by HQ DTE.

2.2 CNP

General comments: There is an issue as to who acts as the 'responsible authority' in terms of evaluating the environmental information presented in the draft EA to determine that it is sound and before any decision is taken regarding a potential licence renewal. This is in need of urgent clarification.

- 2.2.1 As stated in paragraph 1.2.11 of the SR, the DSG will act in a similar way to a planning authority and/or an inspector at a planning enquiry. The DSG will assess the adequacy of the EA and make recommendations to the Secretaries of State for Defence and Environment.

Live Firing Training

CNP disagrees with the statement that "if all the suggested alterations were made to the firing calendar it would be impossible for the MOD to maintain a viable firing programme and therefore it has been concluded that the current calendar represents the best compromise" (page vii). As data in this report highlights, the disparity between permitted and actual use of land for live firing training is about 50% (pages 15 and 16) which shows that there is clearly sufficient opportunity to alter the live firing calendar without causing any major disruption to the training programme.

CNP proposes that the assessment of the potential for reducing the number of days allowed for live firing is misinformed and contradicts data presented within this EA itself. The statement that "all UK sites are running at or near full capacity" is ill-founded as the tables on pages 15 and 16 of this report illustrate. As mentioned above, a 50% disparity between the permitted and actual use of live firing days on Dartmoor is just one opportunity to increase the number of public access days significantly without any adverse affect on the amount of live firing training taking place.

- 2.2.2 Table 11.9 in the EA shows the different requests from various stakeholders regarding amendments to the live firing calendar. As discussed at paragraph 11.5.38, incorporating all of the suggestions from stakeholders would lead to a vast reduction in the utility of the range, reduce military output to an unacceptable level and result in the MOD being unable to maintain viable Live Fire ranges in the existing number of firing days. The SR makes it quite clear that the EA is appraising the effect of current usage, paragraph 1.1.5 states: "The Appraisal will be based on the premise of no change to the number of live firing days currently (2006) permitted" The question of permitted use and actual use is constantly monitored by the DSG and the reasons for variations are presented in their annual report.

- 2.2.3 The statement that “*all UK sites are running at or near full capacity*” is not ill founded as Fig 2.3, 2.4 and 2.5 on pages 15 and 16 of the EA refer to ranges associated with DTA and not ranges throughout UK. Information on range usage throughout UK is contained in *The Need for Military Training in DTE SW* dated 24 August 2007, paragraph 3.13 to 3.45 which gives details of annual usage on all major DTE UK sites, which are running at or near full capacity. This document is available on the DTA website.

Environmental Impact Assessment (EIA) Circular 12/96 states that no new, renewed or intensified use of land should take place without an EIA. Assurances should be given now that there will be a full EIA across the whole of the Dartmoor Training Area which is proposed for renewed training beyond 2012 to inform the decision making process.

- 2.2.4 The licence between the Secretary of State for Defence and the Duchy of Cornwall is a private contractual arrangement that is being renewed; in that the parties to the licence are on course to re-negotiate an extension to the period of its validity. However, this does not amount to a renewal of the use of the land in accordance with Circular 12/96. For 12/96 to be engaged the renewal should amount to a resumption of the use of a National Park after an interruption or pause, which is not the case in respect of military training on Dartmoor.

Potential alternative training areas: CNP is concerned by the limited scope of investigation for alternative land for military training in the South West, which has been limited to existing training areas only. Not only does CNP consider that a study into finding alternative areas should go beyond the scope of existing land used for military training, we also recommend that any such examination should not be limited geographically as it appears to have been in this report. An independent review into military training in National Parks would be needed to determine whether alternative training areas outside of National Parks are available.

- 2.2.5 Whilst it is recognised that the consideration of alternatives is regarded as good practice, it should be noted that the EIA Regulations only require an Environmental Statement (ES) to include “*an outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice*”. Hence, if no alternatives have been considered or in this case, identified, an ES can still be considered to be compliant with the Regulations. Furthermore, it should be noted that the consideration of alternatives does not just apply to the consideration of alternative training locations but also to the consideration of alternative training methods. As part of the appraisal of public access effects, consideration has been given to alternative ways of organising training with the potential to increasing public access, for example, by altering firing templates, increasing the notice regarding live firing or increasing the number of days that access is possible to the range danger areas.
- 2.2.6 Chapter 3 of the EA outlines information from an independent study which looked into the need for military training on DTA, and in the process of addressing this need considered alternative sites. This study did not identify any suitable sites in the south west. None of the available sites offer the extent of training area which is available at DTA. This extent of training area is required in order to undertake the type of training which is completed at DTA. Furthermore, re-locating training to several smaller sites would increase the environmental effects from military training particularly in relation to transport and air quality and noise effects from road traffic. Additional studies into military need did consider the availability of land for training across the UK. This study is available from the DTA website [http://www.dartmoor-ranges.co.uk/environmental_assessment_1.html]. Please see paragraph 3.54 and Annex G of this study for further information regarding this issue.

2.3 DNPA

Assessing Significance

The draft EA does not detail how National Park designation was weighted in the assessment of significance. Circular 02/99 states that the relationship between a proposed development and its location is a crucial consideration. For any given development proposal, the more environmentally sensitive the location, the more likely that the effects will be significant...” (para. 36). The same applies to land notified as a Site of Special Scientific (SSSI) or confirmed as a Special Area of Conservation (SAC). For example, we are concerned that the assessment of significance in relation to nature conservation does not pay appropriate regard to Regulation 48(1) of the Habitats Regulations.

- 2.3.1 The assessment of significance focused on those receptors that have the potential to experience likely significant environmental effects from military training. The National Park, as a receptor, is considered to be particularly sensitive in terms of landscape, cultural heritage, nature conservation and access effects. The nationally and internationally important nature conservation sites are also considered to potentially sensitive receptors in terms of ecology effects. This sensitivity has been taken into account in EA topic area appraisals of significance. This has been done by combining the magnitude of environmental effect and the sensitivity of receptor to determine likely significance.
- 2.3.2 The categories of effects in terms of landscape effects are outlined in Table A7.3a in Appendix 7, Volume 2. The information in this table indicates that the landscape is considered to be of high sensitivity because of the designation of the area as a National Park. This sensitivity has been considered in combination with the magnitude of change to determine the significance of effects.
- 2.3.3 It would have not been possible to assess any of the access effects without taking into account that the fact that the area sits within a National Park. The scale of the assessment of access effects would have been far less had the area been outside of a National Park and it is possible that this appraisal would have been unnecessary. The fact that DNPA was an integral member of the Public Access Working Group (PA WG) surely demonstrates that the status was taken into consideration.
- 2.3.4 The nationally and internationally important nature conservation designations were taken into account as part of the significance evaluation criteria set out in paragraph 9.5.33 of the EA.
- 2.3.5 Under the Conservation Regulations 1994, Regulation 50(1) there is the mechanism to review consents; ...*‘the authority shall as soon as reasonably practicable, review their decision’*. Although the DNPA is technically not the competent authority regarding training the MOD would have honoured the spirit of the Conservation Regulations 1994 as laid out in its ‘Declaration of Intent’ with English Nature and it’s successor body (NE). The MOD has clarified its need for the use of Dartmoor and if there were outstanding issues, DNPA should have raised this either during consultation on the SR or during subsequent WG meetings.
- 2.3.6 The MOD are not proposing a new ‘plan or project’ as set out under Regulation 48(1) of the Conservation (Natural Habitats, & c.) Regulations 1994. MOD does not accept that its training has changed such that its activities are now negatively affecting the favourable conservation status of Dartmoor. All condition assessment work undertaken by Natural England has identified agricultural land use issues as being the concern for whether the component units are favourable or not.

- 2.3.7 MOD works closely with Dartmoor National Park and Natural England (and its predecessor organisations), has had an ongoing dialogue over issues of concern and has undertaken appropriate research into these areas.
- 2.3.8 When the Conservation Regulations were introduced English Nature assured MOD that existing activities would not be affected.

Assessment of significance will vary with time: what might be deemed low impact and therefore not significant today could, with improved knowledge, be found to be significant in the near future. Also, impact will be associated the level of use but there is little data on the number of personnel likely to be using the Dartmoor Training Area, the maximum number of large-scale exercises envisaged and the extent to which new training practices might be introduced. These issues should be considered in more detail in the EA and needs to be considered in terms of the time period for any new licence, ongoing monitoring arrangements and potential for mandatory review.

- 2.3.9 The EA already declares that new practices and equipment are scoped out and will be dealt with through the statutory processes prior to the introduction of new practices and equipment. The requirement for this is set out under the Estate Strategy 2000 and under the existing monitoring strategy which is reviewed through the DSG. The EMS ensures that if effects from military activities are bringing about a change in the environment then the monitoring process would ensure that such changes are investigated and mitigated.
- 2.3.10 If MOD propose changes which could be considered a 'plan or project' it will be determined whether or not these will be likely to have a significant effect on a European site, and if so an Appropriate Assessment will be carried out. This is consistent with MOD's 'Declaration of Intent' with Natural England. However MOD is not proposing any new plans or projects. Whilst it is clear from the available data that, for a variety of operational reasons, the MOD is currently utilising Dartmoor at below the capacity for which a license is held, it is not proposing to increase training above that for which they are licensed.

It would appear that no attempt was made to reach a view on the carrying capacity of the Dartmoor Training Area as suggested in our response to the Scoping Study.

- 2.3.11 EA has demonstrated that there are few significant effects as a result of military activities and therefore that such activities are within the carrying capacity of DTA. The EA has demonstrated that that training is sustainable and therefore within the carrying capacity of DTA. The intention is not to increase above the permitted level of training and therefore the carrying capacity of DTA will not be exceeded

Assessment of Options: Consideration of alternatives is widely regarded as good practice, and resulting in a more robust Environmental Statement. Guidance on EIA indicates the environmental merits of practicable alternatives should be properly considered.¹ The draft EA does not set out any clear appraisal of options in terms of type and intensity of military use, it concentrates on assessing the impact of the 'status quo'. We would expect the appraisal to examine in detail scenarios pertaining to different levels and type of military activity and then to examine the associated impacts and potential public benefits.

- 2.3.12 Please refer to the response set out under paragraphs 2.2.5 and 2.2.6 and section 1.3 of this report.

Monitoring: There is a lack of detail on future monitoring arrangements. There would be merit in developing a clearer monitoring strategy which detailed the information required, method of collection, frequency and associated costs. Once implemented this would provide a more robust basis for future appraisals and assist the Dartmoor Steering Group in its remit.

- 2.3.13 MOD has a clear commitment to data collection and interpretation to monitor the effects of its activities and its landowners' responsibilities on its freehold land at Willsworthy. Furthermore, it is evident from the Appraisal that there are monitoring measures currently in place, which will continue in the future (see for example Table 2.6, paragraphs 6.4.5 to 6.4.9, 6.4.10/11 and 11.4.3 in the EA).
- 2.3.14 At MOD level the Defence Estate Strategy 2006 prioritises "Measure and report performance in an open and transparent way". Performance is reported annually in the Stewardship Report. Copies of these documents are available at: www.defence-estates.mod.uk/publications/corporate/corporate
- 2.3.15 At local level monitoring is regarded as an important part of MOD's sound management of its responsibilities. DTA's Environmental Management System Version 2.2, published at www.dartmoor-ranges.co.uk/military_use_2_ems, sets out at Annex F the environmental measurement process that has been consulted and agreed with statutory body stakeholders. This is a dynamic document that sets out the purpose and methodology, emphasising the need for joint working. This is exemplified by the close relationships that have resulted in setting the objectives of the bird survey 2006, the NVC 2005/2006 and the cultural heritage surveys over the past 5 years. The processes that have been adopted also reflect the joint approach to data collection allowing either a collective or individual interpretation of the data.
- 2.3.16 As a result of the EA, the EMS will require updating to include any new commitments:

2.4 DS

Figure 2.1 Land Ownership Plan – the colours for the Defence Estates Freehold and Public Trust are too similar. Willsworthy is a Defence Estates Freehold but is coloured differently to the Key colour for that category.

- 2.4.1 This comment has been noted.

12.5.43 and 12.5.4: For the record, the date (2001) of the foot and mouth outbreak, should be stated here.

14.7.1:5 Meldon treatment works is properly called Prewley Water Treatment Works.

- 2.4.2 This comment has been noted.

2.5 NE

Unfortunately, we cannot endorse the EA as it stands, for two reasons. Firstly, there is minimal appraisal of options other than the 'status quo' of continuing to train with the same frequency and intensity as permitted under the present licence. MOD has undertaken the equivalent of an Environmental Impact Assessment (EIA) and it is best practice that the environmental merits of alternatives are considered as part of the process. For example, in relation to public access to Tavy Cleave, only two options are considered ('status quo' versus full public access) but there is at least a third option of a partial increase in public access.

- 2.5.1 The need for the continuation of permitted levels of training was justified by the "Military Needs Paper" and given as the aim of the EA. The SR consultation revealed no dissent from this aim.
- 2.5.2 The SR notes at paragraph 2.4.1 that the Options Paper (RPS 2006) concluded that while there might be some potential to improve the efficient use of DTA for military training, which could lead to improved public access, there were significant safety issues that needed to be addressed. Further risk appraisal studies would therefore be required before such changes could be introduced. These will form part of the EA. Thus, the EA was only required to include risk assessment of public access options.

The second problem is that a quantitative analysis of military impacts is absent in several sections of the EA. This is particularly acute in relation to impacts on the Dartmoor Special Area of Conservation. The Habitats Regulations set out a clear process for assessing significance and case law indicates that even very small damage to these internationally important wildlife sites is regarded as significant

- 2.5.3 The requirement for greater quantitative analysis was not identified by WG Subject Matter Experts (SMEs). The objective was to look at processes and not detail. The MOD will continue to train as agreed and issues of digging-in and effects of mortar usage would not intrinsically change. The details of assessing these impacts and monitoring would be a function of the ILMP. Please also comments at paragraph 2.2.1 of this report.

We would welcome a clear commitment to a monitoring programme that will collect data to address some of the shortfalls that we have highlighted above.

- 2.5.4 See comments on monitoring at paragraphs 2.3.13 to 2.3.16 of this report.

2.6 OSS

Military Road: These are not considered in the EA but they are extremely damaging with far-reaching effects.

- 2.6.1 The Loop Road is scoped out of the EA and the reasoning is included in the EA at 11.3.10. Access restrictions and the condition of the Loop Road have not been assessed as it is owned by the Duchy of Cornwall and therefore any decision over its future needs to be taken by the Duchy. A working group has been formed by the Duchy, with representation from DNPA and MOD to examine the future of the Loop Road. This group is not part of the EA process
- 2.6.2 Military use of other tracks on Dartmoor has been reduced to a bare minimum; those in use are required to assist with command and control, the setting up of the range, with

logistic movement, with casualty evacuation and with helping to ensure the safety of the general public.

2.7 RA DA

Comment Number 2: “You will therefore well understand our concern and disquiet that all of the potential improvements that we and others sought or were at least prepared to discuss and develop further with Defence Estates have been dismissed in the Environmental Appraisal. Not least this serves to reinforce any opinion that Defence Estates cannot be judge and jury over its supposed continuing need for use of Dartmoor Training Area and any meaningful and equitable consideration of such use can only be carried out by a truly independent process”.

- 2.7.1 The use of the term dismissed is misleading; all the elements raised by RA DA have been considered in the EA. If elements have not been accommodated then the reasons for this are explained in the EA report.

Comment Number 3 (Current Usage page 15 paragraph 2.3.30)

We note that the actual days usage for the Okehampton range has been significantly lower than the available days in each of the years quoted in the graph. We welcome this under utilisation and are minded to state that, if Yes Tor and High Willhays cannot be removed from the range then at least there is every justification for the number of days available to be reduced to a figure of about 60 days per year. Such figure adequately accommodates the actual usage in recent years. The reduced quota of 60 days per year should then be allotted across the period 1 October to 31 March, (except Christmas / New Year and Easter) when public usage is generally less.

- 2.7.2 Please see the response to CNP comment at paragraphs 2.2.2 and 2.2.3 of this report.

Comment Number 4 (Current Usage Page 15, 16 paragraph 2.3.3 1 and 2.3.32): Similar to comment 3 above, the actual usage of the Willsworthy and Merrivale ranges suggests to us that the ‘Available for use days’ can be reduced in each case to a figure that approximates more closely to the actual days used. (i.e. Willsworthy 150 available days, Merrivale 80 available days)

- 2.7.3 Please see the response to CNP comment at paragraphs 2.2.2 and 2.2.3 of this report.

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DARTMOOR TRAINING AREA

Environmental Appraisal

Air Quality

3

3. Air Quality

3.1 Introduction

- 3.1.1 Comments in relation to air quality were raised by the DNPA and NE. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Rachel Dimmick, Entec and Lt Col (Retd) Tony Clark, MOD/DE.

3.2 DNPA

Whilst accepting that the use of Dartmoor Training Area is unlikely to create a significant impact on air quality, the EA should have looked at the wider issue of reducing greenhouse gas emissions associated with the use of the Training Area.

- 3.2.1 The purpose of the EA was to consider the effects from military activities on air quality. The appraisal has shown that military activities are not having a significant effect on air quality, and furthermore, there are measures in place, implemented through the EMS, which aim to reduce emissions from transport and energy uses.
- 3.2.2 The MOD is to conduct a carbon audit nationally. This is considered appropriate because the vast majority of fuel, for example, is used by allocated users, who might train on any of the appropriate training areas within and occasionally outside of the UK. It is expected that offsetting will be considered as part of MOD's carbon budget.
- 3.2.3 Therefore, the issue of reducing greenhouse gas emissions and offsetting will be considered nationally rather than specifically in relation to DTA.

3.3 NE

Whilst we agree with the conclusion, we are disappointed that MOD has not committed to produce a carbon budget as part of the EA and to reduce emissions of greenhouse gases and offset unavoidable emissions. When it is considered that the Viking vehicle has a fuel efficiency of 1 mile per gallon, offsetting would seem to be essential. MOD's welcome commitment to assist with blanket bog restoration could be formalised in such a carbon budget.

- 3.3.1 Please see the response outlined at paragraphs 3.2.1 to 3.2.3 above. MOD will continue to work in partnership with other Dartmoor stakeholders to assist in blanket bog restoration.

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Cultural Heritage

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4. Cultural Heritage

4.1 Introduction

- 4.1.1 Comments in relation to cultural heritage were raised by the DNPA and DS. Whilst there is no formal response from English Heritage (EH), they have been fully engaged in the Cultural Heritage (CH) WG and the preparation of the EA chapter, therefore it is assumed they are content. No other comments in relation to CH were raised in the responses received from stakeholders. The response to these comments has been prepared by Martin Brown, MOD/DE.

4.2 DNPA

P.42 – Needs up-dating in light of the consultation paper “Heritage Protection for the 21st Century” published by the Department for Culture, Media and Sport, March 2007.

P.48 - English Heritage Field Monument Wardens are now called Historic Environment Field Advisers.

- 4.2.1 The White Paper *Heritage Protection for the 21st Century* was published in 2007. It sets out HMG proposals for the Historic Environment. The White Paper does not suggest any diminution in the level of protection afforded to Schedule Monuments (SMs) and proposes to make the management of complex sites easier by introducing Heritage Partnership Agreements between EH and land owners.
- 4.2.2 It is noted that the change in the name of Field Monument Warden has been overlooked and the term Historic Environment Field Advisers should have been used.
- 4.2.3 Historic buildings within DTA form an important part of the historic environment. Historic building surveys of both Okehampton Camp and other historic buildings on DTA have been undertaken by independent consultants. In addition MOD Rural Elements of Estate Strategy (REES) funded surveys of a number of historic farmsteads are being undertaken and structures that were part of the 19th century military infrastructure of DTA have been restored.

4.3 DS

As a general comment, there is some lack of clarity in the use of vocabulary regarding ‘monuments’. ‘Monument’ is the term favoured (wrongly, in our view) by English Heritage for archaeological remains, and is most commonly used of Scheduled Ancient Monuments. It is not always clear whether scheduled monuments are being referred to when the word ‘monument’ is used in the EIA, or whether it is being used generally of archaeological remains. We would advise use of the term ‘feature’ unless mention is being made of specific scheduled ancient monument(s).

- 4.3.1 The vocabulary used is that in accepted parlance amongst heritage professionals. While it is accepted that confusion may arise over the use of words Monument and monument, as opposed to remains, site, monument and feature this usage was adopted due to its

currency. It is accepted that this may not have been appropriate in a document that would be read by interested parties from a variety of backgrounds.

Paragraph 6.2.3: It is a flaw in the Desk Based Assessment that it concentrates 'primarily' on Scheduled Ancient Monuments (SAMs) – all moorland areas (and moorland newtakes) of the DTA need to be treated as a cultural landscape. It is largely irrelevant whether features are SAMs or not, as SAM status does nothing to protect a moorland feature from damage. We recommend that DTA treats all non-scheduled archaeological data as a potential constraint on land use. The key is high quality information, especially in map form, and we welcome the principle of the EH surveys which have been carried out.

- 4.3.2 The DS point that the EA focuses on SMs is accepted in part. The SM is used as an indicator across the Defence Estate as a measure of the effectiveness of heritage management policy and, as such, the condition of SMs on DTA is regarded as a useful benchmark. However it should also be noted that elsewhere on the estate condition concentrates on SMs while on Dartmoor the EH condition reporting programme has, at DE's direction, also recorded non-SM archaeological sites.
- 4.3.3 While it is accepted that the whole of Dartmoor is an historic landscape created by centuries of human interaction and that all of it has a sensitivity on heritage grounds, the focus on defined sites as a measure of condition is used across the MOD Estate and is used on DTA in accordance with national policy. However, as has been pointed out DTA does consider some non-Scheduled sites in its recording regime.

Paragraph 6.3.2: line 6 – 'tin leats' should read 'tinworking leats'

- 4.3.4 It is noted that the term 'tinworking leats' should have been used rather than 'tin leats'.

Paragraph 6.3.3: Although recognising the value of the EH surveys, we do not agree that their volumes are 'a comprehensive record of the resource' as there are omissions of data known within the professional archaeological world, and some of which are recorded on local Historic Environment Records. We strongly urge that these gaps in data are filled before 2012 otherwise the existing surveys will be found wanting. We note, particularly, that no detailed surveys have yet been carried out on tin streamworking remains, most of which will be at least medieval in origin. Undiscovered remains are a separate issue altogether and as long as there is a mechanism for incorporating new data, that will be acceptable, but we are unclear how this will be achieved (see 6.3.12). The Dartmoor Society does not hold complete copies of the EH surveys – we have text and maps of the Willsworthy and Cramber Tor surveys, text only for Okehampton and nothing at all for Merrivale or Ringmoor, and would welcome provision of the missing material. A significant gap in understanding the cultural resource of DTA is the lack of historical research though we welcome recent initiatives regarding Willsworthy farm sites.

- 4.3.5 It is accepted that the EH surveys do not include all archaeological sites and findspots, particularly since this is a dynamic resource where new sites are being discovered. When this occurs DE relies on reporting from partner bodies to enhance the DE Historic Management System.
- 4.3.6 Where there is a perceived gap in the record for DTA, such as the tinworking sites or targeted historical research, then these may well provide opportunities for REES bids and members of the Conservation Groups are encouraged to propose them.

Paragraph 6.3.4: 'not all sites and monuments are of equal importance' – the issue of importance only arises once there is a proposal for development or activity which threatens the integrity of an archaeological feature, and this is a very rare scenario within DTA. Grading of features on open moorland is, in our view, of little or any value (see 6.5.13 6.5.14 and 6.5.16). The significance is the completeness of the record within a moorland landscape.

Paragraph 6.3.5: We welcome the recognition that 'most, if not all of the open moor' is an 'area of culturally significant landscape' but are not convinced that management thinking has really grasped this fundamental point.

- 4.3.7 Unfortunately the informal grading of archaeological sites is a necessity when resources are to be expended on the management of the heritage. In addition, where there are differing priorities on the conservation management of areas, such as Willsworthy, it may be necessary to consider the relative archaeological significance of different areas as part of the decision-making process. However this is not to say that any area of the moor is "written off" from a CH perspective, as the whole Moor is recognised as an historic landscape. Nevertheless it is recognised that CH concerns cannot be the over-riding management driver in all cases.

Paragraph 6.3.8: para 2 The possible use of stones from medieval and later tin streamworks for bivouacs etc needs to be added here as a potential effect. Examples of recent damage are known to the Society (see also 6.5.6 and 6.5.23).

- 4.3.8 Comdt DTA has received reports of such disturbance in the past. As a result Standing Orders have been altered to prohibit this practice and information boards on the CH specifically mention this. These steps have reduced the incidence of damage. Although there are still occasional cases of this sort of disturbance, the introduction of the Training Area Marshals should also further reduce the effects of disturbance as incidences will be picked up earlier and sanctions levied against units implicated. In addition reports of such disturbance would be welcomed from other interested parties, such as Conservation Group members, so that they can be logged and appropriate action taken.

Paragraph 6.3.9: The Dartmoor Society has strong reservations about the concept of Premier Archaeological Landscapes (PALs) as it reinforces a hierarchical approach to the cultural heritage which, in our view, can lead to distorted recognition of the value of the integrity of the overall cultural landscape (see also 6.5.16).

- 4.3.9 PALs were created as part of a visioning process for DNP, as such they are part of the DNP Management Plan (2007). The PALs were established by a group including DNPA, EH and DEFRA/RDS archaeologists. DE accepts that this designation will be used by these bodies in their planning and resourcing for the future and will, therefore, work with this designation as part of the DNPA management framework. Any criticisms of PALs should, therefore, be directed to DNPA rather than DE.

Paragraph 6.3.12 and 6.5.3: We would like to know how new data will be 'incorporated into existing records' as it is vital that land managers have up-to-date information. Will this new data be available to the general public?

- 4.3.10 Any results of survey or fieldwork will be passed to DNPA and English Heritage for inclusion in their databases, including the National Monument Record (NMR). Results will also go to the DE archaeologist and Comdt DTA. Results will be publicly accessible from DE, or via the DTA website, NMR and DNPA archaeologists.

Paragraphs 6.4.2, 6.4.3 and 6.4.6: There is too much emphasis here on Scheduled Ancient Monuments rather than the totality of the archaeological record. Who or what is the 'MOD Service Provider'?

4.3.11 SM condition data provides a useful benchmark for the stewardship of CH on the MOD estate. As has been stated above on DFTA condition surveys have also included other archaeological sites.

4.3.12 The MOD service provider is a MOD appointed organisation that provides specified services under contract. In this instance the contractor is Landmarc Support Services who provide a broad range of support services to DTE and locally to Comdt DTA.

Paragraph 6.4.10: Who makes these annual surveys and reports to the Secretary of State?

4.3.13 The Environmental Support Team (Historic Environment Team) SM condition data to DE Estate Strategy and Policy for the DE Stewardship Report.

Paragraph 6.4.12: We agree that erection of signs would be highly undesirable.

4.3.14 This comment has been noted

Paragraph 6.4.15, 6.5.16 and 6.6.2: We believe that undergrazing is the single most important 'threat' to archaeology on the DTA not only because denser vegetation might physically harm sites but also because their research and recreational potential is severely diminished. We are specially concerned about the lack of grazing within the Willsworthy freehold, and recommend MOD should reinstate grazing here as soon as possible.

4.3.15 Grazing regimes can contribute to the preservation and accessibility of monuments but these may be driven by external factors, such as other conservation management priorities (as at Willsworthy), resources or wider issues, such as weather, global food markets or uptake of tenancies. Specific site management is addressed in the ILMP and the condition surveys will record sites and will inform any necessary mitigation. MOD policy is to restore vegetation within SAC/SSSIs to favourable status. To achieve this MOD's freehold land at Willsworthy is not currently being stocked although it is accepted that some stock will stray from the commons, trespass and be cleared out for their own safety when live firing is programmed. DTA monitors the potential risk to cultural heritage posed by vegetation and takes appropriate remedial action on its freehold land at Willsworthy and for the licensed land makes the information available to landlords, DNPA and EH. Similarly DTA is aware that some archaeology can be concealed by denser vegetation. DTA is open to suggestions through the Dartmoor Military Conservation Group of particular sites on Willsworthy that might require attention to make them more visible and accessible.

Paragraph 6.5.6: Okehampton – we are aware of some damage to tin streamworks as a result of digging/bivouacking.

4.3.16 Please see the response outlined above in relation to comments on paragraph 6.3.8 of the EA.

Paragraph 6.5.13 and 6.5.17: We believe that existing legislation allows for substantial areas of land to be protected, as there are precedents for whole islands to be scheduled. However, we urge MOD to create their own 'designation' of the moorland landscape as being a single unit of cultural landscape. While this will have no statutory authority, it will demonstrate that the MOD are leaders in environmental thinking, and hopefully the designation will become a template for legislative protection in due course.

- 4.3.17 While DE is the owner of a small area of DTA, most of the land occupied is held under licence from the Duchy of Cornwall. They have direct responsibility for the CH of their land. As such, comment about further designations and initiatives should be directed to the Duchy or EH, perhaps via the DTA conservation groups. However the commitment of DE to the stewardship of heritage assets across DTA has been demonstrated by the funding of a number of archaeological and historic buildings surveys, including the condition reports, which guide CH management on DTA. Effective management and sustainable use of DTA by troops will be underpinned by the proposed CH Sensitivity Map.

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DARTMOOR TRAINING AREA

Environmental Appraisal

Landscape and Visual Effects

5

5. Landscape and Visual Effects

5.1 Introduction

- 5.1.1 Comments in relation to landscape and visual effects were raised by CNP, DNPA, DS, NE and the OSS. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Kay Adams and Nick Layton, Entec and Lt Col (Retd) Tony Clark, MOD/DE.

5.2 CNP

Military infrastructure: CNP disagrees with the statement that “military infrastructure...is not having a significant effect on landscape character” (page iv). In a wild and remote landscape such as the Dartmoor National Park, any man-made structure can be considered obtrusive and damaging to the landscape of the Park.

- 5.2.1 Para 7.5.45 of the EA recognises that: “*Military debris, military infrastructure such as FPs and OPs, other buildings, tracks, fixed firing ranges and trench digging are all elements that may be considered incongruous, bringing a human element into a landscape that is described as ‘wild’ and ‘remote’.* However the assessment considered that in para 7.5.53: “*In the context of the landscape character of training areas as a whole, the magnitude of any change due to damage and/or erosion caused by military activities is negligible and effects on the prevailing character will not be significant*”.
- 5.2.2 It is recognised that there are negative effects on landscape character; however the conclusions drawn are based on recognised guidance on the methodology to be applied to landscape and visual assessment (refer EA Appendix 7.3), the application of which has led to the conclusion that effects fall below the threshold at which they would be judged ‘significant’.

We recommend that an inventory is created and maintained of all military infrastructure, which should be published and reviewed annually with targets set alongside specific recommendations on how visual impact can be reduced (for example the speedy removal of portalooos).

- 5.2.3 An inventory is maintained by DTE and the condition of military infrastructure on this inventory is assessed periodically. The inventory can be made available as the basis to prioritise visual mitigation measures. In addition to those already noted under the management measures summarised at Chapter 2, Table 2.6 of the EA, Section 7.6 of the EA also discusses specific mitigation opportunities for detailed investigation. It should be noted however, that in some cases military features have been recognised as having cultural heritage value and this needs to be taken into account in considering the requirement to retain military infrastructure.
- 5.2.4 The traditional portaloo has been removed from DTA following a year long trial of a field portaloo designed by Comdt DTA. The new field portaloo is much smaller in size and is only deployed by exercising units on an as and when required basis.

Tranquillity: CNP disagrees with the statement that “military activities are not considered to be having a significant effect on tranquillity across DTA” (page vi). Live firing and low flying activity on Dartmoor has a significant adverse impact on tranquillity. Whilst CPRE’s tranquillity report illustrates the high levels of tranquillity on Dartmoor, activities such as live firing and military low flying do not contribute positively to this. It is disingenuous to suggest that CPRE’s report can be used to suggest that military training does not have adverse impacts on the tranquillity of Dartmoor. In fact, one of the RPS reports for the MOD recognises that there are at least moderate adverse impacts on tranquillity and wildness qualities from military activities generally on Dartmoor.

- 5.2.5 The appraisal of landscape effects concludes that military activity, including live firing and low flying, has a negative effect on tranquillity although overall, this will not be significant.
- 5.2.6 Given that the Appraisal is based on training thresholds in place under the current licence, it follows that overall, adverse effects upon tranquillity due to training on the DTA will not increase. The CPRE’s report establishes the baseline for the Appraisal and categorises Dartmoor, including the DTA (and its associated military activities), as one of the most tranquil areas of England and in terms of the effects of DTA’s military activities this will remain, at worst, unchanged.
- 5.2.7 The landscape and visual mitigation measures suggested in the EA provide, at a local level, an opportunity to reduce the negative effects of military activities and in doing so enhance the perception of tranquillity for users of the DTA.
- 5.2.8 The aims of the External Audit of DTA’s Environmental Management System Final Report (RPS August 2005) were to (i) ensure that all potentially significant impacts were identified in the DTA’s Environmental Management System (EMS) and (ii) make recommendation to further develop the EMS. Para 1.8 of the RPS report explains that the aim was to assess the impacts/concerns in terms of *relative* significance to establish a list of prioritised impacts/concerns against which action could be taken.
- 5.2.9 The RPS report reference to ‘moderate significance’ in respect of potential effects on tranquillity is reflected in the hierarchy of report recommendations. It is not the result of a detailed study of the effects of military activity on tranquillity.

5.3 DNPA

More detail is required in the wilderness experience in terms of how the structures impact on enjoyment of a remote, wild landscape.

- 5.3.1 Further consideration is not appropriate prior to detailed review of specific mitigation suggested in the Landscape and Visual chapter of the EA. (Further comment is made below).

Mitigation measures appear limited to planning and possible relocation but there is no assessment of options.

- 5.3.2 Following completion of the EA, DTE are now in a position to prioritise suggested mitigation measures and to undertake the necessary detailed work to ensure that benefits of mitigation can be fully realised in landscape and visual terms, without compromise to range safety.

5.3.3 The intervisibility study reported in the EA provides the basis for this. The work will generate options requiring a greater level of investigation than was appropriate for the EA (although where possible the EA suggests options for consideration and has taken account of consultation with DNPA on this matter).

5.3.4 The process of detailed option evaluation will also embody more detailed investigation of how the wilderness experience and enjoyment of the Dartmoor landscape can be conserved and enhanced.

5.4 DS

Paragraph 7.4.7: From a safety point of view we are not convinced that moving flagpoles below the skyline will be advantageous.

5.4.1 Safety will remain the highest priority when evaluating mitigation options and will outweigh other evaluation criteria. This may mean that avoiding 'skylining' may not be possible. This will need confirming in each case.

We know of a recent example of destruction of an historic military structure on Doe Tor – a well-preserved lookout hut. All military structures must be considered to have some historic interest, whether they are in use or not.

5.4.2 This is an unfortunate event however it remains unclear how, or by whom, damage was caused. DTE fully recognises the importance of maintaining military artefacts and buildings of historic significance, which are maintained to ensure their value does not depreciate.

We recommend the cladding of modern military structures in stone and turf.

5.4.3 This recommendation is already covered by an existing environmental management objective whereby opportunities to improve the design and external finishes of structures are considered at appropriate points in their maintenance cycle. This has led to the adoption of "recessive colours and textures and various treatments to observation points such as turf roofs."

Tin streamworking is not subject to proper recognition as a highly important archaeological resource, mainly because detailed surveys have not yet been carried out (see 6.3.3).

5.4.4 Please see response provided to EA 6.3.8 in section 4.3 (paragraph 4.3.8) of this report.

We believe there is scope for imaginative creation of car parks on the loop road, while restricting access to most of it. The Dartmoor Society would welcome an opportunity to be involved in discussions.

5.4.5 The issue of the Loop Road and any peripheral activities to it were scoped out in the EA paragraph 11.3.10. Subsequently the Duchy of Cornwall on whose land it is, has instigated a working group to consider the future of the Road. If DS wish to express their views, they should do so to the Duchy of Cornwall.

5.5 NE

We cannot agree with the statement that “military activities are not considered to be having a significant effect on tranquillity across DTA”. CPRE’s methodology provides a good starting point but it is a national assessment that takes, for example, features such as roads and airports as sources of noise. Most importantly, it is not an absolute measure for tranquillity. The noise associated with military training is a particularly important negative impact on tranquillity on Dartmoor. We have provided more detail under the heading of ‘noise’ below.

We would like a test of public perception of tranquillity to be undertaken as part of a data gathering exercise specific to Dartmoor. We are of course keen to assist with such a study.

- 5.5.1 The appraisal of landscape effects concludes that military activity, including live firing and low flying, has a negative effect on tranquillity although overall, this will not be significant.
- 5.5.2 Given that the Appraisal is based upon on training thresholds in place under the current licence, it follows that overall, adverse effects upon tranquillity due to training on the DTA will not increase. The CPRE’s report establishes the baseline for the Appraisal and categorises Dartmoor, including the DTA (and its associated military activities), as one of the most tranquil areas of England and this in terms of the effects of DTA’s military activities will remain, at worst, unchanged.
- 5.5.3 The landscape and visual mitigation measures suggested in the EA provide, at a local level, an opportunity to reduce the negative effects of military activities and in doing so enhance the perception of tranquillity for users of the DTA.
- 5.5.4 The CPRE methodology provides an assessment of relative tranquillity in the absence of an alternative, recognised methodology to address an absolute measurement of tranquillity. DTE would be pleased to join NE and perhaps other stakeholders to discuss any recommendations for an alternative methodology that might form the basis for further, more detailed investigation of effects on tranquillity.

On the positive side, we welcome the mitigation tabled under 7.4.7.

- 5.5.5 This comment is noted. The opportunity exists to work closely with NE and other stakeholders in implementing mitigation.

5.6 OSS

We do not accept that ‘military activity is not having a significant effect on landscape character...’ and that ‘the presence of military infrastructure, such as flag poles...is not having a significant effect on landscape character’. Clearly, the look-out huts, flagpoles, notices and military roads are all ugly intrusions in a wild landscape, demonstrating the incompatibility of military training and a national park. Views from car parks are less important than views from wild places because people’s expectations are different.

- 5.6.1 It is recognised that there are negative effects on landscape character; however the conclusions drawn are based on recognised guidance on the methodology to be applied to landscape and visual assessment (refer EA Appendix 7.3), the application of which has led to the conclusion that effects fall below the threshold at which they would be judged ‘significant’.

- 5.6.2 Based on the methodology employed for the Appraisal of Landscape and Visual Effects, the relative importance of views is determined by the number of people (i.e. receptors) likely to experience views and also the sensitivity of the 'receptor'. The EA includes recreational 'receptors' seeking to experience the DTA landscape for recreational purposes, whether to enjoy the environment viewed from a car park, or to do so having used the car park as the start point for walking to the more remote parts of the DTA. The value attached to the view by the receptor (and hence 'receptor sensitivity') is assumed to be the same.
- 5.6.3 The approach taken (based on recognised guidance) is that the judgement on significance is informed by the likely number of receptors combined with the magnitude of impact (in this case due to military activity and infrastructure).

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DARTMOOR TRAINING AREA

Environmental Appraisal

Land Use

6

6. Land Use

6.1 Introduction

6.1.1 Comments in relation to land use were raised by DCC and NE. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Lt Col (Retd) Tony Clark, MOD/DE.

6.2 DCC

The points, which may concern the Dartmoor Commoners' Council most directly, are:

1. *acknowledgement that range clearance results in under and over grazing in some areas*
2. *acknowledgement that 'the overall importance of military trade to the economy appears to be much smaller than other sources of spending', and that 'military supply chain spending is not considered to be significant in relation to the local economy'.*
3. *the claim that the 'agricultural economy is declining and that the departure of the military could mean that there would be a loss of income for farmers and (of) employment'.*

The Council would comment that:

1. *the disturbance of stock caused by clearance and return of animals is more significant than just a matter of grazing intensity, and more care and discipline in carrying out the process is sought.*
2. *'military supply chain spending' should be directed into the Dartmoor economy much more, and a policy should be established involving the preferential purchase of food, especially meat, from local sources. The Council will lend its weight to local DE representations upwards on this score, if required.*
3. *while Council might agree with point 3 above it would wish to point out that achievement of a better contribution to the local agricultural economy through a locally targeted procurement policy would benefit more farmers, and thus be more significant.*

Point 1

6.2.1 MOD recognises (see EA paragraph 8.4.2) the requirements of good husbandry when moving stock and has agreed clearing patterns that support, where possible, commoners associations' ESA or HLS management objective.

6.2.2 As highlighted at EA paragraph 8.4.2, to support these objectives, MOD also recognises the used for clear lines of communication such as already exist with the Dartmoor Commoners Council, and Commoners Association and individual graziers. If any particular issue is cause for concern it should be raised with the Senior Land Agent DTE SW or Comdt DTA.

Points 2 and 3

6.2.3 MOD's food supply contractor sources in the UK about half of the 18,000 tonnes of beef, 100% of the 800 tonnes of pork and about 13% of the 700 tonnes of lamb required annually. Development of UK sources of lamb continues but when seasonality, packing

and transportation costs are included British lamb costs 70% more than imported lamb. Additionally lamb is required frozen and there is a shortage of freezing plant in the UK.

- 6.2.4 The contractor is required to seek best value for money in the open market, in line with MOD quality standards. Of the 1200 different food related items for the Armed Forces in their Core Range Price List, the contractor estimates that 68% are sourced from UK suppliers.
- 6.2.5 A fuller brief is being obtained and will be provided to the Commoners Council. This will enable the Commoners Council to make their point with justification through DTE to MOD.

6.3 NE

Range clearance shifts stock off the high moorland onto peripheral commons, elevating stocking density on some areas and therefore hampering vegetation recovery. For example, the recovery of vegetation on Okehampton Common, which is part of the Dartmoor SAC, continues to be hampered by clearance.

- 6.3.1 Paragraph 8.4.3 of the EA addresses this issue. Building on Merrivale's experience and with more precise statistical information on the risk of injury / death within a weapon danger area, stock is cleared less than hitherto. Specific problems should be dealt with between DEFRA, NE, MOD and the respective commoners association as necessary and reported through the DWP.

Live firing also occurs during June and therefore prevents optimal management of degraded blanket bog (which would be high cattle stocking in May/June to remove purple moor grass). We therefore look for a more exhaustive appraisal of the options available.

- 6.3.2 By agreement between DEFRA RDS (Now NE), MOD and the Forest Association, some cattle grazing in the vicinity of the southern end of the Loop Road are cleared south during June (the only relevant period in which live firing is permitted) to encourage grazing of degraded blanket bog. Thus rather than preventing, MOD assists in controlling purple moor grass.



DARTMOOR TRAINING AREA

Environmental Appraisal

Nature Conservation

7

7. Nature Conservation

7.1 Introduction

- 7.1.1 Comments in relation to nature conservation were raised by DNPA, DS, EA, NE and RA DA. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Dominic Ash and Lt Col (Retd) Tony Clark, MOD/DE.

7.2 DNPA

Much emphasis is placed on the recent survey of breeding birds that was undertaken for the ranges. This document provides comprehensive distribution maps for moorland birds in these areas but it does not, as appears to be claimed throughout the EA, provide evidence that there is no significant impact from military activities on the bird populations. In many places throughout the document 'sensitive' bird nesting areas should more accurately read 'rare' bird nesting areas.

- 7.2.1 MOD commissioned RSPB to undertake this research in order to improve our understanding of our training areas for all those with an interest in birds. Equally RSPB were able to undertake this as independent researchers. We rightly place much emphasis on this work as it does provide the most comprehensive study undertaken on the bird populations in the areas surveyed and reviews all the past surveys to standardise the results as far as this was possible, especially with respect to the rare species in the context of Dartmoor. This gives us a good basis to analyse change and to give an independent analysis of the results. The survey objectives are summarised in the introduction to the Breeding Bird Survey (BBS) of DTA, and although not a research document to look at military disturbance, it is possible in the context of other surveys, national statistics on bird populations and environmental variables to draw conclusions on the nature conservation issues regarding birds on Dartmoor.
- 7.2.2 As with the NVC survey the BBS has been used to improve management of DTA and from publication to implementation of recommendations, delivers a map that will allow us to plan training to minimise disturbance to the locally rare bird species as agreed with the statutory bodies.
- 7.2.3 We would take issue with the statement '*but it does not.....provide evidence that there is no significant impact from military activities on the bird populations*'. This was discussed at the joint meeting with stakeholders where it was agreed that the methodology for the survey would maximise the outputs and examine what it was possible to achieve including expanding data collection (on environmental variables) in order to give answers to the driving factors affecting the populations of birds in the survey area. We agree we have not undertaken a research study (e.g. a PhD) on an area of concern that DNPA have raised as we have done on other sites where disturbance issues have been raised. In earlier discussions with regard to bird issues we were told that there was good information on the rarer species on Dartmoor but we were less knowledgeable about some of the commoner species. For example at Cramber we agreed to investigate some of the effects on more common species like Skylark. We had detailed discussions on methodologies with regard to surveying. Using the BBS methodology it is only possible to analyse data

for very common species and by correlating indices of abundance with features it is possible to quantify the key drivers for the bird populations. The results for sward heights, proportions of bare rock, effects of scrub cover give compelling results which would not be challenged under peer review. Equally as much training is conducted on tracks and footpaths with public access it is possible to say that there is no significant difference in sample units with footpaths compared to those without footpaths. We can also say that comparable surveys undertaken by MOD on training areas with a much higher intensity of use does support higher densities of Skylark. Therefore we feel that for the commoner species, that collectively people (undertaking recreational activities like walking) and military training combined do not significantly affect abundant species like Skylark.

- 7.2.4 We believe that with the nature of the PhD research that has been undertaken on disturbance of Waders, Larks and Warblers there would be a consensus in the wider conservation community in using the data from the BBS to say there is no significant impact from MOD's use of Dartmoor.
- 7.2.5 With regard to the rarer species there are concerns about disturbance however, this has never officially been linked to military activity. Most species we have discussed which are showing signs of decline e.g. Golden Plover can be attributed to natural processes acting at a measurable national level. In most cases it can in part be attributable to agricultural land-use issues or increasingly possibly global warming issues. If DNPA feels that the in-combination effects of disturbance from recreation and training needs researching (as it is impossible to separate the two issues) we have said we will consider joint studies.
- 7.2.6 We have used the term 'sensitive' and 'rare' bird areas on the maps in the BBS. We note your comment but equally they are only rare in the context of the SW of England. In national terms none of these species are considered rare by the rare breeding birds panel.

P.118 The EA appears to claim that past shelling of areas of blanket bog may have improved ecological diversity. This ignores the fact that use of shells was destroying the blanket bog and initial pools may have caused localised erosion of the bog due to the formation of runnels etc.

- 7.2.7 In our discussions it was suggested by one of the statutory body representatives that shelling might have improved diversity. We do not accept that past actions by the military destroyed the blanket bog as the NVC survey, condition assessment or the monitoring of the shell craters has shown that this disturbance has recovered and reverted to standard SSSI and SAC feature NVC habitats. Shelling does not now take place into the blanket bog on Dartmoor but to defend the comment that the creation of pools did increase the diversity one should look at the example that the Forestry Commission and NE with MOD assistance did undertake a project to create pools in blanket bog in Keilder Forest with explosives on SSSI designated habitat to create improved conditions for Dunlin. This might still be an option for improving habitat structure on the blanket bog for the Dunlin population which are a target species under the Dartmoor BAP and our ILMP.
- 7.2.8 However we are assessing what we do now and we no longer fire artillery shells into the blanket bog areas. Again in our discussions we did agree that actions were needed collectively to undertake conservation management and that military training was not now an issue.

P.125 It would appear that the EA attempts to use the NVC surveys as a means to monitor changes to vegetation. We believe that is contrary to official advice on NVC surveys by Natural England. Also, the Appropriate Assessment required for the use of tracked vehicles will need more robust data on erosion.

- 7.2.9 The NVC survey was undertaken to provide better information on the resource of the vegetation communities. It also gives a good base-level for the nature/condition of the habitats present. We specifically asked the surveyors to identify areas where military activity might be leading to changes in feature habitats on the training area. If you wish to say this is surveillance as opposed to monitoring we can discuss the semantics, but in broad terms it does monitor the state of the features for which the site is designated. We would make the point again that this survey work provides the most comprehensive data available and adds greatly to our understanding of the areas of Dartmoor surveyed. With respect to what the NVC survey provides, for the first time it does enable us to quantify the resources of designated features such that we can plan our management more effectively. It was not intended for use for monitoring in the sense that it is repeatable to monitor change locally but from our experience when surveying extensive areas we have been able to use the data from the NVC to identify broad changes in species composition which have shown the effects of changing grazing regimes. Having said this the real benefit of the survey is for the collective good to all stakeholders as it adds to a better understanding of Dartmoor and again we believe that there is a consensus that issues regarding changes to vegetation communities have been driven by agricultural land-use and perhaps climatic factors not military training. That is why the Environmentally Sensitive Area scheme was established and government funds spent on the scheme, not due to concerns linked to military training.
- 7.2.10 With respect to the use of tracked vehicles we will follow out 'Memorandum of Understanding' with DEFRA and the Declaration of Intent with Natural England to assess new plans or projects.

P.125 It would be helpful if the EA contained specific information on the area affected by digging in. The statement 'around 100 trenches/shallow scrapes per annum' is not particularly helpful as their impact will, in part, depend upon their length/area and location.

- 7.2.11 EA 9.4.1 Bullet 14 states the existing mitigation of and effects of digging *"to mitigate the potential effects of digging activities damaging vegetation, digging sites are carefully selected to avoid geologically and ecologically sensitive areas. DTE SW SOs require military users to ensure that earth and vegetation is carefully replaced. No digging takes place in the rare bird breeding areas during the breeding season"*.
- 7.2.12 Digging in is an essential element of military preparedness for operations. The areas required for digging will depend on the training objectives to be achieved and the tactical situation being represented. Comdt DTA examines users' proposals and does not permit digging in geologically and ecologically sensitive areas, or close to areas frequently visited by the public. As stated in the EA at Para 9.4.2 Bullet 14, ecological sensitivity maps are being created from the NVC 2005/06 data to inform the location of digging activities. It is anticipated that DTA will continue with its agreement with DNPA and NE to avoid digging in blanket bog and heather dominated areas.
- 7.2.13 The size of trenches will vary depending on the tactical situation, the weapon systems deployed and the shape of the ground and a number of other factors. The standard designs are available on request and a copy has already been sent to NE.
- 7.2.14 The quantity required to be dug will vary from year to year depending on the training requirement. The quantity of 100 in EA Para 9.5.65 represents an average over several years. If more were required, the potential for damage would be carefully monitored.
- 7.2.15 Any concerns should be alleviated by statutory body representatives arranging to visit sites that have been used in recent years.

- 7.2.16 However, it should be noted that the EA assesses present activities, not proposed changes. If digging was a concern and if the condition assessments undertaken stated that digging was damaging then perhaps we should have been investigating, but this was not raised in the scoping process. The effect or lack of it, of digging is a monitoring issue and is dealt with through the ILMP.

P.124 The section on climate change and future fire risk should consider whether additional mitigation will be required as the risk increases due to climate change.

- 7.2.17 MOD has committed at EA Para 9.4.2 Bullet 4 “*To mitigate further the potential effects of climate change and an increase risk of fire, MOD will actively consider and address future effects as necessary and identify suitable mitigation*”.
- 7.2.18 Monitoring of the effects of military activities is described in DTA’s Environmental Management System Version 2.2 Annex F. Specifically it identifies the question “*What is the impact of external influences?*” and “*Global warming*”. At present DTA do not propose to conduct research but will rely on existing open data sources to inform decision making. However this position will be reviewed if particular issues are identified. MOD will work together with other stakeholders as described in the EMS at Annex F Para 7.
- 7.2.19 A particular issue that MOD is already working on collaboratively within the Forest of Dartmoor Management Board is the prevention and management of wild fires. This Project, led by the Dartmoor Hill Farm Project, and involving the Devon and Somerset Fire and Rescue Service, Forest of Dartmoor Commoners Association, Duchy of Cornwall, MOD and Natural England, has developed a Fire Management Plan, which it is hoped will be expanded to the peripheral home commons.

P.129 It is not clear whether the assessment of impacts associated with stock clearance looked in detail at the impacts of clearance on some peripheral areas where stocking density could be raised and thus reduce vegetation recovery.

- 7.2.20 The EA’s consideration of the potential effects on nature conservation as a result of stock clearance for live firing included the areas to which stock is moved but also any associated movements of stock caused by clearance.
- 7.2.21 MOD’s stock clearance plans have been consulted with DEFRA RDS (now NE) and the relevant commoners associations to ensure that they support, where possible, their agri-environmental management plans. Where issues are identified MOD will use this existing consultative approach to resolve them.

It would be helpful to have more detail on the impact of live firing during June on the management of degraded blanket bog: does it act to prevent high cattle stocking which would remove/reduce purple moor grass?

- 7.2.22 The issue of grazing is one for all the stakeholders and from our perspective the ILMP. To achieve the desired vegetation structure to the blanket bog areas by grazing unless very carefully monitored with respect to ground nesting birds could be counter productive. One would also need to bear in mind that livestock will also cause disturbance to birds when selecting nest sites.

7.3 DS

Paragraphs 9.4.1, 9.5.47 and 9.5.50: The Dartmoor Society is highly sceptical of the concept of 're-wetting' blanket bogs given the extent of such bogs on Dartmoor. Surely the edge of such bogs will inevitably be eroding? – they would not otherwise be the edge!

Regarding Willsworthy we would welcome the introduction of a new grazing regime rather than reliance on mechanical cutting of firebreaks.

7.3.1 The comments in relation to blanket bog are noted.

7.3.2 In relation to the comments on firebreaks at Willsworthy please see the response under Cultural Heritage chapter (paragraph 4.3.15 of this report).

Paragraph 9.5.4: There is a need to map the depth of blanket peat across the DTA.

7.3.3 As part of the NVC survey we asked the surveyors to estimate the depth of the peat. We have this information which we will attempt to incorporate into a useful management document which will be made available to interested parties.

Paragraph 9.5.15 and 9.5.95: We believe the extent of 'overgrazing' on Dartmoor was highly exaggerated and resulted in disastrous policies regarding numbers of stock etc.

7.3.4 MOD notes this comment but this matter is outwith its responsibilities.

Disturbance by dogs: Loose dogs would seem to be a particular threat to ground-nesting birds, livestock etc. Graziers, especially in the Commoners Council, express very strong views on this issue. We suggest that MOD introduce their own new byelaw which would require that dogs are kept on a lead at all times within DTA. This could become a model byelaw for the rest of the national park.

7.3.5 MOD is only responsible for the management of its freehold land on Dartmoor and the effects of military activities on licensed land. DNPA's byelaws, which apply to common land and land subject to management/access agreements (such as that covering MOD's freehold land at Willsworthy), require:

9 (1) Every person in charge of a dog on the access land shall as far as is reasonably practicable keep the dog under close control and restrain the dog from behaviour giving reasonable grounds for annoyance.

9 (2) Every person in charge of a dog on the access land shall, as far as is reasonable practicable, comply with a direction given by a Ranger or other officer of the Authority to keep the dog on a lead.

7.3.6 The direction at Byelaw 9 (2) is normally given each year during the breeding season.

7.3.7 It is understood that DNPA are reviewing their byelaws and this will provide the opportunity for stakeholders to voice their concerns.

7.4 EA

We note that whilst there was some discussion about the possible effects of siltation on salmon spawning, we could not find any reference to the effects of disturbance on fish in the rivers, or of river bed gravels. If these haven't been considered as part of the environmental assessment then perhaps they should be.

- 7.4.1 Water quality data was obtained from the EA that showed (Para 14.7.18-20) that all of the rivers listed comply with RE1, the highest level of quality, apart from pH. The Salmonid data provided showed (Para 9.5.86) that populations are healthy and stable. It is to be expected, as an extrapolation of this data, that fish populations will equally be healthy and stable.
- 7.4.2 The Environmental Agency regularly collects data on fish populations. Should this data show anything atypical, MOD will investigate whether its activities are the cause and discuss results with the appropriate statutory body.

Overall we are happy with the Defence Estates' Environmental Appraisal in relation to Nature Conservation. All aspects that should have been considered are looked at in the report. One thing to point out though is that generally across all aspects of this subject area, the issues are ruled out as not having an effect, often because there is no evidence to say that Military Activity as such have an effect. This is not in-keeping with the precautionary principle, therefore we strongly recommend that if a licence is granted for future Military use of Dartmoor, the activities are monitored with the Environment and Wildlife in mind, to ensure that no adverse impact is caused in the future.

- 7.4.3 Activity monitoring is ongoing through the DTA EMS and ILMP.

7.5 NE

Paragraph 9.3.8: The effects of stock clearance have, correctly, been scoped in and are covered in section 9.5.94.

- 7.5.1 This comment is noted.

Paragraph 9.4.2: Penultimate bullet point. There will also need to be an agreed method statement for digging activities.

- 7.5.2 A revised method statement that encapsulates the existing and proposed mitigation will be published in DTA's ILMP. This will include the clearing and safeguarding of turfs (spitlocking), the removal and storage of soils, the return and consolidation of soils, the replacement of turves and the encouragement of regrowth. This revised statement will be reflected in DTA SOs

Paragraph 9.5.19: This paragraph is unacceptable. The use of shells was destroying the blanket bog. Dartmoor blanket bogs naturally have a poorly developed structural diversity (pools, runnels etc). The long-term impact of the craters that were created by shells is not understood but further analysis may reveal that they have exacerbated desiccation of the bog by causing localised erosion.

- 7.5.3 This has been discussed under DNPA comment at paragraphs 7.2.7 and 7.2.8 of this report. It was suggested by one of the Stakeholders attending the NC WG. Shelling has not happened for many years now and may have had detrimental effects, but equally the scale of disturbance and recovery rates may have had benefits for some species especially in 'blanket bog' areas with more uniform stands of *Molinia*.
- 7.5.4 The question of whether or not artillery shells fired between the first use of Dartmoor for artillery in 1875 and the cessation of artillery ground burst high explosive shells in 1998 were destroying blanket bog, and causing localised erosion due to the formation of runnels, is not supported by any known objective evidence.
- 7.5.5 The point being made in EA para 9.5.19 is that the historical use on artillery resulted in craters that had created habitats for species which might not otherwise have existed in these areas.

Paragraph 9.5.41: We do not agree with the method used for assessing significance. Regulation 48(1) of the Habitats Regulations states that:

“An appropriate assessment needs to be undertaken in respect of any plan or project which:

- a. either alone or in combination with other plans or projects would be likely to have a significant effect on a European Site, and*
- b. is not directly connected with the management of the site for nature conservation.”*

The effects considered should be those on the habitats and species of international importance and how those effects are likely to affect the site's conservation objectives. This will involve considering, for example:

- the nature, scale, geographic extent, timing, duration and magnitude of direct and indirect effects;*
- the degree of certainty in the prediction of effects;*
- all mitigating measures already contained in the proposal and the extent to which these measures are likely to avoid, reduce or ameliorate adverse effects on the international nature conservation interests. It is the residual effects, after mitigation, which are considered at this stage.*

- 7.5.6 MOD is not submitting a 'plan or project' but is renegotiating a license based on existing boundaries and usage. We have explained our position above and have an agreed position statement with DEFRA and NE. We have similar issues already which are being considered by DEFRA. They will clarify shortly the situation but we believe it will confirm the 'Memorandum of Understanding' position
- 7.5.7 We are working from a basis of regular working and meeting together. There are existing measures for raising issues as described above. We have followed the process of asking stakeholders to scope in questions they wanted answering. We have run an open, consultative, and transparent process, it was up to the statutory bodies to engage and to use the process as a forum. There appears to have been a mis-appreciation of the opportunities we have made available but it is too late to re-start the process.

Paragraph 9.5.51: We welcome the commitment by MOD to assist with blanket bog restoration.

7.5.8 This comment is noted.

Paragraph 9.5.64: The efficacy of the new Willsworthy firebreaks has not been tested and we therefore question whether the risk of fire can be considered not to be significant. Notwithstanding the difficulties with agreeing on locations for firebreaks on the rest of the north moor, we would welcome an unequivocal commitment to create these.

7.5.9 Efficacy of fire breaks has been proven on similar sites. We are open to discussions on further fire-breaks on our land, but on the wider moor this must come through the ILMP and involve other partners. Outwith Willsworthy the responsibility for decisions does not lie with MOD but with landowners and commoners with NE agreement. MOD is willing to support any fire break cutting by clearing UXO from area to be flailed as demonstrated at Hangingstone Hill.

*Paragraph 9.5.65: Small-scale loss of habitat i.e. 10 m² has been deemed by NE previously to constitute a 'likely significant impact' leading to an 'Appropriate Assessment' on a Special Area of Conservation. There is no quantitative analysis of impacts on habitat i.e. what is the total amount of land dug up for 'shelter trenches' every year, in particular, the scale of the work within wet areas? Commandant DTA has now supplied details of the scale of the activity and this information should be placed in a revised EA. In terms of mitigation, we should agree that this activity should be limited in total extent, confined to dry acid grassland or areas dominated by *Molinia*, with sites being re-used to further limit the extent of impact.*

7.5.10 Appropriate Assessments have been undertaken and considered significant but they equally have to be 'appropriate' to the size of the site and answer the question- is the ecological function of the habitat being affected. The NVC survey did not identify areas of habitat that had changed from expected feature habitats. Disturbance is expected from digging trenches but there are natural processes that allow vegetation to recover to stable habitats. This disturbance may not by definition be damaging in that it allows some dynamics to take place e.g. allow buried heather seeds to germinate after long periods of overgrazing, and on most sites NE are not claiming that our activities are damaging from an ecological perspective.

7.5.11 Digging activities were responded to under DNPA (see section 7.2.) listed under p125 as ILMP issues, and these areas have been Condition Assessed.

Paragraph 9.5.66: Again, quantitative analysis of the impact of mortars is needed. What is the size of hole created? How many holes would be created per annum? We cannot judge whether your conclusions on significance are correct without such information.

7.5.12 Three types of mortar are permitted to be fired on Dartmoor; 51mm, 81mm and 120mm.

7.5.13 All can use super quick and delayed fuzes for High Explosive (HE) rounds. Smoke and illumination rounds have no effect on the ground. The table below shows the effects of HE rounds. However the effects will vary with the hardness of the surface. Firing is normally directed into the harder surfaced areas but not granite outcrops.

Table 7.1 Mortars on DTA

Weapon	Fuze	Depth at Centre (cm)	Radius (cm)
51mm	Super Quick	2	10
51mm	Delayed	5	15
81mm	Super Quick	10	30
81mm	Delayed	15	50
120mm	Super Quick	20	50
120mm	Delayed	30	100

- 7.5.14 To minimise any damage only super quick fuzes are normally permitted on DTA. Use of delayed fuzes may be authorised in heavy rain for safety reasons.
- 7.5.15 The quantity to be fired each year will vary depending on training objectives to be achieved. It is estimated for planning purposes that not more than 5,000 mortar HE rounds would be fired in a year, 95% being super quick and the majority of the smaller calibre. In recent years, with many of the Armed Forces deployed on operations, use has varied from 900 to 200 in a year and 120mm has not been fired. We are not creating disturbance on a scale that is leading to change in designated features.

Paragraph 9.5.100: Until the commitment to permit grazing of cattle on the blanket bog in June is considered viable, we cannot agree that the revised clearance pattern has reduced the effects to 'not significant'.

NE has repeatedly stated that the National Vegetation Classification cannot be used to monitor changes to vegetation, yet the consultants have done this in section 9.5.67.

- 7.5.16 Paragraph 9.5.67 of the EA does not state that the NVC has been used to monitor the vegetation. It has been used to state that from a survey there were no uniform patches of vegetation that could be described as being atypical of that expected in the Dartmoor context and that we are not finding disturbance communities. It should be noted that certain elements of condition survey were included in the terms of reference of the surveys.
- 7.5.17 The NVC is not designed to be a monitoring tool, however we have used it on other sites to demonstrate change by repeating the NVC with sampling from as close to the quadrat sites as possible on the previous occasion and in assessing the extent of the different plant communities. This was accepted by NE as a valid approach and showed improvements in quality of vegetation with improvements in grazing strategies.
- 7.5.18 We would also say that it has not been very easy to assess the extent of the designated features of Dartmoor before we undertook the NVC survey. The resolution for undertaking and planning further monitoring has now become a lot easier now that we have data at a more manageable resolution.
- 7.5.19 It is a planning tool and required to undertake assessment of impact.

Fire will be a greater risk in the future. The clearance of UXO needs to be a high priority within Defence Estates, since this is one of the barriers to the provision and maintenance of firebreaks (and is also a potential risk to the public).

- 7.5.20 The MOD does not accept this. MOD were requested to clear one strip approx 800m long by 5m wide on Hangingstone Hill for the flailing of a fire break. This was completed. No further requests have been received. Fire breaks have also been constructed at Willsworthy by MOD and on various commons by the commoner's associations

7.6 RA DA

Comment Number 5: Nature Conservation Page 112 paragraph 9.3.7 1st bullet point at top of page 112: See Comment No 1¹ above as to breeding birds.

Comment Number 6: Nature Conservation Page 128 paragraph 9.5.90 and 9.5.92: See Comment No 1 above as to breeding birds. Your assessment of effects on breeding birds are pure conjecture at this time. Any actual adverse effects can be managed by relevant restrictions under the CRow Act, where appropriate and demonstrated to be necessary.

- 7.6.1 At our meeting with Norman Baldock (DNPA) became clear that if access was granted then there were mechanisms in place for managing access which would minimise any disturbance. As Tavy Cleave and Yes Tor have sensitive breeding birds namely Ring Ouzel and are accessible when we are not live firing, then if DNPA is concerned it should be taking action to restrict access or put management measures in place. DNPA have not identified a problem and have not put in place any management measures either here or apparently anywhere else for these conservation measures in respect of low key public access.
- 7.6.2 There is only limited evidence for a negative impact from public access and/or military access on species like Grey Wagtail, but the question is ...is this of nature conservation concern? If the population is increasing which it is in this case then the carrying capacity of the habitat is not saturated so should not be considered an issue from a conservation perspective.
- 7.6.3 There is no scientific evidence that live firing impacts on sensitive bird species. The template is a health and safety issue. It should be noted that Tavy Cleave is not CROW land.

¹ Comment 1 is included in chapter 9 under section 9.8



DARTMOOR TRAINING AREA

Environmental Appraisal

Noise

8

8. Noise

8.1 Introduction

- 8.1.1 Comments in relation to noise were raised by CNP, DNPA, NE and RA DA. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by John Bremner and Ian Hepplewhite, Entec and Lt Col (Ret'd) Tony Clark, MOD/DE.

8.2 Council for National Parks

Rotary wing aircraft in support of ground troops: The significant noise impact and disturbance to visitors, local communities, livestock and horses from helicopter flying could be addressed by the avoidance of helicopter use at times when recreational use of Dartmoor is at its highest. A voluntary code of operations that would avoid sensitive areas, limit the number of flights in any one location, and improve communication with the public would be one way to achieve this.

- 8.2.1 Mitigation is already in place to minimise this effect and such measures are detailed at paragraph 10.4.1 of the EA. For example, the public are notified of major exercises involving four or more aircraft and helicopter pilots are briefed to avoid horse riders. However, as a result of the EA, additional measures have been identified. These are outlined at paragraph 11.4.3 of the EA but specifically include 'Operation Bright Eyes' which will provide greater information to horse riders of the startle risks from dry training and the programming of training to avoid agreed honey pot sites when the public are likely to be making extensive use of them. Further information on the effects of aircraft in support of ground troops is also provided at paragraphs 11.5.74 to 11.5.79.

8.3 DNPA

Whilst difficult to assess/calculate; the section on noise should provide more detail on the startle effect of noise on visitors to Dartmoor Training Area. Even low dB noise can have a significant impact when not expecting it in an area characterised by its remoteness and sense of tranquillity. There is a selective use of World Health Organisation quotes and guidelines. The noise level would appear to have been chosen to avoid numerous complaints but it is not clear that it is an adequate threshold for preserving tranquillity and the sense of remoteness that recreational users of the National Park would expect.

- 8.3.1 As noted, startle effect is difficult to quantify as this is a subjective response and more information on startle effects and proposed mitigation in relation to these effects is included in the public access chapter of the EA (see paragraphs 11.5.74 to 11.5.79).
- 8.3.2 The World Health Organisation quotes and guidelines have been selected as it was considered that these provided the most suitable criteria for assessing noise effects. However, it should be noted that the focus of the noise assessment was to identify whether significant effects occur on receptors, using the evaluation criteria based on the IEMA guidelines rather than identifying adequate thresholds for preserving tranquillity.

The methodology for this section needs further clarification: it would appear that noise levels were recorded over a very limited time period and that little, if any, military training took place during that time. The omission of data during high winds could introduce a bias: such winds could carry military noise further, faster and thus significance would be increased.

- 8.3.3 The omission of background noise level data during high winds actually provides a more robust noise assessment. The reason for omitting the data is that background noise levels are raised during high wind due to the turbulent interaction of wind with stationary objects, characterised by rustling leaves, whistling from telegraph poles and cables, etc. The bigger the difference between the background noise level and the predicted noise level, the more adverse the predicted noise is likely to be. Hence, leaving the wind affected data in would actually result in there being a smaller difference between the background noise level and the predicted noise level.

8.4 NE

We have serious concerns about the way that noise has been measured and the targets that are being used to assess significance. This section is fundamentally flawed. We do not agree that the impact of noise is not significant.

- 8.4.1 The assessment of noise effects has been undertaken using standard methodologies, models and assessment criteria which are well-used in EIA. Answers to specific queries are outlined below.

Paragraph 10.2.2: The statements from the World Health Organisation (WHO) document are rather selective. In relation to “social and behavioural effects of noise (annoyance)”, the WHO note that:

“Stronger reactions have been observed when noise is accompanied by vibrations and contains low-frequency components, or when the noise contains impulses, such as with shooting noise. Temporary, stronger reactions occur when the noise exposure increases over time, compared to a constant noise exposure.”

Paragraph 10.2.21: Please cite the reference and context to the UK Government’s comments that the WHO levels are very low i.e. extremely cautious.

- 8.4.2 The UK Governments comments referred to in paragraph 10.2.21 of the EA were taken from Porter ND, Flindell IH and Berry BF. NPL Report CMAM 16, Health Effect-Based Noise Assessment Methods: A Review and Feasibility Study, 1998
- 8.4.3 The following are quotations taken from a review of health effects based on noise assessment methods undertaken for the DETR just before the issue of the 2000 WHO guidelines:

“The most important factor to be borne in mind when interpreting the guideline values given in either of the 1980 or 1995 WHO-inspired noise criteria documents is that neither set actually has any official status.”

“...the main weakness of both WHO-inspired documents is that they fail to consider the practicality of actually being able to achieve any of the stated guideline values.”

“The percentages exposed above the WHO guideline values could not be significantly reduced without drastic action to virtually eliminate road traffic noise and other forms of transportation noise (including public transport) from the vicinity of houses. The social and economic consequences of such action would be likely to be far greater than any environmental advantages of reducing the proportion of the population annoyed by noise. In addition, there is no evidence that anything other than a small minority of the population exposed at such noise levels find them to be particularly onerous in the context of their daily lives.”

“In view of the uncertainties involved in setting standards, the WHO guidelines might be considered as a highly precautionary approach if used when setting future noise standards and regulations to protect against possible health effects. While this precautionary approach may be justified by the scientific plausibility of these effects, it is necessary to place these possible effects in proper perspective. An over-precautionary approach to setting future noise standards and regulations at too low levels might lead to unacceptable impacts in other areas.”

Section 10.5: We can find no reference to the amount of military training that was carried out between 23rd and 31st July, when noise measurements were taken. The results in 10.5.13 would suggest that no military training took place on any of the ranges! Was this the intention, in order to measure background levels? We also consider one week's data to be insufficient to judge the significance of noise.

- 8.4.4 The intention was indeed to measure background noise levels. One week's data is deemed to be more than sufficient to build up a representative average noise level.
- 8.4.5 During the period 23-31 July the following units undertook training on Dartmoor

Table 8.1 Training on DTA (23rd to 31st July 2007)

Date	Unit	Type of Training
Okehampton		
23-27	59 Indep Cdo Sqn RE (Engineer Squadron)	Dry training
23-27	3 YORKS (Infantry battalion)	Dry Training
24-25	21 Sig Regt (Signals Regiment)	Navigation
25	CTCRM 934 Tp (30+ RM trainee soldiers)	30 miler
25-26	43 Cdo RM Mor Tp (40+ RM trained soldiers)	Dry training
30-31	Dorset Bn ACF (Cadets)	basic military skills
31	CTCRM RFTT (30+ RM soldiers)	Navigation
31	21 Sig Regt (Signals Regiment)	Navigation
Willsworthy		
23	42 Cdo RM (Infantry Battalion)	B range live
24,26	Cdo Log Regt (Logistic Regiment)	A & B range live
27	Cdo Log Regt	B range live
30	MOD Police	C range live
30-31	CSG (Infantry battalion)	A & B range live
Merrivale		
23-27	CSG	Dry training
24-25	21 Sig Regt	Dry training
Cramber / Ringmoor		
24	CTCRM RFCC	Basic military skills
26-29	29 Cdo Regt RA (artillery regiment)	Dry training
25,26	42 Cdo RM Mor Tp	Basic military skills
25	42 Cdo RM Recce Tp (30+ trained RM soldiers)	Basic military skills
26	CTCRM Hunter Tp	Navigation
26	HMS DRAKE	Adventure training
26	42 RM Cdo Comd Coy	Basic military skills
28,29	HMS RALEIGH	Adventure training
28,29	Devon Bn ACF B Coy	Basic military skills
31	CTCRM Tp	Climbing Foggintor

8.4.6 These activity tables can be summarised as the conduct of low level training with occasional blank firing. Live firing was conducted on Willsworthy on 23,24,26,27, 30 & 31 July. However, it should be noted that the noise monitoring was attended and noise from training was not audible from the receptor locations.

Paragraph 10.5.5: Could the omission of data during high winds introduce a bias into the data? If those winds are carrying military noise towards the receptor, the perceived noise levels will be larger.

- 8.4.7 The omission of background noise level data during high winds actually provides a more robust noise assessment. Noise levels were predicted according to the methodology in ISO 9613, which incorporates downwind noise propagation. Please also see our response above at paragraph 8.3.3.

Table 10.4 Summary of noise magnitude criteria

Table 1 of the WHO document (“Guideline values for community noise in specific environments”) clearly states that “outdoors in parkland or conservation areas” the critical health effect of noise is “disruption of tranquillity”. No target levels are given but the advice is:

“Existing quiet outdoor areas should be preserved and the ratio of intruding noise to natural background sound should be kept low”.

We therefore argue that the WHO guidelines used in this table to assess significance are inappropriate and that, as the WHO implies, existing background noise levels should be maintained.

- 8.4.8 Although ‘disruption of tranquillity’ is listed in table 1 of the WHO Guidelines in the column entitled ‘Critical health effects’, it is considered that the disruption of tranquillity is not a critical health effect, especially given the frequency of occurrence of events. Dartmoor can be described as an ‘existing quiet outdoor area’, and this quiet is, for the overwhelming majority of the time, preserved. In addition, it is suggested that the ratio of intruding noise to natural background noise is kept low, considering the low frequency of events.

Paragraph 10.5.27: The use of modelling data to assess military noise is insufficient evidence and actual measurements are needed as well.

- 8.4.9 The noise model is based on actual measurements. The modelling for the Live Firing exercise was based on noise levels recorded at Warcop training area (see paragraph 10.5.7 of the EA) and the modelling for the dry training exercise was based on noise levels recorded at Cramber Tor as part of a previous EIA. The actual measurements from the dry training exercise which were input into the noise model are shown in tables A10.2 a to c in Appendix 10.2 of the EA. These show the actual noise levels recorded at varying distances from the exercise location whilst a dry training exercise was taking place and are taken from the Cramber Tor ES. The noise levels recorded from a live firing exercise are shown in Tables A10.2d to f. It was not considered feasible to stage a dry training and a live firing exercise at the nearest possible location to each of the receptors and record noise levels at each of the receptors whilst the exercise was taking place. Therefore, modelling work was required to use the noise level data to predict noise levels at the nearest receptors taking into account the distance between the source of the noise and the receptors. This is a standard and nationally accepted method of presenting noise levels for use in EIA.

Paragraph 10.5.31: The use of a simulated dry training session in the centre of the three ranges should not be used as the only training scenario. It is known that firing takes place in the northern part of Okehampton Range as part of a typical training scenario.

- 8.4.10 It is agreed that dry training at the centre of the three ranges should not be used as the only training scenario and therefore, noise levels were also predicted for scenarios incorporating training at the closest approach to the receptors considered in the assessment. The results from the assessment of dry training at the closest approach to recreational users on DTA (considered to be 100m) are discussed in paragraph 10.5.35 and at the closest approach to residential receptors (200m) are discussed in paragraphs 10.5.44 to 10.5.59 of the EA.

Table 10.7: We assume that these levels are on top of background levels and therefore misrepresent the actual noise levels. Therefore, the statement in 10.5.32 that “predicted...noise levels...do not increase ambient noise levels” is false.

- 8.4.11 The noise levels presented relate to training noise only and only show the increase in noise not background noise levels. The increase in noise levels are sufficiently low at the residential receptors such that existing ambient noise levels would not be increased. Noise is added and subtracted logarithmically, therefore adding two noise levels of the same value would produce an increase in overall noise levels of 3 decibels, i.e. 30dB + 30dB = 33dB, not 60. If the difference between two noise levels is more than 10 decibels only the loudest noise source is audible. For example, Table 10.7 shows that the noise level that a dry training exercise would produce at Yellowmead is 26.4 decibels but background noise levels are already 44.2 decibels, therefore as background noise levels are more than 10 decibels above the noise produced by dry training, the dry training exercise would not be audible from Yellowmead.

Paragraph 10.5.34: The levels perceived by a recreational user at 100m may be a worst-case scenario but they are extremely high and very significant!

- 8.4.12 The noise level experienced by a recreational user at 100m (shown in Table 10.7 as receptor 14) is similar to that generated by a HGV passing at 7m distance. Given the likely frequency of occurrence, and the fact that 100m is the minimum separation distance and that those organising dry training exercises are briefed not to disturb other users more than is essential, this is not considered significant.

Paragraph 10.5.35: Where in the document is a ‘low’ sensitivity assigned to recreational receptors such as footpaths?

- 8.4.13 Receptor sensitivity is discussed in paragraph 10.5.17 of the EA. Those using footpaths are considered to be of low sensitivity as their exposure to noise levels would be temporary and of short duration as the person using the path passes the site of the training exercise. A residential dwelling would be considered to be of higher sensitivity because those living at the dwelling would experience a longer duration of exposure to any increase in noise levels from military activities

Paragraph 10.5.48: There is a worrying tendency in this whole section on noise to adjust the magnitude and/or sensitivity to downgrade the significance of effects.

- 8.4.14 Magnitude and sensitivity have not been adjusted to downgrade the significance of effects. The rationale for setting magnitude and sensitivity has been set out in Section 10.5 of the EA and is based on national and international criteria, guidance and research, incorporating an element of professional judgement. The assessment of effects considers the sensitivity of a receptor and the magnitude, duration and frequency of an increase in noise levels audible by that receptor to consider whether effects are significant.

Paragraph 10.5.60: See 10.5.31 and comments about location of simulations.

- 8.4.15 Noise levels were also predicted for scenarios incorporating live training at closest approach to receptors. The assessment is outlined in paragraphs 10.5.72 to 10.5.87 of the EA.

Paragraph 10.5.77: Once again, the magnitude of the noise levels, in this case at East Okement Farm and Lanehead appear to be explained away. "Present levels of deployment" gives no guarantee that training levels will not increase in future. The proper measure is the maximum amount and time of training that is permitted by the existing licence.

- 8.4.16 The predicted noise levels are based on one section attack occurring during a one hour period at the closest approach to the receptor. Tactical scenarios will require time for all of the operational drills, including reconnaissance, preparing, the assault, and then dealing with casualties, prisoners of war, consolidation and re-supply to be completed, and then realistic movement between attacks. Therefore, the rate of no more than one attack during a one hour period in the same area would not be exceeded.

Paragraph 10.5.79: We fundamentally disagree with the assertion that no assessment is necessary of the impact of noise from live firing on the public outside the DTA. The public can and do access moorland outside, but in close proximity to the range boundary.

- 8.4.17 Due to the distance there would be between recreational users outside the Range Danger Area and the location of live firing the predicted noise levels would be less than that predicted for the dry firing at 100m for recreational users.

Paragraph 10.6.1: As stated above, we do not agree with the significance evaluation. In addition, MOD's self-imposed limit of 130dB(C) has been set to avoid "numerous complaints" from the public. This is not an adequate threshold for preserving the tranquillity that the public expects from a National Park.

- 8.4.18 This statement was added just to demonstrate that noise levels at the RDA boundary would not exceed the MOD self imposed limit of 130dB(A). However, this limit is set for health and safety purposes and is not intended to be used as a threshold for preserving tranquillity.

8.5 RA DA

Comment Number 7 (Noise Page 131 etc): I will confine my comment on this weighty and largely unintelligible section on Noise by saying that the most intrusive noise frequently encountered on any part of Dartmoor is the screech of low flying jets, which generally occurs on the southerly part of the moor, particular between Yelverton and Princetown but including the Cranber Tor area. It is unclear to me whether this activity is scoped-in or scoped-out of the Appraisal.

- 8.5.1 The SR, at paragraph 1.1.5 states that 'fixed wing aircraft and helicopters used to support troops training on DTA will be included in the EA'. However, the effects of fixed wing military aircraft flying training and transit were scoped-out of the appraisal as the majority of aircraft movements are not in support of ground troops or associated with training on DTA and it is considered that these movements would occur whether or not the military

train on DTA. Furthermore, MOD Air, not DTA, is responsible for controlling low flying aircraft.



DARTMOOR TRAINING AREA

Environmental Appraisal

Public Access and Recreation

9

9. Public Access and Recreation

9.1 Introduction

- 9.1.1 Comments in relation to public access and recreation were raised by CNP, DNPA, DPA, DSA EA, NE, OSS, and RA (Head Office and Devon Area). No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Richard Brooks and Lt Col (Ret'd) Tony Clark, MOD/DE.

9.2 CNP

Dry training: CNP is concerned that the draft EA states that the impact of dry training on the general public is insignificant. However, it is not clear that an assessment of the impact of dry training on the public interest has been undertaken. CNP is aware that there are consistent levels of concern expressed by the public and the local community about dry training. CNP considers that Defence Estates should recognise that dry training and recreational use of Dartmoor are not wholly compatible and that an assessment should be undertaken of the impacts of dry training on the public's enjoyment of the Park.

- 9.2.1 Paragraphs 11.5.49 – 11.5.53 of the EA assess the effects of dry training. Whilst it is accepted that dry training has the potential to affect a wide range of users with existing mitigation in place and with the development of the additional mitigation identified in paragraphs 11.5.51 and 11.5.53 this effect is assessed as not significant.
- 9.2.2 Despite rumours and hearsay that there is a steady stream of complaints in relation to dry training no evidence of this was forthcoming from members of the PA WG which included DNPA Ranger service representation, DTA staff and NE staff. Examination of the Minutes of the Dartmoor Steering Group and its Working Party over the past 5 years does not reveal evidence of a consistent level of concern. In 2007 one incident occurred in contravention of DTE SW SOs. In 2006 the minutes recorded that “*very few complaints had been received, most of these had been minor and all had been dealt with*”. Examples included: “*low flying helicopters frightening horses and riders, some instances of members of the public alarmed by dry training*”. This was a complaint about dry training related to Burrator but the DWP reported that it appeared to be in accord with the licence and planning conditions for Cramber Tor. In 2005, the DSG recorded that “*Complaints during the year have been very few and minor in nature*”. In 2003, the DSG recorded that the tenor and quantity of complaints remained low as had been the case in 2002.
- 9.2.3 Comdt DTA maintains a phonenumber to take complaints; all complaints are logged and investigated, passed to DNPA and are presented to DWP/DSG for discussion as necessary.

Public access: CNP is concerned that the MOD suggests current access restrictions to areas of particular interest, such as Yes Tor and High Willhays Tor, are not significant. These are the highest points in Southern England and therefore access to them is of significant public interest. The current levels of permitted access do not reflect the importance of the Tors to visitors to Dartmoor National Park. Withdrawing military training from these Tors would be one opportunity to improve public access without causing disruption to the Dartmoor military training programme. CNP considers that there are sufficient opportunities to consider decreasing the number of live firing ranges given the fact that only 50% of permitted use for live firing is actually used.

- 9.2.4 The significance criterion is based upon supply and demand. Yes Tor and High Willhays are available for public access for a guaranteed 245 days per years including every Saturday, Sunday, Monday, public holidays, the whole of April, May, July and August as well as substantial amounts of September and December. Additionally further days access become available once detailed military programming has been undertaken. OSS, DPA, RA and DNPA accept that actual recreational demand to access these areas is low – indeed DPA describe those wishing increased access as a minority. Whilst it is accepted that these areas are the highest areas of Dartmoor the relative low restrictions on accessing them and the availability of advance firing times means that the valuation of not significant stands.
- 9.2.5 The assessment of the effects resulting from removing Yes Tor and High Willhays from the RDA are clearly outlined in paragraphs 11.5.39 to 11.5.43 of the EA. Similar evidence is produced for Tavy Cleave in paragraphs 11.5.44 to 11.5.48 where public access is guaranteed for 120 days plus additional days which become available once planning has been undertaken.
- 9.2.6 The SR clearly states that there will be no change to the number of live firing days currently (2006) permitted.

9.3 DNPA

“The EA states (p.viii) that “consideration was given to altering the firing calendar in order to change the times of the year when public access is guaranteed. However, if all the suggested alterations were made to the firing calendar it would be impossible for the MOD to maintain a viable firing programme and therefore it has been concluded that the current calendar represents the best compromise”. We would expect to see an assessment of different options with the associated public benefits and impacts on training identified/quantified.”

- 9.3.1 The SR clearly states that the Appraisal will be based on the premise of no significant increase in levels of military activity or change to the number of live firing days currently (2006) permitted. DNPA acknowledged this in their response to the SR dated 17 November 2006. The majority of request to alter the calendar substantially reduced firing days available to the military. In order to maintain a continuing balance of demand for particular days against military requirement Comdt DTA has been authorised to negotiate minor local amendments within existing number of days.

“The EA appears to mis-represent DNPA’s position regarding the breeding Ring Ouzels, citing the presence of the birds as a reason for not increasing access. Our position is that any impacts through increased access could be mitigated through management/information measures.”

- 9.3.2 It is accepted that other forms of management to avoid particularly sensitive sites could be put in place. This effect of access on breeding birds was noted in the assessment as raised within the WGs. It forms only part of the assessment of access to Tavy Cleave and indeed is not mentioned in the conclusion of this assessment in paragraph 11.5.48 of the EA.

“An extension to the six week notification period is ruled out but we would like to see an analysis of the public benefits/associated impacts on military training of extending the notice period to say 8, 10 or 12 weeks rather than just look at 6 or 13.”

- 9.3.3 The 13 week (3month) advance notification was suggested by RA for the simple reason that they plan their walks programmes this far in advance. This was assessed as part of the EA and found to be unworkable from a military perspective. If implemented it could lead to an increase in disruption and changes to a planned firing programme thus causing an increase in public dissatisfaction. It should be noted however that with the guaranteed public access days (245 on Okehampton Range) it is possible to plan walks within any 3 month period over 12 months in advance. Any change of firing notice period is ongoing DWP business.

The proposed mitigation in terms of additional information is to be welcomed and we would like a process whereby we agree with MOD and, if required, Duchy of Cornwall an annual programme of costed works paid for by Defence Estates.

- 9.3.4 DE would obviously work closely with DNPA in relation to all aspects of interpretation both on site and off site. This will simply continue to strengthen the close working relationship that has developed over the past years. It is envisaged that DE Access and Recreation specialist staff, DTA Training Area staff and DNPA staff would take these projects forward in partnership. Whilst the EA (11.5.72) identifies funding for new public information boards in 2008, the MOD is not in a position to guarantee the future commitment of funds.

9.4 DPA

“The DPA has welcomed this opportunity to engage in constructive discussions as part of the EA process. This may have raised our hopes that the EA would recommend some concessions to continue the trend of improvement, notably on excluding Yes Tor and High Willhays from the Okehampton RDA”.

- 9.4.1 From the outset it was made clear that the process would assess all issues raised. There have been additional improvements made through the EA process but some ambitions have proved to be beyond local reconciliation.

“As drafted the EA is profoundly disappointing. It recommends no concessions on access and offers very few new ideas for mitigating impact”.

- 9.4.2 Section 11.4.2 lists the existing management measures which work to minimise the effect of access restrictions. Section 11.4.3 identifies 12 additional mitigation measures.

“The EA acknowledges that access is the area in which military training does have a significant effect on National Park purposes, but then judges that ‘the effects on the public because of limited access to places of particular interest (Yes Tor, High Willhays, Tavy Cleave) ‘are not considered significant.’ This is based on the number of days of guaranteed access; and while this may apply to the majority of the public, it makes no acknowledgement of the value of access to special places which is unfettered and requires no forward planning. This is an important principle to the enthusiastic minority of more adventurous Dartmoor walkers”

9.4.3 See response to CNP’s comments at section 9.2 of this report.

“It (access to the above areas) could only be achieved by clipping the north-western edge of the Okehampton Range to allow year round access to these highest tors”.

9.4.4 There would appear to be some confusion with this comment as Tavy Cleave does not fall within the Okehampton range but actually forms a great part of the Willsworthy Range. Unrestricted access to Yes Tor, High Willhays and Tavy Cleave would therefore require not only the movement of the Okehampton range by a minimum of 1.5km south (an exercise unfairly described as clipping) but would also reduce Willsworthy Range by up to a third.

“The lower than permitted levels of use of Okehampton RDA in recent years suggest that the number of firing days could be reduced. However, this is not addressed as an option by the EA”.

9.4.5 See response to DNPA’s comments at paragraph 9.3.1 of this report

9.5 DS

9.5.1 We welcome the positive comments received from the Dartmoor Society.

11.5.12 “We believe that it is important the figure of 3.8m day visits is used until the results of new survey work is available”

9.5.2 The figures of 3.8m and 11.42m are used to demonstrate the lack of clarity of visitor numbers to Dartmoor National Park within existing research.

9.6 NE

Paragraph 11.5.2: “We are disappointed that no commitment has been made to gather additional data on public access to inform the EA. Given the conclusion of ‘significant impact’ in the EA, this should be rectified.”

Paragraph 11.5.13: “Whilst it may be true to say that accurate counting of visitor numbers is difficult, it is not impossible, as this paragraph suggests. With sufficient volunteers, it would be possible to cover the majority of sites from which most people start their recreational activities.”

9.6.1 The Tourism Associates Report produced as part of this process quantifies for the first time demand for access to DTA. It also looks at access to the wider Dartmoor area in greater detail than any existing study. The paucity of other data sources is recognised but no other body has carried out such detailed research. The PA WG considered collection of both quantitative and geographical information eg how many walkers and where did

they walk. However, this course was discounted as the data would be of little use as DNPA and RA were basing their argument on principle having conceded that the number of walkers affected were few.

- 9.6.2 It is also noted that only some 50% of the NP has public access, much is enclosed land.

Paragraph 11.5.16: “The Tourism Associates Report is not an adequate document to base many of the statements made about access in the EA. The report is mainly about spending patterns and not actual or potential public use of DTA.”

- 9.6.3 Paragraph 11.5.16 of the EA clearly states the four access related terms of reference of this report, which are:

- a. Understand more clearly and completely the claims made by special interest groups about the military presence on Dartmoor and the **potential changes in tourism leisure use patterns, were the military use of Dartmoor to change or the military to depart.**
- b. Investigate **current spatial and temporal usage** and spending patterns by visitors on Dartmoor, with special reference to DTA.
- c. Assess **potential spatial and temporal usage** and spending patterns by visitors on Dartmoor, with special reference to DTA.
- d. Provide recommendations about the **interface between military activities, the local community and visitors to inform the future management of DTA.**

Paragraph 11.5.19: “In B.6, we assume that 19.2% of people said that the military had a negative affect on their visits. If so, this figure should also be listed.”

- 9.6.4 The key findings were taken directly from the TA report and reported as such. NEs comment suggests that we have tried to manipulate the figures for our own spin – this should be taken in context with the rest of they key findings which were also reported exactly as stated in the TA report.

Paragraph 11.5.33: “We would welcome some more information about the report here. How many people were interviewed and where did they live, for example?”

- 9.6.5 The TA report and its annexes clearly report information about those interviewed.

Paragraph 11.5.38: “We would welcome and support authorisation for the Comdt DTA to negotiate minor amendments to the firing programme. We would like there to be an ability to vary the use of the DTA annually, so that if training requirements decrease because of operational commitments, more access can be provided up to a ceiling set by the licence.”

- 9.6.6 This occurs already through programming. Access restrictions are only in place when live firing is being undertaken. Days which are not programmed are notified 6 weeks in advance.

Paragraph 11.5.43: “We thank Comdt DTA for explaining in detail how training on the DTA is conducted and how permanent access to High Wilhays and Yes Tor would reduce training capacity. However, we cannot agree with the conclusion that the “disadvantages heavily outweigh any advantage that might accrue”, because the data on the potential increase in public usage is not available.”

- 9.6.7 The TA report has calculated the only available statistics on this stating that if the military were to depart from Dartmoor then 3.8% of visitors claim they would make more visits to the moor. Were the military to depart from the training area then 5.4% claimed they would make more visits to that specific area. These figures are clearly stated in paragraph 11.5.20 of the EA.

Paragraph 11.5.45: "A scenario of increased public access to Tavy Cleave should be examined, not simply full access. The impacts on birds could be avoided e.g. by not permitting access during the sensitive breeding period."

Paragraph 11.5.46: "Bullet 4 is not necessarily correct. Public access for the 8 months outside the breeding bird period would avoid disturbance."

Paragraph 11.5.47: "We look forward to the outcome of this work."

- 9.6.8 It is accepted that other forms of management to avoid particularly sensitive sites could be put in place. This effect of access on breeding birds was noted in the assessment as raised within the WGs. It forms only part of the assessment of access to Tavy Cleave and indeed is not mentioned in the conclusion of this assessment in paragraph 11.5.48 of the EA.
- 9.6.9 As recognised in paragraph 11.5.47 the result of the WDAAPS work will not be known before mid 2008. Early indications are that certain weapon templates cannot be changed; this is likely to preclude any boundary change for Willsworthy ranges.

Paragraph 11.5.50: "The first sentence surely cannot be true given the steady stream of complaints made about dry training."

- 9.6.10 See response to CNP's at section 9.2. of this report.

9.7 OSS

1. "We are dismayed that the effects of limited access to particular interest are not considered to be significant. For instance the possibility of freeing High Willhays and Yes Tor from the Ranges is rejected"

- 9.7.1 See response to CNP's comments at section 9.2 of this report.

2. "We disagree that increasing access to Tavy Cleave could have effects on breeding birds, and we see no evidence for this. In any case it is possible to manage access to avoid particularly sensitive sites if that is necessary".

- 9.7.2 It is accepted that other forms of management to avoid particularly sensitive sites could be put in place. This effect of access on breeding birds was noted in the assessment as raised within the WGs. It forms only part of the assessment of access to Tavy Cleave and indeed is not mentioned in the conclusion of this assessment in paragraph 11.5.48 of the EA.

3. "We disagree that the effects of dry training on public access are not significant. Dry training causes disturbance, with unexpected noises and events which can be off-putting to the public".

- 9.7.3 Paragraphs 11.5.49 – 11.5.53 of the EA assess the effects of dry training. Whilst it is accepted that dry training has the potential to affect a wide range of users with existing mitigation in place and with the development of the additional mitigation identified in paragraphs 11.5.51 and 11.5.53 this effect is assessed as not significant.

9.8 RA

The RA “are very concerned that none of the constructive proposals put forward by the Ramblers association and discussed at both a local and national level with representatives of Defence Estates and Dartmoor Training Area during the process are to be taken forward”.

- 9.8.1 Paragraph 11.4.3 lists the additional access and recreation mitigation identified through the EA process. This list includes some of the proposals discussed with the Ramblers Association. The proposals that are not being taken forward are investigated in the EA.

“During the process potential improvements in access to areas such as High Willhays, Yes Tor and Tavy Cleave were discussed and were also identified as desirable by the Dartmoor National Park. However as none of these improvements are to be taken forwarded we must state our growing dissatisfaction with the process which will, we believe, only add to the growing calls that this matter can only seriously addressed by a full independent inquiry”.

- 9.8.2 See response to CNP’s comments at section 9.2 of this report.

9.9 RA DA

Comment Number 1: Non technical Summary page vii paragraph Public access:

A) “We do not accept the statement that “the effects on the public because of limited access to areas of particular interest (Yes Tor, High Willhays, Tavy Cleave) are not considered to be significant”. Yes Tor and High Willhays are the highest points on Dartmoor as well as the highest points in Southern England. Tavy Cleave is one of the most impressive river valleys on Dartmoor. Denial of public access to these areas whilst live firing takes place is a significant concern. “

- 9.9.1 See response to CNP’s comments at section 9.2 of this report.

B) “If live firing has to take place in any National Park (contrary of course to National Park purposes) then Defence Estates ought at least to accept a greater degree of compromise and allow unrestricted access to these specified places. The minimal use of the Okehampton range in recent years (2005 56 actual days, 2006 35 actual days) strongly suggests to us that Defence Estates requirement for continued use of the Okehampton range is considerably less than you suggest. This level of usage could be accommodated on the other two ranges or elsewhere”

- 9.9.2 The SR clearly states that the Appraisal will be based on the premise of no significant increase in levels of military activity or change to the number of live firing days currently (2006) permitted. RA (DA) made no comment to this in their response dated 15-11-2006 to the SR.

C) *“In relation to Tavy Cleave, the reference to ‘effects on breeding birds’ is considered to be almost fatuous. You appear to suggest that the possible effects on breeding birds of greater public access are reason to justify live firing. The bird breeding season extends only to a few months per year; live firing on Willsworthy Range (which includes Tavy Cleave) intrudes over the bird nesting season and over weekends. Outside of the live firing periods there is public access. Is there any evidence of actual rather than perceived disturbance to nesting birds at times of public access? Do the nesting birds go elsewhere when live firing or public access takes place? Appropriate restrictions under Section 26 of the CROW Act are more appropriate and might be applicable to the Tavy Cleave area if it was not subject to military byelaws. But there are very few restrictions elsewhere on Dartmoor for such nature conservation reasons.”*

- 9.9.3 It is accepted that other forms of management to avoid particularly sensitive sites could be put in place. This effect of access on breeding birds was noted in the assessment as raised within the WGs. It forms only part of the assessment of access to Tavy Cleave and indeed is not mentioned in the conclusion of this assessment in paragraph 11.5.48 of the EA.

D) *We now suggest (and this has not been suggested previously) that, by sub-dividing the current extent of the Willsworthy Range it should be possible to allow public access to Tavy Cleave and the part of that range on the south easterly side of the River Tavy when the only “live firing” taking place on the range is at the fixed rifle butts at approximate grid ref SX 528 833. Paragraph 11.5.47 of the Environmental Appraisal may be pertinent here.*

- 9.9.4 As recognised in paragraph 11.5.47 of the EA the result of the WDAAPS work will not be known before mid 2008. This suggested change will be assessed alongside these results. However early indications are that changes are unlikely to be possible on range safety grounds as templates for larger calibre weapons cannot be amended.

E) *We do not accept that dry training near to popular locations should be “discouraged”. It should not be allowed at all. Paragraph 11.5.53 is more positive in this respect.*

- 9.9.5 Paragraph 11.5.53 states that honeypot sites have been identified and agreed by DNPA and ‘Voluntary Training Avoids’ put in place to ensure that dry tactical training does not occur in or around these sites at peak visitor periods.

F) *We remain concerned that the current OS Explorer series maps do not colour the ranges as “access land” and this may suggest at first glance that there is no access. By way of analogy, the previous series maps (2002 Edition and earlier) showed the Okehampton range as Access Land (by mauve edging overprinted in several places “DANGER AREA”). This issue must be pursued further with Ordnance Survey as the current practice is lacking in clarity. We note what is said in paragraphs 11.5.59 to 11.5.66 of the report.*

- 9.9.6 MOD policy backed by Ministerial agreement is that Range Danger Areas (RDAs) will not be shown as access land because of the necessity for public safety. Additionally wording on the map states ‘Range Danger Area – Access may be restricted’. Website address and telephone numbers are given. OS have supported MOD policy adding that they would not wish to show any RDA with the access colourwash because of their own liability issues in doing so.

Comment Number 9: Public Access and Recreation Page 170 paragraph 11.3.10, second bullet point relating to Beardown Tor: “It is accepted that Beardown Tors are outside of the Merrivale Range but point out that our original request referred to Beardown Tors AND Lydford Tors. The latter is within the range. (see Notes of meeting on 10 May 2007)”

- 9.9.7 It is unfortunate that Lydford Tor was overlooked in the EA. We note that Lydford Tor is not mentioned in the 16 May 07 minutes of the 10 May 07 meeting with the Ramblers albeit that it was in an earlier draft not in table form. A further investigation will be undertaken to look at the effects of moving the RDA to allow permanent access to this tor. Maps are being produced supported by a short paper to illustrate the impact of changing the RDA to exclude Lydford Tor.

Comment Number 10: Public Access and Recreation Page 180 Paragraph 11.5.31, 11.5.32, 11.5.33 etc: “It is accepted that the “level of demand for access” is difficult to measure and Ramblers’ Association cannot readily provide any measure of such demand. But our case is one of principle; within a National Park, there should be unfettered public access not constrained by military or any other presence.”

- 9.9.8 This statement suggests therefore that RA DA would object to any restrictions placed up on any area within any National Park through CROW Act or other legislation in terms of closures or restrictions for shooting, grouse moor management, lambing, nature conservation, fire hazard etc – this is surely an unrealistic approach to integrated access management. Designation as a national park does not carry with it an automatic right of access, it should be noted that there is no public access to more than 50% of the Dartmoor National Park.

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DARTMOOR TRAINING AREA

Environmental Appraisal

Socio Economic Effects

10

10. Socio-Economic Effects

10.1 Introduction

- 10.1.1 Comments in relation to socio-economic effects were raised by CNP, DNPA, and RA DA. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Alistair Donohew, Entec and Richard Brooks, MOD/DE.

10.2 CNP

CNP is concerned that an assessment has not made of the economic disincentives of military training on Dartmoor (for example, the numbers of tourists discouraged from visiting the area due to the loss in tranquillity, perceived danger and reduced access). Without this information, the draft EA is not in a position to provide a balanced assessment of the socio-economic matters affected by military training in the region.

- 10.2.1 This (an estimate of expenditure that does not occur as a result of tourists being discouraged from visiting Dartmoor) may be useful if the aim of this work was to provide an estimate of the total economic value of military training on Dartmoor to the region.
- 10.2.2 However, the aim of the environmental assessment is to identify potential effects as a result of the activities undertaken and assess whether these effects are significant. The effect described has previously been scoped out on the basis of professional experience undertaking similar studies and on consideration of information provided in the Tourism Associates report (March 2007). Tourism Associates provide a review of available information relating to tourists that come to Dartmoor and highlights a wide range of factors that attract them to the area. Tourism Associates surveyed visitors to Dartmoor in 2005 and present the results in the report. This work was undertaken in consultation with The Head of Tourism and Recreation at Dartmoor National Park Authority and found that of those surveyed; '64.7% stated that the military presence had no effect on their visit to Dartmoor. 16.1% stated that the military presence had a positive effect.'
- 10.2.3 It is considered that the EA provides an appropriate and proportionate assessment of the social and economic effects of training activities on Dartmoor. The EA assessed the effect of military training activities on the tourism sector is assessed to be neutral and not significant. The above comment identifies an effect that it was not appropriate to quantify as it would have taken a disproportionate amount of effort to do this.

10.3 DNPA

The socio-economic section of the EA is not complete. Information on 'soldier spend' is not collected and thus there is no figure on total economic effect.

- 10.3.1 Information regarding soldier expenditure is now available, and has been published as a separate report. However, the EA report does not aim to provide an estimate of the total economic *value* of military training on Dartmoor to the region. The aim of the environmental assessment is to identify potential effects as a result of the activities

undertaken and assess whether these effects are significant, particularly in relation to the local area. For example, the work undertaken to date does not attempt to estimate the contribution of the DTA to the efficient running of the military and knock-on effects to national security and the military's ability to carry out government policy. This contribution would also need to be identified in order to estimate the total economic effect but is not appropriate here given the extent of work required *and* as we are mostly concerned with the effects on the local area.

- 10.3.2 The soldier expenditure survey revealed some interesting information about the nature and level of expenditure of military personnel when they visit DTA. The report makes an estimate of the direct annual spend on goods and services within Dartmoor and the towns and villages surrounding it (based on a number of assumptions set out in the report) this amounted to £145,000 to £335,000 and a similar amount was expected to be spent within the wider Devon and Cornwall Economy. These direct expenditure effects would be further amplified through multiplier effects (so called indirect and induced effects) the result of knock-on flow of expenditure through the remainder of the economy. This estimate did not include the expenditure made by units, on travel, etc. and responses available for three units indicated that this was greater than £5,000. The overall contribution to the Dartmoor economy, like the effect of expenditure within the supply chain illustrated in the EA, is fairly small in relation to expenditure in other sectors and given the strong and diversified local economy is expected to initiate a moderate or partial difference. However, the combined direct and multiplier effects of soldier expenditure, spending within the local supply chain, expenditure on hotels, and the Ten Tors events are likely to result in a positive and significant effect on the local Dartmoor economy.

The EA looks at existing spend profile and does not look in any detail at maximising the multiplier effect of its expenditure. We would like a more detailed examination of how the local multiplier effects could be maximised to provide maximum benefit to local communities. For example, there is a lack of detail on procurement of food with the stated aim being to procure food locally 'wherever possible'. It is not clear what 'wherever possible' means and there is no detail on how such opportunities could be maximised. Increased local food spend could provide benefits to local farmers and help ensure implementation of the Moorland Vision.in

- 10.3.3 From the outset it was decided not to apply multipliers and a more conservative method was chosen; dedicated multipliers were not available. Professional advice was that proxy multipliers are designed for different purposes and their use in this case would result in data being skewed with emphasis which could not be quantified or trusted. Therefore the resulting figures are accurate if presenting an underestimate or worst case scenario.
- 10.3.4 Local procurement 'wherever possible' is a reasonable objective for any organisation interested in trying to promote positive economic effects. To be most effective, it would be useful to examine if there are opportunities to link with procurement programmes organized with other local public sector organizations such as the DNPA. This has already been identified as potential mitigation for the effect and it is to be outlined in the EMS and SOP for the site.

10.4 RA DA

RA (DA) Comment 2: Non-Technical Summary page viii paragraph Socio-economics: “We readily agree that tourism contributes more to the local economy than military trade. The “value” to the local economy of the military presence has always been overstated. Whilst the amount of individual spending by troops (in bars, restaurants, local facilities etc) is not readily ascertainable (but could be ascertained by simple sampling), the amount spent by Defence Estates centrally on supply contracts with local suppliers is surely available now and could have been disclosed in the Environmental Appraisal at time of its publication”.

- 10.4.1 Chapters 7, 8 and 9 of the Tourism Associates Study concentrate on Analysis of MOD Local tenders, Contracts and Procurement, Military Personnel Spend and a Local Business Survey. A summary of this was included in the EA but wider statistics are available in the TA report.

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DARTMOOR TRAINING AREA

Environmental Appraisal

Soils, Geology and Groundwater

11

11. Soils, Geology and Groundwater

11.1 Introduction

- 11.1.1 Comments in relation to soils, geology and ground water were raised by NE. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Rachel Dimmick, Entec and Lt Col (Ret'd) Tony Clark, MOD/DE.

11.2 NE

Paragraph 13.3.4: We are concerned that the impacts of training on geological outcrops is scoped out. Recent damage to East Mill Tor has so far been unexplained but might have been a result of military training.

- 11.2.1 As stated in the EA, this type of effect was scoped-out in the SR as measures, such as standard climbing practices, are implemented through the EMS to prevent such damage occurring. As there was no mention of this in the LUWG and NCWG meetings this issue was not scoped back in to the assessment. Reports of damage to geological outcrops are investigated as part of the management of DTA.

Paragraph 13.5.13: MOD admits that the risk posed by UXO has not been assessed. Some more information on the technology available to find UXO would be welcomed.

- 11.2.2 Although the risks from UXO have not been fully characterised, the potential hazard from UXO has been risk assessed based on the existing available information (see Table 13.3). Information on the technology that would be used to find UXO is available from Commdt DTA if required.
- 11.2.3 To clarify the statement in EA 3.5.13, DTA has carried out a risk assessment of the hazards posed by legacy residual unexploded ordnance based on the available information. This details the control measures which include information, notices and cautions, restrictions on digging, surface clearance of areas used by the military, and briefings to National Park Rangers and guided walk leaders. Advice is given to other stakeholders for example Devon and Somerset Fire and Rescue Services and commoners associations, to enable them to complete their own risk assessments.
- 11.2.4 It has not proved possible with existing technology and Dartmoor's terrain to conduct surveys of legacy buried unexploded ordnance. Hence the comment that the "risk posed by buried explosive ordnance has not been fully characterised".
- 11.2.5 Information on the technology available and the claims made for it are available on the internet under Magnetometers and Sub Surface Unexploded Ordnance Detection/ Discrimination amongst other sites.
- 11.2.6 A presentation, further information and a discussion can be arranged on request to Comdt DTA.

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DARTMOOR TRAINING AREA

Environmental Appraisal

Surface Water

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12. Surface Water

12.1 Introduction

- 12.1.1 Comments in relation to surface water effects were raised by the EA. No other comments were raised in the responses received from consultees. The responses to these comments have been produced by Rachel Dimmick, Entec.

12.2 EA

There are no significant concerns from a Water Resources perspective. As intimated in the report, there are abstractions that take place within the areas of Dartmoor covered by the MOD activities. The major abstractions are associated with the public water supply company - South West Water Services Ltd, either directly from river or from reservoir locations. There are industrial abstractions associated with quarrying activities (e.g. Meldon Quarry). In addition to this, there are several minor groundwater abstractions for agricultural and domestic purposes. We are aware of a number of those smaller abstractions deregulated in the 'deregulation of licences not exceeding 20 m³/day'. However, there are many small domestic abstractions of which we have no knowledge.

There does not appear to be any history of adverse impact on water supply sources, large or small, as a result of MOD activity.

- 12.2.1 The additional comments in relation to abstraction of water across and within the vicinity of DTA are noted. However, it is considered that as the Environment Agency have no significant concerns in respect to the effects of military activities on water resources that no response is needed in relation to the above comment.

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DARTMOOR TRAINING AREA

Environmental Appraisal

Ten Tors Comments

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13. Ten Tors Comments

- 13.1.1 The EA noted in paragraph A1.1.10 that Commander 43 (Wessex) Brigade, the event's military organiser (known as the Director of Ten Tors) had re-established the Ten Tors Working Party. This group has been tasked with producing a report on current working practices, and the prospective future of the event. This report will be presented by Director Ten Tors to the Dartmoor Steering Group as a member of that body. The report will be presented on 16 January 2008. Therefore all comments received on Ten Tors as a result of publication of the EA have been passed to Commander 43 (Wessex) Brigade for his action.

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