

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
2. DEEA Methodology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009276

## 2. DEEA METHODOLOGY

This chapter sets out the overall approach to the Defence Exempt Environmental Appraisal (DEEA) undertaken for the Proposed Development. In addition, this chapter defines impact significance and the method of assessing environmental and social impacts arising as a result of the Proposed Development. It also presents a review of key sensitive receptors in proximity to the Application Site and indicates how and where these receptors are considered in the DEEA.

The contents and conclusions of the DEEA are based on the Proposed Development design scheme, site investigation work, baseline surveys, and, where appropriate, modelling, together with the expert knowledge and professional judgement of the technical specialists.

Evolution of the design and description of alternatives considered are presented in *Chapter 4: Alternatives and Design Evolution* of this DEEA; while the proposed planning application design is presented in *Chapter 5: The Proposed Development* of this DEEA and in the accompanying Planning Application documents. This chapter has been prepared by RPS Group.

### 2.2 Exemption from EIA Regulations

Applications for development that are covered by Town and Country Planning (Environmental Impact Assessment) (Amendment) Regulations 2008 (the Regulations) are termed 'EIA applications'. The Regulations also make provision for the Secretary of State to determine whether a development can be exempt from the EIA Regulations (under Regulation 4).

The Secretary of State for Communities and Local Government has considered the application by the Ministry of Defence for a Direction under Regulation 4(4)(a)(ii) of the Regulations in respect of the Proposed Development.

Having regard to the information supplied, the Secretary of State is satisfied that this Direction is justified because the development forms part of a project serving national defence purposes and in his opinion compliance with these Regulations would have an adverse effect on those purposes.

Accordingly, in exercise of the powers conferred on him by Regulation 4(4)(a)(ii) of the Regulations, the Secretary of State has directed that the requirements of those Regulations shall not apply to the proposal for the Proposed Development.

### 2.3 Approach

However, a DEEA has been undertaken which will include all of the necessary information to allow an informed decision to be made on the merits of the planning application. This commitment by AWE is in line with the Secretary of State for Defence Policy Statement as described in *Chapter 1: Introduction*.

The DEEA has been prepared to establish the likely significant effects that would occur on existing baseline conditions within the Application Site and the local area as a result of the construction and operation of the Proposed Development. The DEEA provides sufficient information to allow an informed decision to be made on the merits of the planning application by West Berkshire Council.

The DEEA has been prepared, wherever reasonably practical, with reference to the following:

- Defence Estates, Technical Bulletin 01/12 - Environmental Impact Assessment, Estates Development Unit, Defence Estates 2001 (Ref. 2-1)
- Institute of Environmental Management and Assessment (IEMA), Guidelines for Environmental Impact Assessment 2006 Update. (Ref. 2-2)
- The Town and Country Planning (Environmental Impact Assessment) (Amendment) (England) Regulations 2008 (Ref. 2-3)
- Department of Environment, Transport and the Regions (DETR) Circular 02/99 Environmental Impact Assessment 1999 (Ref. 2-4)
- Department for Communities and Local Government, Environmental Impact Assessment: A Guide to Good Practice and Procedures, A Consultation Paper (June 2006) (Ref. 2-5)
- Department for Communities and Local Government, Environmental Impact Assessment: Guide to Procedures, 5th May 2006 (Ref. 2-6)

### 2.4 Methodology

The DEEA has been based on a number of related activities, including but not necessarily limited to:

- Consultation with statutory and non-statutory consultees to identify and understand key issues concerning the wider site redevelopment, in particular development constraints and considerations;
- Consideration of local, regional and national planning policies, guidelines and legislation relevant to the environmental appraisal process;
- Establishment of relevant and consistent significance criteria for each technical chapter;
- Design review and assessment of alternatives;
- Review of secondary information, previous environmental studies and publicly-available information and databases;
- Physical surveys and monitoring;
- Preparation of desk-top studies; and
- Modelling and assessment.

The DEEA has considered the likely impact of the Proposed Development on sensitive receptors including the local environment and the local and regional economy. Positive and negative, short and long-term impacts have been considered. Where mitigation measures have been identified to either eliminate or reduce adverse impacts, these have been incorporated into the project design. Any remaining or 'residual' impacts have also been identified and classified in accordance with a standard set of significance criteria (see section 2.7.8).

### 2.5 Consultation

The process of consultation is valuable for the development of a comprehensive and balanced DEEA. Views of key statutory and non-statutory consultees serve to focus the environmental studies and to identify specific issues which require further investigation. Consultation is also an ongoing process, which enables mitigation measures to be incorporated into the evolving project design, thereby limiting adverse effects and enhancing benefits. Public consultation is an important element of the planning process.

The future development at AWE Aldermaston and AWE Burghfield has been communicated consistently over the past 10 years. The Site Development Strategy Plan public information leaflet was published in 2003 to provide the general public and West Berkshire Planning Authority with an explanation of the plans and reasoning behind the future development of AWE Burghfield and Aldermaston. An update to this strategy was published in 2005 to report on progress on the sites to date and to outline future plans as they take shape. A Site Development Context Plan (SDCP 05) (Ref. 2-7) was published in November 2005 which set out the phased programme of development between 2005 & 2015. This document was refreshed in 2008 (SDCP 08) (Ref. 2-8). The requirement for a new hydrodynamics research facility has been identified in all these public documents. The specific Hydrus Development Site is identified within the SDCP05 and SDCP08 as reference 9 and 10.

These site-wide development documents have been widely distributed and are available electronically on the AWE website. In addition numerous presentations have been made to the AWE Local Liaison Committee (which comprises locally elected Councillors from neighbouring County, District and Parish / Town Councils). Presentations have also been made direct to individual parish councils.

In respect of the specific research undertaken in hydrodynamics at AWE Aldermaston and the need for an enhanced capability in this area the MoD published an information leaflet in 2002 on the key elements of a programme which underpins future assessments of the safety and reliability of the UK's nuclear warheads. It stated: "...AWE is now designing a new hydrodynamic research facility that could include up to 5 x-ray machines. Data from this facility would be processed to produce 3-dimensional, time-sequenced representations of the experiment..." As indicated above this information has been widely circulated in the public domain since that time.

In order to assist in the formulation of the DEEA scope and appraisal methodologies, a number of meetings have been held with consultees relevant to a number of the DEEA technical studies, in particular ground conditions, water resources, transport, landscape and visual, archaeology and cultural heritage, and ecology.

Key consultees involved in the evolution of the Proposed Development design and preliminary appraisal of environmental impacts include:

- The Environment Agency;
- Highways Agency;
- English Heritage;

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- Natural England;
- West Berkshire Council;
- Local Liaison Committee; and
- Garden History Society.

For ease of reference and to aid clarity, the consultations undertaken are noted below in Table 2-1. Further information on how the environmental appraisal process and evolving design has addressed issues raised by the consultees is presented in the technical chapters, as noted in column 3 of Table 2-1.

Table 2-1: Summary of Consultations

Key Consultees	Issues Raised and Action Taken	Chapter Reference
Environment Agency (EA)	Discussions on: Sustainable Drainage Systems (SuDS) principles document; HR Wallingford (AWE Site-wide) Flood Model; Hydrus SuDS Concept and Detail; and Flood Risk Assessment (FRA).  <i>A conceptual SuDS model was prepared for discussion with the EA, and subsequent comments have informed the detailed SuDS design. An FRA has been prepared for the Proposed Development as described in Chapter 8.</i>	Chapter 8: Water Resources
Highways Agency/ West Berkshire Council (WBC)	Transport Assessment (TA) should be completed and submitted.  <i>A project specific TA has been prepared for the Proposed Development within the context of the AWE strategic transport assessment known as PETIS (see Chapter 9 for further details).</i>	Chapter 9: Transport
WBC/ Basingstoke & Deane Council	<i>West Berkshire and Basingstoke &amp; Deane Council's were contacted via telephone to confirm that DMRB and AERMOD modelling would be appropriate for environmental appraisal.</i>	Chapter 10: Air Quality
WBC	<i>Reference to noise from plant and machinery in particular and noise and planning in general were discussed with WBC.</i>  Visual and lighting effects of the Proposed Development upon Aldermaston Court and Garden in particular.  <i>Chapter 13 presents the Landscape and Visual assessment that considers visual and landscape effects, including lighting. The heritage assessment presented in Chapter 14 includes consideration of lighting effects upon heritage resources.</i>	Chapter 11: Noise and Vibration  Chapter 13: Landscape & Visual  Chapter 14: Cultural Heritage & Archaeology

Key Consultees	Issues Raised and Action Taken	Chapter Reference
	Ecological mitigation measures should be included within the landscape scheme.  <i>The architectural design, Landscape Strategy and SuDS design have been prepared in collaboration with the Ecologist. Existing habitats will be retained as far as practicable, and a variety of new habitats will be created. Species selection will further enhance biodiversity within the site, including the use of living 'green' roofs.</i>	Chapter 4: Alternatives & Design Evolution  Chapter 8: Water Resources  Chapter 13: Landscape & Visual  Chapter 15: Ecology
	Renewable energy feasibility should be addressed and reported in the application.  <i>An Energy Strategy Report has been prepared to investigate the appropriateness of using renewable energy sources for the Proposed Development, and is submitted in support of the Application.</i>	Chapter 16: Sustainability
English Heritage/ WBC/ Garden History Society/Berkshire Gardens Trust	Potential impacts upon Aldermaston Court and Garden to be addressed.  <i>See Chapters 4, 13 and 14 for further information on consultations held and the Hydrus design response, including the careful siting of the Proposed Development and sympathetic materials selection and detailing. The Garden History Society was approached as part of the environmental appraisal and delegated responsibility with regard to consultation responses to the Berkshire Gardens Trust (BGT); the Secretary of the BGT was subsequently contacted.</i>	Chapter 4: Alternatives & Design Evolution  Chapter 13: Landscape & Visual  Chapter 14: Cultural Heritage & Archaeology
	Impacts upon potential archaeological remains should be considered.  <i>Chapter 14 describes consultations with the County Archaeologist and findings of desk studies and invasive site investigations.</i>	Chapter 14: Cultural Heritage & Archaeology
Natural England (NE)	<i>NE has been consulted via correspondence in response to the environmental appraisal desk study findings that suggested the potential for impacts to occur on a nearby Great Crested Newt population. A Method Statement has been prepared for the Proposed Development describing precautionary measures that will be implemented during enabling works associated with the project, including the erection of special fencing, as described in Chapter 15.</i>	Chapter 15: Ecology

## 2.6 Sensitive Receptors

The environmental appraisal process incorporates the identification and assessment of impacts to potentially sensitive receptors resulting from the construction and operational phases of the Proposed Development. These receptors may include land subject to any regional, national or international designation, permanent residential properties, local roads and rights of way, the

business community, buildings of cultural and historical significance, and the archaeological heritage of the local area. Key sensitive receptors are identified in Table 2-2 together with the specific DEEA Chapter in which these issues are addressed.

Table 2-2: Sensitive Receptors

Category	Description of Receptor	Chapter Reference
Commercial and Residential Property	Aldermaston Manor House Hotel immediately to north of site (300m to NNW).	Chapter 10: Air Quality  Chapter 11: Noise and Vibration  Chapter 13: Landscape & Visual
	Spring Lane Cottage (550m to NE).	Chapter 10: Air Quality  Chapter 11: Noise and Vibration
	Rag Hill Cottage (950m to ENE)	Chapter 11: Noise and Vibration
	Rag Hill Farm and nearby properties (c.900m to ENE)	Chapter 13: Landscape & Visual
	Number 48 Paices Hill (650m to WSW)	Chapter 10: Air Quality
	House off Paices Hill (500m to WSW, opposite Harbourhill Copse)	Chapter 11: Noise and Vibration
Education and Community Use	Residential properties and business parks in the wider surroundings to the north, south, east and west (distance varies).	Chapter 10: Air Quality  Chapter 12: Socio-Economics  Chapter 13: Landscape & Visual
	Education and community uses in the wider surroundings to the north, south, east and west (distance varies).	Chapter 10: Air Quality
National & Local Landscape Designations	Tadley Community Primary School (3.2km to S); Aldermaston Primary School (1km to NW); Cedars School (850m to N)	Chapter 12: Socio-Economics
	North Wessex Downs Area of Outstanding Natural Beauty (AONB) (2.6km to north)	Chapter 13: Landscape & Visual
Historic Landscapes	Aldermaston Park (c.20m to north); Wasing Place Park (1.5km to west); AWE Aldermaston (adjacent to E, S and W).	Chapter 14: Cultural Heritage & Archaeology
Scheduled Monuments	Grim's Bank (1.1km to SE); Silchester Iron Age and Roman Town (3km to SE).	Chapter 14: Cultural Heritage & Archaeology
Listed Buildings	Aldermaston Court and associated buildings (c.300m to NNW)	Chapter 14: Cultural Heritage & Archaeology
Conservation Areas	Aldermaston Village (c.600m to NW); Aldermaston Wharf (3km to N).	Chapter 14: Cultural Heritage & Archaeology

Category	Description of Receptor	Chapter Reference
Archaeological Sites	The Roman Road known as Ermin Street (150m to SE); any on-site post-medieval and 20th-century archaeological remains.	<i>Chapter 14: Cultural Heritage &amp; Archaeology</i>
National & Local Ecological Designations	West Meadows SSSI (1.5km to south); Wasing Woods Pond SSSI (2km to WSW); Decoy Pond (1.3km to SE).	<i>Chapter 15: Ecology</i>

## 2.7 Structure of Technical Chapters

A technical assessment chapter is provided for each environmental and social technical discipline, detailing the planning policy context, assessment methodology, significance criteria, baseline conditions, potential impacts, proposed mitigation measures, residual impacts and cumulative impacts. To ensure a consistent approach in undertaking the technical assessments, and for ease of reading, a standard chapter structure has been adopted for the technical chapters (Chapter 7-15) as far as possible. An outline of the DEEA technical assessment chapter structure is presented in the following paragraphs.

### 2.7.1 Introduction

The introduction provides a brief summary of what is considered in the Chapter and provides relevant background information.

### 2.7.2 Planning Policy Context

This section of each chapter includes a short summary of applicable policies (including either adopted or draft where applicable) at the National, Regional and Local level.

### 2.7.3 Assessment Methodology

The methods used in undertaking the technical assessments are outlined in this section, with reference to published standards (e.g. British Standards (BS)), relevant guidelines (e.g. Design Manual for Roads and Bridges (DMRB)) and accepted best practice (e.g. IEEM guidance).

### 2.7.4 Significance Criteria

The significance of residual impacts has been evaluated with reference to definitive standards, guidance and legislation where available. These criteria apply the common environmental appraisal approach of classifying impacts according to whether they are major, moderate or minor impacts and considered to be adverse, negligible or beneficial. Where it has not been possible to quantify impacts, qualitative assessments have been carried out, based on professional judgement. Where uncertainty exists, this has been noted in the relevant assessment chapter.

A specific criterion for each issue has been developed, having due regard to the following:

- Extent and magnitude of the impact;
- Impact duration (whether short, medium or long-term);
- Impact nature (whether direct or indirect, reversible or irreversible);
- Local, District, Regional, or National scale or value of the resource affected;
- Whether the impacts occur in isolation; are cumulative or interactive;
- Comparison with environmental quality standards; and
- Sensitivity of the receptor.

In order to provide a consistent approach to the various studies undertaken, and thereby to enable comparison between impacts on different environmental components, the following terminology has been used in the DEEA to define residual impacts:

- **Beneficial:** Advantageous or positive impact to an environmental resource or receptor that may be:
  - **Minor:** Slight, very short or highly localised impact of no significance;
  - **Moderate:** Limited impact (by extent, duration or magnitude) that may be considered significant; and
  - **Major:** Considerable impact (by extent, duration or magnitude) of more than local significance.
- **Negligible:** Imperceptible impacts to an environmental resource or receptor;
- **Adverse:** Detrimental, or negative impacts to an environmental resource or receptor which may be:
  - **Minor:** Slight, very short or highly localised impact of no significance;
  - **Moderate:** Limited impact (by extent, duration or magnitude) which may be considered significant; and
  - **Major:** Considerable impact (by extent, duration or magnitude) of more than local significance or in breach of recognised acceptability, legislation, policy or standards.

Each of the technical chapters provides the criteria, including sources and justification, for quantifying the different levels of residual impact. Where possible, this has been based upon quantitative and accepted criteria (e.g. the National Air Quality Standards (NAQS), or noise assessment guidelines).

In the context of the project description, short to medium-term impacts are considered to be those associated with the construction phase; while long-term impacts are those associated with the completed development during its operation ('operational' impacts). Local impacts are those affecting neighbouring receptors, while impacts upon receptors in the wider area are considered to be at a District level. Impacts affecting Berkshire as a whole are considered to be at a Regional level, whilst impacts that affect different parts of the country, or England as a whole, are considered as being of a National level.

### 2.7.5 Baseline Conditions

In order to assess the potential impact of the Proposed Development, it is necessary to determine the baseline environmental conditions. These are known as 'baseline' conditions and form the starting point from which any impacts related to the development that may affect the Application Site or wider area may be measured. Unless otherwise stated, the environmental appraisal baseline has been taken as the July 2009 conditions on site. Particular reference is made to aspects of the baseline that may be sensitive to the Proposed Development. Baseline conditions at the Application Site include enabling works for the Proposed Development that have been conducted under permitted development rights, and the baseline environmental conditions that currently exist on site (for further information see *Chapter 1: Introduction* and *Figure 1-1: Application Site Red Line Boundary*). Baseline conditions are also considered in the wider context of AWE Aldermaston and include the current operational activities that will be transferred to the Proposed Development.

For the majority of the Hydrus Development Site the baseline is a cleared site made up of grassed areas with some existing trees. AWE Aldermaston and the Hydrus Development Site have been subject to a comprehensive demolition and clearance programme which commenced in March 2007 and is on-going in the wider AWE Aldermaston Site. Further information on the Application Site baseline conditions is located within *Chapter 1: Introduction*.

Impacts associated with the CACE have been assessed as part of the High Explosives Fabrication Facility (HEFF) planning application which was granted planning permission from West Berkshire Council in February 2008 (Planning Reference: 07/02438/COMIND). Impacts associated with the WECE have been assessed as part of the New Office Accommodation (NOA) planning application which was granted planning permission from West Berkshire Council in February 2007 (Planning Reference: 06/02326/COMIND). The Proposed Development does not include any changes to the existing use of the CACE and WECE, and therefore no additional potential impacts will be introduced. Consequently, these areas are not considered in this DEEA, which principally focuses on impacts arising from the construction and operation of the proposed development which occur within the proposed Hydrus Development Site.

### 2.7.6 Potential Impacts and Mitigation Measures

This section considers potential impacts resulting from the construction phase and once the development is operational. The section addresses short to medium term (construction phase) and long-term (operational phase) impacts.

It describes each identified potential impact and discusses the requirement for implementation of any associated mitigation measures. Quantitative descriptions are included as far as possible. The proposed mitigation measures are designed to eliminate, offset, or reduce, any significant adverse impacts and can relate to any of the following key phases of the project:

- Design: For example, incorporation of attenuation ponds into the scheme to integrate with the water resources assessment and the drainage design;
- Construction: Such as, commitment to the management of demolition waste; and

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- Operation: For example, commitment to the control of operational noise from services.

### 2.7.7 Cumulative Assessment

Consideration is also given in the DEEA to 'cumulative' impacts. By definition these are impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions in addition to the Proposed Development. For the cumulative assessment, two types of impact have been considered:

- The combined effect of individual impacts, for example noise, airborne dust or traffic on a single receptor; and
- The combined impacts of several development schemes that may, on an individual basis be insignificant, but cumulatively have a significant effect.

For the purposes of this DEEA, the cumulative scenario firstly comprises the proposals described within the AWE Aldermaston & Burghfield Site Development Context Plan 2008 (SDCP08). The SDCP sets out the overall approach to the modernisation of AWE Aldermaston and AWE Burghfield, through the refurbishment and replacement of existing facilities.

Within the SDCP08 for AWE Aldermaston, future potential beneficial impacts associated with the development of the site have been identified. AWE has a commitment to adopt the principles of sustainability in all new developments. Sustainability is a core part of the Site Development Context Plan, as explained in the strategies prepared to support the delivery of the SDCP08.

The SDCP08 sets out the new build projects scheduled for the AWE Aldermaston site between 2005 and 2015 and these form the basis for the assessment of cumulative effects. This includes the New Office Accommodation (NOA) providing a total of approximately 21,000 m<sup>2</sup> gross floorspace, High Explosives Fabrication Facility (HEFF), providing a total of approximately 4,000 m<sup>2</sup> gross floorspace, and Pegasus providing a total of 18,489 m<sup>2</sup> gross floorspace. NOA was granted planning permission from West Berkshire Council in January 2007 and is now complete, HEFF was granted planning permission in February 2008, Pegasus was granted planning permission in February 2010. Therefore, NOA, HEFF, and Pegasus have been assessed as part of the baseline and do not form part of the cumulative assessment. Therefore the cumulative scenario comprises the remaining Projects scheduled in the SDCP08. Table 2-3 sets out those AWE schemes to be considered within the cumulative assessment.

Table 2-3: AWE Schemes Considered within the Cumulative Assessment

Aldermaston New Build Projects – identified in the SDCP08	Indicative Floorspace
Manufacturing/Production	14,500 m <sup>2</sup>
Testing/Research	-
Computing/Communications	4,500 m <sup>2</sup>
Other Office and Business Support Accommodation	12,000 m <sup>2</sup>
Environmental Proposals and Programmes	N/A

In addition to the forthcoming developments at AWE Aldermaston, external schemes have been considered as part of the cumulative assessment. The West Berkshire Council, Reading Borough Council, Basingstoke and Deane Borough Council and Wokingham Borough Council Planning Registers have been reviewed for consented major planning applications that that may have a cumulative effect in conjunction with the Proposed Development and the other SDCP08 proposed developments. The only scheme considered to have a potential for cumulative impacts, is the development at Padworth Railway Sidings, Padworth Lane, Lower Padworth. This development is a change of use of land and erection of buildings to form new Integrated Waste Management Facility (IWMF) to comprise; Waste Transfer Station (WTS), Material Recovery Facility (MRF), Household Waste Recycling Centre (HWRC), In-Vessel Composting Facility (IVC), municipal depot with workshop, fuelling and washing facilities, administration and visitor centre, weighbridge; formation of associated parking, roadways and vehicular access; landscape works, including tree removals and additional planting, formation of earth bunding and surface water drainage swales; erection of new fencing. The development was granted planning permission in March 2009.

Each technical specialist has reviewed the SDCP08 and the above development external to AWE and has determined any potential cumulative impacts and key issues when assessed along with the proposals of the Proposed Development. Where no cumulative impacts have been identified, this is stated in the DEEA Chapter.

### 2.7.8 Residual Impact Assessment and Conclusions

Impacts of the Proposed Development that remain following the implementation of all available mitigation measures are known as 'residual impacts'. These are discussed for each of the potential impacts, and their significance level is identified. Technical chapters include a summary table of impacts arising as a result of the Proposed Development, including impact significance. These tables are designed to enable a comparison of environmental impacts across different topics and to clearly identify the residual impacts arising.

## 2.8 Assumptions and Limitations

A number of assumptions have been made during the environmental appraisal that are set out below (assumptions specific to certain environmental aspects are discussed in the relevant chapters of the DEEA):

- The assessment uses surveys conducted in July 2009 as the baseline conditions. Account has also been taken of ongoing permitted development. Buildings formerly located on the Hydrus Development Site have been cleared as part of on-going AWE Aldermaston demolition and clearance works. Impacts that arose from site clearance have already been mitigated as part of the clearance programme;
- It is expected that the construction of the scheme will be completed over a period of 60 months;
- The environmental influence of the proposals is likely to extend beyond the boundary of the Hydrus Development Site. The spatial extent of this influence will depend upon the nature of the environmental topic under consideration; when assessing air quality changes for example, changes

are likely to affect a wider area than changes in ground conditions. Preliminary investigations have indicated that the spatial extent of the environmental study areas may be grouped into three zones, namely:

- The Hydrus Development Site (see Chapter 1: Introduction, Figure 1-1 Application Site Red Line Boundary);
  - A local area approximately 100-500 metres (m) beyond the Hydrus Development Site; and
  - Identified sensitive areas beyond the Hydrus Development Site, the extent of which varies depending on the topic assessed.
- The principal land uses adjacent to the site remain as they are at the time of the DEEA submission, except in cases where planning permission has already been granted for development. In these cases, it is assumed that the approved development has taken place and is therefore treated as part of the baseline conditions; and
  - Information provided by third parties, including publicly-available information and databases is correct at the time of DEEA publication.

The environmental appraisal is subject to the following limitations:

- The nature of environmental appraisal requires objective and subjective assessment to be made of predicted impacts. Quantitative assessment methods are used wherever practicable. However, it has been necessary to adopt qualitative methods for some topics (landscape for example). Any assumptions made in conducting the environmental appraisal are clearly stated, and any limitations noted;
- Baseline conditions are accurate at the time of the physical surveys but, and due to the dynamic nature of the environment, conditions may change with time; and
- Planning for construction is necessarily broad at this stage and may be subject to modification during the development of the detailed programme of works, which will be agreed with the appointed contractor. Consequently, assumptions are made in relation to construction activities and associated environmental issues. To enable consideration and an assessment of key environmental aspects such as air quality, noise and traffic, the construction assessment is based on a worst-case scenario.

## 2.9 References

- Ref. 2-1 Defence Estates, Technical Bulletin 01/12 - Environmental Impact Assessment, Estates Development Unit, Defence Estates 2001
- Ref. 2-2 Institute of Environmental Management and Assessment (IEMA), Guidelines for Environmental Impact Assessment 2006 Update
- Ref. 2-3 The Town and Country Planning (Environmental Impact Assessment) (Amendment) (England) Regulations 2008
- Ref. 2-4 Department of Environment, Transport and the Regions (DETR) Circular 02/99 Environmental Impact Assessment 1999

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- Ref. 2-5 Department for Communities and Local Government, Environmental Impact Assessment: A Guide to Good Practice and Procedures, A Consultation Paper (June 2006)
- Ref. 2-6 Department for Communities and Local Government, Environmental Impact Assessment: Guide to Procedures, 5th May 2006
- Ref. 2-7 AWE (2005) AWE Aldermaston & Burghfield: Site Development Context Plan 2005-2015. AWE, Aldermaston
- Ref. 2-8 AWE (2008) AWE Aldermaston & Burghfield: Site Development Context Plan 2005-2015. AWE, Aldermaston