

# AWE Aldermaston HEFF Final

Application No.

800 - 67553

07/02438

WEST BERKSHIRE DISTRICT  
COUNCIL

16 NOV 2007

PLANNING AND TRADING  
STANDARDS

BASINGSTOKE & DEANE  
BOROUGH COUNCIL

21 NOV 2007

DEVELOPMENT CONTROL

Defence Exempt  
Environmental Appraisal  
Non Technical Summary  
November 2007



Issue Date: November 2007	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL
Environmental Appraisal Non-Technical Summary	High Explosives Fabrication Facility Non-Technical Summary	Reference: EJ/OE/LL 25443975

## Environmental Appraisal Non-Technical Summary

### 1 Introduction

The Ministry of Defence (MoD) hereafter referred to as 'the Applicant' is seeking detailed planning permission for the redevelopment of part of the Atomic Weapons Establishment (AWE) site at Aldermaston, Berkshire. The High Explosives Fabrication Facility (HEFF) will be located within the existing explosives area at AWE Aldermaston. Figure 1 shows the site location.

HEFF will be located approximately 500 metres (m) from the eastern site boundary, 700m from the southern boundary and 850m from the northern boundary. The Site boundary is shown in the Application Masterplan (Figure 2).

The HEFF Project Area (also described as The Proposed Development) comprises the following components:

- The Proposed Facility;
- The Temporary Construction Enclave, including the Construction Site, Contractors Compound and Overflow Compound;
- Making use of the West End Construction Enclave Car Park; and
- Site Access Road.

The Proposed Facility consists of two buildings:

- HEFF Facility Building - the process block for explosives processing and an adjoining single storey support block; and
- HEFF Facility M&E Services Compound - an external mechanical and electrical services building.

The Secretary of State for Communities and Local Government has considered the proposals for HEFF and under direction of Regulation 4 (4)(a)(ii) of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, determined that the requirements of those Regulations shall not apply for this application.

This Environmental Appraisal (EA) therefore presents the results of an Environmental Impact Assessment (EIA) study conducted to assess the potential impacts of the development on existing baseline conditions within the Application Site and the local area

The EA considers the environmental effects of the Proposed Development during site preparation, construction and operational phases, and has considered its likely impacts on its surroundings, neighbours, wider area and overall context. The EA also details a number of mitigation measures which have been developed to eliminate and reduce any potential adverse effects on the environment. Where mitigation measures have been identified, these have been incorporated into the project design wherever possible. In cases where no mitigation is required, this is stated. Impacts which

remain following the implementation of mitigation measures are termed residual impacts. These residual impacts are classified in accordance with a standard set of significance criteria.

*The EA comprises of two volumes:*

**Volume I - EA:** This document forms the main body of the EA detailing the results of environmental investigations, impacts arising and proposed mitigation measures.

**Volume II - EA Technical Appendices:** The Technical Appendices provide detail on the assessments undertaken and information used to inform the EA Volume I. The Appendices provided are:

- Appendix A - Ground Conditions, Water Resources and Flood Risk Assessment (FRA);
- Appendix B - Transport;
- Appendix C - Air Quality;
- Appendix D - Landscape and Visual;
- Appendix E - Archaeology; and
- Appendix F - Ecology.

This Non-Technical Summary (NTS) provides an overview of the findings of the EA.

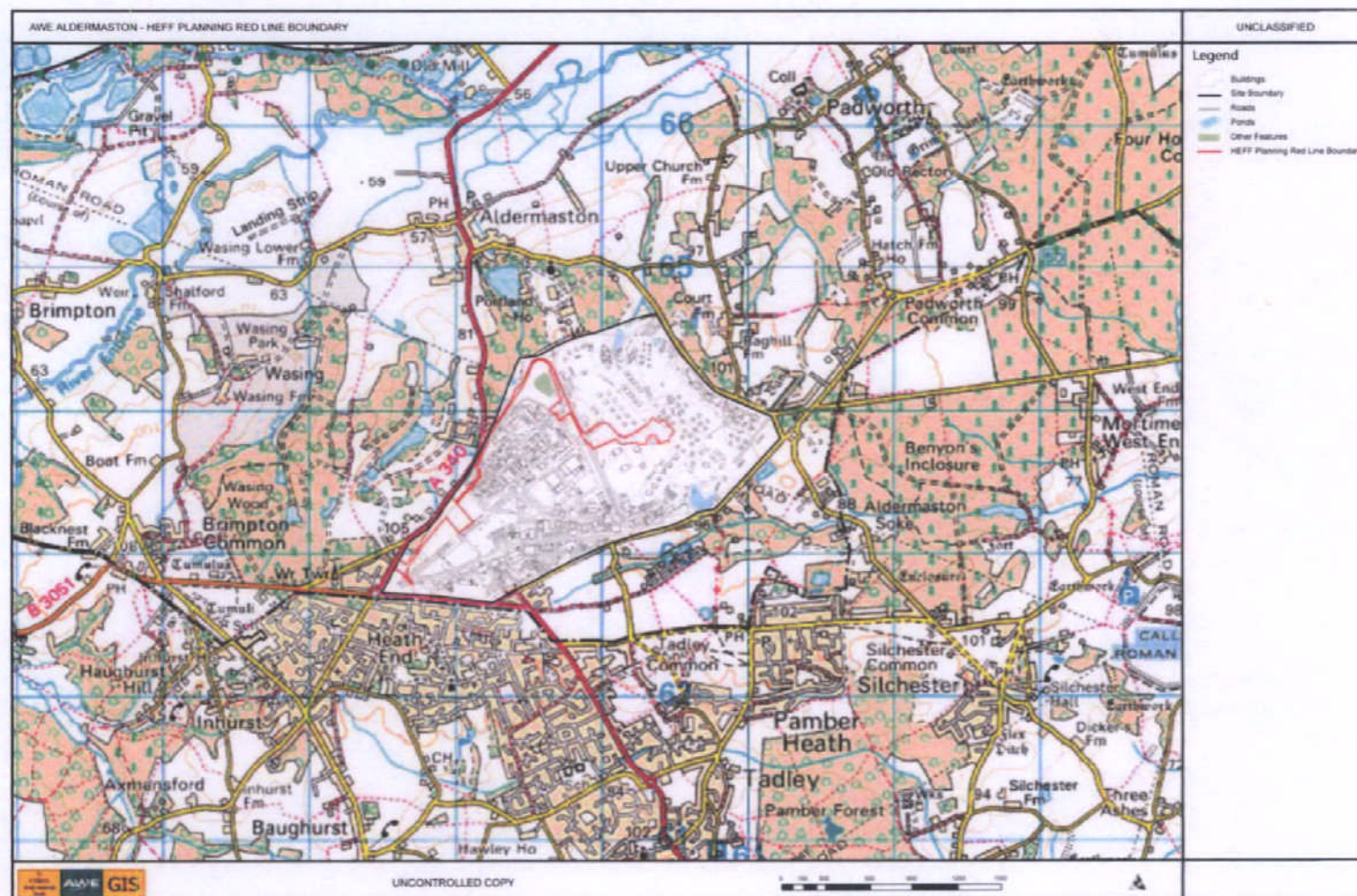
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1 DEVELOPMENT CONTROL

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Figure 1 - Local Site Area





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Figure 2 – Planning Application Boundary



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The EA is available for viewing by the public during normal office hours at the West Berkshire Planning Department. Copies of the EA can be purchased at a cost of £10 for the Non-Technical Summary; £100 for Volume I and £125 for Volume II. Comments on the planning application should be forwarded to West Berkshire Council at the address below:

Planning Department  
West Berkshire Council  
Council Offices  
Market Street  
Newbury  
RG14 5LD

## 2 EIA Methodology

The EIA process aims to ensure that potential environmental impacts of a new development are taken into account when considering a planning application. It provides a systematic analysis and presentation of information on the main anticipated environmental issues relating to the Development.

Whilst the Secretary of State for Communities and Local Government has determined that the HEFF proposals are exempt from the EIA Regulations, an EA 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 within JSP 418, which states that "where the

*Ministry of Defence (MOD) has been granted specific exemptions...from legislation...it will introduce standards and management arrangements that are, so far as reasonably practicable, at least as good as those required by the legislation".*

The EA has been prepared in accordance with current guidance for the preparation of environmental assessments. In particular, the EA has been prepared with due consideration to:

- Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (amended 2000);
- Department of Environment, Transport and the Regions (DETR) Circular 02/99 Environmental Impact Assessment;
- Preparation of Environmental Statements for Planning Projects that require Environmental Assessment: Good Practice Guide, Department of the Environment (DoE) 1995;
- Institute of Environmental Management and Assessment (IEMA) Guidelines for Environmental Impact Assessment, 2004;
- Office of the Deputy prime Minister (ODPM) Environmental Impact Assessment – A Guide to Procedures, 2001; and
- Defence Estates, Technical Bulletin 01/12 – Environmental Impact Assessment, Estates Development Unit, Defence Estates (2001).

The EA has been based on a number of related activities comprising of:

- Consultation with statutory and non-statutory consultees to identify and understand key issues concerning the site redevelopment, in particular development constraints and considerations;
- Consideration of local, regional and national planning policies, guidelines and legislation relevant to the EIA process;
- Consideration of significance criteria;
- 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 EA has considered the positive and negative, short and long-term impacts of the Proposed Development on the baseline environmental and socio-economic conditions of the Site, and its surrounds. The significance of any impacts have been identified and measures of avoiding, and for minimising adverse impacts have been incorporated into the final design.

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The significance of environmental residual impacts has been evaluated with reference to definitive standards, accepted criteria and legislation where available. Where it has not been possible to quantify impacts, qualitative assessments have been carried out, based on professional experience and judgement. Impacts have been classified as being of either adverse, negligible or beneficial in significance and of either minor, moderate or major magnitude.

### 3 Planning and Policy Context

The Proposed Development has been assessed against relevant national, regional and local planning policies.

National policy and guidance emphasises the need to take environmental and social issues into consideration as a routine part of all developments proposed.

The overriding objective in national policy and advice is one of sustainable development with an emphasis on the efficient use of land and the location of development proposals where they can be close to good public transportation, pedestrian and cycle links/facilities.

Regional level policy takes these objectives further by advocating the concentration of development in and around urban areas throughout the South East, ensuring that new developments are well designed and consistent with the overall strategy for urban

renaissance and sustainable development. The proposed development would meet these objectives.

Local policy was also assessed including the adopted West Berkshire Local Plan. It is used for development control purposes throughout the authority. The approach of the West Berkshire Local Plan is to support development relating to existing Crown establishments where required for the continuation of operational activities related to the use of the establishment.

### 4 Alternatives and Design Evolution

Analysis of alternatives is a key part of the process and serves to ensure that environmental considerations are built into the project design at the earliest possible stage.

The EA considered the following options:

- Do nothing;
- Outsource the work;
- Refurbishment of existing facilities;
- New build at various locations; and
- New build at one consolidated location.

The "do nothing" option was eliminated due to the poor condition of the buildings which are inefficient

and would require intensive maintenance. Due to the sensitive nature of the processes involved, it was deemed not in the interests of national security to outsource the work offsite. Although refurbishing existing facilities would have the lower initial capital cost, it was observed that the whole life costs would be greater than new build over the life of the facilities due to continuing maintenance needs.

The new build at various locations on the Aldermaston Site was dismissed because one of the major inefficiencies and safety concerns with current explosive fabrication operations is the fact that explosives are moved between different buildings.

Therefore, the new build at one consolidated site option was chosen. This option would enable the existing facilities to be completely replaced by an efficient purpose built facility at one location, within the AWE Aldermaston site.

### 5 The Proposed Development

The Proposed Development covers the area of the red line boundary shown in Figure 2 and covers 14.3 hectares (ha) of the AWE Aldermaston site.

The Proposed Development contains a number of different components, namely:

- The Proposed Facility;



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- The Temporary Construction Enclave, including the Construction Site, Contractors Compound and Overflow Compound;
- Use of the West End Construction Enclave Car Park; and
- Site Access Road.

The Proposed Facility will consolidate all explosive operations from over 24 facilities within AWE Aldermaston and Burghfield into one purpose built facility.

The Proposed Facility will also incorporate a separate Mechanical and Electrical services outbuilding.

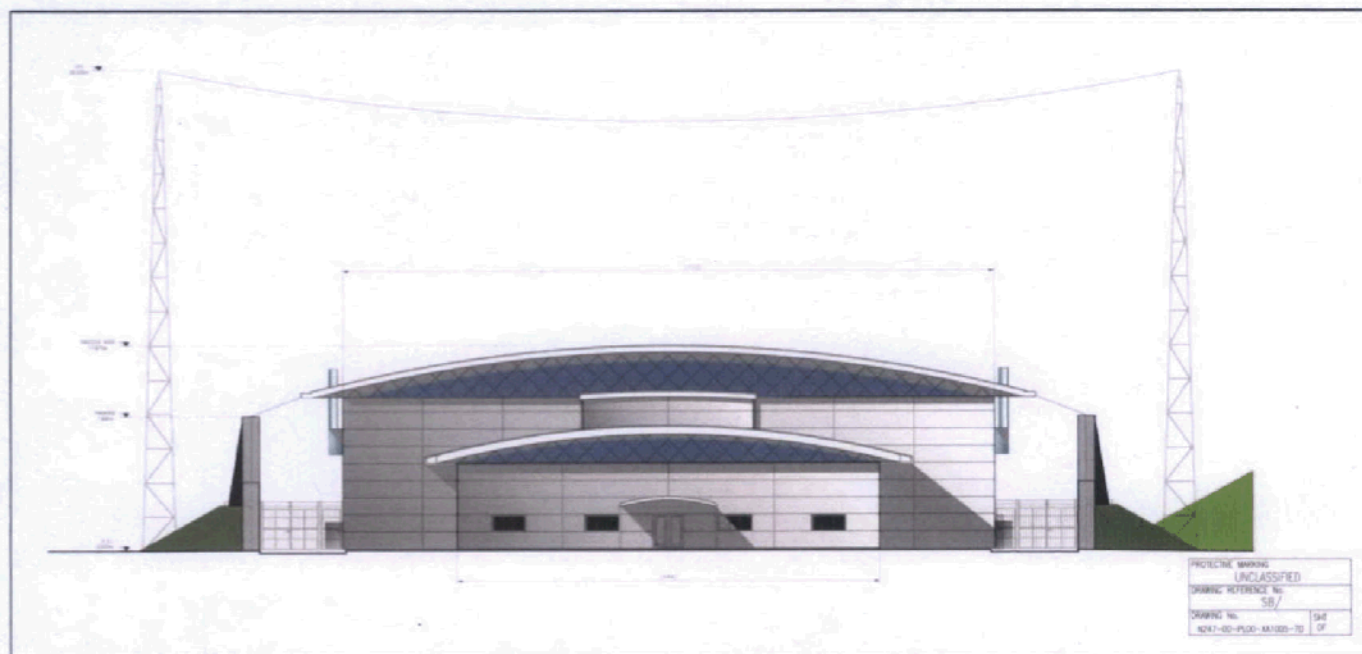
Two separate buildings will be built as part of the Proposed Facility due to technical safety requirements. The main HEFF process building itself will comprise a two-storey building split into two distinct areas - a process block for explosives processing and an adjoining single storey support block which provides office space, control rooms, welfare and kitchen facilities, as well as stores and a workshop.

The Proposed Facility has been designed to a maximum of two storeys so as to not appear dominant on the horizon. Figures 3 and 4 demonstrate the buildings' architectural design. The building will have a series of traverse blast protection walls running around its perimeter in order to adhere to the strict safety requirements.

The Proposed Facility will replace existing operational fabrication facilities and will employ similar, but generally improved processes using modern, efficient equipment.

The Proposed Development also includes the temporary erection of a construction enclave, which consists of the provision of temporary construction access roads and fences, the construction site, the contractor's compound and the contractor's compound overflow (which contains the main office).

Figure 3 - East Elevation of the Proposed Facility



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Figure 4 - Indicative views of Proposed Facility





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The HEFF Construction workers will be allocated up to 70 spaces from within the car park located at the West End Construction Enclave. A Link road from the north of the West End Construction Enclave car park to the A340 Contractor's Gate and onto the Construction Site will be built under permitted development, to allow access from the HGV search area (located at the West Gate) to the construction enclave.

Around 50 existing trees will require removal to construct the Proposed Facility. Replanted trees (native species) will be located at a safe operational distance from the new facility and will be located within and outside of the HEFF Project Area, but still within the AWE Aldermaston Site.

The building and associated services will comply with Part L2 of the Building Regulations and Building Research Establishment (BRE) best practice. To this end, building elements have been designed to ensure energy efficiency. A preliminary bespoke BRE Environmental Assessment (BREEAM) has been undertaken for the Proposed Facility and has achieved an excellent rating.

## 6 Construction Phase

The construction phase can be split into three key elements which are briefly summarised here:

1. *Temporary Construction Enclave* - a fenced area for use during the construction period enclosing construction activity, access to the development from the highway, car parking, office and welfare accommodation for construction workers, laydown areas and security posts. All of these areas will be fenced off to form a totally separate construction enclave from the main AWE site;
2. *The Construction of the Proposed Facility* - this includes the main HEFF building and the Mechanical and Electrical building; and
3. *Testing and Commissioning*.

It is envisaged that the whole scheme will take approximately 43.5 months to complete, which includes up to 8.5 months for the completion of the construction enclave, 24 months for the construction of the Proposed Facility and 14 months of testing and commissioning (including 3 month overlap with construction phase). Figure 5 presents the preliminary construction programme.

Figure 5 - Preliminary Construction Programme



Environmental impacts can arise either from day-to-day construction operations, or from normal and abnormal operations, or accidents.

AWE has committed to a Code of Construction Practice (CoCP). This CoCP explains the overall approach of AWE to manage and control effectively overall environmental impact arising from the construction activities involved with the Proposed Development.

Furthermore, the creation of a construction enclave would minimise disruption to the surrounding area during construction, and enable the construction activity to be retained within a defined area.



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## 7 Ground Conditions

An assessment of the geological conditions and land contamination, and related hydrological and hydrogeological characteristics has been undertaken and has involved an in-depth review of the sites' history, geology, hydrology and hydrogeology, and a review and assessment of a series of intrusive ground investigations that have been conducted within the boundary and immediately surrounding the HEFF Project Area.

The general ground conditions in the HEFF Project Area comprise a thin layer of Made Ground over the clayey gravels of the Silchester Gravels and the sands/silts/clays of the Bagshot Formation. The London Clay Formation underlies the entire site, which in turn is underlain by the Chalk. The Silchester Gravels and Bagshot Formation are classified as a Minor Aquifer.

Soil gas monitoring revealed that the presence of carbon dioxide and absence of oxygen in some areas of the Proposed Development area represent potential sources of contamination. The impact associated with soil substances has been assessed as being *negligible*.

Sampling for radioactive contamination did not identify any sample above the criteria so radioactivity is not considered to be a risk. In addition, explosive residues and buried unexploded ordnance were not found to represent potential sources of contamination.

Asbestos (chrysotile) has been identified during previous investigations in two locations. The scale of impact to humans resulting from asbestos in soil is, however, considered to be *negligible* due to the absence of plausible pathways.

No soil contaminants exceeded the criteria relevant to human health so this is not a potential source of contamination. Some substances are present in groundwater in excess of the criteria and as such are considered a potential source of contamination. It is considered, however, that there is no risk to groundwater and as such the impact is assessed as being *negligible*.

It is considered that the significance of the identified impacts following implementation of the proposed mitigation (i.e. residual impacts) will be *negligible* under both the construction and operational phases of the Proposed Development.

## 8 Water Resources

The impact of the Proposed Development on the surface water, hydrology and hydrogeology of the surrounding area has been assessed. The assessment has been based on a review of baseline data, including historical and site investigation data, and reviews of relevant literature, policies and legislation.

No surface water features are present within or in the immediate vicinity of the Proposed Development.

The Site lies within Source Protection Zone (SPZ) III (Source Catchment). This designation is based on the catchment area of a groundwater source needed to support an abstraction from long term annual groundwater recharge. The only abstraction within a 2km radius lies down gradient of the Proposed Development and is located within the AWE Aldermaston Site.

No significant impacts to water resources are expected to occur throughout the demolition and construction phases of the development provided that standard, best practice mitigation measures are applied including the storage of oils and hydrocarbons in designated locations away from surface water drains with an impermeable base and bund; designated areas will be assigned for cleaning associated with concrete or cementing processes to prevent contamination of surface-waters.

A sustainable urban drainage system (SUDS) has been incorporated into the design of the Proposed Development in order to mitigate against surface runoff.

During the construction and operational phases, the assessment, including a Flood Risk Assessment, concludes that there will be a *negligible* impact on surface water runoff, groundwater flow and quality and water supply and site drainage.



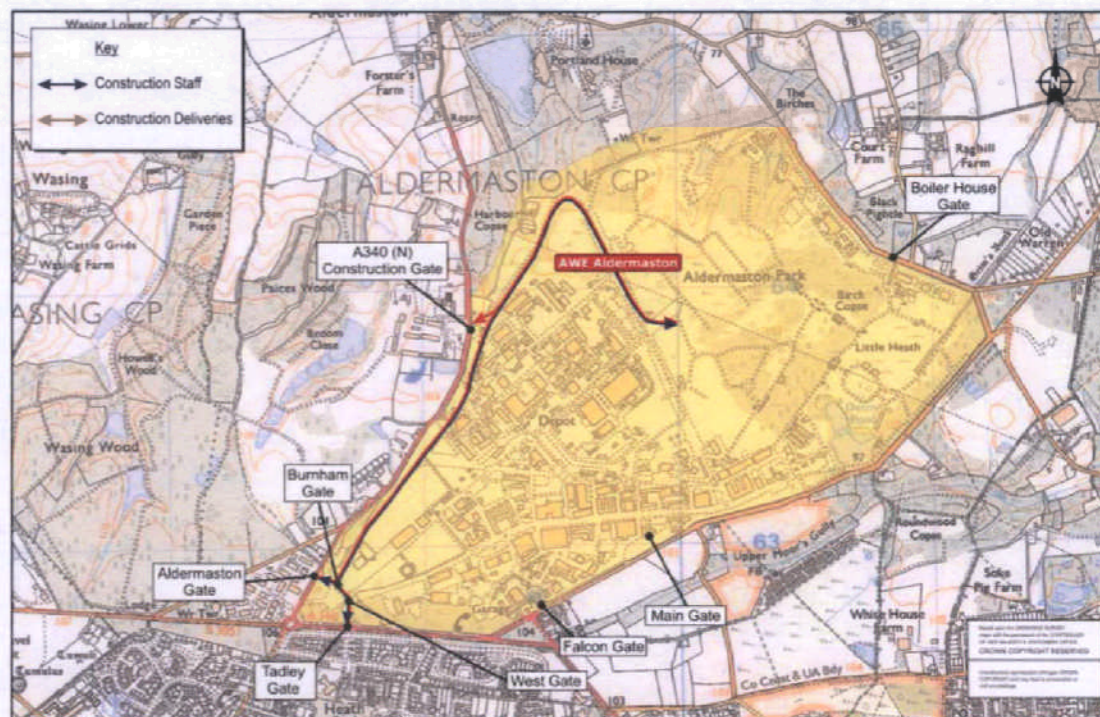
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## 9 Transport

An assessment of impact of the Proposed Development on the surrounding transport network both during construction and the operational phase has considered both national and local planning policies regarding transportation and has been based on the Guidelines for the Environmental Assessment of Road Traffic produced by the Institute of Environmental Assessment.

Data was collected regarding various aspects of transportation including the existing traffic data, existing pedestrian and cycle provision and passenger transport services to and from the Site. Surveys were also undertaken of existing traffic patterns. This data was used to assess the potential impact and propose a series of mitigation measures. It is proposed that the operational workforce will access the Proposed Facility via the existing West Gate, Main Gate, Boiler House Gate and Falcon Gate. To minimise the impact on the external highway network, the operational workforce who travel by car are encouraged to use gates based on their home postcode location. Figure 6 illustrates the gate locations for Site access.

Figure 6 - Gate Locations



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Residual impact assessments for each of the transport user groups have been considered as set out below:

**Pedestrians:** Good pedestrian linkages to the site will be in place as a result of the New Office Accommodation (NOA) planning consent, by the proposed year of opening of HEFF in 2010. Improved facilities for pedestrians will include the provision of controlled crossing facilities and footways. The potential impact on pedestrians for severance, safety, amenity and delay is considered to be *negligible*.

**Cycling:** Good cycle linkages from Tadley / Heath End to the site will be in place as a result of the NOA planning consent. Improved facilities for cyclists will include the provision of controlled crossing facilities on Heath End Road, the A340 and Reading Road and dedicated cycle lanes. The potential impact on cyclists for severance, safety, amenity and delay is considered to be *negligible*.

**Passenger Transport Users:** Good passenger transport services will be in place as a result of the NOA planning consent. This will lead to improved quality, reliability and frequency of service. Controlled crossings will also be in place to aid making connection to services to and from the site.

The potential impact for users of passenger transport in terms of severance, safety, amenity and delay are considered to be *negligible*.

**Car Driver:** The highway improvements and many of the initiatives set out in the Travel Plan will be in place as a result of the NOA planning consent by the proposed year of opening of HEFF in 2010. The potential impacts for car drivers in terms of safety and delay are considered to be *negligible*.

It is concluded that the Proposed Development will have a *negligible* impact on the surrounding transport network.

## 10 Air Quality

The assessment on air quality involved a study of existing air quality conditions, qualitative assessment of the effects of the construction phase and a quantitative assessment of traffic associated with the construction phase and forecast traffic data. Receptors were identified and mitigation measures were proposed. Construction phase mitigation measures will form part of the Environmental Management Plan.

Operational mitigation measures have been included as part of the Proposed Development's design process. Particulate matter from the powder coating area will be abated using fine porosity filters integrated into the local exhaust ventilation and air moving plant.

Provided that construction mitigation measures are implemented as described, the residual impacts on local air quality from the construction phases of the

Proposed Development are deemed to be *negligible*.

Residual impacts on local air quality in terms of traffic and process derived pollutants as a result of the operational phase of the Proposed Development are deemed to be *negligible*. Residual impacts on a regional and global scale, namely emissions of greenhouse gases and photochemical oxidant emission, are deemed to be *negligible*, due to the low quantities to be emitted.

## 11 Noise and Vibration

The noise contribution of the HEFF Project due to construction, construction traffic, commuting construction workers and plant operation was calculated for sensitive receptors, at positions around the site perimeter and on preferred traffic routes. The impact of this additional noise was assessed by comparison with existing noise levels measured at these locations.

The construction works would follow Best Practicable Measures (BPM) of Section 72 of the Control of Pollution Act 1974 to minimise noise and vibration impacts on sensitive receptors.

Throughout the construction period AWE will keep residents and occupiers of other noise sensitive properties (which may be affected by noise arising from the AWE construction works), informed of the proposed hours of work and their expected duration, in particular for prearranged noisy activities.



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The likely construction traffic flows have been analysed and the assessment has shown that the impact of construction traffic noise at all sensitive receptor locations will be *negligible*. A Construction Phase Traffic Management Plan has been set up to safely and effectively manage traffic which will also reduce the noise impact. Overall, the predicted noise impact of the construction activities is considered to be *negligible*.

With regard to the Proposed Facility when in operation, the following Best Practice means (BPM) will be implemented for fixed plant:

- Acoustic louvres will be specified for the M&E plant room to reduce the noise from the chiller units;
- Regular maintenance will be undertaken on all fixed plant to ensure that the units are operating efficiently and do not generate undue noise.

It is considered that the operational phase noise impact from both operational traffic movement and fixed plant will be *negligible*.

## 12 Socio-Economics

An assessment of the socio-economic impacts of the Proposed Development has been undertaken. The assessment has involved:

- An economic impact assessment, including a review of employment, income, effects on the

labour market and other impacts of the Proposed Development; and

- A review of other relevant socio-economic impacts, including consideration of the demands on existing infrastructure.

The construction of the Proposed Development will create a number of employment opportunities. Although these jobs are short-term they represent an economic impact that can be estimated as a function of the scale and type of construction. AWE have confirmed that the construction of the site is estimated to last 24 months and require between 75 and 150 workers, with a peak of 150 in the second year. Overall, the construction phase impact is considered to be of *minor beneficial* significance.

The continued operation of the HEFF Project at AWE will safeguard 36 jobs for the people of the South East.

In summary, it is likely that the Proposed Development will have an overall positive socio-economic impact on the local and regional economy and would be a positive step towards meeting some of the strategic objectives of regional and local policy. The Proposed Development will help secure the long-term viability of AWE Aldermaston for the local area, and enable the 'Western Wedge' to maintain its reputation as a world-class high-tech economy.

## 13 Landscape and Visual

The assessment considered the impact of the HEFF Proposed Development on the surrounding landscape and associated visual impacts. The assessment has considered both temporary (construction impacts) and permanent (operational impacts), together with the mitigation measures proposed to avoid or reduce potential adverse effects.

AWE Aldermaston is generally well contained in the local landscape by extensive and successive layers of vegetation. The scale of the overall Site is significant in the local landscape and the developed zones are large in scale and at times in mass. Whilst the site is set within a well wooded plateau, the larger buildings and stacks are visible in long distance views above the tree canopy.

The Proposed Development would sit within the eastern sector of the AWE site which is less densely developed than the western sector, but still substantially modified by the existing mounds, buildings, roads and other site infrastructure which are scattered throughout. The area of the Open Grassy Heath Plateau character area within which the Proposed Development would sit, has an ordinary landscape quality, medium value and moderate sensitivity to change.

Mitigation measures have been developed as part of an iterative design process to help avoid or

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reduce the potential adverse landscape and visual effects of the proposed redevelopment.

The residual landscape impacts of the Proposed Development on this landscape area once the planting proposals are established, would be *neutral* improving to *slight beneficial* in the longer term when the planting matures. The remaining residual landscape effects on adjacent site character areas would be *negligible* due to the extensive existing containment provided by local vegetation, and built development.

The proposals would not extend the existing Zone of Visual Influence (ZVI) of the AWE site and by Year 10 the residual visual effects would be *negligible*.

#### 14 Archaeology & Cultural Heritage

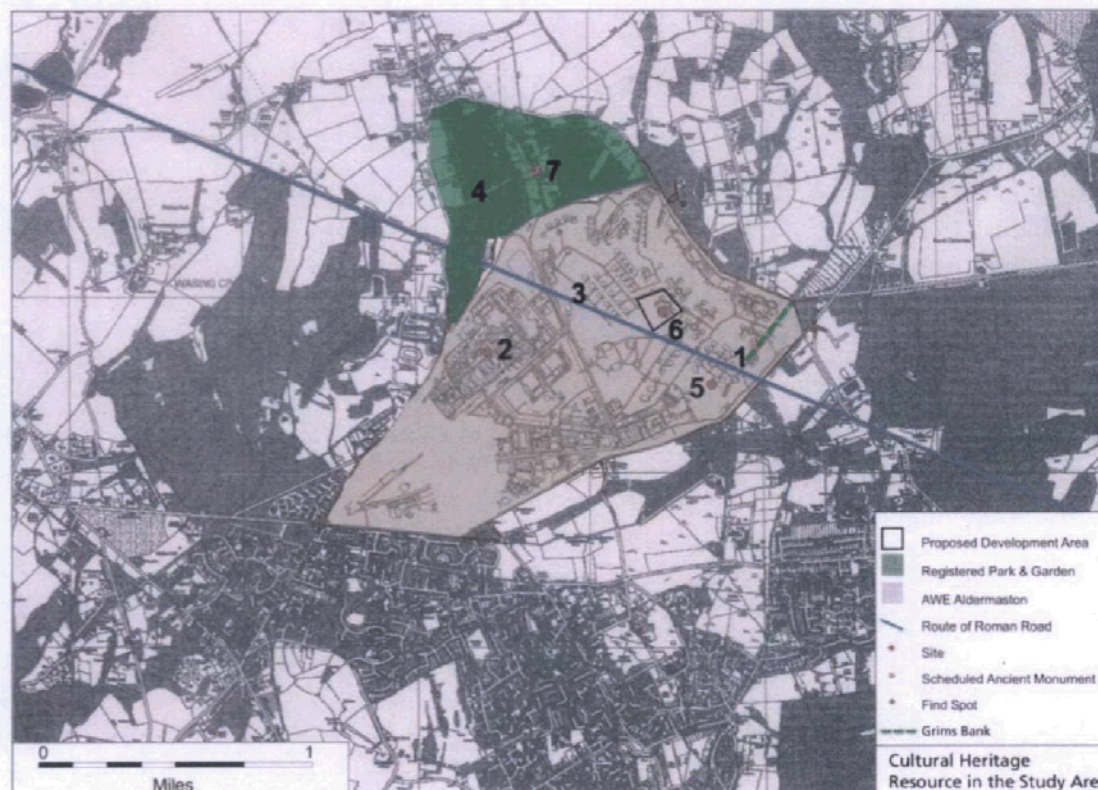
A desk-based archaeological and cultural heritage assessment of a Study Area of a 1 km radius around the Proposed Development has been carried out. The assessment considered whether both known or potential cultural resources may be affected by the Proposed Development. Figure 7 shows the cultural heritage resources in the Study Area.

The Proposed Development would have a direct physical impact on remains of any features associated with the airfield in that they would be completely removed. There would be a direct

physical impact on any potential below ground remains such as along the proposed access road.

The noise and visual intrusion involved in the construction may have a temporary and indirect impact on the views from the Scheduled Monument, Grims Bank. However, this impact will be limited to the period of construction only.

Figure 7 – Cultural Heritage Resources





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The West Berkshire District Council Archaeology Service was consulted regarding the archaeological potential of the Proposed Development area. It was agreed that the potential for below ground remains in this area was low and if present would most likely be associated with 20th century development of the former airfield. The mitigation strategy for an archaeological watching brief to be in place during all topsoil stripping in areas of undisturbed ground and service trenching was accepted as being an appropriate mitigation measure.

The assessment of the archaeological and cultural heritage issues has demonstrated that once the outlined mitigation measures are implemented, the impact of the Proposed Development of the HEFF Project Area will lead to a *negligible* impact

## 15 Ecology

An ecological impact assessment has addressed the ecological constraints associated with the Proposed Development of the HEFF Facility, the potential impacts of the construction and operational phases and the proposed measures for ecological mitigation.

An extended Phase I habitat survey of the HEFF Project Area was undertaken in the summer of 2003. Further site visits were undertaken in August 2005, 2006 and 2007 to update this survey information. The aim of the surveys was to identify the location, extent and distribution of habitats within the HEFF Project Area and to assess the

potential of the site to support protected and other species of conservation concern. The survey included an assessment of the potential for structures and trees to support roosting bats.

In the short-term, the Proposed Development would result in the permanent and temporary loss of habitats considered to be of low nature conservation value in the context of the AWE site, in particular for foraging and nesting birds and reptiles, resulting in a *minor adverse* impact. An Ecological Restoration Plan will be produced detailing the reinstatement of areas used for construction. This will include the reinstatement of the contractors' compound and the construction site, including the construction site access road. In the long term, the compensatory planting of approximately 150 trees, and ecological enhancements of the SUDS ponds is anticipated to be a *minor beneficial* impact, as it will create suitable conditions for foraging and nesting birds and reptiles.

## 16 Sustainability

As part of the Government Estate, AWE has a commitment to adopt the principles of sustainability in all new developments. These principles are adopted from Government policy on sustainability, with the aim of achieving sustainable development, i.e. "development which meets the needs of the present, without compromising the ability of future generations to meet their own needs".

A Sustainability Appraisal has been completed for this Proposed Development in accordance with the MoD Sustainability Handbook, the results of which have fed into the design of the Proposed Facility.

Sustainability is a core part of the SDCP. These strategies will guide the implementation of the Proposed Development, as detailed below:-

- Energy and water efficient building design and reduction of carbon dioxide (CO<sub>2</sub>) emissions through the AWE Energy Strategy;
- Minimising environmental impact and disruption to local residents during construction through the AWE CoCP;
- Reducing single occupancy car travel and encouraging sustainable transport modes through the AWE Travel Plan;
- Managing surface water runoff through the AWE Surface Water Drainage Strategy;
- Managing and minimising construction waste through the CoCP; and
- Delivering the SDCP and maintaining biodiversity.

A preliminary bespoke BRE Environmental Assessment Method (BREEAM) has been undertaken for the Proposed Facility and has achieved an excellent rating.

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## 17 Cumulative Effects

An assessment of the potential effects of the Proposed Development in cumulation with other development has been undertaken. The effects of the cumulative impacts were assessed and considered the incremental changes caused by reasonably foreseeable future developments together with the proposed scheme. The cumulative scenario assessed comprises the proposals detailed within the SDCP and also six external scheme located in the nearby area.

The cumulative impacts of the Proposed Development together with other surrounding schemes have been assessed during the construction and operational phases of the project.

By considering the cumulative impact of individual impacts from the Proposed Development, it is considered there will be temporary *minor adverse* impact interactions during the construction stage in relation to transport and air quality.

When considering the combined effects of the Proposed Development with proposals contained within the SDCP, it is considered that the provision of HEFF, along with a significant amount of office space, and new car parking facilities, along with modern buildings in a landscaped setting will have *positive* impacts particularly in relation to Socio-Economics, as well as providing benefits for biodiversity across the Site. In addition, continued development will result in a clean up of any

contamination on site, leading to beneficial impact to ground conditions and to groundwater.

## 18 Residual Impacts and Conclusion

Residual impacts are defined as those impacts that remain following the implementation of mitigation measures.

The Proposed Development of the site complies with Government guidance and with regional, strategic and local planning policies, in particular the strategy for employment provision.

As part of the Government Estate, AWE has a commitment to adopt the principles of sustainability in all new developments. Sustainability is a core part of the Aldermaston and Burghfield SDCP 2005-2015, as detailed in the strategies prepared to support the delivery of this SDCP.

The proposals have been designed with respect to policy, meeting strategic and local requirements, and in implementing part of the Regional Strategy. The proposals comply with policy at a National, Regional and Local level and meet their overriding objectives of serving the employment, housing and other needs of the locality, whilst fulfilling the principles of sustainability.

The Proposed Development will lead to a number of *minor beneficial* impacts, particularly in relation to its socio economic impacts on the local area, and will enable all explosive fabrication facilities to be

located in one purpose built area. The conclusion of the EA is that the Proposed Development will have an overall beneficial impact on the local and regional economy and would be a positive step towards meeting a number of the strategic objectives of regional and local policy. The Proposed Development will help secure the long-term viability of AWE Aldermaston for the local area and will provide a number of employment opportunities during the construction phase.