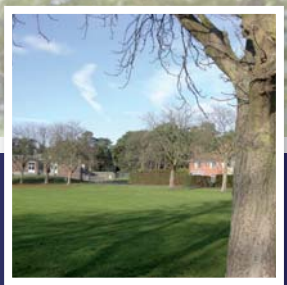

Defence Infrastructure Organisation

Princess Royal Barracks, Deepcut

Scoping report in relation to the information to be provided in the Environmental Statement

amec

October 2011

Defence Infrastructure Organisation

Princess Royal Barracks, Deepcut

Scoping report in relation to the information to be provided in the Environmental Statement

October 2011

AMEC Environment & Infrastructure UK Limited

Report for

Defence Infrastructure Organisation

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Document Revisions

No.	Details	Date
1	Draft Report	15/09/11
2	Final Report	07/10/11
3	Revised final report	25/10/11

Contents

1. Introduction

1.1 Overview of the Deepcut development

1.1.1 The Defence Infrastructure Organisation (DIO)[1] wishes to gain outline planning consent for a mixed use development at its Princess Royal Barracks (PRB) site at Deepcut (the Site). The Site covers an area of 121.88 hectares (ha) and is approximately 2.5km south of Frimley and 2.7km north-east of Farnborough in Surrey. The Site comprises substantial areas of previously developed land which is currently in use by the MOD as the headquarters of the Royal Logistic Corps (RLC) of the British Army and the Defence School of Logistics. The Site is to be vacated from 2013 and is being released by the MOD following a national review of Defence Training requirements.

1.1.2 The proposed development will broadly comprise residential development of 1,200 homes, open space, access roads, a primary school and some retail uses. Further information on the Site and the proposed development is provided in chapter 2.

1.1.3 The Site location is shown in Figure 1.1.

1.2 Purpose of the scoping report

1.2.1 This scoping report has been prepared as part of an Environmental Impact Assessment (EIA) relating to the proposed development. EIA is required for certain developments under *The Town and Country Planning Act 1990*, as defined under *The Town and Country Planning (Environmental Impact Assessment) Regulations 2011* SI No. 1824 (hereinafter referred to as the EIA Regulations). The EIA regulations require that an application for planning permission must be accompanied by an Environmental Statement (ES) which is prepared as part of an EIA. DIO considers that the proposed development is 'EIA development' that must be subject to EIA including the preparation of an ES. A screening opinion from Surrey Heath Borough Council (SHBC) (under the EIA Regulations) has therefore not been requested.

1.2.2 Regulation 13 of the EIA Regulations allows a person proposing to make an application for 'EIA development' to request the adoption by the relevant local planning authority of a scoping opinion as to the content of an ES. This scoping report supports a request to SHBC for its formal view (i.e. its 'scoping opinion') on the information that should be provided in the Environmental Statement (ES) which reports on the findings of the EIA.

[1] The Defence Infrastructure Organisation was formed on 01 April 2011 when the former Defence Estates organisation was brought together with other infrastructure organisations in the MOD to form a single organisation.

1.2.3 This scoping report identifies the likely significant effects of the proposed development that need to be considered in depth as part of the EIA, as well as the proposed scope of the assessment in relation to these effects (insofar as the scope can be determined at this stage in the EIA process). It is hoped that this information will help to engage stakeholders in the development process and assist the local planning authority (LPA) in reaching its scoping opinion.

1.3 Approach to scoping

1.3.1 AMEC's approach to scoping accords with DETR Circular 02/99 EIA, which states that:

> *"In many cases, only a few of the effects will be significant and will need to be discussed in the ES in any depth. Other impacts may be of little or no significance for the particular development in question and will need only very brief treatment to indicate that their possible relevance has been considered".*

1.3.2 Under each of the topics listed in column 2 of Table 1.1, the report identifies:

- potential effects for which further assessment work is required and which will be reported in the ES; and
- effects that, having regard to the work already carried out and on the basis of the available information, are considered to be so minimal that they are unlikely to be significant and do not require further assessment (i.e. they are scoped-out).

1.3.3 As the development evolves and the understanding of it environmental context expands, decisions about which effects fall into each of these two categories may change, necessitating modifications to the scope of the ES.

1.3.4 The scope of the ES will be kept under review and, where appropriate, modifications made, up to the point that the findings of the assessment are drawn together in the ES. Given the ongoing review process, this scoping report will not be revised and reissued. However, changes to the scope made in response to either the findings of the assessment or stakeholder comments will be summarised in the ES.

Table 1.1 Environmental topics to be addressed in the ES

Topics in the EIA Regulations	Topics in this Scoping Report
Population	Landscape and visual [section 3.6]; Traffic and Transport [section 3.1]; Noise [section 3.3]; and Community [section 3.4]
Fauna	Biodiversity [section 3.7]
Flora	Biodiversity [section 3.7].
Soil	Land Quality and Soils [section 3.9].
Water	Water Resources [section 3.8].
Air	Traffic and Transport [section 3.1]; Air [section 3.2].
Climatic factors	Water Resources [section 3.8].
Material assets, including the architectural and archaeological heritage	Cultural Heritage [section 3.5].
Landscape	Landscape and Visual [section 3.6.].
The inter-relationship between the above factors	These are discussed within each section as relevant

1.3.5 The assessment of potentially significant effects requires a comparison to be made between the likely environmental conditions in the presence of the development and in its absence (i.e. the 'baseline'). As the various elements of the development would be built over a period of up to 10 years and then operated indefinitely, it cannot be assumed that the baseline conditions in the absence of the project would be the same as at present. This reflects changes resulting from human influences, such as new development, and 'natural' processes, all of which have the potential to modify the current environmental conditions.

1.3.6 Potential effects are considered in relation to the baseline environmental conditions that would be expected to occur in the absence of the proposed development at the time that the proposed development would be constructed and operated. Decisions about the likely significant effects of the proposed development and therefore the scope of the assessment have been made using information about:

- the receptors (people and environmental resources) that could be affected by the proposed development;
- the activities involved in constructing and operating the proposed development;
- the expected magnitude and other characteristics of the environmental changes that could result from these activities and that could affect important receptors;
- the susceptibility of important receptors to exposure to these changes; and
- the extent to which the design of the proposed development avoids or reduces any potential effects.

1.4 The future baseline and cumulative effects

1.4.1 The EIA process includes consideration as to whether any of the individual effects of the proposed development would combine to create a cumulative effect greater than the sum of the individual effects. Furthermore, consideration is given as to whether any other consented developments would contribute to creating, with the proposed development, a cumulative effect that would be greater than would occur if the Site was being developed in isolation. Such cumulative effects can only usually be considered at the time of the planning application as it is only then that knowledge on all consented developments will be available.

1.4.2 The approach undertaken in this report, and in the ES, is to factor in the potential environmental effects from other committed developments within the study area into the future baseline conditions. The assessment will then consider potential effects from the development in relation to those future baseline conditions. For example, with regards to air quality effects from traffic flows, level of air pollutants produced by estimated traffic flows from committed developments would be included in future estimates of baseline air quality for the study area affected by a proposed development. The assessment would then compare levels of pollutants in the future both with and without the development. Including traffic produced by other committed developments as part of the future baseline conditions ensures that cumulative effects from other developments are included in the assessment.

Proposed development in the surrounding area

1.4.3 There are no known consented developments in the area. However, an application for the development of a three storey 60 bedroom care home with basement and associated parking on the Site of the former MOD fire station, Deepcut Bridge Road was registered by SHBC on 28 September 2011 (ref. 11/0516). The care home development in combination of the proposed development could result in potential cumulative effects. Although this application is unlikely to be determined until late December 2011 the potential effects from this proposed development will be considered as part of the assessment where relevant.

1.5 Developer and the project team

1.5.1 DIO has engaged AMEC Environment and Infrastructure Ltd[2] to prepare the scoping report and the ES for the proposed development as well as preparing the masterplan and Transport Assessment (TA) for the proposed development. GVA has been engaged as the planning advisor and to prepare the Planning Support Statement and economic viability studies for the Site.

[2] Entec UK Ltd has worked on the Deepcut Scheme on behalf of DIO for a number of years. Following its acquisition by AMEC, Entec was integrated into AMEC Environment and Infrastructure in July 2011, all references are now to AMEC E&I/AMEC.

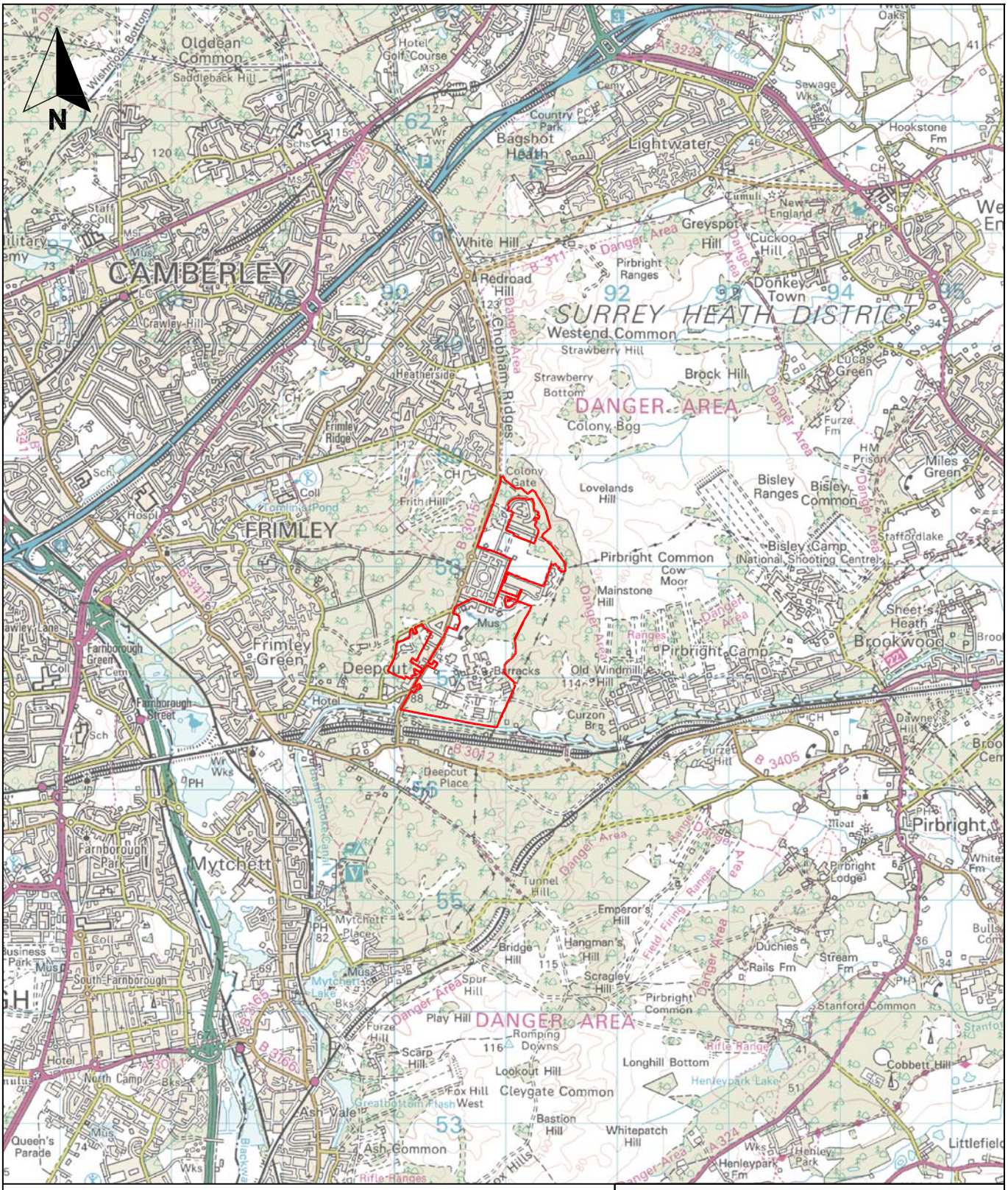
1.6 Structure of the scoping report

1.6.1 Included in the appendices are the terms and abbreviations that are used in this report (A) and the results from an assessment of preliminary traffic modelling information from 2010 (B).

1.6.2 Chapter 2 of this report describes the background to the proposed development, including a summary of any associated construction works. Also outlined are any changes that are expected to occur that could result in an alteration of the existing baseline conditions by the time that the proposed development is constructed. Chapter 2 also outlines the need for the proposed development.

1.6.3 In chapter 3, for each assessment topic, a summary is provided of the main sources of information that have been used to inform the preparation of the scoping report. Consideration of current and emerging planning policy relevant to each assessment topic is provided at the beginning of each section. The Government has published a new National Planning Policy Framework (NPPF) (July 2011) in draft. This will provide the national plank of planning policy and will replace all existing Planning Policy Guidance notes and Planning Policy Statements. The policies contained in the NPPF have only been considered if of relevance to each assessment topic. Available baseline information is summarised and consideration is given to changes to the baseline conditions that are expected to occur if the proposed development does not go ahead. This is followed by an outline of the requirement for further assessments of potential effects. Where there are potential effects that have merited consideration but that are not to be subject to further assessment (i.e. they are scoped-out), the reasons for this are stated.

1.6.4 Chapter 4 provides guidance to consultees with regards to providing a response to the scoping report.



Key

Site boundary

0 km 3 km

Scale 1:50,000 @ A3

Defence Infrastructure Organisation

Deepcut Princess Royal Barracks
EIA Scoping Report

Figure 1.1
Site Location Plan

September 2011
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2. The Proposed Development

2.1 Outline of the proposed development site

2.1.1 The Site is located on the eastern fringe of Deepcut village with access off the B3015 (Deepcut Bridge Road). It is approximately 2.5km south of Frimley, and 2.7km north-east of Farnborough.

2.1.2 The Site comprises three separate areas. The areas have been given the following names for clarity:

- Officers' Club and surrounding area (northern area);
- Princess Royal Barracks (southern area); and
- Bellew Road Sergeants' Mess (western area).

Officers Club and surrounding Area

2.1.3 The Officers' Club and surrounding area is situated at the north of the development site. The heath and woodland within this part of the Site is accessible to the public with a number of tracks well used by dog walkers. To the north and east boundary of the northern area is the Thames Basin Heaths Special Protection Area (SPA) which is used by the Ministry of Defence (MOD) as a training area and is therefore fenced and inaccessible to the public. The training area bounds married quarters housing which is operated on behalf of the MOD by Annington Homes and is excluded from the Site.

2.1.4 The Officers' Club and its surrounding uses are fenced; the building (c.1960) has a distinct hexagonal footprint and is well concealed by its woodland setting and therefore limited visibility from Deepcut Bridge Road which forms the western boundary to the Site. The remainder of the Site area comprises of a number of sports grounds and grassed recreation spaces.

Princess Royal Barracks

2.1.5 The main part of the Site, in the south, comprises the Princess Royal Barracks (PRB). The Barracks are enclosed by a perimeter fence, wooded areas and steep natural and man-made embankments. The buildings are set in the context of parade grounds, sports fields and parking areas. The buildings within the Barracks are used for training purposes and include a full range of support services such as medical facilities, church, gymnasium, accommodation, offices, messes, restaurant, library, offices and workshops. This part of the Site is bound by Deepcut Bridge Road to the west, private and military housing to the north, the SPA to the east and the Basingstoke Canal to the south.

2.1.6 The peripheries of the Site are characteristic of the surrounding heathland landscape much of which has now become well wooded with significant stands of Scots Pine, Beech and Birch; many of these woodland areas are well used by soldiers for fitness and training. The topography rises some 31m from Deepcut Bridge to the sports ground and assault course in the east. The layout of the barracks makes good use of the Site's steep topography with much of the woodland taking hold on slopes too steep to develop. The Site borders Deepcut village to the west, a small settlement with a collection of local shops and residential properties. To the east the Site is bordered by the MOD's heathland training area of Pirbright Common and Camp. The southern boundary is formed by the Basingstoke Canal. The canal itself is set in a deep cutting some 10m lower than the surrounding ground level. The northern boundary abuts the Dettingen Park development a recently completed residential development on the former Alma and Dettingen Barracks site.

Bellew Road Sergeants Mess

2.1.7 The third part of the Site is located on the opposite side of Deepcut Bridge Road to the PRB and comprises woodland and a Sergeants' Mess. The Sergeants' Mess is set in surrounding woodland. The area is separated from the main Barracks by Deepcut Bridge Road and is well bounded to north, south and east boundaries by existing residential properties. Part of the area is operated by SHBC as a sports field and play area. The Sergeants' Mess itself is accessed from Bellew Road which has a one way system in place; the approach to the mess leads through woodland. Bellew Road Sergeants' Mess is the same style as the Deepcut Barracks Officers' Mess and is a formal fronted brick built building from the early twentieth century.

2.2 Surrounding Land Uses

2.2.1 Deepcut village is a small settlement which fronts the east edge of Deepcut Bridge Road. A parade of shops forms the focus along Deepcut Bridge Road with an eclectic mix of architectural styles ranging from the mid nineteenth century to the present day.

2.2.2 The MOD Training Areas comprise land east and west of the Site and is characterised by good quality woodland and heathland with some evidence of military training activities such as boundary fencing, logistics equipment, concrete foundation pads and tracks.

2.2.3 Residential areas surrounding the Site comprise of the recently completed Dettingen Park development, housing to Frimley Ridge as well as the more established Minorca Road and Alma Gardens MOD married quarters. Dettingen Park is a recently completed development of compact flats and houses set around a distinctive circular geometry with some new open spaces as well as a new supermarket and community centre. Frimley Ridge is a residential area which lies to the west of Deepcut Bridge Road. The housing is arranged around a number of cul-de-sacs and estate roads. The more established areas of Minorca Avenue and Alma Gardens feature plain fronted semi detached houses and are set within the surrounding woodland and heathland.

2.2.4 The Site is some distance from the strategic road network and main routes such as A331, A325 and A321. The Site is relatively close (but not within walking distance)

to five railway stations (Frimley, Farnborough North, Farnborough Mainline Ash Vale, North Camp and Brockwood) which provide links to London Waterloo, Gatwick Airport, Reading, Guildford, Ascot and Basingstoke.

2.3 The need for the proposed development and alternatives considered

Site disposal

2.3.1 Strategic alternatives to disposing of the Site were considered by the MOD as part of the Defence Training Review Package 2 (DTR P2).

2.3.2 In 2008 a Written Ministerial Statement confirmed that Princess Royal Barracks at Deepcut would be released for disposal but that disposal would not be before 2013. The training facilities on the Site would be re-located and provided elsewhere on the Defence estate. Following on from this announcement, the MOD requested that SHBC include the Site in its draft Core Strategy as a housing site.

Need

2.3.3 Housing need in the Borough was identified in the South East Plan which identified that 3,740 new homes were required in the Surrey Heath Borough for the period 2006-2026. The South East Plan was revoked in July 2010 and SHBC produced a draft Core Strategy based on a revised housing target of 2,502 new homes. However, during an examination of the draft Core Strategy the planning inspector concluded that the housing target should be higher. During this time the South East Plan has been re-instated and the proposed changes to the Core Strategy set a target for 3,240 dwellings in Surrey Heath between 2010 and 2027 (Policy CP3).

2.3.4 Much of the land within the Borough lies within the Thames Basin Heath SPA designation. This is an internationally important statutory nature conservation site designated because it supports populations of European importance of rare ground nesting birds during the breeding season. Any housing development within 5km of this designated site must provide measures to prevent effects from increased recreational pressures on the SPA. This takes the form of the provision of areas (known as Suitable Alternative Natural Green Space (SANGS)) within the proposed development site or within close proximity of the Site to encourage new residents to stay within the Site for activities such as dog walking rather than using the SPA thus avoiding potential effects on the SPA.

2.3.5 Therefore the Site provides the opportunity for SHBC to meet approximately a third of its housing need whilst also meeting the requirements to protect the SPA.

Site layout alternatives

2.3.6 The layout of the proposed development has been informed by environmental and design constraints and opportunities present at the Site. These are summarised next.

- *Thames Basin Heath SPA*: This lies adjacent to the northern parts of the Site. The SPA has limited where development within the Site can take place in two ways. Firstly no new residential development can take place within 400m of the SPA. Secondly for residential development there is a requirement to include green spaces (SANGS) within the development to encourage new residents to stay within the Site for activities such as dog walking rather than using the SPA. This reduces the extent of the Site that can be redeveloped as residential development. Therefore the decision was made to concentrate residential development within the southern part of the Site.
- *Site topography*: The Site's topography is very varied with some ridgelines and steep slopes within the Site. This therefore limited which areas of the Site could be used for built development or for areas such as playing fields and sports pitches.
- *Woodland and vegetation within the Site*: There are several areas of woodland and vegetation, including mature beech woodland and remnant heath, which will be retained as part of the proposed development. In additional there is a non-statutory nature conservation site within the development site and this also will be retained to avoid effects on this feature.
- *Grade II listed Church (of St Barbara*): The proposed development has been designed so that the church is retained and that the land uses around the church will comprise open space to avoid effects on the setting of this feature.
- *Basingstoke Canal*: The canal is designated as a nationally important nature conservation site (Site of Special Scientific Interest (SSSI)) and a conservation area. Therefore the proposed development has been designed so that land adjacent to the canal remains as natural green space to avoid effects on the setting of the canal.

2.3.7 The ES will provide further detail of the measures incorporated into the proposed development to avoid and minimise environmental effects and details of how the proposed development design has evolved to take into account potential environmental effects.

2.4 Description of the proposed development

Overview

2.4.1 A masterplan will be developed for the Site in response to the constraints and opportunities at the Site and wider stakeholder and community consultation. An initial development concept has been prepared however (for EIA scoping purposes only) that broadly comprises the following:

- 1,200 residential dwellings (40ha) at density of 30 dwellings per hectare;
- new retail development and local centre uses (1.5ha);
- new two form entry primary school and nursery facilities (2ha);

- retention of the Church of St Barbara (0.62ha);
- residential home (1.27ha);
- land provided as SANGS (34.28ha, plus a SANGS link of 1.07ha);
- land provided to meet Natural England's Accessible Natural Greenspace Standard (29ha);
- allotments (0.96ha);
- a sports hub, including sports fields and pitches as well as tennis courts and a bowling green (7ha);
- play areas including an adult outdoor gym, Multi-Use Games Area (MUGA) and Neighbourhood Area Equipped for Play (NEAP) (0.5ha);
- parkland (1.6ha); and
- a village green (2ha).

2.4.2 The total area of development is 121.88ha and the location of the above proposed land uses is shown on Figure 2.1.

Construction

Construction programme

2.4.3 It is anticipated the Site will be vacated by the MOD and available for development from 2016 onwards. The assumed rate of construction is 1,200 homes over 8-10 years and that the proposed development will be completed by 2026. The ES will contain additional information on phasing.

Construction works

2.4.4 The following information provides an overview of how the proposed development is likely to be constructed.

Enabling works

2.4.5 At the start of the construction process the Site welfare, health and safety and management systems and security will be established. Existing buildings at the Site which are not to be retained will be demolished. There will be limited excavation of material to create finished ground levels prior to construction work. The earthworks will be designed to maximise re-use of appropriate materials in order to minimise removal of material off-site. Road lorries will remove unsuitable material during this stage. Upgrades to existing foul water and surface water drainage networks will be implemented and where required connections will also be made at the edge of the Site.

Substructure

2.4.6 Once the earthworks have been completed in each phase, the foundations for roads, pathways and buildings will be installed. The majority of the Site's permeability is

provided by the existing internal highway network and there are a number of routes which offer potential to be retained as part of the Site's redevelopment that include:

- the Royal Way (part of this road will be downgraded to a track as it goes through SANGs land in the centre of the Site);
- Newfoundland Road;
- Canada Road; and
- Union Road.

2.4.7 New utility services (water, gas, electricity and drainage) will also be installed and commissioned.

Superstructure

2.4.8 This stage comprises the erection of the main structures for the buildings and fixing of the external weatherproofing (where appropriate).

Mechanical and electrical

2.4.9 Once the buildings are weather tight, work will commence on internal finishes, etc. This work is largely contained within the building shell and comprises the installation of lighting, heating and cooling systems. Connections to gas, water, drainage, electricity and communications will be external activities.

Construction management

2.4.10 A Construction Environmental Management Plan (CEMP) would be implemented by the contractor. This would outline measures to control and minimise the risk of adverse environmental effects from construction activities. Examples of the types of measures which would be included include measures to:

- prevent pollution spillage such as the bunding of construction work areas to prevent run-off reaching watercourses;
- minimise dust generation by locating material stockpiles away from sensitive receptors, covering and/or damping down material stockpiles and implementing wheel-washing facilities close to the Site exit to minimise the spread of dust off-site;
- control traffic movements by specifying which routes traffic should follow;
- minimise noise, for example by maintaining machinery, using less noisy machinery, locating machinery away from sensitive receptors and so that other features (for example material stockpiles) screen noise from the machinery and where needed enclosing machinery;
- retaining topsoil on site for reuse in landscaping, measures to protect the structure of soils during their stripping and storage and re-use of any surplus top soil appropriately off-site;

- undertake work in accordance with the Environment Agency's Pollution Prevention Guidelines;
- bunding of chemical and fuel stores to 110% of capacity;
- to ensure the implementation of a pollution incidence response plan to deal with any accidental spillages or leaks;
- maintain and re-fuel vehicles and equipment on hardstanding areas;
- to ensure the use of Personal Protective Equipment (PPE) for site workers; and
- to ensure that the local community are informed of on-going construction activities.

2.4.11 Construction activities, including deliveries to the Site, would be limited to standard daytime hours.

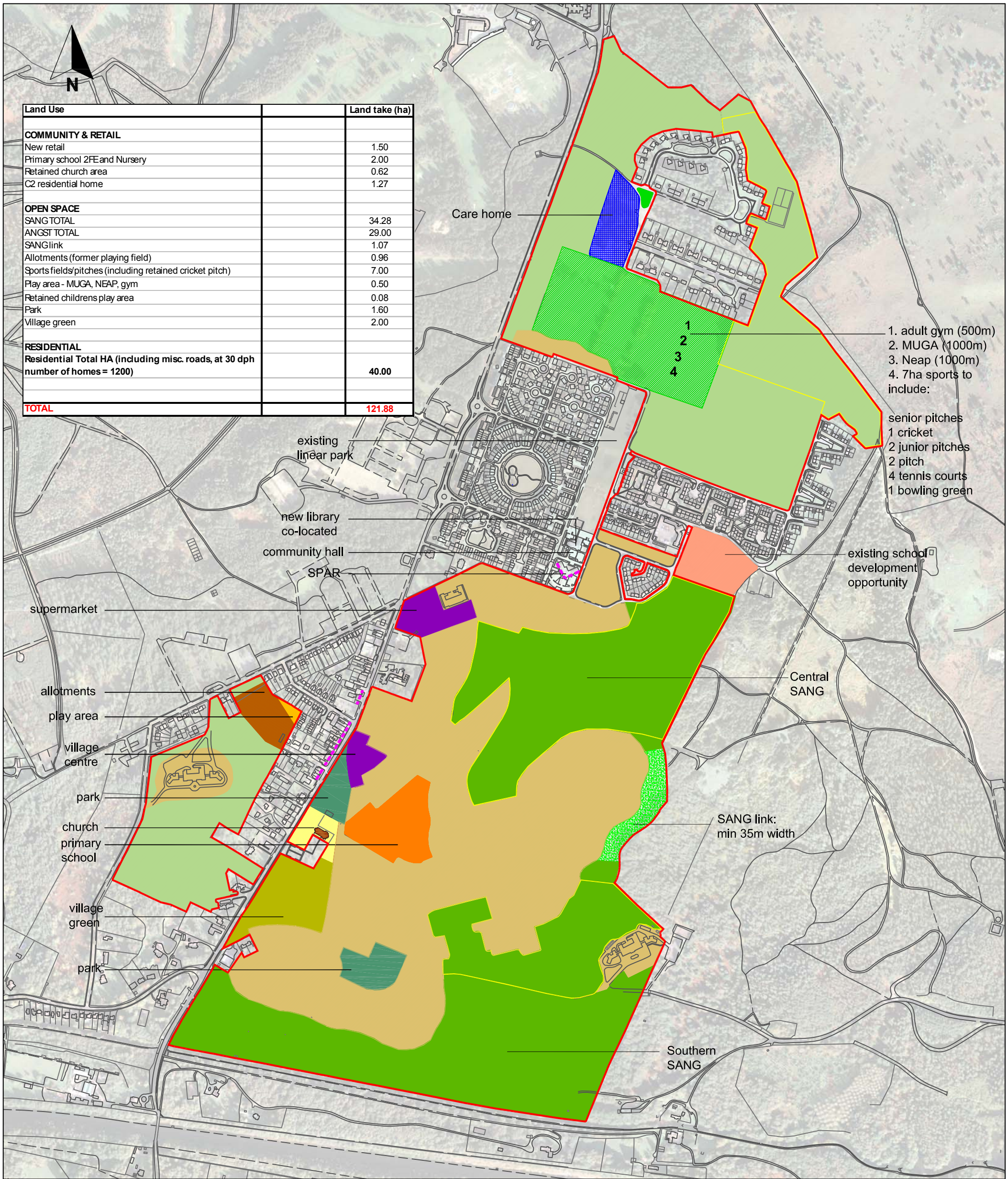
Construction traffic

2.4.12 The levels of construction traffic are not known at this stage. Construction traffic would be routed to avoid roads where sensitive receptors, such as houses and schools, are located, wherever possible. Construction traffic and deliveries would be limited to daytime hours. Measures to manage potential effects from construction traffic would also be set out in the CEMP.

End of Life decommissioning

2.4.13 The EIA regulations also require consideration of decommissioning. Depending upon design and long term maintenance of the proposed development, refurbishment and/or demolition and new build could occur over an extended period. 'Decommissioning' in this case can not be sufficiently well defined (in terms of timing and extent) to enable its assessment. It is therefore proposed that a separate assessment of decommissioning will not be undertaken as part of the EIA.

Land Use		Land take (ha)
COMMUNITY & RETAIL		
New retail		1.50
Primary school 2FE and Nursery		2.00
Retained church area		0.62
C2 residential home		1.27
OPEN SPACE		
SANG TOTAL		34.28
ANGST TOTAL		29.00
SANG link		1.07
Allotments (former playing field)		0.96
Sports fields/pitches (including retained cricket pitch)		7.00
Play area - MUGA, NEAP, gym		0.50
Retained childrens play area		0.08
Park		1.60
Village green		2.00
RESIDENTIAL		
Residential Total HA (including misc. roads, at 30 dph number of homes = 1200)		**40.00**
TOTAL		**121.88**



Key

- Site boundary
- SANG
- ANGST
- SNCI
- Sports
- Allotments
- Park
- Village green
- New residential
- Existing school / new community primary school
- Retained church
- Existing / new retail

0 m — 400 m

Scale 1:7500 @ A3

Defence Infrastructure Organisation

Deepcut Princess Royal Barracks
EIA Scoping Report

Figure 2.1
Indicative Land Use Plan

October 2011
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3. Scope of the Assessment

3.1.1 The assessment of potentially significant effects requires a comparison to be made between the likely environmental conditions in the presence of the development and in its absence (i.e. the 'baseline'). As the various elements of the development would be built over a period of up to ten years (depending on building rates) and then operated indefinitely, it cannot be assumed that the baseline conditions in the absence of the project would be the same as at present. This could reflect changes resulting from human influences, such as new development, and 'natural' processes, all of which have the potential to modify the current environmental conditions.

3.1.2 Sections 3.1 to 3.9 deal with the scope of the assessment relating to each of the environmental topics that are listed in the second column of Table 1.1. For each environmental topic, contextual baseline information that is relevant to the topic is outlined, together with information about factors influencing future baseline conditions. This is followed by an outline of the requirement for further assessment of potential effects. Where there are potential effects that have merited consideration but that do not require further assessment (i.e. they are scoped-out), the reasons for this are stated. The conclusions about the need for further assessment have been informed by details of:

- the activities involved in constructing and operating the proposed development;
- the changes that could result from these activities (e.g. changes in traffic flows during construction and operation or changes in land cover as a result of construction); and
- the effects of these changes on different receptors (e.g. how people might be affected by increased traffic or how biodiversity might be affected by the changes in land cover resulting from the development).

3.1.3 It should be noted that although the Site lies within the Surrey Heath Borough it is adjacent to Guildford Borough. Therefore where relevant, planning policy and baseline information from Guildford Borough has also been considered.

3.1 Traffic and Transport

Relevant policies and their implications for scoping

3.1.1 Table 3.1 lists policy guidance and policies relevant to the assessment of effects on traffic and transport, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.1 Policies relevant to scoping process: traffic and transport

Policy	Implications for scoping
PPG13	Promoting accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling and to reduce the need to travel, especially by car.
SE Plan Policy T1	Manage and Invest: Local authorities are encouraged to manage and invest in the transport system in favour of sustainable modes, and support the function of the region's international gateways and inter-regional movement corridors.
SE Plan Policy T3:	Mobility Management Rebalancing of the transport system in favour of sustainable modes based on an integrated package
SE Plan Policy T4:	Parking Restraint: Based maximum parking levels for non residential land uses.
SE Plan Policy T5:	Travel Plan and Advice: Travel plans should be developed for major traffic generating development.
SHBC LP Policy M5:	Impact on Travel Demand: New developments should be highly accessible to public transport and other non-car modes of transport. Where this is not possible, appropriate improvements to public transport, pedestrian/cycle facilities should be provided.
SHBC LP Policy M6:	Development related transport improvements: Highway works to mitigate effects of development, where necessary, should be fully funded by the developer and designed to the satisfaction of the Highway Authority.
SHBC LP Policy M7:	Off-street car parking: New development should provide car parking in accordance with adopted standards.
SHBC LP Policy M12:	Improved pedestrian facilities: Improving conditions for pedestrians through potential routes/facilities.
SHBC Emerging CS Policy CP4:	Deepcut: Measures to reduce the impact of traffic arising from Deepcut will include reducing demand for travel, improved public transport provision, a safe integrated footpath/cycle route network linking to neighbouring settlements and key services, and improvements to surrounding highway network.
SHBC Emerging CS Policy CP11:	Movement: New development, generating a high number of trips should be directed towards previously developed land in sustainable locations. Where this is not possible, it should be demonstrated that it can be made sustainable by reducing the need to travel and promote travel by sustainable modes of transport.
SHBC Emerging CS Policy DM11:	Traffic management and highway safety: Development should not adversely impact upon the safe and efficient flow of traffic movement on the highway network. Development should include safe and well designed access and egress. Existing footways, cycleways and bridleways should be protected and improved.
Deepcut SPD	The SPD includes requirements for junction improvements, public transport infrastructure, pedestrian and cycle infrastructure and travel plans amongst other things. There are also requirements in relation to car and cycle parking.

PPG: Planning Policy Guidance
SE Plan: South East Plan (May 2009)
SHBC LP: Adopted Surrey Heath Borough Council Local Plan - 2000 (saved policies)
SHBC Emerging CS: Emerging Surrey Heath Core Strategy Submission Version (2010)
Deepcut SPD: Deepcut Supplementary Planning Document (September 2011)

Main sources of data used in preparing the scoping report

3.1.2 This report has been informed by a preliminary Transport Assessment (TA) which was produced by AMEC in 2010 to provide evidence to assist SHBC as planning authority and SCC as highway authority in their consideration of the effects of a redevelopment

of the Site and in determining the appropriate level of development to be allocated in the Core Strategy which is still in draft. The preliminary TA considered a potential development scenario at the Site of 1,200 residential dwellings including a primary school (420 pupils) and retail element and health centre. This has provided an estimate of the number of vehicle movements that would be generated by the development and predictions of the routes that these vehicles would take, based primarily on existing information about journey destinations from the local area and traffic modelling.

Baseline considerations

3.1.3 Deepcut Bridge Road (the B3015) runs along the western edge of the main Deepcut Site (and the eastern edge of the western part of the Site) and there are three existing access points from this road, plus one from Bellew Road. The local highway network comprises the following.

- B3015 (Deepcut Bridge Road/The Maultway): this provides access to the Site and connects with the B3012 to the south and A30 to the north.
- B3012 (Guildford Road/Gapemouth Road): this provides access from the B3015 to A325, Frimley and Farnborough to the west and A324. Pirbright and Woking to the east.
- B311 (Upper Chobham Road/Red Road): this provides access between the B3015 north of the Site and the A325 and Frimley to the west and the A322, A319 and the villages of Lightwater and West End to the east.
- A30 London Road: to the north of the Site the A30 provides access to Egham, Staines and Junction 13 of the M25 to the east and Blackwater, Hook and Basingstoke to the west.
- A322 (Guildford Road): to the east of the Site this provides access to Guildford to the south and Bracknell to the north as well as access to Junction 3 of the M3.
- M3 Junction 3 which provides the key access point to the strategic road network.

3.1.4 There are currently four bus services departing from Deepcut Bridge Road however two services are school services and have limited general public use. These bus routes link to all major surrounding settlements, including the local hospital, however the frequency of buses are, at maximum, only hourly. There are either a limited or no services available on Saturday and Sundays.

3.1.5 There are seven train stations in the area surrounding the Site (Brookwood, Farnborough North, Farnborough Mainline, Frimley, Camberley, North Camp and Ash Vale). The mainline railway stations are all over 2km from the Site. These train stations provide services to various locations including London Waterloo, Woking, Gatwick Airport, Guildford, Reading and Basingstoke as well as the local area.

3.1.6 There are footways along the B3015 south of the B311, Red Road and street lighting along most of this section. Footways vary in width between the recent Alma Dettingen development and the B311 Red Road roundabout and include short sections

of segregated footway/cycleway. There are works currently under way to extend cycleways along the B3015. There is a zebra crossing within Deepcut, south of Woodend Road. The B3015 is traffic calmed through the village.

3.1.7 There are two off highway cycle routes in the vicinity of the Site; to the east using the Basingstoke Canal towpath and routes to the west linking to Frimley via Valley Road across open land. Although the towpath route to the east is available its condition is not ideal. The route to the west via Valley Road is restricted by the operational requirements of the MOD and parts of the route are designated as medium to difficult for cyclists. It is therefore a recreational route and not suitable as a route for a regular journey to school or work. Other routes are along Wharf Road and Frimley Green Road where there are currently no cycle facilities.

Factors influencing the baseline

3.1.8 In the absence of the proposed development there would be an increase in road traffic levels as a result of background increases in traffic growth. However there are no known consented developments in the local area, which could influence future levels of traffic flows. There are proposals to redevelop the former MOD fire station as 60 bedroom care home with five staff flats. It is unlikely given the nature of the use of this development that this would substantially alter traffic flows during peak traffic hours on Deepcut Bridge Road.

Potential effects requiring further assessment

3.1.9 The Institute of Environmental Assessment's (now the Institute of Environmental Management and Assessment, IEMA) Guidelines for the Environmental Assessment of Road Traffic, 1992 will be used to assess traffic effects. The following rules, taken from the IEMA guidelines, will be used to define the roads that need to be considered as part of the assessment.

- Rule 1: include highway links where traffic flows are predicted to increase by more than 30% (or where the number of HGVs is predicted to increase by more than 30%).
- Rule 2: include any other specifically sensitive areas where traffic flows are predicted to increase by 10% or more. Sensitive areas may be defined as locations near to more vulnerable user groups, such as school children, people with disabilities or the elderly, or accident black-spot areas, roads at or near capacity, or links with high pedestrian flows.

3.1.10 Changes in traffic flows below 10% are unlikely to result in significant environmental effects, as daily variations in background traffic flow may fluctuate by this amount.

3.1.11 Estimated traffic flow information from traffic modelling currently being undertaken will be used to identify the percentage increases in 12 hour traffic flows. An initial high level assessment of potential traffic effects has been undertaken based on preliminary traffic modelling completed in 2010. The preliminary traffic modelling was based on the assumption that 1,200 dwellings would be built at the site.

3.1.12 It should be noted that initial results from new modelling currently being undertaken indicate that traffic flows associated with the development are likely to decrease below those predicted in the 2010 preliminary traffic modelling. This is due to a smaller than previously assumed level of development, changes in distribution of traffic flows and re-counting of existing junction flows to provide more up to date baseline information. These revisions have been agreed with SCC highways. The assessment will be based on the most up-to-date traffic modelling.

3.1.13 The high level analysis of the 2010 modelling (see Appendix B) indicates that the following sections of roads will experience an increase of more than 30% change in operational road traffic flows:

- the B3015 (Deepcut Bridge Road) between the junction Lake Road and Guildford Road (increase in flows); and
- Guildford Road (between Deepcut Bridge Road and Old Guildford Road) (increase in flows).

3.1.14 In addition traffic flows along the B3015 (between Copped Hall Drive and Lake Road) are likely to increase between 10% and 30%.

3.1.15 Further assessment of effects on those (drivers, cyclists and pedestrians) using the roads affected by increases in traffic (for example effects such as pedestrian and driver delay, pedestrian amenity, fear and intimidation, severance, accidents and safety and hazardous loads), will be undertaken for those roads identified above. Potential longer term exposure effects from increased traffic flows on those living, working or attending school adjacent or close to affected roads are considered in sections 3.2 (air quality) and 3.3 (noise).

Potential effects not requiring further assessment

3.1.16 *Potential effects from operational traffic flows on all other routes*: will not be assessed any further as any increase is likely to be less than 10% and therefore not result in significant effects on receptors using these routes. In addition traffic flows on Blackdown Road (between Deepcut Bridge Road and Woodend Road) are predicted to decrease so will also not be assessed any further.

3.1.17 *Potential effects from construction traffic:* as construction flows are likely to be lower than operational traffic flows and will be routed to avoid sensitive routes the effects from construction flows on these routes is unlikely to be significant and therefore will also not be assessed any further.

3.2 Air quality

Relevant policies and their implications for scoping

3.2.1 Table 3.2 lists policy guidance and policies relevant to the assessment of effects on air quality, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.2 Policies relevant to scoping process: air quality

Policy Reference	Policy Issues
PPS23	Includes guidance in relation the effects of development upon ambient air quality and reiterates the need for development to contribute to the principles of sustainability which is set out in PPS1 *Delivering Sustainable Communities* (Feb 2005). Establishes that included within the decision making should be the potential effects of new developments in or close to AQMAs and areas of existing poor air quality. Reference is also made to the consideration of local air quality reviews and assessments.
SE Plan Policy NRM7	Encourages local authorities and other relevant bodies to significantly reduce the number of days of medium to high air pollution by 2026. This should be done by: ▪ ensuring consistency with Air Quality Management Plans, reducing the environmental impacts of transport and congestion management and support the use of cleaner transport fuels; ▪ mitigating the impact of development and reduce exposure to poor air quality through design, particularly for residential development in areas which already, or are likely to, exceed national air quality objectives; ▪ encouraging the use of best practice during construction activities to reduce the levels of dust and other pollutants; and ▪ assessing the potential impacts of new development and increased traffic levels on internationally designated nature conservation sites, and adopt avoidance and mitigation measures to address these impacts.
SHBC Emerging CS Policy CP2	Sustainable Development and Design: requires development to contribute to a reduction in the Borough's own carbon dioxide emissions and thus to the targets for reducing carbon dioxide emissions in the South East.

PPS: Planning Policy Statement
SE Plan: South East Plan (May 2009)
SHBC Emerging CS: Emerging Surrey Heath Core Strategy Submission Version (2010)

Main sources of data used in preparing the scoping report

3.2.2 Information has been taken from SHBC Air Quality Progress Report, 2010 and GBC 2010 Progress Report and from reviewing OS Mapping. SHBC were also contacted in order to identify any complaints regarding air quality, odour and/or dust in the area around the proposed development site.

Baseline considerations

3.2.3 The proposed development lies within a semi-rural area adjacent to the urban edge of Frimley. There are no sources of air pollutants within the Site. Within the surrounding area, the only likely source of pollutants is road traffic on Deepcut Bridge Road and the wider highway network. No complaints regarding odour or dust have been received in the vicinity of this site by SHBC.

3.2.4 The European directive on air quality and cleaner air for Europe (2008/50/EC) and the European directive relating to arsenic, cadmium, mercury, nickel, and polycyclic aromatic hydrocarbons in ambient air (2004/107/EC) are the principal instruments governing outdoor ambient air quality policy in the EU. They set binding Limit Values for concentrations of pollutants in the air we breathe.

3.2.5 The *Air Quality Standards Regulations 2010*[3] transpose into UK legislation these two European directives, the Council's decision on exchange of information[4], as well as replacing the Air Quality Standards Regulations 2007[5]. The *Air Quality Standards Regulations* came into force in the UK on 11th June 2010. The Air Quality Limit Values are transposed into the updated Regulations as Air Quality Standards (AQS) with attainment dates in line with the European Directives.

3.2.6 In the UK, action on air quality is driven by the health-based Objectives for key air pollutants made statutory through the *Air Quality Regulations 2000*, as amended in 2002[6] and set out in the 2007 Air Quality Strategy for England, Scotland, Wales and Northern Ireland[7]. The Air Quality Objectives (AQOs) are based on medical and scientific reports on how and at what concentration each pollutant affects human health. The AQOs are based on the Air Quality Standards/Air Quality Limit Values, with interim target dates to help the UK move toward the achievement of the Air Quality Limit Values. The AQOs in the Air Quality Strategy are a statement of policy intentions or policy targets and as such, there is no legal requirement to meet these objectives except as far as these mirror any equivalent legally binding Limit Values in EU legislation.

3.2.7 Part IV of the *Environment Act 1995* [8] requires local authorities to periodically review concentrations of the UK Air Quality Strategy pollutants within their areas and to identify areas where the AQOs may not be achieved by their relevant target dates. This process is known as Local Air Quality Management (LAQM) and is an integral part of delivering the Government's AQOs detailed in the Regulations. GBC has assessed levels of air pollutants within close proximity of the Site to be within the AQOs. SHBC has also assessed levels of air pollutants at the Site to be within the AQOs.

3.2.8 When areas are identified where some or all of the AQOs might potentially be exceeded and where there is relevant public exposure, i.e. where members of the public would regularly be exposed over the appropriate averaging period, the local authority has a duty to declare an Air Quality Management Area (AQMA) and to implement an Air Quality Action Plan (AQAP) to reduce air pollution levels so that the required AQOs are met.

3.2.9 One AQMA has been declared within the SHBC area in relation to exceedences of the AQO for nitrogen dioxide along the M3 between the Frimley Road flyover and just

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[3] The Air Quality Standards Regulations 2010, Statutory Instrument 2010 No 1001

[4] Council Decision 97/101/EC on exchange of information.

[5] The Air Quality Standards Regulations 2007, Statutory Instrument 2007 No. 64

[6] The Air Quality (England) Regulations 2000, Statutory Instrument 2000 No. 928, The Air Quality (England) (Amendment) Regulations 2002

[7] The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. Department for Environment, Food and Rural Affairs in Partnership with the Scottish Executive, Welsh Assembly Government and Department of the Environment Northern Ireland. Stationary Office, July 2007.

[8] Environment Act 1995.

north of the Ravenswood roundabout (A325) (approximately 3km to the north-west of the proposed development site).

Factors influencing the baseline

3.2.10 In the absence of the proposed development future baseline conditions have the potential to change as a result of changes in pollutant emissions from traffic flows. However, due to expected improvements in vehicle technology it is expected that pollutant emissions from road vehicles will decrease in future years. In addition measures to encourage the use of walking, cycling and public transport for shorter journeys are also likely to reduce the amount of private vehicle use and also pollution associated with this type of transport.

Potential effects requiring further assessment

3.2.11 Environmental Protection UK guidance[9] states that typically there is a need for an assessment on roads where there is a change in the Annual Average Daily Traffic (AADT) or peak traffic flows of more than 5-10% usually on roads with more than 10,000 AADT flows. Guidance[10] states that only receptors within 200m of an affected route or corridor need to be considered in the assessment. An initial high level analysis of preliminary traffic modelling completed in 2010 (see Appendix B) indicates that the B3015 between Copped Hall Drive and Lake Road which has flows of more than 10,000 AADT in 2026 is likely to experience an increase in traffic flows of 10% or more. Therefore a review of the estimated operational traffic flows will be undertaken once available. Potential effects on air quality experienced by sensitive receptors (i.e. residential properties and schools) adjacent or close to this route, as a result of operational traffic increasing overall road traffic flows and therefore levels of pollutants, will be assessed further.

3.2.12 The ES will include quantitative assessment of pollutant concentrations at residential receptor locations (existing and proposed) using the DMRB approach or detailed dispersion ADMS modelling. The type of modelling to be used will be agreed in advance with an Environmental Health Officer from SHBC.

3.2.13 The SPA is also located adjacent to the B3015 (between Copped Hall Drive and Lake Road). Guidance[11] states that designated ecological sites within 200m of an affected route or corridor need to be considered within an assessment. The potential effect on air quality at the SPA as a result of operational traffic increasing overall road traffic flows and therefore levels of pollutants will be assessed further.

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[9] Environmental Projection UK, 2010, Development Control: Planning for Air Quality (2010 update)

[10] Highways Agency. (2007). Design Manual for Roads and Bridges, Volume 11: Environmental Assessment, Section Three: Environmental Assessment Techniques, Part 1: Air Quality.

[11] Environmental Projection UK, 2010, Development Control: Planning for Air Quality (2010 update)

Potential effects not requiring further assessment

3.2.14 Assessment of each of the following potential effects has led to the conclusion that they are unlikely to be significant and do not require further assessment.

- *Potential effects from dust during construction on people living nearby*: during construction dust could be created as a result of construction activities which may have effects on local residents. The nearest properties are on Deepcut Bridge Road, Blackburn Road, Newfoundland Road, Union Road, Canada Road and Malta Road. Standard measures would be implemented during construction to control dust emissions. Therefore, with these measures in place it is likely that there will be no significant dust effects as a result of construction processes. There will be limited built development within 400m of the SPA and therefore dust effects on this receptor are scoped-out of the assessment.
- *Potential air quality effects on sensitive receptors on Aisne Road and Minorca Road*: limited built development will take place in the northern part of the Site and therefore all air quality effects on these receptors are scoped-out of the assessment.
- *Potential effects from increased pollutants associated with operational and construction traffic along all routes other than the B3015*: increases in operational and construction traffic are unlikely to be substantial enough to result in significant air quality effects on receptors along these routes and are therefore scoped out of the EIA. Construction traffic will be routed appropriate to avoid sensitive receptors.
- *Potential effects from increased pollutants associated with construction traffic along the B3015*: increases in construction traffic are unlikely to be substantial enough to result in significant air quality effects on receptors along this route or the SPA and are therefore scoped out of the EIA.

3.3 Noise and Vibration

Relevant policies and their implications for scoping

3.3.1 Table 3.3 lists policy guidance and policies relevant to the assessment of effects on noise and vibration, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.3 Policies relevant to scoping process: noise

Policy	Policy issues
PPG24: Planning and Noise	Guides local authorities in England on the use of their planning powers to minimise the adverse impact of noise. It outlines the considerations to be taken into account in determining planning applications both for noise sensitive developments and for those activities which generate noise. It explains the concept of noise exposure categories for residential development and recommends appropriate levels for exposure to different sources of noise. It also advises on the use of conditions to minimise the impact of noise. Six annexes contain noise exposure categories for dwellings, explain noise levels, give detailed guidance on the assessment of noise from different sources, gives examples of planning conditions, specify noise limits, and advise on insulation of buildings against external noise.
SE Plan Policy NRM10:	Noise: Looks to reduce the effects of environmental noise through the planning process
SHBC LP Policy G20:	Development and Noise: Development which causes an unacceptable degree of noise disturbance to noise sensitive development or to areas which are valued for their quietness; or noise sensitive development adjacent to noisy locations will not be permitted.

PPG: Planning Policy Guidance
SE Plan: South East Plan (May 2009)
SHBC LP: Adopted Surrey Heath Borough Council Local Plan - 2000 (saved policies)

Main sources of data used in preparing the scoping report

3.3.2 Ordnance survey and aerial mapping have been used to identify potential sources of noise and noise-sensitive receptors. A brief noise monitoring exercise was completed in May 2009 in support of a technical note submitted by DIO as part of the evidence base for the Core Strategy representations. Indicative noise levels were recorded within the proposed development site in areas of proposed housing adjacent to the B3015 and closer to the MOD training areas to the east and west of the Site. In addition, discussions were undertaken with range staff at the adjacent Military Ranges with regards to complaints about military firing.

Baseline considerations

3.3.3 Noise sources around the Site comprise:

- road traffic along the B3015 Deepcut Bridge Road and much further to the west distant road traffic noise from the M3, A331 and A325;
- rail traffic along the London to South Coast mainline railway, which is to the south of the Site;
- noise from blank firing and pyrotechnics associated with military training on Area G1 (to the east of the Site) and Area G2 (between the southern and northern parts of the Site);
- noise from live firing exercises at the MOD's Pirbright Ranges; and
- firing noise from the National Shooting Centre at Bisley, 1.4km to the east of the Site boundary.

Road traffic noise

3.3.4 A brief noise monitoring exercise (May 2009) adjacent to the B3015 indicates road traffic noise levels are in the region of $_{LAeq,T}$ 68dB at 10m from the carriageway edge indicating that noise levels at this distance fall within PPG24[12] Noise Exposure Category (NEC) C. PPG24 states that planning permission for proposed dwellings within NEC C should not normally be granted. However, where it is considered that permission should be given, for example because there are no alternative quieter sites available, conditions should be imposed to ensure a commensurate level of protection against noise.

Military training and firing noise

3.3.5 Both the training areas adjacent to the Site (Areas G1 and G2) can and are used on a daily basis and include some night-time use. As the training areas bound some of the proposed development land it is possible there could be training in close proximity to proposed dwellings, although it should be noted that parts of training area G2 will become part of the proposed development.

3.3.6 The MOD's Pirbright Ranges are used for military training during daytime hours and it is understood that there may be some night-time exercises held. There are several fixed firing ranges that make up part of the Pirbright complex. From the information available at present it would appear that the nearest fixed firing ranges are at a distance of around 725m from the nearest point on the proposed site boundary (Firing Range No.1).

3.3.7 Brief noise measurements have been undertaken at 3 locations within the proposed development where residential development is proposed (D2 and C4 within the central and eastern parts of the southern part of the development and F1 located in the area between Deepcut Bridge Road and Blackdown Road), while the ranges, including Firing Range No. 1, were in use. These measurements indicate that typical L_{Amax} noise levels are in the order of 38dB, with some less frequent but louder L_{Amax} noise levels in the order of 45dB. This is well below the guideline maximum noise levels set out in Clay Target Shooting Guidelines[13], which would indicate that people are less likely to be annoyed. The measured L_{Amax} noise levels are also below the WHO Guideline noise limit[14] for external L_{Amax} noise levels, set to avoid sleep disturbance.

3.3.8 Following discussions with the range staff it appears there have been complaints from residents around the ranges and training areas, but with no particular 'hot spots'.

National Shooting Centre, Bisley

3.3.9 The closest ranges in the National Shooting Centre at Bisley are in excess of 1400m away from the Site. These distances are such that noise levels from firing will be

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[12] Planning Policy Guidance 24: Planning and Noise.

[13] Chartered Institute of Environmental Health (CIEH), 1993, Clay Target Shooting: Guidance on the Control of Noise

[14] World Health Organisation, 1999, Guidelines for Community Noise

significantly attenuated, however, they could be audible on occasion. From the available information it would appear that the Bisley ranges may also be screened by higher ground which would further attenuate noise levels.

Factors influencing the baseline

3.3.10 The proposed development will occur over a number of years, in phases. The exact details of when and how construction will occur will be detailed in the planning application and ES along with an assessment of the potential noise effects from such phasing.

3.3.11 A natural growth in vehicle traffic over time will be factored into the transport calculations which will then be used to calculate the effect of increased vehicles on the local network, due to the development and the change in road traffic noise levels.

Potential effects requiring further assessment

3.3.12 Existing noise sensitive receptors which could be affected by to noise from the proposed development include residential properties along Deepcut Bridge Road, Blackdown Road, Newfoundland Road, Union Road, Malta Road and Canada Road. Fauna within the Site and surrounding area could also be sensitive to noise effects.

3.3.13 Assessment of each of the following potential effects has led to the conclusion that they could be significant and require further assessment in the EIA.

- *Potential effects on existing residential properties (and any other noise sensitive receptors) on roads bordering areas of proposed development within the Site from construction and operation traffic noise*: as a general rule of thumb a doubling (i.e. 100%) of road traffic flows is required for the minimum audible change in road traffic noise (3dB(A)) to occur. Guidance[15] states that a 25% increase in road traffic flows is needed for a 1dB(A) increase in road traffic noise levels, which is the minimum change that studies have shown can be detected by the human ear in the short term (e.g. on opening of a road project). An initial high level analysis of preliminary traffic modelling produced in 2010 indicates that traffic flows along the B3015 (between the junction with the B311 and Guildford Road) are likely to increase by more than 25%. Therefore the effects from construction and operational traffic on receptors along this route will be assessed in more detail in accordance with the guidance set out in the Calculation of Road Traffic Noise (CTRN).

3.3.14 In addition to the potential effects set out above, an assessment will be undertaken of the suitability of the Site for noise sensitive development. This will be informed by baseline noise monitoring for both daytime and night time hours. It will take into account predictions of future noise levels around the Site from road traffic, rail traffic, military training and firing and the Bisley Shooting Centre to evaluate the suitability of the various residential zones for their proposed use and if required modify the

[15] Highways Agency. (2007). Design Manual for Roads and Bridges: Volume 11, Section 3, Part 7, Noise and Vibration (HA 213/08).

design of the proposed development to incorporate measures to mitigate noise effects on future residents. An assessment will then be completed using the guidance in PPG24[16], BS4142[17], BS8233[18], WHO Guidelines[19], Guidelines on Clay Target Shooting[20] and ISO 17201[21].

Potential effects not requiring further assessment

3.3.15 Assessment of each of the following potential effects has led to the conclusion that they are not likely to be significant and hence do not require further assessment.

- *Road traffic noise effects on receptors along all routes other than the B3011*: the assessment of preliminary road traffic modelling indicates that most of the routes other than the B3011 will not experience an increase in road traffic flows of more than 25%. Guildford Road (between Deepcut Bridge Road and Old Guildford Road) is predicted to experience an increase of over 25% however the few residential properties along this route are set well back from the road and are well screened from the road by vegetation and built structures and are therefore unlikely to experience significant effects. Construction traffic flows are likely to be lower than operational traffic flows and will be routed to avoid sensitive receptors. Therefore road traffic noise effects associated with construction traffic on routes other than the B3011 will not be assessed any further.

- *Potential noise effects on existing residential properties (and any other noise sensitive receptors such as the SPA) surrounding the Site from noise and vibration associated with construction activities (fixed and mobile plant on-site)*: noise from construction activities will be intermittent and move around the Site as the Site becomes developed. A range of 'best practice' measures will be incorporated into the proposed development in order to minimise and manage noise and vibration effects. The construction contractors will also operate within the limits set out in Annex E of BS5228 Part 1:2009 (the criterion of 70-75dB(A) L_{Aeq} 12hr should not be exceeded during operating hours) and operating hours will be restricted to standard daytime hours. It is unlikely that the type of construction activities associated with the development (levelling areas within the Site, groundworks and construction of roads, housing and other buildings) will result in significant sources of vibration and it is assumed that piling works would not be required to construct

[16] Planning Policy Guidance 24: Planning and Noise.

[17] BS 4142: 1997, Method for Rating Industrial Noise in Mixed Residential and Industrial areas

[18] BS8233: 1999, Sound Insulation and noise reduction for buildings

[19] World Health Organisation, 1999, 'Guidelines for Community Noise'

[20] Chartered Institute of Environmental Health (CIEH), 1993, Clay Target Shooting: Guidance on the Control of Noise

[21] BS EN ISO 17201 1:2005 'Part 1: Determination of muzzle blast by measurement'.

the development. Therefore with construction management measures in place effects are unlikely to be significant.

- *Vibration effects on existing sensitive receptors as a result of construction and operational activities*: there will be no sources of vibration associated with the operational land uses at the Site. Given the nature of the development it is assumed that piling works would not be required to construct the development. Therefore it is unlikely that there would be significant vibration effects from construction and operational activities.
- *Vibration effects on existing sensitive receptors from traffic during construction and operation*: the only potential source of significant vibration effects is HGV traffic. Given the proposed use of the development (predominantly housing) it is unlikely there would be significant amounts of HGV traffic once the development is operational and hence any vibration effects are likely not to be significant. Construction traffic will include HGVs but construction activities would be temporary and limited to daytime hours. It is therefore unlikely that there would be significant vibration effects from construction traffic.
- *Vibration effects from rail traffic on the railway line on proposed residential development:* an area of SANG (suitable alternative natural greenspace) is included in the southern part of the Site which will provide a buffer between the residential development and the railway. As the railway is approximately 250m from the nearest part of the proposed housing no significant vibration effects are likely.

3.4 Community and socio-economics

Relevant policies and their implications for scoping

3.4.1 Table 3.4 lists policy guidance and policies relevant to the assessment of effects on community, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.4 Policies relevant to scoping process: community and socio-economics

Policy	Implications for scoping
PPS3: Housing	The main objective of this PPS is to deliver new homes at the right time in the right place, with the planning system used to its maximum effect to ensure the delivery of decent homes for everyone that are well designed, make the best use of land, are energy efficient, and deliver sustainable development. The Government is committed to provide affordable housing (both social-rented and intermediate housing) for those unable to access or afford market housing. The national indicative minimum site size threshold for affordable housing provision is 15 dwellings.

Policy	Implications for scoping
PPS4: Planning for Sustainable Economic Growth	Overarching aim is sustainable economic growth, underpinned by the following objectives: building prosperous communities, by improving the economic performance of cities, towns, regions, sub-regions and local area, both urban and rural; reduce the gap in economic growth between the regions; deliver more sustainable patterns of development; promote the vitality and viability of town and other centres as important places for communities; and raise the quality of life and the environment in rural areas by promoting thriving, inclusive and locally distinctive rural communities whilst continuing to protect the open countryside for the benefit of all. The PPS includes a wide definition of economic development including development in 'B' Use Classes, public and community uses and main town centre uses.
PPG17: Open Space, Sport and Recreation	This PPG describes the role of the planning system in assessing opportunities and needs for sport and recreation provision and safeguarding open space which has recreational value. Local planning authorities should take account of the community's need for recreational space, having regard to current levels of provision and deficiencies and resisting pressures for development of open space which conflict with the wider public interest.
SE Plan Policy H1	Regional Housing Provision 2006-2026: 3,740 homes will be delivered in Surrey Heath between 2006 and 2026, which equates to approximately 187 per annum.
SE Plan Policy H3	Affordable Housing: a substantial increase in the amount of affordable housing in the region will be delivered. The overall regional target is for 25% of all new housing to be social-rented and 10% intermediate affordable housing.
SE Plan Policy H5	Housing Design and Density: encourages high quality housing, reduction in environmental impact and the ability for housing to be adapted to meet changes in accommodation needs. Higher densities are encouraged with an overall regional target of 40 dwellings per hectare.
SE Plan Policy S1	Supporting Healthy Communities: role of planning system in supporting health sustainable communities.
SE Plan Policy S3	Education and Skills: Promoting access for all sections of society to education facilities at locations with good public transport access.
SE Plan Policy S5	Cultural and Sporting Activity: Ensuring access to cultural and sporting facilities.
SE Plan Policy S6	Community Infrastructure: ensuring community infrastructure supports economic growth and regeneration, with particular priority for health and education provision.
SE Plan Policy CC8	Green Infrastructure: ensuring sufficient green infrastructure is provided for developments.
SHBC LP Policy CS1	Loss of community buildings and uses: the loss of community buildings or uses will be resisted.
SHBC LP Policy CS5	Health Facilities: supports the provision of additional health facilities. On large new residential development, purpose built accommodation will be required to meet the needs of the residents of the new development.
SHBC LP Policy H20	Children's Playing Space within Large Housing Developments: children's play space and play equipment will be required to be provided.
SHBC LP Policy H21	Provision of outdoor playing space on new housing developments: requirement to allocate a minimum provision of 1/10 of the developable site area as outdoor playing space.
SHBC LP Policy H23	Provision of Amenity Space: Ensure that an appropriate amount of amenity space is provided for each dwelling.
SHBC Emerging CS Policy CP3:	Scale and Distribution of New Housing: Princess Royal Barracks, Deepcut, will be allocated for redevelopment for approximately 1,200 new homes.
SHBC Emerging CS Policy CP4	Deepcut: development at Deepcut will be required to contribute to the delivery of: a. target of 35% of housing provision to be affordable; b. opportunities for local employment which may include provision of small business units; c. an enhanced or new village centre;

Policy	Implications for scoping
	d. community infrastructure, including a new primary school, new health facilities, enhanced library provision, enhanced community hall provision and possibly a place of worship; and e. open space, as part of a wider green infrastructure network, to include formal/informal public open space, including SANGs.
SHBC Emerging CS Policy CP5	Affordable Housing: development of more than 15 dwellings will require 40% on-site affordable housing provision.
SHBC Emerging CS Policy CP6	Dwelling Size and Type: promotes a range of housing types and tenures which reflect the demand for market housing and the need for affordable housing, including accommodation for specialised needs. Unless evidence of housing need or viability indicates otherwise, developments are generally expected to provide intermediate affordable and social-rented units.
SHBC Emerging CS Policy DM14	Community and Cultural Facilities: where demand arises from new development, the provision of additional community facilities will be met through the enhancement of existing or co-located facilities. Where this is not possible, new community and cultural facilities will be required.
SHBC Emerging CS Policy DM16	Provision of Open Space and Recreation Facilities: new residential development is expected to provide or contribute towards open space, equipped playspaces, including teen facilities and outdoor sports facilities to the required standards.
Deepcut SPD	The SPD requires the creation of a mixed and vibrant community and the provision of a variety of housing types. 35% of all new housing is required to be affordable, with 50% social rented and 50% intermediate affordable housing. The developer is also required to provide community facilities, such as education (including early years provision), health, place of worship, social and cultural facilities (e.g. library). Open space provision is a vital component of the vision for Deepcut - the SPD incorporates a range of standards to be adhered to for various types of open space including SANGS/ANGSt.
Draft NPPF	The draft NPPF recognises that access to good quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities. Housing should be developed in suitable locations which offer a range of community facilities and good access to key services and infrastructure. Where large scale development is proposed in less sustainable locations, local planning authorities should require investment to improve the sustainability of the Site.

PPG: Planning Policy Guidance
SE Plan: South East Plan (May 2009)
SHBC LP: Adopted Surrey Heath Borough Council Local Plan - 2000 (saved policies)
SHBC Emerging CS: Emerging Surrey Heath Core Strategy Submission Version (2010)
Deepcut SPD: Deepcut Supplementary Planning Document (September 2011)
Draft NPPF: Draft National Planning Policy Framework (July 2011)

Main sources of data used in preparing the scoping report

3.4.2 This section of the scoping report has been informed by a desk study completed in 2009 which was based on data from NOMIS (a service provided by the Office of National Statistics (ONS)) and ONS. Data from the 2001 Census also informed the desk study. This data set will be updated in the ES. Land registry data has also been used from 2011.

3.4.3 The development site is located in the Mytchett and Deepcut ward and adjacent to the Frimley and Frimley Green wards of Surrey Heath. Data from the Pirbright ward was also reviewed as this is adjacent to the study area, but within Guildford Borough.

Baseline considerations

Housing

3.4.4 Over three quarters of homes are owner occupied in Mytchett and Deepcut, greater than the national average with 6% social rented housing (SHBC, 2007 tenure data). This significant level of owner occupancy demonstrates high stability amongst the local population, providing the basis for a strong housing market. House prices in the area tend to be high, reflecting the low levels of deprivation. From January to March 2011 an average detached property in the Surrey Heath cost almost half a million pounds (£445,358) compared with £352,699 in the UK. An average flat in the District cost £164,390 compared with the UK average of £217,840 (Land Registry, 2011).

3.4.5 The North West Surrey and North East Hampshire Strategic Housing Market Assessment (SHMA) suggested a target for Surrey Heath of 40% of all new housing to be affordable, of which 50% should be social-rented and 50% other forms. The study found an annual net shortfall of 632 units of affordable housing for Surrey Heath.

Education

3.4.6 There are eight primary schools located between about 2.5km and 4km from the Site but none within the more accessible distance of 2.5km from the Site. The primary school in Deepcut closed in 2004. The area contains one secondary school, which also has a sixth form college, offering A Level and HNC courses (Tomlinscote School and Sixth Form, 3.3km from the Site).

3.4.7 The qualification levels and types of employment undertaken by local residents will be assessed within the ES, to examine residents' ability to gain new employment positions.

Health

3.4.8 The nearest GP Surgery is Frimley Green Medical Centre (1.5km from the Site) with six Partners (two part-time), a Retainee and usually one Registrar, all of whom are serving a list of approximately 12,000 patients. There is also a second GP surgery in Frimley which is approximately 4.5km from the Site). There are also four dentists located between 1.5km and 4.5km from the Site. The nearest hospital is Frimley Park Hospital, 4.5km from the Site. A development of 1,200 dwellings is likely to result in an additional population in the area of at least 2,880 residents resulting in the need for two additional doctors (this is based upon the local PCT's doctor:patient ratio).

3.4.9 The health and demographics of the local population will be examined within the ES to gain a greater understanding of the demand for local health care and recreational provision.

Economic activity

3.4.10 Rates of economic activity in the study area are greater than regional and national averages, with over 77% of the population aged 16-74 within the Mychett and Deepcut ward being economically active, 10% greater than the national average (ONS, 2004). In relation to this trend Job Seekers Allowance (JSA) claims are also low in the wider area (Frimley, Frimley Green and Pirbright wards), apart from

Mychett and Deepcut. The number of Incapacity Benefit claimants is also low, between 0 and half the national average (3%) (ONS, 2008).

3.4.11 A substantial proportion of Pirbright and Mychett and Deepcut job opportunities are within the public admin/defence sector (19% and 56% of jobs in Mychett and Deepcut and Pirbight respectively). However, these opportunities are taken up by only one third of Pirbright residents and no (recorded) Mychett residents (ONS, 2001). This suggests that a significant proportion of defence employees live outside the area or the number of jobs available in Pirbright is low in relation to the number of residents living in the ward.

3.4.12 Over one half of Frimley (54%) and Mychett/Deepcut (60%) residents are employed within their ward of residence, demonstrating the dominance of short commuting distances (NOMIS, 2007). It appears that job opportunities are dispersed between the local wards as one destination does not dominate the commuting pattern.

3.4.13 Approximately half of Frimley/Green and Mychett residents commute to work by car or van, which is greater than the national average of 35%. Few residents (4-5%) commute by public transport (bus or train) which is slightly lower than the national average and could possibly be related to the rural nature of parts of the area. Over one third of residents in the Pirbright ward travel to work by foot (35%), which is a substantial proportion in relation to local and national trends. It is assumed that these residents are employed in the defence sector and live in related accommodation close to their place of work (ONS, 2004).

Factors influencing the baseline

3.4.14 Future committed or proposed development has the potential to place additional strain on existing community facilities however there are no known committed developments in the area surrounding the Site. The proposals for the residential home at the former MOD fire station are unlikely to substantially constrain local services and it is assumed that those developing this site will be required to implement measures to mitigate any such effects for example through developer contributions.

Potential effects requiring further assessment

3.4.15 Assessment of each of the following potential effects has led to the conclusion that they could be significant and hence require further assessment.

- *Potential effects on the local community as a result of the loss of jobs at the Site due to the MOD relocating from the Site*: a high proportion of local residents are employed in the defence sector and the Site's change of use could have significant effect upon employment trends in the area. Many local residents are likely to be employed at the Site and this change of use may also create an out-migration from the area will could have an effect upon the housing market and the viability of community and retail facilities. In assessing effects on employment, the assessment will also take into account the jobs created by the proposed development for example in the retail development and primary school.

- *Potential effects on the local housing market*: the proposed development will respond to local housing needs by ensuring that the type of housing within the new development meets local needs. Furthermore, the development will include affordable housing, which would have a positive effect in meeting local housing needs. However, demand for housing in the area may be reduced if the number of local jobs is reduced. Further assessment is therefore required.

Potential effects not requiring further assessment

3.4.16 Assessment of each of the following potential effects has led to the conclusion that they are not likely to be significant and hence do not require further assessment.

- *Potential effects on the local community as a result of increased demand for local services/facilities (education, healthcare, community facilities, play spaces and open spaces) by the residents of the new development*: the development will provide some services/facilities for the use of the new residents, (e.g. primary school, space for a GP surgery, play spaces, open spaces, green links, footpaths/ cycleways etc.). These will also be available for use by other local residents. Where such services/facilities cannot be provided on-site (for example secondary school places) financial contributions will be made though a Section 106 agreement to provide funding for services or facilities off-site. The level of contributions will be informed by discussions with the SHBC and SCC (as appropriate). Therefore the existing local community is unlikely to experience a significant effect in terms of the services to which they have access.

- *Potential effects of employment opportunities in the local area created by construction jobs arising from the development activity*: whilst beneficial to the local economy, these effects are not likely to be significant given the scale and temporary duration of the development works. Furthermore, it is likely that the developer or construction contractor will make extensive use of existing employees.

- *Potential effects of increased demand for services from contractors and workers involved in the construction of the development*: whilst beneficial to the local economy, these effects are not likely to be significant given the scale and temporary duration of the development works.

3.4.17 Whilst potential effects on the local economy in relation to employment opportunities created by construction jobs and increased demand for local services during construction are scoped-out of the assessment the ES will, if required, provide additional information on potential enhancement measures in relation to these issues. For example, this could include ensuring that developers employ local companies and people, through various contractual agreements and design competitions. Such initiatives may be used to reduce local unemployment, created by the reduction of MOD activities in the area, and provide training opportunities. It may also be possible to maximise potential benefits through ensuing that developers use local contractors and manufacturers for goods and services during construction.

3.5 Landscape and visual

Relevant policies and their implications for scoping

Relevant policies and their implications for scoping

3.5.1 Table 3.5 lists policy guidance and policies relevant to the assessment of effects on landscape and visual receptors, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.5 Policies relevant to scoping process: landscape and visual

Policy	Implications for scoping
SE Plan Policy C4	Landscape and Countryside Management: aims to protect and enhance the diversity and local distinctiveness of the region's landscape.
SE Plan Policy C5	Managing the Rural-Urban Fringe: delivering a sustainable multi-functional rural-urban fringe.
SE Plan Policy CC6	Sustainable Communities and Character of the Environment: effect of development on the character and distinctiveness of settlements and landscape. Using innovative design processes to create a sense of place.
SHBC LP Policy G21	Light Pollution: any development involving floodlighting or substantial lighting schemes shall take into account the effect on character and amenity of the surrounding area.
SHBC LP Policy G23	Green Corridors: any development in the vicinity of green corridors should preserve their landscape character.
SHBC LP Policy G24	Retention of trees: development proposals must seek to retain any trees, which make a significant contribution to the environment of a site, street or other area. Where retention is not possible tree(s) should be replaced with good quality stock of an appropriate species
SHBC LP Policy UE1	Green spaces within settlement areas: there should be no permitted loss of, or reduction in the size of the Green Spaces: (66) Playing Fields, Blackdown Road: the playing fields have been designated for their recreational value and visual amenity. (70) Woodland, Blackdown Road: the woodland has been designated for its visual amenity.
SHBC LP Policy RE3	Countryside beyond the Green Belt: This Policy applies to areas of open countryside which separate the settlements of Camberley, Frimley and Frimley Green from Mytchett, Deepcut, Bagshot and Lightwater. The land provides an important countryside gap between developed areas and provides important areas for informal recreation and contains Sites of Special Scientific Interest, proposed Special Protection Areas and Sites of Nature Conservation Importance. In this area development will only be permitted for; a. agriculture and forestry; b. outdoor sport and recreational facilities; c. gypsy caravan sites; d. the replacement or extension of existing dwellings; e. the re-use of rural buildings; f. the replacement or extension of existing business premises, provided that there would be no significant change in the scale of the building; and g. other uses of land which preserves the openness of the countryside.

Policy	Implications for scoping
SHBC LP Policy RE14	Landscape Character: development proposals must respect, and where possible enhance, the character of the countryside landscape. Account will be taken of the visual impact of the proposed development on the landscape in terms of siting, design and new planting and whether existing landscape features should be retained.
SHBC LP Policy RE16	Basingstoke Canal: preservation and enhancement of the landscape of the Basingstoke Canal Policy Area. Encouragement of the provision of suitable informal recreational and navigational uses and facilities provided that they do not adversely affect the landscape.
SHBC Emerging CS Policy CP2	Sustainable Development and Design: development will be required to ensure that all land is used efficiently within the context of its surroundings and respect and enhance the quality of urban, rural, natural and historic environments.
SHBC Emerging CS Policy CP4	Deepcut: development at Deepcut will be required to contribute to the following. a. Maintain the countryside gap between Deepcut and Heatherside and Deepcut and Frimley Green. b. Open space as part of a wider green infrastructure network to include formal/informal public open space, including SANGs. c. Enhancement of the setting of and improved linkages to the Basingstoke Canal.
SHBC Emerging CS Policy CP13:	Green Infrastructure: encourages schemes which contribute toward, or provide, opportunities to enhance the function of existing green infrastructure, increase provision and improve connectivity, Green infrastructure of strategic importance includes those areas designated as European sites and SANGs required to avoid and mitigate impacts to the European sites.
Deepcut SPD	Open space provision is a vital component of the vision for Deepcut - the SPD incorporates a range of standards to be adhered to for various types of open space including SANGS/ANGSt. Development should maintain and enhance the green character of Deepcut. Built development should be set in a heathland/wooded landscape rather than being a hard urban feature imposed on the heathland. The SPD includes management of key vistas.
Draft NPPF	The draft NPPF indicates that the natural and local environment should be conserved and enhanced by protecting valued landscapes.
GBC LP Policy RE5	Areas of Outstanding Natural Beauty (AONB): Surrey Hills AONB is of national importance and therefore subject to rigorous protection. Development is inconsistent with the primary aim of conserving the existing landscape character will not be permitted.

SE Plan: South East Plan (May 2009)
SHBC LP: Adopted Surrey Heath Borough Council Local Plan - 2000 (saved policies)
SHBC Emerging CS: Emerging Surrey Heath Core Strategy Submission Version (2010)
Deepcut SPD: Deepcut Supplementary Planning Document (September 2011)
Draft NPPF: Draft National Planning Policy Framework (July 2011)
GBC LP: Guildford Borough Local Plan (2003) (Saved Policies)

Main sources of data used in preparing the scoping report

3.5.2 The following sources of information have been used when preparing this report.

- Landscape Character Map of England, Volume 7 South East and London National Character Areas (NCA) Area 129 Thames Basin Heaths. Natural England (Countryside Agency, 1999).
- 'The Future of Surrey's Landscape and Woodlands (Surrey County Council. (SCC) 1997).
- Surrey Heath Local Plan 2000 (Surrey County Council).
- 1:25,000 mapping.

- Multi-Agency Government Information for the Countryside (MAGIC) website service available through Defra.

Baseline considerations

Landscape Designations

3.5.3 There are no landscape designations within the Site itself. The closest such designation is the Surrey Hills Area of Outstanding Natural Beauty approximately 8.7km to the south of the Site.

3.5.4 Designations relating to listed buildings, registered parks and gardens and conservation areas are covered within the cultural heritage section of this report. This includes the Basingstoke Canal Conservation Area that is located within the southern part of the Site and the Garrison Church of St. Barbara, immediately adjoining the Site.

Landscape Character Assessments

3.5.5 At a regional level the Site lies within the Thames Basin Heaths Landscape Character Area (129). At a local level, The Future of Surrey's Landscape and Woodlands (SCC 1997), has identified 25 County Landscape Character Areas. The majority of the Site lies within Western Surrey subdivision of the Bagshot and Pirbright Landscape Character Area which is described in Table 3.6.

Table 3.6 Landscape Character of Western Surrey subdivision of Bagshot and Pirbright

Feature	Description
Character Description	Mosaic of urban development, farmland and wet and dry heathland with broadleaved and coniferous woodland. Relatively extensive open areas, often in Ministry of Defence (MOD) ownership but with some areas of common land and public open space. Few settlements are strung along the roads passing through the heathland Dense tree cover occurs in places where there has been natural regeneration of the heathland and in belts alongside roads A rural landscape with a sense of isolation only disturbed by the occasional sights and sounds associated with army presence and exercises within areas of open heathland.
Important Elements	Roadside bracken Enclosed road corridors Contrast between open rolling heathland and areas of regenerated woodland A sense of isolation
Issues	Loss of heathland through tree/scrub regeneration Loss of views from increased tree cover Limited public access as a result of large areas of operational MOD land Identification of new land uses in former MOD land

3.5.6 A small part of the eastern part of the Site lies within the Unsettled Sandy Heath Landscape Character Area[22]

Landscape site description

3.5.7 The Site comprises three separate areas:

- the Officers' Club and surroundings within the northern part of the main site (to the north of Newfoundland Road);
- Princess Royal Barracks within the southern part of the main site (to the south of Newfoundland Road); and
- Bellow Road Sergeants' Mess (to the west of Deepcut Bridge Road).

3.5.8 The northern part of the Site lies adjacent to Deepcut Bridge Road, the Thames Basin Heaths SPA (with its associated heathland and woodland), the MOD training area, and areas of residential development (both private and MOD). This part of the Site is dominated by large expanses of sports grounds and grassed recreational spaces (with occasional street and park land trees) and with woodland, scrub and heathland typically located at the fringes. The Officers Mess itself is located a woodland setting. This part of the Site is relatively flat, occupying a small plateau (located at approximately 110m AOD)

3.5.9 The southern part of the Site lies adjacent to Deepcut Bridge Road and Deepcut Village, the MOD training area, Basingstoke Canal, and residential development (both private and MOD). This part of the Site is dominated by built form and infrastructure associated with an operational MOD site (including security fencing and gated access points). There are large expanses of recreational grassed areas and large areas of hard standing used for training and vehicle storage. Tree cover within this part of the Site is typically associated with street trees, parkland trees and large areas of woodland that dominate both the southern, eastern and northern parts of the Site this area and are also associated with the steeper parts of the Site. This part of the Site has a more varied topography associated with a small dry valley that emerges from the edge of Newfoundland Road and opens out into a lower lying flat landscape associated the main entrance into the Site and recreational spaces (located at approximately 90m AOD). There are a number of localised topographical variations with flatter areas used for recreation and built form and steeper parts of the Site typically left as open space or woodland. Levels fall steeply into down to the Basingstoke Canal.

3.5.10 The western part of the Site lies adjacent to Bellow Road and a number of private residential areas. The Site is dominated by existing woodland and a recreational space. The Bellew Road Sergeants Mess itself is located within a woodland setting.

[22] Guildford Landscape Character Assessment. Rural Assessment, January 2007. Land Use Consultants

Potential visual receptors

3.5.11 The primary factors determining the extent of visibility of the proposed development are the high presence of woodland both within the Site and surrounding area, and topographical variations within the Site.

3.5.12 Whilst initial site visits indicate that views into the Site are typically localised, further studies are required to understand the potential for longer distance views.

3.5.13 Visibility of the Site will depend on the proposed development, (i.e. heights of built form and the retention of existing areas of visually important vegetation). At this stage it is anticipated that the following are potential visual receptors:

- residents within Deepcut village (including those located on Blackdown Road, Woodend Road, Bellew Road, Lake Road, Deepcut Bridge Road).
- residents within Dettingen Park, Alma Gardens and the Married Officers Quarters);
- residents on the eastern edge of Frimley (including those located on Old Bisley Road;
- users of Public Rights of Ways near the Pine Ridge Gold Centre and along the eastern edge of Deepcut Bridge Road; and
- users of the Basingstoke Canal footpath.

3.5.14 Further studies will be undertaken to determine the potential for other visual receptors to have views of the Site and proposed development including potential long distance views from the Black Water Valley and Surrey Hills AONB.

Factors influencing the baseline

3.5.15 The baseline landscape and visual environment at the Site itself is unlikely to change should the development not go ahead. There are no known committed developments in the area surrounding the Site which could affect peoples' views or the character of the local landscape. The assessment will take into account potential landscape and visual effects from the proposed care home development at the MOD fire station site where appropriate.

Potential effects requiring further assessment

3.5.16 Assessment of the following potential effects has led to the conclusion that they could be significant and hence require further assessment.

3.5.17 Effects will be assessed using a methodology based upon the Guidelines for Landscape and Visual Impact Assessment (GLVIA)[23].

- *Potential effects on landscape elements and landscape character*: these effects could occur as a result of the loss of valued landscape elements and features such

[23] The Landscape Institute and the Institute of Environmental Management and Assessment. 2002. Guidelines for Landscape and Visual Impact Assessment: Second Edition. Spon Press.

as trees, woodland and hedgerows, the replacement of existing buildings and open spaces with different land uses; the introduction of temporary elements and activities associated with construction (e.g. construction vehicles) and the introduction of new buildings and infrastructure (including lighting) associated with the completed development and its operation.

- *Potential effects on the Surrey Hills AONB*: these effects could occur as a result of views of construction activities and elements and/or views of new buildings and infrastructure associated with the completed development and its operation. The potential for views will be identified through the preparation of a Zone of Theoretical Visual Influence (ZTVI) and field studies.
- *Potential effects on visual receptors*: the views of people living, working or taking part in recreational activities within the surroundings could be significantly affected during both the construction and operational stages of the development. The location of visual receptors will be identified through the preparation of a ZTVI. Representative viewpoints will be provided to reflect views from visual receptors.
- *Potential effects associated with the introduction of lighting on the character and views and visual amenity of people within the area*: the assessment will be in the form of a brief commentary of potential effects and will not include a measured assessment of lighting.

Potential effects not requiring further assessment

3.5.18 Assessment of following potential effect has led to the conclusion that they are not likely to be significant and hence do not require further assessment.

- *Potential visual effects associated with the change in views and visual amenity associated with visual receptors located outside the ZTVI.*

3.6 Historic environment

Relevant policies and their implications for scoping

3.6.1 Table 3.7 lists policy guidance and policies relevant to the assessment of effects on cultural heritage, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.7 Policies relevant to scoping process: historic environment

Policy	Implications for scoping
PPS 5: Planning for the Historic Environment	This sets out the national planning policies on the conservation of the historic environment. Its overarching aim is that the historic environment and its heritage assets should be conserved and enjoyed for the quality of life they bring to this and future generations.

Policy	Implications for scoping
SE Plan Policy BE6	Management of the Historic Environment: support proposals which protect, conserve and, where appropriate, enhance the historic environment.
SHBC LP Policy HE15	Sites outside areas of high archaeological potential: SHBC may request where appropriate, that an initial assessment of the Site for archaeological potential be submitted as part of any planning application for developments that will affect archaeological remains. Archaeological assessment and, where appropriate, field evaluation will be required prior to development on sites of 0.4 ha or more.
SHBC Emerging CS Policy CP2	Sustainable Development and Design: ensure that all land is used efficiently within the context of its surroundings and respect and enhance the quality of the urban, rural, natural and historic environments
SHBC Emerging CS Policy DM17	Heritage: seeks to promote the conservation and enhancement of heritage assets and their setting. On any major development site of 0.4ha or greater, applicants are required to undertake prior assessment of the possible archaeological significance of the Site and the implications of their proposals, and may be required to submit, as a minimum, a desk-based assessment to accompany any application. Where desk-based assessment suggests the likelihood of archaeological remains, the Planning Authority will require the results of an archaeological evaluation in order to inform the determination of the application.
SHBC Archaeology SPG	This guidance note provides advice on how the Borough Council will deal with development proposals which may affect archaeological remains. The note clarifies the information which applicants will be expected to provide where archaeological remains may exist on a site and the procedure for assessing development proposals where archaeological remains may exist on a site.
Deepcut SPD	The SPD identifies the following buildings as 'Buildings of Merit': ▪ St Barbaras Church (Grade II listed); ▪ Sergeants' Mess; ▪ old Officers' Mess; and ▪ Headquarters of Director of Logistics. It should also be noted that an application to list the Sergeants' Mess and Old Officers' Mess has been submitted to English Heritage.
Draft NPPF	The historic environment and heritage assets should be conserved and enjoyed for the quality of life they bring to this and future generations. The NPPF's objectives are to: ▪ conserve heritage assets in a manner appropriate to their significance; and ▪ contribute to our knowledge and understanding of our past by capturing evidence from the historic environment and making this publicly available, particularly where a heritage asset is to be lost.

PPS: Planning Policy Statement
SE Plan: South East Plan (May 2009)
SHBC LP: Adopted Surrey Heath Borough Council Local Plan - 2000 (saved policies)
SHBC Emerging CS: Emerging Surrey Heath Core Strategy Submission Version (2010)
SHBC Archaeology SPG: Archaeology Guidance Note Supplementary Planning Guidance (April 2002)
Deepcut SPD: Deepcut Supplementary Planning Document (September 2011)
Draft NPPF: Draft National Planning Policy Framework (July 2011)

Main sources of data used in preparing the scoping report

3.6.2 Baseline data sources used to inform this scoping report include Surrey Historic Environment Record (HER), Registers of designated features (scheduled monuments, listed buildings, registered historic parks and gardens) maintained by English Heritage, Historic Ordnance Survey maps provided by Envirocheck and other historic mapping and documentation as may be available in local or county records offices.

Baseline considerations

3.6.3 There are no scheduled monuments or registered historic parks and gardens within the Site area. There is one listed building within the Site area; the Grade II Garrison Church of St Barbara (1180168) a fine example of a 'tin tabernacle' built in 1900 and noted by Pevsner in 1971.

3.6.4 An application to list the Sergeants Mess and Old Officers Mess has been submitted to English Heritage although it is yet to be determined.

3.6.5 There are no scheduled monuments within 3km of the Site boundary and no registered historic parks and gardens within 2km. The nearest scheduled monuments are a group of four bowl barrows to the north-east on West End Common (1007890) and a bowl barrow to the south-west in Albert Road (1012636), all at c.3.4km distant. The nearest registered park and garden is Frimley Park (1001472) at 2.4km distant. The nearest listed building outside the Site boundary is Deepcut Place (1180200) located c.400m to the south along Guildford Road.

3.6.6 A search of the HER database for the immediate area of the Site indicates potential for prehistoric activity in the area as evidenced by a number of possible barrow and enclosure sites.

3.6.7 The Site is close to the boundary of a number of historic parishes which suggests that it was likely to have been marginal land in the medieval and post-medieval periods and thus not intensively utilised. Additionally, archaeological evaluation of the Alma and Dettingen Barrack sites by archaeological fieldwork contractors, Pre-Construct Archaeology (PCA), prior to redevelopment found no finds or features of archaeological interest.

3.6.8 Within the barracks complex there are several groups of buildings that date to the construction of the Site in c.1903; none of these buildings are protected by statutory listing.

3.6.9 There are a number of buildings recorded on the List of Historic Buildings in Surrey Heath maintained by Surrey Heath Borough Council along Guildford Road and Deepcut Bridge Road. The only locally listed building is Alma House which is located outside of the Site close to the junction of Deepcut Bridge Road and Newfoundland Road.

3.6.10 The earliest readily available maps for the Site are date to 1874 and indicate that the Site area was heathland known as Blackdown Hill. The heath was purchased by the army around this time and soldiers were accommodated in 'barracks' of canvas tents to the north of the railway line. Some limited development had taken place towards the centre of the Site by 1897. This was the establishment of Winchester House and the parcelling up of portions of land in association with it. Nothing further is known of this house although it appears to still stand. By the Ordnance Survey Map of 1920, Blackdown and Deepcut Barracks are fully established and the Site takes on the form recognisable to the present although with many more buildings, many of which were metal huts. The Alma and Dettingen Barracks areas of the Site (outside the present site boundary) were demolished c.2000 and redeveloped for housing.

3.6.11 The historic environment baseline highlights the possibility that the heathland surrounding the Site was occupied or utilised in some way during prehistory and that sub-surface archaeological remains relating to this occupation may be present. However, the results of archaeological evaluation at the former Dettingen and Alma Barracks sites, together with a record of a possible round barrow on the Site near to the former Alma Barracks site of which there is now no trace, indicates that the development of the Barracks in the early twentieth century is likely to have truncated earlier ground levels, reducing the potential for archaeological remains to survive.

Factors influencing the baseline

3.6.12 In the absence of any development at the Site it is unlikely that there would be any changes in the historic environment baseline.

Potential effects requiring further assessment

3.6.13 Assessment of each of the following potential effects has led to the conclusion that they could be significant and hence require further assessment.

- Indirect effects on the Site and setting of the Grade II listed Garrison Church of St Barbara.
- Direct effects on historic buildings within the Site, including those buildings which are subject to an application for listing. Although they are not statutorily listed, the heritage significance of key early buildings within the Site will be identified and an assessment of the effects resulting from the loss of these buildings undertaken in order to identify an appropriate response to that loss.
- Direct effects on any sub-surface archaeological remains that may survive within the Site. There is the potential for sub-surface archaeological remains to survive in areas where new build is proposed, but which have not been previously disturbed.

3.6.14 The scope of further assessment will be discussed with relevant consultees and undertaken as part of the EIA. This is likely to involve further investigation of documentary sources, such as historic maps that predate the Ordnance Survey. Other sources of information may come to light during the planning process and these will be examined and their results incorporated into the EIA.

Potential effects not requiring further assessment

3.6.15 Indirect effects on the setting of the majority of heritage assets outside of the Site of the proposed development are not likely to be significant. As stated in paragraph 3.6.5 there are no scheduled monuments or registered parks and gardens within 2km of the Site boundary. Effects on these assets are not considered likely due to their distance from the Site. Given the enclosed nature of the Site and the retention of woodland and trees within the Site which provide significant screening, it is unlikely that there will be any significant effects on the setting of listed buildings outside the Site. This is also considered to apply to locally listed buildings.

3.7 Biodiversity

Relevant policies and their implications for scoping

3.7.1 Table 3.8 lists policy guidance and policies relevant to the assessment of effects on ecology, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.8 Policies relevant to scoping process: ecology

Policy	Implications for scoping
PPS9: Biodiversity and Geological Conservation	This requires that the potential impacts of planning decisions on biodiversity and geological conservation are fully considered and, where necessary, appropriate mitigation measures are put in place to ensure that biological and geological diversity are conserved and enhanced. Appropriate weight should be attached to designated sites of international, national and local importance, protected species, and to biological and geological interests. Good Practice Guide published 2006.
SE Plan Policy NRM5	Conservation and Improvement of Biodiversity: details sustainable development policies designed to conserve and enhance biodiversity. A net loss of biodiversity across the region should be avoided and local authorities should pursue initiatives to achieve a net gain across the south-east region.
SE Plan Policy NRM6	Thames Basin Heaths Special Protection Area: Details the framework for residential development in relation to the Thames Basin Heaths Special Protection Area (SPA). New residential development which is likely to have a significant effect on the ecological integrity of the SPA will be required to demonstrate that adequate measures will be put in place to avoid or mitigate any potential adverse effects.
SE Plan Policy NRM7	Woodlands: details the measures to be taken to ensure the value and character of the region's woodland are protected and enhanced.
SE Plan Policy CC8	Green Infrastructure: details the measures that need to be taken to implement a coherent system of green infrastructure. The networks should deliver the widest range of linked environmental and social benefits including conserving and enhancing biodiversity as well as landscape, recreation, water management, social and cultural benefits to underpin individual and community health and 'well-being'.
SHBC LP Policy G24	Retention of Trees: seeks to retain any trees which make a significant contribution to the environment or a site, street or other area. Where retention is not possible tree(s) should be replaced with good quality stock of an appropriate species
SHBC LP Policy RE12	Sites of Nature Conservation Importance: development will not permitted within or affecting Sites of Nature Conservation Importance (SNCI) unless it can be demonstrated that it will not materially harm the nature conservation or wildlife interest on the Site.
SHBC Emerging CS Policy CP14	Biodiversity: seeks to conserve and enhance biodiversity within the Borough. New development will be required to contribute to the protection, management and enhancement of biodiversity. No new residential development will be permitted within 400m of the SPA/SAC. Non-residential development within 400m of the SPA/SAC will be required to demonstrate that it will not have a significant effect either alone or in combination with other plans or projects. Proposals for residential development elsewhere in the Borough will be required to provide appropriate measures to avoid adverse effects upon the European sites.
SPA Interim Avoidance Strategy	Details the framework and measures to be implemented if bringing forward proposals regarding residential development close to the Thames Basin Heaths SPA. This document was adopted prior to the final publication of the Thames Basin Heaths Special Protection Area Delivery Framework. The Borough Council has prepared a draft Thames Basin Heaths Special Protection Area Avoidance Strategy Draft Supplementary Planning Document (SPD) for consultation. The draft SPD is intended to set out the approach that will be taken in Surrey Heath to avoiding any impacts of new development on the Special Protection Areas. It sets out the strategy in line with the Joint Strategic Partnership Board's Delivery Framework, and is in conformity with policies NRM5 & 6 of the South East Plan and Policy CP14 A & B of the emerging Surrey Heath Core Strategy.

Policy	Implications for scoping
Thames Basin Heath SPA Delivery Framework	Details the framework and measures to be implemented if bringing forward proposals regarding residential development close to the Thames Basin Heaths SPA across relevant planning authorities.
Deepcut SPD	The scale of the Deepcut project, along with its proximity to the Thames Basin Heaths SPA demands a comprehensive SANGS solution for the village. Open space provision is a vital component of the vision for Deepcut - the SPD incorporates a range of standards to be adhered to for various types of open space including SANGS/ANGSt.
Draft NPPF	The draft NPPF indicates that the natural and local environment should be conserved and enhanced by minimising impacts on biodiversity and providing net gains in biodiversity where possible.
GBC LP Policy NE1	Potential Special Protection Areas (pSPA) and candidate Special Areas of Conservation (cSAC): planning permission will not be granted for proposals which are likely to destroy or have an adverse effect directly or indirectly on the nature conservation value of pSPA and cSAC.
GBC LP Policy NE2	Sites of Special Scientific Interest (SSSI): development which would harm SSSI will not be permitted unless the reasons for development clearly outweigh the intrinsic value of the Site itself and the national policy to safeguard the nature conservation value of such sites.
GBC Thames Basin Heath SPA Avoidance Strategy	This forms the basis of planning guidance in relation to new residential development in the Borough and its impact on the SPA. It focuses on the following: ▪ provision of SANGs to attract people away from the SPA and hence reduce pressure on it (8ha per 1,000 population); and ▪ access management measures on, and monitoring of, the SPA to reduce the impact of people who visit the SPA. All net new residential development between 400m and 5km of the SPA, when considered alone or in combination with other plans or projects is likely to have a significant effect on the SPA and should therefore provide or contribute to, the provision of avoidance measures. Development can provide, or make a contribution to the provision of, measures to ensure that they have no likely significant effect on the SPA. In doing so, residential development will not have to undergo an appropriate assessment. The option remains for developers to undertake a habitats regulations screening assessment and where necessary a full appropriate assessment to demonstrate that a proposal will not adversely affect the integrity of the SPA.
GBC CS Further Options	This document contains draft policies relating to Surrey Hills AONB, Thames Basin Heath SPA and SACs. Following the Government's intention to revoke Regional Spatial Strategies and the forthcoming changes set out in the Localism Bill, Guildford Borough Council are continuing to work on the evidence base to support the Core Strategy, and no further progress has been made since the publication of the Further Options in March 2009.

PPS: Planning Policy Statement
SE Plan: South East Plan (May 2009)
SHBC LP: Adopted Surrey Heath Borough Council Local Plan - 2000 (saved policies)
SHBC Emerging CS: Emerging Surrey Heath Core Strategy Submission Version (2010)
SPA Interim Avoidance Strategy: The Special Protection Area - Interim Avoidance Strategy Thames Basin Heaths Special Protection Area (July 2008)
Deepcut SPD: Deepcut Supplementary Planning Document (September 2011)
Draft NPPF: Draft National Planning Policy Framework (July 2011)
GBC LP: Guildford Borough Local Plan (2003) (Saved Policies)
Thames Basin Heaths Special Protection Area Avoidance Strategy 2009 – 2014 (Guildford Borough Council)
Guildford Borough Core Strategy Further Options (March 2009) Consultation Document

Main sources of data used in preparing the scoping report

3.7.2 The preparation of this section of the report has been informed by the findings of a desktop study undertaken in June 2009 to collect pre-existing biological information (records from within 1km of the Site for legally protected and other notable species, and legally controlled species as well as non-statutory sites of nature conservation

value located within 1km of the Site and statutory designated sites within 4km). Desk study information was obtained from the Multi-Agency Geographical Information System (MAGIC) website, National Biodiversity Network (www.nbnsearch.org.uk), a Phase 1 habitat survey report undertaken by DIO (2007); aerial photography; 1:10,000 OS mapping and consultation with Natural England and DIO ecologist (Stuart Ottway). It is also informed by the results of survey work which comprise an extended Phase 1 habitat survey together with surveys of the following: reptiles; bats; water vole (*Arvicola amphibius*); badger (*Meles meles*) and dormouse (*Muscardinus avellanarius*); and breeding birds, all of which were completed in 2009. An update survey to confirm that habitat descriptions were accurate was completed in August 2011.

Baseline considerations

3.7.3 The Site supports a range of common habitat types comprising developed areas and associated amenity grassland, acid grassland and woodland. The most notable habitat type present is woodland, the majority of which is of county importance. The developed area and amenity grasslands have little value in terms of nature conservation.

3.7.4 The survey work undertaken confirmed that the Site also supports bat species (large brown long-eared bat roosts were found in three buildings and pipistrelles were also recorded at the Site), badger, slow worm and common lizard, all of which are legally protected. Also notable is that the Site supports two breeding pairs of firecrest which are listed on Schedule 1 of the *Wildlife & Countryside Act 1981* (as amended), 12 species of Birds of Conservation Concern (red and amber listing) and 6 priority species on the UK Biodiversity Action Plan. Of the red and amber listed bird species noted they are all of species that remain common and widespread in the UK despite recent declines in population size. None of the species associated with the designation of the Thames Basin Heaths SPA (nightjar, woodlark and Dartford warbler) were recorded on site, either as breeding pairs or as foraging/commuting individuals. No signs of dormouse activity were noted on the Site during survey work and no signs of water vole occupation on site or along the boundary with Basingstoke Canal were noted. There are no water bodies on site or within 500m of the Site and therefore it is unlikely that great crested newt is present within the local area.

3.7.5 The Deepcut Barracks North SNCI overlaps with the Site in several areas. This non-statutory designation covers areas of woodland within the Site boundary stating that they are of importance mainly for the lands potential to support a heathland community if the trees were to be felled.

3.7.6 The northern part of the Site borders the Thames Basin Heaths SPA. This area is also designated as the Thurley, Ash, Pirbright and Chobham Special Area of Conservation (SAC) and Colony Bog and Bagshot Heath Site of Special Scientific Interest (SSSI). The SPA has been designated because it supports populations of nightjar *Caprimulgus europaeus*, woodlark *Lullula arborea* and Dartford warbler *Sylvia undata*. The SAC is noted for a range of Annex I habitats namely North Atlantic wet heaths with *Erica tetralix*, European dry heaths and depressions on peat substrates of the Rhynchosporion (beaked-sedges). There are no fauna listed on the designation. The

Colony Bog and Bagshot Heath SSSI support a range of habitats including wet heath, dry heath, bog, woodland and neutral grassland. It supports a range of notable breeding birds and plant species.

3.7.7 In addition the Basingstoke Canal SSSI runs along the southern boundary of the Site and is noted for its aquatic plants and invertebrate populations. Within the citation it is noted that the stretch of the canal in question is of generally lower quality than other parts of the SSSI but is still included within the designation as it links the two most important areas.

3.7.8 It should be noted that since the survey work in 2009 an additional area of land (located to the north of the southern development area) has been included within the Site boundary. Whilst this area of land had been included in the species surveys in 2009 a Phase 1 habitat survey was only completed in August 2011.

Factors influencing the baseline

3.7.9 In the absence of the development, it is likely that the Site would remain under broadly similar use and that the baseline conditions on the Site in relation to biodiversity would remain broadly unchanged, notwithstanding the likelihood that populations of some species are likely to change broadly in line with trends elsewhere in the region.

Potential effects requiring further assessment

3.7.10 The following effects will be assessed in further detail:

- potential effects on statutory and non-statutory designated sites (including the allocation and management of Suitable Alternative Natural Greenspace);
- potential effects on valued habitats (e.g. semi-natural woodland);
- potential effects on bats;
- potential effects on reptiles; and
- potential effects on breeding birds.

Potential effects not requiring further assessment

3.7.11 Assessment of the following potential effects has led to the conclusion that they are not likely to be significant and hence do not require further assessment.

- *Potential effects on great crested newts*: there are no water bodies within the Site or within 500m of the Site and therefore great crested newts are not considered to be present.
- *Potential effects on water voles*: the drainage ditches within the Site boundary do not hold water permanently and are therefore sub-optimal for this species; no signs of water vole occupation were noted in these areas. The Basingstoke canal has the potential to support water vole, although no signs were detected. When the canal is

adjacent to the Sites southern boundary the potential is relatively low given that the woodland extends to the waters edge which ensures that the level of bankside vegetation is reasonably low.

- *Potential effects on dormice*: no signs of dormouse activity were noted on the Site and they are not considered to be present.

3.8 Water environment

Relevant policies and their implications for scoping

3.8.1 Table 3.9 lists policy guidance and policies relevant to the assessment of effects on water resources including flood risk, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.9 Policies relevant to scoping process: water resources

Policy	Implications for scoping
PPS23: Planning and Pollution Control	Provides guidance relating to the consideration of the quality of land, air or water and potential impacts arising from new developments.
PPS25: Development and Flood Risk	Provides guidance on the requirements for assessing flood risk from all sources, and for the siting of development to avoid flood risk. Provides guidance on design to ensure the development is safe from flooding and the management of surface water from a new development to ensure that flood risk is not increased to people and property downstream.
SE Plan Policy NRM1	Sustainable Water Resources and Groundwater Quality: water supply and groundwater will be maintained and enhance through avoiding adverse effects of development on the water environment.
SE Plan Policy NRM2	Water Quality: water quality will be maintained and enhanced through avoiding adverse effects of development on the water environment.
SE Plan Policy NRM4	Sustainable Flood Risk Management: inappropriate development should not be permitted in flood zones 2 and 3, areas at risk of surface water flooding, or areas with a history of groundwater flooding, or where it would increase flood risk elsewhere.
SHBC LP Policy G14	Areas liable to flood: development will not be permitted in areas liable to flood.
SHBC LP Policy G16	Development Impact on Watercourses: development affecting rivers, canals and streams must safeguard their character and quality, including bank sides and adjoining habitats.
SHBC LP Policy G17	Surface Water Run Off: development which increases levels of surface water run-off and therefore increases the risk of flooding must include appropriate attenuation or mitigation measures.
SHBC Emerging CS Policy DM10	Development and Flood Risk: in order to manage flood risk, SHBC will take a sequential approach to determining planning applications. Development within flood risk zones 2 & 3 or on sites of 1ha or greater in zone 1 and sites at medium or high risk from other sources of flooding as identified by SHBC's SFRA, will not be supported. Development should reduce the level and rate of surface water run-off through the incorporation of appropriately designed Sustainable Drainage Systems (SUDS) at a level appropriate to the scale and type of development.
Deepcut SPD	Developers of the Princess Royal Barracks, Deepcut site will need to design and implement a SUDS system.

Policy	Implications for scoping
Water Framework Directive	The Water Framework Directive is implemented through River Basin Management Plans (RBMP). Deepcut lies within the Thames RBMP. The RBMP identifies the ecological and chemical status of surface water and groundwater bodies, and identifies where improvements need to be made.
Strategic Flood Risk Assessments	The Woking and Surrey Heaths SFRA and the Blackwater Valley SFRA were produced together due to the catchments falling in different boroughs. Between them, the SFRAs identify sources of flood risk, implications for planning, and planning guidance, for the Deepcut area.
Draft NPPF	A key objective of the NPPF is to avoid inappropriate development in areas at risk of flooding by directing development away from areas at highest risk or where development is necessary, making it safe without increasing flood risk elsewhere.

PPS: Planning Policy Statement
SE Plan: South East Plan (May 2009)
SHBC LP: Adopted Surrey Heath Borough Council Local Plan - 2000 (saved policies)
SHBC Emerging CS: Emerging Surrey Heath Core Strategy Submission Version (2010)
Deepcut SPD: Deepcut Supplementary Planning Document (September 2011)
Draft NPPF: Draft National Planning Policy Framework (July 2011)

Main sources of data used in preparing the scoping report

3.8.2 The preparation of this section has been informed by an interim site-specific flood risk assessment (FRA) prepared by AMEC in 2009 in accordance with the guidance and requirements set out in PPS25 *Development and Flood Risk* and the accompanying practice guide. The FRA drew upon information from the Flood Estimation Handbook, Ordnance Survey Maps, a site visit, the Environment Agency, British Geological Survey mapping and groundwater vulnerability maps. In addition, information on water quality has also been taken from a Phase 1 Land Quality Assessment (LQA) completed by AMEC in 2009 (see also section 3.9). Some further information has been added from the mapping available on the Environment Agency website.

Baseline considerations

Hydrology

3.8.3 The Site lies on the catchment divide between the Blackwater to the west, and the Wey to the east. There are no major watercourses within the Site, although there are some small streams and drains in the southern part of the Site. These originate within the Site and flow south towards the Basingstoke Canal and the Hodge Brook. The Basingstoke Canal is the main watercourse in the area and passes along the southern boundary of the Site at an elevation of 75m AOD (below the elevation of the Site.)

3.8.4 The Environment Agency flood map shows that the Site is located entirely within Flood Zone 1. This area has been assessed by the Environment Agency as having less than 1 in 1000 (0.1%) probability of flooding in any one year.

3.8.5 The Thames River Basin Management Plan (RBMP) identifies the closest surface water body (the Basingstoke Canal) to be at Moderate Ecological Potential. The physico-chemical elements of the classification (including ammonia, pH and phosphate) are all at ‘good’ or ‘high’. The only other water body identified in the RBMP that is within 2km of the Site is the Addlestone Bourne, which has its source in

the Surrey Heaths to the north of the Site. The Addlestone Bourne is classified as having Moderate Ecological Status, due to phosphate concentrations.

Hydrogeology

3.8.6 The groundwater vulnerability map shows that the Site is underlain by a minor aquifer with variable permeability. The Camberley Sands Formation which underlies the Site contains some clay lenses that may locally restrict permeability, but on the whole, the superficial geology across most of the Site is expected to be permeable.

3.8.7 The soils covering the Site are considered to have a high leaching potential, and are described as being "*Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges, but which have some ability to attenuate adsorbed pollutants because of their clay or organic matter contents*". It is therefore possible that pollutants discharged to the ground could reach the local, minor aquifers.

3.8.8 The Environment Agency's on-line maps indicate that there are no ground-water Source Protection Zones (SPZs) in this area. There are thus no formal restrictions on releases to groundwater related to SPZs. The quality status of the aquifers beneath the Site, as identified in the RBMP, is 'Good'.

Water use and infrastructure

3.8.9 Based on information obtained from Landmark (Envirocheck report) in 2009, there are no identified groundwater, or surface water, abstractions within 1km of the Site. No discharge consents are recorded on-site; one is recorded within 250m of the Site; and four between 500m and 1km of the Site. The nearest relates to a domestic property 179m south-east of the Site discharging final/treated effluent to Hodge Brook, which flows eastward away from the Site. Of the four discharge consents listed in the Envirocheck report between 500m and 1km of the Site, only three are active and all relate to domestic properties discharging final/treated effluent into land or irrigation areas. All note the underlying strata of the Barton Sand minor aquifer as the receiving body. Two pollution incidents are recorded in the Envirocheck report as having taken place between 500m and 1km of the Site. The closest incident, 762m west of the Site, was a Category 3 (minor) incident recorded in 1990 involving an unknown pollutant. The second incident occurred 866m south-west of the Site, also classified as a Category 3 (minor) incident, though details indicate that no pollution was found.

3.8.10 A combined sewerage system is known to exist at Deepcut, comprising a mixture of Victorian and more recent pipework. The sewerage system flows towards Brunswick Road, in the south of the Site, where it joins a sewer which runs parallel to the road and discharges to the local authority sewer at the B3015 road. The sewerage provider for the area is Thames Water. The combined sewerage system accepts surface runoff from part of the Site, although the details of the extent are not known. The southern part of the Site is thought to drain to the Basingstoke Canal via three outlets. The condition of the sewerage system is unknown, but the Victorian components at least are assumed to be in poor condition. No further details of the existing drainage are currently available. The capacities of the existing combined sewerage system and other drainage components are unknown.

Factors influencing the baseline

3.8.11 The land use is unlikely to change substantially in the absence of the proposed development, and therefore no significant changes in soils are anticipated. However, climate is likely to prove more variable, with observed historical and predicted future changes in global climate due to a combination of both natural and human causes. Climate change could affect temperature and the quantity and intensity of rainfall in future. Changes in run-off and recharge characteristics may therefore occur on the Site as a result of these changes in rainfall patterns, even without development.

Potential effects requiring further assessment

3.8.12 The assessment completed to date has shown that it is unlikely that there will be any significant effects on water resources as a result of the proposed development.

Potential effects not requiring further assessment

3.8.13 Assessment of the following potential effects has led to the conclusion that they are not likely to be significant and hence do not require further assessment.

- *Potential effects on surface and groundwater quality as a result of accidental pollution spillage and incidents during construction*: standard measures will be implemented during construction as part of a CEMP (see paragraph 2.4.11) which the construction contractor will be required to develop and implement. These measures will minimise the risk potential effects on water resources. Therefore it is unlikely that there will be any significant effects on the quality of surface water or groundwater.

- *Potential effects on water quality as a result of contaminated run-off from the operation of the proposed development*: the development will include measures such as SUDS and oil interceptors which will control run-off from the Site. Where appropriate run-off will also drain to the foul water drainage system. These measures will be designed to avoid significant effects on water quality as a result of the operation of the proposed development. Run-off to the canal will be carefully managed in terms of both water quality and quantity, due to the SSSI status of the canal and the flood risks associated with it.

- *Potential effects on residential properties as a result of an increased risk of flooding*: the proposed development will all be within Flood Zone 1. An interim FRA, which was based on assumed areas of development rather than a masterplan, has identified that potential sources of flood risk are from surface water (due to increases in the area of hardstanding at the Site) and sewers due to their current age and condition. There are no risks from fluvial sources (i.e. watercourses) as none are present within close proximity to the Site or from groundwater due to the topography of the Site. Risks to the development associated with flooding from the canal are negligible as the development is approximately 10m above the canal in height. There will be no development within 100m of the canal and therefore the development will not affect the stability of the banks along the canal. The interim FRA has calculated indicative storage requirements in order to ensure that run-off from the Site is managed as part of the proposed development. These will be

refined to reflect the updated masterplan for the Site, according to the requirements of PPS25. However, with these run-off control measures in place and with the implementation of an upgraded sewer system, effects from flooding are unlikely to be significant. A revised FRA will be submitted as part of the planning application.

3.9 Land quality

Relevant policies and their implications for scoping

3.9.1 Table 3.10 lists policy guidance and policies relevant to the assessment of effects on land quality and soils, and the issues included in these policies/guidance that need to be considered when determining the scope of this assessment.

Table 3.10 Policies relevant to scoping process: land quality and soils

Planning policy	Implications for scoping
PPS7: Sustainable Development in Rural Areas	Government planning policy on development in rural areas.
PPS23: Planning and Pollution Control	Requires that the potential for contamination is properly assessed and that the development incorporates any necessary remediation and subsequent management measures to deal with unacceptable risks in order to secure the beneficial re-use of land.

PPS: Planning Policy Statement

Main sources of data used in preparing the scoping report

3.9.2 The preparation of this section has been informed by a land quality assessment (LQA) undertaken by AMEC in 2009, which drew upon information on historic site use, abstraction licensing, waste management/disposal activity and site setting (from a Landmark Envirocheck Report), a site walkover survey, geological and ordnance survey mapping, aerial photographs and records from the British Geological Survey. Information has also been obtained from the Multi-Agency Government Information for the Countryside website on agricultural land quality.

Baseline considerations

3.9.3 Widespread contamination at the proposed development is unlikely. However, there are numerous potential point sources. Historic sources of contamination at the proposed development site include the potential for:

- Fuel leaks and/or spills associated with a boiler house which has been present in the southern area since approximately 1968.

- A degree of localised ground contamination associated with leaks and/or spillages of fuels, oils, lubricants and paints/solvents from Building 23 in the southern area which is reported to have formerly been a motor vehicle spray shop.
- Fuel and fire-fighting chemicals in the former fire training area in the southern part of the Site which was used to practice fire-fighting; fuel was pumped into and sprayed over several vehicles, which were set alight and then extinguished.
- The release of oils and lubricants from rail transport and line maintenance and herbicides and burning activities used to limit plant growth associated with a former railway line across the south and north of the Site in the early twentieth century, with an associated engine shed present in the south-west corner of the Site.
- Treatment and sealing of cut timber and potential contamination from the storage and application of chemicals associated with a former saw mill in the south-west of the Site.
- The storage and use of oils and solvents and leakages during vehicle maintenance and storage associated with workshops in the south-west and centre of the southern area.
- PCB containing oils associated with three substations are currently present on-site, which appear to date from the 1960s.
- ordnance associated with former firing ranges predominantly located in the east of the southern part of the Site and one ammunition compound identified on site during the Site reconnaissance. There may have been further areas of historical ordnance storage. No clearance certificate was available for the Site.
- A low risk of radiological contamination being present on site.
- Infill material, which may have included waste materials, potentially including domestic, commercial and/or inert wastes associated with the infilling of a gravel pit in the centre of the southern part of the Site, which appears to have been infilled with unknown materials in the 1960s.
- The spreading of waste during former demolition and redevelopment work at the Site. Made ground present at the Site may include deposited ash wastes (containing heavy-metals, inorganic contaminants) and asbestos containing material.

3.9.4 Current sources of contamination at the Site comprise the potential for contamination associated with the following uses.

- MT Complex: various fuel and chemical storage facilities are present in the MT complex. Although most storage and maintenance of vehicles is undertaken inside and/or on hardstanding, there is the potential for ground contamination to have occurred as a result of these operations.
- The Petrol, Oil and Lubricant station (POL): the POL station, located in the south of the Site, comprises two pump islands connected to three Underground Storage Tanks (UST). No fuel leaks or stock losses were known to have occurred, but no

integrity testing of these USTs was reported to have been undertaken. Due to the likely throughput of fuel, any loss of fuels from these (assuming a minor leakage/ crack in the UST or associated pipework) may have gone unnoticed. As a result, although no leakage is known or reported, there is the potential for loss of fuel direct to ground to have occurred.

3.9.5 Potential off-site sources of contamination comprise the following.

- Former petrol filling station: This is located adjacent the west of the Site which is currently utilised as a vehicle maintenance/re-spraying facility, and may contain remnant fuel USTs. Any leakage from USTs present could migrate laterally in groundwater and could affect the Site.
- Former gravel and sand pits: a number of pits were located adjacent to the southern boundary and in the wider area. The pits may have been infilled with materials such as domestic or commercial wastes. Any degrading wastes present represent a risk of ground gas generation and migration which could affect the subject site. There is also the potential for leachate generation and migration which could affect groundwater beneath the Site.

3.9.6 The land within and around the Site is classified as non-agricultural land.

Factors influencing the baseline

3.9.7 Baseline conditions are unlikely to change in the future in the absence of any change in land use at the Site.

Potential effects requiring further assessment

3.9.8 There are no land quality effects that are likely to be significant and therefore require further assessment.

Potential effects not requiring further assessment

3.9.9 Assessment of the following potential effects has led to the conclusion that they are not likely to be significant and hence do not require further assessment.

- *Potential effects associated with contaminated land on end users of the Site (new residents*): based on the findings of the Phase 1 LQA, the majority of the Site is likely to be suitable for redevelopment for residential land use. Prior to the Site being redeveloped further ground investigation and a Phase 2 LQA will be undertaken. This will investigate further the areas of soil contamination identified in the Phase 1 LQA and identify remediation measures appropriate to the proposed end use of the Site. These measures will then be implemented before the Site is redeveloped. Therefore with these measures in place it is possible to implement a suitable strategy that will avoid significant land quality effects to the end users of the Site.
- *Potential effects associated with contaminated land on construction workers*: potential effects to site workers would be mitigated by the use of suitable personal protective equipment (PPE) and the application of appropriate health and safety

procedures. Therefore effects are unlikely to be significant with these measures in place.

- *Potential effects on soils caused by loss of topsoil and changes in soils structure*: measures that will form part of a CEMP (see paragraph 2.4.11) will ensure that topsoil will be protected and appropriately re-used.
- *Potential effects on Best and Most Versatile Agricultural land from construction and permanent land-take making BMV land temporarily or permanently unavailable for agricultural production*: none of the land within or around the Site is classified as agricultural land.

4. The next step: Information for consultees

4.1.1 The report has been prepared so that SHBC can consult with statutory and non-statutory organisations with an interest in the proposals ('stakeholders') to obtain comments on the proposed scope of the assessment. These comments will then be used to inform the scoping opinion.

4.1.2 Clearly the scoping stage of the EIA process is an opportunity for consultees to comment on the proposed scope in order to inform the assessment process and provide views on what the likely significant effects of the development are.

4.1.3 We would ask that consultees give particular consideration to the following questions.

- Do you consider that there are any other effects which are likely to be significant based on information known about the Site, its surroundings and proposed development and should therefore be assessed?
- Do you consider that any of the effects scoped-in are in fact unlikely to be significant and can therefore be scoped-out of the assessment?
- Are there any other developments which should be considered in the assessment of cumulative effects?
- Do you have any comments on the approach to the assessment of likely significant effects, where specified?

4.1.4 As stated in chapter 1, this scoping report will not be re-issued; instead the comments received in relation to the scoping consultation process and information set out in the scoping opinion will be addressed in the ES. The ES will also include more detailed information on the proposed development description, the measures incorporated as part of the proposed development to mitigate likely significant effects and information on how these measures will be ensured.

Appendix A
Abbreviations

Term/abbreviation	Description
AADT	Annual Average Daily Traffic Flows
ALC	Agricultural Land Quality
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
AQS	Air Quality Standard
BAP	Biodiversity Action Plan
BMV	Best and Most Versatile - high grade agricultural land
BS5228-1:2009	Code of Practice for Noise and Vibration Control on Construction and Open Sites - Part 1: Noise (2009)
BS4142:1997	'Method for Rating Industrial Noise affecting Mixed Residential and Industrial Areas' (1997)
BS8233:1999	Sound Insulation and Noise Reduction for Buildings: Code of Practice (1999)
CEMP	Construction Environmental Management Plan
CHP	Combined Heat and Power
CO	Carbon Monoxide
CHP	Combined Heat and Power
CRTN	Calculation of Road Traffic Noise
CS	Core Strategy
Defra	Department for Environment, Food and Rural Affairs
dB(A)	Decibel
DETR	(former) Department for the Environment, Transport and the Regions
DIO	Defence Infrastructure Organisation
EIA	Environmental Impact Assessment - process of assessing environmental effects from the planning application which is required for certain developments under town and country planning legislation
EHO	Environmental Health Officer
EMP	Environmental Management Plan - plan used to set out control and management measures usually during construction

Term/abbreviation	Description
ES	Environmental Statement - document submitted in support of a planning application which summarises the assessment of environmental effects and measures incorporate into the development to mitigate environmental effects
FRA	Flood Risk Assessment
GBC	Guildford Borough Council
GIS	Geographical Information System
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GQA	General Quality Assessment - process of assessing water quality used by the Environment Agency
Ha	Hectares
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
IEMA	Institute of Environmental Management and Assessment
Km	Kilometre
L10	Noise level exceeded for 10% of the measurement period. Commonly used as an indicator of daytime (18hr) and night-time (6hr) road traffic noise emissions
LAQM	Local Authority Air Quality Monitoring
LCA	Landscape Character Assessment
Leq	Equivalent continuous noise level. Used in PPG24 to define daytime (16hr) and night-time (8hr) noise exposure categories for proposed development sites
LEAP	Local Equipped Area for Play
LiMA	Environmental Noise Calculation and Mapping Software
LP	Local Plan
LPA	Local Planning Authority
LQA	Land Quality Assessment
LP	Local Plan - planning policy produced by Taunton Deane Borough Council
LPA	Local Planning Authority
MOD	Ministry of Defence
MUGA	Multi-Use Games Area
NEAP	Neighbourhood Equipped Area for Play
NEC	Noise Exposure Category
NETCEN	National Environmental Technology Centre
NGR	National Grid Reference
NHPAU	National Housing and Planning Advice Unit
NMVOC	Non-methane volatile organic compounds
NO_2	Nitrogen dioxide - pollutant associated with vehicle traffic

Term/abbreviation	Description
NSCA	National Society for Clean Air
NSMR	National Sites and Monuments Record
PCT	Primary Care Trust
PM_{10}	Particulate matter - pollutant associated with vehicle traffic
PPE	Personal Protective Equipment
PPG	Planning Policy Guidance - national planning guidance
PPS	Planning Policy Statement - national planning guidance (PPSs replace PPGs)
PRB	Princess Royal Barracks
PUA	Principal Urban Area
ProW	Public Right of Way
SAC	Special Area of Conservation - a designated nature conservation site of international importance
SANGS	Suitable Alternative Natural Green Space - areas included as part of a development to reduce recreational pressure on a SPA
SE Plan	South East Plan
SFRA	Strategic Flood Risk Assessment
SHBC	Surrey Heath Borough Council
SO_2	sulphur dioxide
SPA	Special Protection Area - a designated nature conservation site of international importance
SSC	Surrey County Council
SSSI	Site of Special Scientific Interest - statutorily designated nature conservation site considered to be of national importance
SuDs	Sustainable urban drainage systems
TA	Transport Assessment - separate document which reports the findings of an assessment of the effects of the development on the capacity of the highway network, accessibility and public transport. The TA is also submitted in support of the planning application.
WHO	World Health Organisation
ZTVI	Zone of Theoretical Visual Influence

Appendix B
Analysis of Preliminary Traffic Modelling Data

Introduction

In 2010 a preliminary Transport Assessment was produced by AMEC E&I Ltd on behalf of DIO to provide evidence to assist Surrey Heath Borough Council (SHBC) as planning authority and Surrey County Council (SCC) as highway authority in their consideration of the effects of proposed redevelopment at Deepcut and to assist in determining the appropriate level of development to be allocated in the draft Core Strategy (CS).

It should be noted that since the traffic modelling to inform the 2010 TA was completed, revisions have been identified which are likely to result in a decrease in the traffic flows results from the proposed development. These revisions include smaller than previously assumed level of development, changes in distribution of traffic flows and re-counting of existing junction flows to provide more up to date baseline information. These revisions have been agreed with SCC highways. The assessment will be based on the most up-to-date traffic modelling. Therefore the predicted increases in traffic flows discussed in this appendix are likely to decrease.

The following AM and PM peak traffic data was produced in 2010.

Table B.1 AM and PM peak traffic flow data: 2026 Baseline and 2026 With Development (1,200 dwellings)

Road Link	2026 Baseline		2026 With Development	
	AM	PM	AM	PM
Blackdown Rd (between Deepcut Bridge Rd & Newfoundland Rd)	150	120	81	54
Blackdown Rd (between Deepcut Bridge Rd & Woodend Rd)	87	91	68	75
Guildford Road - A322 (between Red Rd & M3)	2,270	2,631	2,302	2,679
Guildford Road - A322 (between Jun A322/A319 & Brentmoor Rd)	2,082	2,314	2,116	2,353
Upper Chobham Road - B311(between Jun B311/B3015 & Green Hill Rd)	952	991	960	1,024
Bagshot Road - A319 (between Jun A322/A319 & Windlesham Rd)	1,204	1,294	1,227	1,314
Lake Rd (between Bellew Rd & Wharf Rd)	956	852	961	910
Lake Rd (between Deepcut Bridge Rd & Bellew Rd)	984	847	990	905
Red Road - B311 (between Jun A322/A319 & Jun B3015/B311)	1,316	1,651	1,407	1,758

Road Link	2026 Baseline		2026 With Development	
	AM	PM	AM	PM
Guildford Rd (between Deepcut Bridge Rd & Burnswick Rd)	584	487	623	552
The Maultway - B3015 (between Jun B311/B3015 & Copped Hall Drive)	873	981	960	1,112
Deepcut Bridge Rd (between Blackdown Rd & Site Access)	1,036	989	1,255	1,277
Deepcut Bridge Rd (between Old Bisley Rd & Blackdown Rd)	1,036	1,058	1,282	1,377
Deepcut Bridge Rd (between Site Access & Lake Rd)	1,165	1,073	1,470	1,389
Guildford Rd (between Deepcut Bridge Rd & Old Guildford Rd)	350	359	432	553
The Maultway - B3015 (between Jun B311/B3015 & Old Bisely Rd)	918	949	1,157	1,252
Deepcut Bridge Rd (between Lake Rd & Guildford Rd)	351	318	471	578

Using information from the Department for Transport National Core Census Road Traffic Statistics 2008 (Table 3.3: Traffic distribution by time of day on all roads: 2007 and 2008) the following factors were derived to convert AM and PM peak traffic flows to different types of flows that are used in the assessment of traffic, noise and air quality effects based on the proportion of traffic flows that occur on average for each hour in the weekday. These conversion factors are summarised in Table B.2.

Table B.2 Conversion factors for transport analysis

Conversion	Factor
Peak hours to 24 hour	13.1
Peak hours to 18 hour Factor	12.5
Peak hours to 6 hour Factor	0.6
Peak hours to 12 hour Factor	10.4

Traffic

Table B.3 summarises the percentage increase in the estimated 12 hour flows for the assessment of traffic related effects.

Table B.3 Predicted changes in 12 hours flows

Road Link	Baseline	With Development	% change
Blackdown Rd (between Deepcut Bridge Rd & Newfoundland Rd)	2,747	1413	-49
Blackdown Rd (between Deepcut Bridge Rd & Woodend Rd)	1,733	1380	-20
Guildford Road - A322 (between Red Rd & M3)	46,901	47634	2
Guildford Road - A322 (between Jun A322/A319 & Brentmoor Rd)	42,369	43068	2
Upper Chobham Road - B311(between Jun B311/B3015 & Green Hill Rd)	18,934	19255	2
Bagshot Road - A319 (between Jun A322/A319 & Windlesham Rd)	24,213	24644	2
Lake Rd (between Bellew Rd & Wharf Rd)	18,078	18522	2
Lake Rd (between Deepcut Bridge Rd & Bellew Rd)	18,411	18869	2
Red Road - B311 (between Jun A322/A319 & Jun B3015/B311)	28,012	29903	7
Guildford Rd (between Deepcut Bridge Rd & Burnswick Rd)	10,824	11760	9
The Maultway - B3015 (between Jun B311/B3015 & Copped Hall Drive)	17,836	19830	11
Deepcut Bridge Rd (between Blackdown Rd & Site Access)	20,020	24768	24
Deepcut Bridge Rd (between Old Bisley Rd & Blackdown Rd)	20,471	25776	26
Deepcut Bridge Rd (between Site Access & Lake Rd)	22,257	28313	27
Guildford Rd (between Deepcut Bridge Rd & Old Guildford Rd)	6,926	9268	34
The Maultway - B3015 (between Jun B311/B3015 & Old Bisely Rd)	18,215	23323	28
Deepcut Bridge Rd (between Lake Rd & Guildford Rd)	6,671	9941	49

Key

Routes with a greater than 30% increase

Routes with a 10% to 30% increase

The IEMA Guidelines recommend that highway links where 12 hour (07:00 to 19:00) traffic flows are predicted to increase by more than 30% (or where the number of HGVs is predicted to increase by more than 30%) should be included in the assessment of traffic related effects. Any other specifically sensitive areas where traffic flows are predicted to increase by 10% or more should also be assessed.

Air quality

Table B.4 summarises the percentage increase in the estimated 24 hour flows for the assessment of air quality related effects.

Table B.4 Predicted changes in 24 hours flows

Road Link	Baseline	With development	% change
Blackdown Rd (between Deepcut Bridge Rd & Newfoundland Rd)	2,175	1119	-49
Blackdown Rd (between Deepcut Bridge Rd & Woodend Rd)	1,373	1093	-20
Guildford Road - A322 (between Red Rd & M3)	37,142	37722	2
Guildford Road - A322 (between Jun A322/A319 & Brentmoor Rd)	33,552	34107	2
Upper Chobham Road - B311(between Jun B311/B3015 & Green Hill Rd)	14,995	15248	2
Bagshot Road - A319 (between Jun A322/A319 & Windlesham Rd)	19,174	19516	2
Lake Rd (between Bellew Rd & Wharf Rd)	14,316	14668	2
Lake Rd (between Deepcut Bridge Rd & Bellew Rd)	14,580	14943	2
Red Road - B311 (between Jun A322/A319 & Jun B3015/B311)	22,184	23680	7
Guildford Rd (between Deepcut Bridge Rd & Burnswick Rd)	8,572	9313	9
The Maultway - B3015 (between Jun B311/B3015 & Copped Hall Drive)	14,124	15704	11
Deepcut Bridge Rd (between Blackdown Rd & Site Access)	15,854	19615	24
Deepcut Bridge Rd (between Old Bisley Rd & Blackdown Rd)	16,212	20412	26
Deepcut Bridge Rd (between Site Access & Lake Rd)	17,626	22422	27
Guildford Rd (between Deepcut Bridge Rd & Old Guildford Rd)	5,485	7339	34
The Maultway - B3015 (between Jun B311/B3015 & Old Bisely Rd)	14,425	18470	28
Deepcut Bridge Rd (between Lake Rd & Guildford Rd)	5,283	7873	49

Key

Increases of 10% or more on routes with AADT flows of more than 10,000

Environmental Protection UK guidance states that typically there is a need for an assessment on roads where there is a change in the Annual Average Daily Traffic (AADT) or peak traffic flows of more than 5-10% usually on roads with more than 10,000 AADT flows. Only changes of 10% or more have been considered as air quality in the area surrounding the Site is within the AQO.

Noise

Tables B.5 and B.6 summarise the percentage increase in the estimated 18 flows (daytime - 06.00 to 00.00) and 6 hour flows (night time - 00.00-06.00) for the assessment of noise related effects.

Table B.5 Predicted changes in 18 hours flows (daytime)

Road Link	Baseline	With development	% change
Blackdown Rd (between Deepcut Bridge Rd & Newfoundland Rd)	2,627	1413	-46
Blackdown Rd (between Deepcut Bridge Rd & Woodend Rd)	1,658	1380	-17
Guildford Road - A322 (between Red Rd & M3)	44,855	47634	6
Guildford Road - A322 (between Jun A322/A319 & Brentmoor Rd)	40,521	43068	6
Upper Chobham Road - B311(between Jun B311/B3015 & Green Hill Rd)	18,109	19255	6
Bagshot Road - A319 (between Jun A322/A319 & Windlesham Rd)	23,156	24644	6
Lake Rd (between Bellew Rd & Wharf Rd)	17,289	18522	7
Lake Rd (between Deepcut Bridge Rd & Bellew Rd)	17,608	18869	7
Red Road - B311 (between Jun A322/A319 & Jun B3015/B311)	26,791	29903	12
Guildford Rd (between Deepcut Bridge Rd & Burnswick Rd)	10,352	11760	14
The Maultway - B3015 (between Jun B311/B3015 & Copped Hall Drive)	17,058	19830	16
Deepcut Bridge Rd (between Blackdown Rd & Site Access)	19,147	24768	29
Deepcut Bridge Rd (between Old Bisley Rd & Blackdown Rd)	19,579	25776	32
Deepcut Bridge Rd (between Site Access & Lake Rd)	21,286	28313	33
Guildford Rd (between Deepcut Bridge Rd & Old Guildford Rd)	6,624	9268	40
The Maultway - B3015 (between Jun B311/B3015 & Old Bisely Rd)	17,420	23323	34
Deepcut Bridge Rd (between Lake Rd & Guildford Rd)	6,380	9941	56

Key

Roads with a predicted increase in flows of 25% or more

Table B.6 Predicted changes in 6 hours flows (night time)

Road Link	Baseline	With development	% change
Blackdown Rd (between Deepcut Bridge Rd & Newfoundland Rd)	120	62	-49
Blackdown Rd (between Deepcut Bridge Rd & Woodend Rd)	76	60	-20
Guildford Road - A322 (between Red Rd & M3)	2,046	2078	2
Guildford Road - A322 (between Jun A322/A319 & Brentmoor Rd)	1,848	1879	2
Upper Chobham Road - B311(between Jun B311/B3015 & Green Hill Rd)	826	840	2
Bagshot Road - A319 (between Jun A322/A319 & Windlesham Rd)	1,056	1075	2
Lake Rd (between Bellew Rd & Wharf Rd)	789	808	2

Road Link	Baseline	With development	% change
Lake Rd (between Deepcut Bridge Rd & Bellew Rd)	803	823	2
Red Road - B311 (between Jun A322/A319 & Jun B3015/B311)	1,222	1304	7
Guildford Rd (between Deepcut Bridge Rd & Burnswick Rd)	472	513	9
The Maultway - B3015 (between Jun B311/B3015 & Copped Hall Drive)	778	865	11
Deepcut Bridge Rd (between Blackdown Rd & Site Access)	873	1080	24
Deepcut Bridge Rd (between Old Bisley Rd & Blackdown Rd)	893	1124	26
Deepcut Bridge Rd (between Site Access & Lake Rd)	971	1235	27
Guildford Rd (between Deepcut Bridge Rd & Old Guildford Rd)	302	404	34
The Maultway - B3015 (between Jun B311/B3015 & Old Bisely Rd)	794	1017	28
Deepcut Bridge Rd (between Lake Rd & Guildford Rd)	291	434	49

Key

Roads with a predicted increase in flows of 25% or more

As a general rule of thumb a doubling (i.e. 100%) of road traffic flows is required for the minimum audible change in road traffic noise (3dB(A)) to occur. Guidance states that a 25% increase in road traffic flows is needed for a 1dB(A) increase in road traffic noise levels, which studies have shown is the minimum change that can be detected by the human ear in the short term (e.g. on opening of a road project).