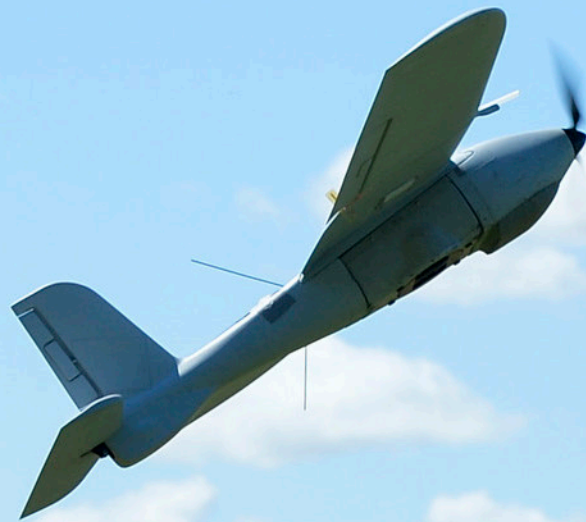




Ministry  
of Defence



Sustainability & Environmental  
Appraisal Tools Handbook

## Section 8: Linked Tools



## **How to use this Guidance**

This guidance forms Section 8 of the MOD Sustainability and Environmental Appraisal Tool Handbook ('the SEAT Handbook'). It provides information on the linked tools and management systems which have been referenced in Sections 1 to 7 of the Handbook.

This guidance does not aim to provide in depth methodologies for the tools and processes described. Further information is signposted at the end of each section as appropriate.

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**Impact Assessment**

- 8.1.1 The IA tool deals with the Government’s commitment to better policy making and assessment of the potential impacts of policy changes on economic, social and environmental factors. It is predominately restricted to policies which are regulatory or legislative in nature, or which have an effect akin to that of regulation or legislation.
- 8.1.2 For the MOD, IA will be required relatively infrequently as the majority of policy decisions made are not regulatory in nature.
- 8.1.3 IA are required if a proposal:
  - Imposes additional cost or reduces existing costs on businesses or the third sector;
  - Imposes any additional administrative or reporting burden on the public sector or bodies that deliver public services;
  - In the absence of imposing additional administrative or reporting burdens, introduces new regulatory costs on the public sector or bodies that deliver public services or which are likely to attract high levels of political or media interest;
  - Involves seeking collective agreement for UK negotiating positions on EU proposals or other international agreements where the UK is represented at national level.

<b>How does IA link to the Appraisal Tool Hierarchy?</b>	
This assessment relates to policy and sits above Sustainability Appraisal in the appraisal tool hierarchy.	
<b>For Further Information</b>	<a href="#">Impact assessments: guidance for government departments</a>

**Socio-Economic Report (SER)**

- 8.2.1 SER was a mandated policy requirement to ensure decision makers had an overview of the socio-economic context of forthcoming MOD civilian/service proposals with employment consequences that could have a significant effect across the UK. The SER also formed part of the submission for Main Gate proposals and as such it was incorporated within the Investment Appraisal. The primary driver for SER stemmed from a ministerial requirement that a political, social and economic background should be provided separately to ministers to assist with their decision making process.
- 8.2.2 However, this requirement no longer exists and therefore SER need only be undertaken in a limited number of instances. For example:
  - When a ministerial commitment has been given that an MOD activity will produce a SER;
  - For major MOD relocations;
  - At the Senior Responsible Officer’s discretion.
- 8.2.3 The SER provides socio-economic information and presents publicly available statistical information on factors such as employment, health and housing at the local and regional scale. The SER also includes an indication of other MOD initiatives that are known to be taking place and the political landscape e.g. constituency data. This highlights potential cumulative employment or economic effects of MOD initiatives to decision makers.
- 8.2.4 It is important to note that SER only provides background information of the sites potentially affected by a proposal. It is not within the scope of the SER to provide any socio-economic analysis of the effects of the proposals or to provide recommendations for option selection.
- 8.2.5 Therefore, it is recommended for larger scale movements, potentially controversial projects, and proposals where multiple options are being considered, it may be appropriate to perform more in-depth data collation and social and economic analysis.

How does SER link to the Appraisal Tool Hierarchy?	
SER process can help integrate socio-economic considerations into the decision making process and compliments the Sustainability Appraisal process.	
<b>For Further Information</b>	DIO Sustainable Development Support: <a href="mailto:DIOSDFEUS-SusDevSpt@mod.gov.uk">DIOSDFEUS-SusDevSpt@mod.gov.uk</a>

**Building Research Establishment’s Environmental Assessment Method (BREEAM)**

- 8.3.1 Defence Related Environmental Assessment Methodology (DREAM) should be used in preference to BREEAM. Chapter 6 of this manual gives more detail on DREAM.
- 8.3.2 Both DREAM and BREEAM assess the environmental performance of buildings and help facilitate sustainable design improvements with respect to factors such as energy efficiency, internal building environments, procurement of construction materials etc...They provide a holistic approach to sustainability and assist in driving down whole life costs.
- 8.3.3 The [Government Buying Standard](#) for New Build Construction and Major Refurbishments requires that an appropriate environmental assessment method such as BREEAM or an equivalent (e.g. DREAM) appropriate to the size, nature and impact of the project must be carried out on all construction projects.
- 8.3.4 BREEAM assessments cover offices, homes, industrial units, retail units and schools and must be carried out by independent assessors who are trained and licensed by BRE. There are costs associated with commissioning and undertaking BREEAM. DREAM was designed and developed specifically to address the unique nature of MOD buildings and provide the MOD with an equivalent to BREEAM. DREAM is a free, web based tool.

<b>How does BREEAM link to the Appraisal Tool Hierarchy?</b>	
The requirement to conduct this assessment is identified by a Sustainability Appraisal. DREAM should be used in preference to BREEAM or other assessment methodologies.	
<b>For Further Information</b>	<a href="http://www.breeam.org">www.breeam.org</a> <a href="mailto:DIO-DREAM@mod.gov.uk">DIO-DREAM@mod.gov.uk</a> <a href="#">JSP 850: Infrastructure and Estate Policy</a>

**The Civil Engineering Environmental Quality Assessment and Award Scheme (CEEQUAL)**

- 8.4.1 CEEQUAL is a performance assessment scheme similar to DREAM and BREEAM but is specifically designed for assessing the environmental quality of civil engineering projects. It is applicable to all types and sizes of civil engineering projects and works. Its objective is to encourage the attainment of environmental excellence in civil engineering projects, and thus to deliver improved environmental performance in project specification, design and construction.
- 8.4.2 Where a project has both buildings and a large civil engineering component it is appropriate to carry out both a CEEQUAL assessment and DREAM/BREEAM assessment of the respective elements.
- 8.4.3 Two separate approaches can be taken in respect of using the CEEQUAL methodology. Firstly, Project Managers may wish to subject their particular project for a formal CEEQUAL award. Should they choose to do this, then they should secure the services of an accredited CEEQUAL assessor at the earliest opportunity. Otherwise, the question set pertaining to the CEEQUAL Whole Project Award should be used on a self-assessment basis. Project Managers who elect not to seek a formal CEEQUAL award but never the less still wish their projects to be subject of a CEEQUAL assessment, should appoint an appropriately trained person accordingly.

<b>How does CEEQUAL link to the Appraisal Tool Hierarchy?</b>	
CEEQUAL is a detailed assessment tools that focuses on environmental issues of civil engineering projects. The requirement to conduct this assessment is identified by a Sustainability Appraisal.	
<b>For Further Information</b>	<a href="http://www.ceequal.com">www.ceequal.com</a>

**Cultural Heritage Assessment**

- 8.5.1 Sustainability Appraisal incorporates the requirement to consider and address historic and archaeological assets. Although Crown exemption still exists for Scheduled Monuments, MOD no longer has planning exemption from cultural heritage considerations within the planning process. Early appraisal ensures that the statutory requirements and consent processes required for development affecting listed buildings or scheduled monuments are considered and wider historic environment issues are taken into account.
- 8.5.2 Local Planning Authorities are advised to take historic environment considerations into account from the outset of the planning process. Planning applications may be refused if there is insufficient supporting documentation (or a trial excavation report or historic building study) addressing areas of archaeological or historic interest.
- 8.5.3 Where a known or potential archaeological site is present or where an existing historic building maybe of some interest/ value within the area of a proposed development, a stage programme of investigation will need to be undertaken. This could involve:
  - **Desk Based Assessment** - In the early planning stage of a development project it is important to quantify the known Cultural Heritage within the study area. Conducting a desk based assessment at an early stage in the life of the development project could assist the project designers in avoiding known sites and preserving archaeological remains.
  - **Evaluation** - If the Desk Based Assessment identifies archaeological assets on the site, or concludes that there is a potential for archaeological deposits to be present, it may be necessary to undertake an evaluation within the area of the proposed development site. The evaluation will usually involve the excavation of a number of trial trenches distributed over the area of proposed development.
  - **Mitigation** - The results of the evaluation will be used to inform a strategy to mitigate the impact of the proposed development on an archaeological monument, or seek recording or informed re-use of any historic buildings.
- 8.5.4 A planning authority can require the results of an evaluation prior to determining a planning application, and may refuse to determine or register applications without one.

<b>How does Cultural Heritage Assessment link to the Appraisal Tool Hierarchy?</b>	
The requirement for an Archaeological Assessment should be identified as part of the Sustainability Appraisal process. It is particularly relevant where formal planning permission is required.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a> Senior Archaeologist – 01980 674718 Senior Historic Building Advisor - 01980 674670

**Project Oriented Environmental Management System (POEMS)**

- 8.6.1 POEMS is a Defence Equipment and Support (DE&S) process that enables Environmental Managers to complete and deliver their project tasks for major equipment and platform programmes in a consistent and corporately approved manner. This EMS is a formally mandated business procedure for the equipment acquisition community in DE&S that aims to identify and manage potential environmental impacts, and any related risks, throughout the lifetime of defence procurement projects or the CADMID cycle.
- 8.6.2 The scope of POEMS is limited to acquisition projects for equipment and services. If the acquisition projects involve developments to the defence estate or acquisition of new estate or (equipment) assets that could be used on or based on the estate, then the project team must undertake Sustainability Appraisal in parallel with the POEMS procedures. In practice there are three scenarios to consider:
  - The project is wholly estates based – *undertake Sustainability Appraisal*;
  - The project is equipment related only (for export or agreements where MOD acts on behalf of third parties) – *use Sustainability Appraisal at Concept stage to highlight any estate related effects*; and
  - The project is both estate-based and equipment or service- based - *use Sustainability Appraisal at Concept stage to highlight any estate related effects*.
- 8.6.3 Sustainability Appraisal should be dovetailed in to the POEMS procedures from the earliest opportunity to help identify any potential sustainability impacts. It will also ensure that any statutory compliance requirements such as an Environmental Impact Assessment and/or Habitats Regulations Assessment are identified. These issues can then be incorporated into the Impact Assessment Plan and managed as an integral part of the POEMS procedures.
- 8.6.4 It is important to note that the completion of an environmental impact assessment plan and report as part of DE&S POEMS does not satisfy the statutory EIA requirements. The terminology and approach in POEMS is used in a policy context to identify environment risks and impacts.

<b>How does POEMS link to the Appraisal Tool Hierarchy?</b>	
If an acquisition project for equipment and services involves development or use of the defence estate a Sustainability Appraisal should be undertaken in parallel with POEMS procedures.	
<b>For Further Information</b>	<a href="#">DE&amp;S Director Technical: Quality Safety and Environmental Protection – DE&amp;S DTECH QSEP</a>  <a href="#">Acquisition Safety and Environmental Management Systems (ASEMS - including full POEMS guidance).</a>



**Sustainability or Environmental Management Systems (SMS or EMS)**

- 8.7.1 S/EMS is a systematic approach to incorporating sustainability or environmental considerations into every business, running of a site or establishment. The system provides a framework for management of sustainability or environmental issues and for identifying impacts, tracking, evaluating and communicating performance. The S/EMS is usually developed at an establishment level and appropriate to the specific impacts, organisation, resources available at that site and its area of responsibility. Each SMS or EMS must control all significant impacts on the environment and may also consider socio-economic factors arising from activities and occupation of the estate.
- 8.7.2 **It is a central government mandate that all Departments implement an EMS based or modelled on a recognised system.** Developing and maintaining management systems within MOD is an on-going process.

<b>How does S/EMS link to the Appraisal Tool Hierarchy?</b>	
An S/EMS can be a useful data source when undertaking a Sustainability Appraisal. Mitigation and monitoring measures that are identified by Sustainability Appraisal, other appraisal tools (e.g. EIA) or specialist studies (e.g. management of effects of new training) should be incorporated into the establishment S/EMS.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>  <a href="#">JSP 815 – Defence, Health, Safety &amp; Environmental Protection</a>

**Integrated Rural Management Plans (IRMPs)**

8.8.1 IRMPs are rurally focused environmental management systems and include a suite of Component Management Plans (CMPs) to address significant interests, such as biodiversity, cultural heritage, estate management, tenant farmers, access and recreation. A Military Requirement CMP guides the overarching land management for the establishment or training area. The management planning process creates a set of inter-linked plans that optimise the military training potential of training areas in a manner that is consistent, economic and includes environmental good practice, in consultation with a wide range of stakeholders. Developing and maintaining these management plans is an on-going process within the MOD.

<b>How does IRMP link to the Appraisal Tool Hierarchy?</b>	
Mitigation and monitoring measures that are identified by Sustainability Appraisal or other appraisal tools such as Environmental Impact Assessment and the results of any specialist studies (e.g. management of effects of new training) should be incorporated into the relevant CMP within the IRMP.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>

**Construction Environmental Management Plans (CEMP)**

- 8.9.1 A CEMP is a management plan that is developed for the duration of a construction phase, usually for large scale projects which have a range of environmental or social impacts. These impacts could include noise and vibration from heavy construction traffic, noise to the disturbance and potential damage to sensitive habitats, dust and dirt or visual intrusion created by the construction activity.
- 8.9.2 CEMPs provide the management framework needed for the planning and implementation of construction activities to minimise and mitigate the impacts of the activity. This will often be in accordance with commitments identified by the appraisal tools such as Sustainability Appraisal or Environmental Impact Assessment and any requirements of planning conditions or Section 106 legal agreements.
- 8.9.3 Its purpose is to reduce the risk of adverse impact of construction activities (e.g. noise, air emissions etc.) on sensitive environmental resources and to minimise disturbance to local residents. The CEMP should describe the checking, monitoring and audit processes that must be implemented to ensure works are being undertaken in accordance with these requirements, together with measures to ensure that appropriate corrective actions or mitigation measures are taken.
- 8.9.4 It should be developed at the ‘Secure Contract Commitment/Implement Project’ stage of the project process. When a building becomes operational, on-going environmental impacts should be captured by the establishment S/EMS. The Contractor for the project should produce a CEMP. It is the responsibility of the Project Manager to ensure this requirement is met.

<b>How does CEMP link to the Appraisal Tool Hierarchy?</b>	
A Sustainability Appraisal helps inform the development of a CEMP and the identification of the mitigation and monitoring measures related to construction activities.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>

**Maritime Environment and Sustainability Appraisal Tool (MESAT)**

8.10.1 The MESAT provides Naval planners with a structured process by which to consider the non-military impacts of intended activities at sea. It offers guidance on the sort of issues that ought to be considered early in the planning process. These considerations are required by the SoS for Defence and often by legislation. MESAT is thus intended to assist planners in the normal course of their duties by providing, if required, links to additional information or advice on environmental and sustainability subjects. In this way it can help to identify at the earliest stages whether additional consultations, assessments or license applications are required for the proposed activity to go ahead, thus safeguarding the activity from 11<sup>th</sup> hour external interference or prohibition.

<b>How does MESAT link to the Appraisal Tool Hierarchy?</b>	
MESAT is a specially modified version of a Sustainability Appraisal which is tailored to help identify and manage environmental and sustainability impacts related to MOD’s maritime activities.	
<b>For Further Information</b>	<a href="#">2011DIN06-33</a>



**Preliminary Ecological Appraisal (PEA) / Ecological Impact Assessment (EclA)**

- 8.11.1 Ecological Impact Assessment (EclA) is a catch-all phrase covering ecological surveys and assessments that may be required to secure statutory and policy compliance and permissions. It can relate to designated sites including SSSI Assent, protected species licenses and methods statements and, wider biodiversity and ecosystem services issues.
- 8.11.2 The Requirements / Project Manager (for projects) or Head of Establishment (for activities) is accountable for identifying the need for EclA. DIO ecologists should be consulted for high risk projects especially those affecting designated sites, and they may facilitate engagement with contractors and specialist consultants. Contractors and consultants are usually responsible for undertaking detailed surveys and assessment and securing permissions, with the exception of HRA. Regulators may need to be consulted/ informed.
- 8.11.3 The requirement for EclA should be identified through Sustainability Appraisal. For infrastructure projects, the scoping stage “Preliminary Ecological Appraisal” and any time-critical surveys may be undertaken as part of the Assessment Study; and if required further surveys and applications for statutory approvals are undertaken in the ‘Develop the Preferred Option’ phase. EclA must be completed before Main Gate and before any applications for statutory approvals. For changes to military activities and land management, EclA must be completed and permissions secured before proposals are implemented.
- 8.11.4 If no detailed species and habitat surveys or permissions are required EclA screening and scoping may be completed at short notice. Many further species and habitat surveys are time-critical, requiring multiple visits, and restricted to certain times of year. Some mitigation measures are also time-critical. See Survey and Mitigation Timetables overleaf..
- 8.11.5 Any protected species licences can only be applied for after other permissions e.g. after Planning Permission / Marine Licence etc. are granted. Even if all required surveys and permissions are in place it can take a month or more to secure a licence

<b>How does EclA link to the Appraisal Tool Hierarchy?</b>	
The need for EclA is identified by Sustainability Appraisal. EclA may form part of an HRA and/or wider EIA and may be required to support any application for statutory permissions. It may also inform DREAM Assessments.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a> <a href="#">EclA Process</a>

**INDICATIVE TIMETABLE FOR ECOLOGICAL SURVEYS (seek early specialist advice especially for sensitive sites/ complex projects)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
<b>Desk Study</b>	Desk study and record search possible at any time												
<b>Habitats / Vegetation</b>	PHASE 1, Hedgerow, Heathland			PHASE 1, Hedgerow, Heathland						PHASE 1 Hedgerow, Heathland			
	Woodland trees			Woodland trees and ground flora			Woodland trees						
				Grassland sub-optimal		Grassland optimal		Grassland sub-optimal					
<b>Badgers</b>	Limited Sett/Bait Surveys	Bait Marking/Sett Surveys			Limited Bait Marking And Sett Surveys				Sett Surveys		Limited Sett/Bait Surveys		
<b>Bats</b>	Inspection Of Hibernation Roosts			Limited Activity	Summer Roosts, Emergence Surveys And Activity Surveys (Internal Inspections Of Roof Paces Possible Throughout April – Oct)					Limited Activity	Inspection Of Hibernation Roosts		
<b>Birds</b>	Winter Species		Breeding Birds/Migrant Species		Breeding Birds		Low Activity		Migrant Species		Winter Species		
<b>Dormice</b>	Gnawed Hazel Nut Search			Nest Tube Survey From April To November. Gnawed Hazel Nut Search (Best Sept – Dec)									
<b>Great Crested Newt</b>	Habitat Suitability Assessment only		Pond Surveys Presence / absence survey requires 2 of 4 surveys in peak period mid April to mid-May. Population estimates require 6 surveys Mar -Jun eDNA survey to screen presence/absence				Habitat and Larvae Survey. eDNA survey		Habitat Suitability Assessment only				
<b>Otters</b>	Limited by Vegetation Cover and Weather Conditions Rather Than Seasons												
<b>Reptiles</b>	Reptiles Hibernating		Peak Survey Months Are April And May				Reduced Basking Time Lowers Effectiveness Of Refugia Surveys		Peak Survey Month	Limited Activity	Reptiles Hibernating		
<b>Water Voles</b>	Limited Activity	Initial Habitat Survey	Habitat And Field Signs/Activity Surveys. May Be Limited By Vegetation Cover And Weather								Initial Habitat Survey	Limited Activity	
<b>White-Clawed Crayfish</b>	Habitat Suitability Assessment Only						Manual Search, Torch Light Counts And Trapping			Habitat Suitability Assessment Only			

**TIMETABLE FOR ECOLOGICAL MITIGATION ACTIVITY (seek early specialist advice especially for sensitive sites / complex projects)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<b>Habitat / Vegetation</b>	Planting and Translocation		Sub-optimal / not possible for many species							Planting and Translocation		
<b>Badgers</b>	Construction Of Artificial Setts Only (No Disturbance Of Existing Setts)								Exclusion From Setts And Destruction			See Jan
<b>Bats</b>	Maternity Roost Works		Hibernation And Maternity Roost Works		Hibernation Roost Works						Maternity Roost Works	
<b>Birds</b>	Clearance Works		Nesting Season (Avoid tree and scrub clearance works unless supported by Ecological Clerk of Works)					Clearance Works				
<b>Dormice</b>	No Clearance Works As Hibernating			Clearance, Translocation And Release		No Clearance Works As May Separate Females From Young			Clearance, Translocation And Release		No Clearance Works As Hibernating	
<b>Great Crested Newt</b>	Pond Management only		Both Terrestrial and Aquatic Trapping Possible No breeding pond management				Terrestrial Trapping Only No breeding pond management				Pond Management only	
<b>Otters</b>	No Seasonal Constraints, However Restrictions Are Likely During Breeding Season											
<b>Reptiles</b>	Clearance Of Scrub		Capture And Translocation Programmes And Scrub Clearance				Weather Dependent		Capture And Translocation	Clearance Of Scrub		
<b>Water Voles</b>	Avoid Works In Habitat		Trapping And Exclusion		Avoid Works (Breeding Season)				Trapping And Exclusion		Avoid Works In Habitat	
<b>Whiteclawed Crayfish</b>	Avoid Disturbance							Exclusions Undertaken		Avoid Disturbance		

 Recommended Period For Works

 Sub-Optimal Period For Works.

 Works Not Possible

### **Heritage Impact Assessment**

- 8.12.1 A Heritage Impact Assessment should provide enough information to understand the impact of any proposals on the significance of any heritage asset affected.
- 8.12.2 The requirement for a Heritage Impact Assessment is given in Paragraph 128 of the [National Planning Policy Framework](#) (NPPF).
- 8.12.3 The significance of the site needs to be clearly understood so that the potential impact (which may be beneficial impact) upon a heritage asset can be accurately assessed. Not only is such a study good conservation practice, but the information in the Heritage Impact Assessment can speed up applications, reduce costs and lead to better design.
- 8.12.4 The level of detail required should be appropriate and proportionate to the significance of the asset and the potential impact upon the asset.
- 8.12.5 Details should include (but are not necessarily limited to):
  - Stage 1 – Collection of data
    - Documents relating to the site, including historic documents
    - Maps (and map regressions) of the site
    - Photographs of the site, including historic photographs
  - Stage 2 – Written description
    - Written description of the site – description of the site and its setting
    - Summary of the site’s significance (including historical, archaeological or architectural)
  - Stage 3 – Proposals and justification. Potential points for discussion include
    - Could the requirements be met in a different way?
    - Will the proposed works harm or change the significance of the site?
    - Could the works be mitigated in any way?

<b>How does a Heritage Impact Assessment link to the Appraisal Tool Hierarchy?</b>	
The need for a Heritage Impact Assessment can be identified by a Sustainability Appraisal. It may also inform DREAM Assessments. Heritage Impact Assessments are usually specialist in nature and will need expert advice.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a> Senior Historic Building Advisor - 01980 674670



**Flood Risk Assessment (FRA)**

- 8.13.1 Site specific flood risk assessments (FRA), which assess the risk of flooding to and from a development site, are a planning condition for all new development proposals within Flood Zones 2 and 3. When critical drainage problems exist; proposals of 1 hectare or greater in Flood Zone 1 and proposals where development or change of use to a more vulnerable class may be subject to other sources of flooding require FRA.
- 8.13.2 FRAs for MOD planning development proposals shall be compliant with each region planning conditions e.g. [National Planning Policy Framework](#) (NPPF) in England and Wales and [Scottish Planning Policy](#)
- 8.13.3 It is MOD policy that decisions involving site management, estate change and maintenance planning shall take account of present and future flood risk over the development’s lifetime. Environment Agency climate change allowances (appropriate for English sites), UK Climate Projections scenarios, local and regional flood management policies, strategic flood risk assessments, and site Climate Impacts Risk Assessment (CIRAM) data, if available, shall be considered in FRAs.
- 8.13.4 It is also MOD policy that flood risk resilience shall be considered holistically rather than for individual infrastructure assets.

<b>How does FRA link to the Appraisal Tool Hierarchy?</b>	
The need for a FRA can be identified by a Sustainability Appraisal. It may also inform DREAM Assessments. CIRAM may also inform the development of FRA.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>  DIO Sustainable Development Support: <a href="mailto:DIOSDEUS-SusDevSpt@mod.gov.uk">DIOSDEUS-SusDevSpt@mod.gov.uk</a>

**Land Quality Assessments (LQA)**

- 8.14.1 Land Quality Assessment (LQA) is the process used to quantify contaminated land risks and associated liability on the MOD Estate. The LQA process is used to determine whether the land ‘is suitable for use’ and ensure any unacceptable risks to human health and the wider environment are appropriately controlled and managed.
- 8.14.2 A LQA identifies potential sources of contamination and any sensitive receptors (including human health, controlled waters and ecology) along with potential migration pathways that link these potential contamination sources to receptors. This is known as the ‘Conceptual Site Model’. A risk assessment is then undertaken evaluating the sensitivity of receptors, the severity of the consequences of the contamination-receptor linkage, and the likelihood of this linkage occurring. This is undertaken in accordance with the [MOD Land Quality Assessment Practitioner Guide 07/12](#) underpinned by [CLR 11](#) (Model Procedure for the Management of Land Contamination).
- 8.14.3 A LQA is typically carried out in a phased approach where the outcomes of each assessment phase determine the requirement for subsequent phases. The phases broadly comprise:
  - Phase Zero – A Preliminary Hazard Assessment
  - Phase One – Desktop study and site walkover
  - Phase Two – Intrusive investigation
  - Phase Three and Four – Remediation and Options Appraisal
- 8.14.4 LQAs are carried out across the MOD estate as part of an on-going assessment programme; they are also undertaken on a reactive basis. LQAs are an essential element of the process to divest, develop, purchase or lease land as it allows the identification and quantification of risks and therefore develops a thorough understanding of the associated environmental liabilities.
- 8.14.5 The failure to adequately assess and manage land contamination on the estate has the potential to impact on defence activities and efficiency through reducing the availability of training areas, limiting development of the estate, reducing disposal receipts and diversion of funding to meet costly statutory clean-up/remediation.
- 8.14.6 The Environmental Liability Management team hold an electronic database of available LQA Reports. These should be referenced in Statements of Known Hazards and used by Contractors working on MOD land in order to assess known on-site hazards relating to land contamination.

<b>How does LQA link to the Appraisal Tool Hierarchy?</b>	
The need for a FRA can be identified by a Sustainability Appraisal. It may also inform DREAM Assessments.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>  Environmental Liability Management <a href="mailto:Ann-Marie.Deloughry966@mod.gov.uk">Ann-Marie.Deloughry966@mod.gov.uk</a>

## **Transport Assessments**

- 8.15.1 The [National Planning Policy Framework](#) (NPPF) states that all development proposals that generate significant amounts of movement should be supported by a Transport Assessment (TA) or Transport Statement, (TS). TA's and TS's are usually produced by developers and are used by decision makers in the Planning process to determine whether the transport impacts of a proposed development are acceptable.
- 8.15.2 A TA is a comprehensive and systematic process that sets out transport issues relating to a proposed development. It identifies what measures will be taken to deal with the anticipated transport impacts of the scheme and to improve accessibility and safety for all modes of travel, particularly for alternatives to the car such as walking, cycling and public transport. The precise scope and detail of a TA will therefore vary depending on the site location and the scale and nature of the development
- 8.15.3 In some cases, the transport issues arising out of development proposals may not require a full TA to inform the process adequately and identify suitable mitigation. In these instances, it has become common practice to produce a simplified report in the form of a Transport Statement (TS).

<b>How do Transport Assessments link to the Appraisal Tool Hierarchy?</b>	
The need for Transport Assessments can be identified by a Sustainability Appraisal.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a> <a href="mailto:Mark.Limbrick247@mod.gov.uk">Mark.Limbrick247@mod.gov.uk</a>

**Landscape & Visual Impact Assessments**

- 8.16.1 Landscape and visual impact assessment (LVIA) is often required as part of the statutory planning process to assess the effects of a proposed development on the landscape and to help locate and design a proposal so that negative visual impacts are avoided or reduced. It may be required either as part of an Environmental Impact Assessment or, more informally, as part of the assessment of a development proposal / planning application.
- 8.16.2 An LVIA is generally required for major schemes or those likely to have a significant visual effect within the landscape or on landscape character. Alternatively, an LVIA may be used to demonstrate that the landscape and visual effects of a development will not be harmful.

<b>How do Transport Assessments link to the Appraisal Tool Hierarchy?</b>	
The need for LVIA can be identified by a Sustainability Appraisal. A LVIA may be required as part of an EIA.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a> <a href="mailto:Mark.Limbrick247@mod.gov.uk">Mark.Limbrick247@mod.gov.uk</a>



## **Air Quality Assessments**

- 8.17.1 Air Quality Assessments are used to predict concentrations of air pollutants at a given site. An Air Quality Assessment can predict whether or not it is likely that an air quality objective will be breached at a given location. The [National Air Quality Objectives](#) have been set at a level to protect human health, at these concentrations some people particularly the elderly, the very young and those with pre-existing cardiovascular or pulmonary conditions may suffer adverse health effects.
- 8.17.2 An Air Quality Assessment considers background concentrations of the pollutants of concern and any sources of the pollutant, when considering a project it is typical to consider sources of emissions both during the construction and operational phases.
- 8.17.3 Assessments are carried out most commonly in the UK for nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>) these are the two pollutants for which the most breaches of the objectives occur. Where local authorities identify breaches of the air quality objectives they are obligated to declare an Air Quality Management Area (AQMA). Once declared the local authority is then obligated to produce an Air Quality Action Plan (AQAP), which sets out measures to reduce pollutant concentrations within the AQMA.
- 8.17.4 Local authorities often have their own policies relating to the requirement for an Air Quality Assessment and some have produced Supplementary Planning Documents. In these documents it is often stated that the impact on air quality is likely to be particularly important:
- Where the development is proposed inside, or adjacent to, an AQMA;
  - Where the development could in itself result in the designation of an AQMA; and
  - Where to grant planning permission would conflict with, or render unworkable, elements of a local authority's AQAP.
- 8.17.5 Representative sensitive receptor locations are identified in an Air Quality Assessment, these locations might include for example residential dwellings, schools, care homes or hospitals.
- 8.17.6 Modelling of the pollutant concentrations is carried out; a range of modelling software is available. Typically pollutants concentrations are predicted for the base (current) year, the development's opening year and a year in the future.
- 8.17.7 Areas of the Air Quality Assessment that should be agreed prior to it commencing include:
- the description of baseline conditions;
  - the assessment methods to be adopted and any requirements around verification of modelling air quality;
  - sensitive locations;
  - the basis for assessing impact and determining the significance of an impact;
  - construction phase impact and/or acceptable mitigation measures.
- 8.17.8 Where exceedances of the air quality objectives are identified at a sensitive receptor location mitigation options can be considered. Such measures might include building accommodation blocks as far as possible from the road, increasing screening of accommodation from the road using trees and shrubs and keeping habitable rooms i.e. lounges and bedrooms away from the roadside of a new development.
- 8.17.9 When considering a new development there are a number of means of reducing the likely emissions associated with that development they include: consideration of public transport access, consideration of walking and cycling access and facilities, installing electric vehicle

charging points, implementing Travel Plans and implementation of dust suppression methods on construction sites. Where a development increases emissions in an existing AQMA the local authority is likely to resist it unless adequate mitigation measures can be implemented.

<b>How do Air Quality Assessments link to the Appraisal Tool Hierarchy?</b>	
The need for Air Quality Assessments can be identified by a Sustainability Appraisal.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>  DIO Sustainable Development Support: <a href="mailto:DIOSDEUS-SusDevSpt@mod.gov.uk">DIOSDEUS-SusDevSpt@mod.gov.uk</a>

**Forestry/ Arboricultural Impact Assessment (ForIA/ ArbIA)**

8.18.1 All plans and projects likely to have an impact on woodland or amenity trees shall be subject, to a Forestry/ Arboricultural Impact Assessment as part of the relevant environmental and sustainability appraisal. DIO Foresters should be consulted at the scoping/requirement stage to provide subject matter advice and assist in compliance and assurance. Forestry and Amenity tree management on the MOD estate will conform to Forestry Commission and arboricultural best practice, to include all relevant planning regulations, BS standards (BS 5837, Trees in Relation to Design, Demolition and Construction and BS 3998, Tree Work Recommendations) current industry guidelines (National Joint Utilities Group (NJUG) and the National Tree Safety Group (NTSG)). All tree felling and operations expected to impact on trees shall be subject to pre-requisites and assurance checks including felling licence, suitable mitigation planting, planning consent, EIA, SA, and protected species licence.

<b>How do ForIA / ArbIA link to the Appraisal Tool Hierarchy?</b>	
The need for ForIA / ArbIA can be identified by a Sustainability Appraisal. DIO Foresters need to be approached at the scoping /requirements stage to assess any possible impact on trees and woodland.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>  DIO Senior Forester: <a href="mailto:Jeremy.Kalkowski941@mod.gov.uk">Jeremy.Kalkowski941@mod.gov.uk</a>

**Health and Safety Tree Inspections**

- 8.19.1 In order to comply with the Occupiers Liability Acts, the MOD recognises that it has a duty of care to anyone who can be reasonably foreseen as coming onto MOD property within close proximity to existing trees that have a potential to cause injury by a tree or tree part failing. In order to satisfy legal compliance, MOD policy (Reference A) compels industry service providers contracted to manage trees on the MOD’s behalf, to manage trees in accordance with NTSG guidelines. Tree inspections on the MOD estate will conform to relevant health and safety legislation and take account of the Occupiers Liability Act (1984). All of the MOD estate will be covered by tree inspections in order to protect MOD liability. It is the responsibility of individual TLBs to ensure this is carried out.
- 8.19.1 The MOD insists that all industry service providers have an agreed tree safety management policy in place that includes the following:
  - a. Tree risk zone criteria
  - b. Inspection level and frequency criteria
  - c. Plans to reflect a and b
  - d. Suitable and sufficient tree survey reports
  - e. Competency to undertake tree surveys either from in-house or bought in services
  - f. Means by which rectifications can be completed within advised time frames
- 8.19.1 The MOD also actively conduct audit and assurance by their own subject matter experts in order to monitor and maintain agreed tree safety management standards.

<b>How do Health &amp; Safety Tree Inspections link to the Appraisal Tool Hierarchy?</b>	
The need for Health & Safety Tree Inspections can be identified by a Sustainability Appraisal.	
<b>For Further Information</b>	<a href="#">JSP 850: Infrastructure and Estate Policy</a>  DIO Senior Forester: <a href="mailto:Jeremy.Kalkowski941@mod.gov.uk">Jeremy.Kalkowski941@mod.gov.uk</a>