Defence Equipment and Support

Submarine Dismantling Project

Strategic Environmental Assessment (SEA)
Stage 'A' Scoping Report

Non-Technical Summary

June 2010

Defence Equipment & Support

MINISTRY OF DEFENCE

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Strategic Environmental Assessment Scoping Report: Non-Technical Summary

June 2010

Prepared by Entec UK Limited and Defence Estates for Defence Equipment and Support, Ministry of Defence.

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Introduction

This is the Non-Technical Summary ('NTS') of the Scoping Report produced as part of the Strategic Environmental Assessment (SEA) of the Submarine Dismantling Project (SDP[1]). The Scoping Report is the first stage of the SEA process, and sets out the way in which the Ministry of Defence (MOD) proposes to undertake the SEA assessment.

1. What is Strategic Environmental Assessment?

SEA is a way by which the significant environmental effects of the SDP proposals can be identified and assessed before any major decisions are made on the outcome. This will allow potentially damaging effects to be avoided, minimised or mitigated, whilst positive ones can be enhanced.

SEA is required by legislation for certain strategic plans and programmes prepared by public bodies. The SEA Directive was implemented across Europe in 2004[2]; to date the Regulations have mainly been used in the development of Regional Spatial Strategies, Local Development Frameworks and other land-use plans by Local and Regional Authorities. However, SEAs for the plans and programmes of central government departments and agencies are now being published (see http://www.direct.gov.uk/en/AdvancedSearch/Searchresults/index.htm?fullText=Strategic+Environmental+assessment+consultations for examples).

The purposes of SEA are:

- to identify and quantify the potentially significant environmental effects of a plan or programme (in Scotland, this also includes strategies);
- to give the public the ability to see and comment upon the effects that the plan or programme may have on them and their communities, and encourage them to comment and suggest improvements;
- to ensure that environmental issues are properly considered throughout the planning stage, with appropriate measures being taken wherever possible to avoid, reduce or manage damaging environmental impacts and to enhance beneficial impacts.

All of the above must be completed before the plan or programme is adopted and planning permissions for the resulting developments are sought.

The main stages of the SEA process are:-

Stage A The scope of the SEA assessment (essentially, what issues will be covered) is determined by a Scoping Report, and the proposed approach is then agreed with Statutory Consultees. This Non-Technical Summary describes what is in that report, in non-technical language.

Stage B The likely environmental effects of the SDP options are assessed. This includes short-

[1] The SDP was previously known as the Interim Storage of Laid-Up Submarines (ISOLUS) project.

[2] European Union Directive 2001/42/EC (known as the SEA Directive) was transposed into UK legislation on the 20th July 2004 as Statutory Instrument No. 1633 – *The Environmental Assessment of Plans and Programmes Regulations 2004*. This applies to plans and programmes which have the potential to affect England and/or the UK as a whole. Devolved administrations have their own legislation in force.

and long-term, direct and indirect effects, as well as cumulative effects (where multiple small effects add together to have a large combined impact) and synergistic effects (where effects add together to create an impact greater than the sum of their parts).

Stage C An Environmental Report is written detailing the results of the assessments.

Stage D Public Consultation takes place on the SDP proposals and on the environmental report, after which the responses are considered and integrated into the final decisions on how to proceed with the proposals.

Stage E The environmental effects of the selected options for dismantling and ILW storage are monitored through subsequent statutory assessments at project level. A post-adoption report will be published to show how MOD has taken the public's feedback into account.

This is explained further in **Figure 2.**

Although the strict applicability of the SEA Regulations to the SDP remains unclear, the MOD will undertake an environmental assessment on the SDP proposals incorporating the requirements of the SEA Directive, as this is considered to be good practice. Undertaking an SEA will help ensure that the potential environmental implications of the options are assessed early on, so they can help inform, shape and improve the project as it develops. The approach will follow both MOD[3] and wider government[4] guidance.

The Scoping Report provides an opportunity for the UK's Statutory Consultation Bodies (listed in **Box 1**) to comment on the scope and the level of detail which should be included in the environmental assessment. The Scoping Report will also be sent to relevant Government departments and agencies for comment.

Box 1: UK Statutory Consultation Bodies

- The Environment Agency (England and Wales); Scottish Environment Protection Agency (SEPA); Northern Ireland Environment Agency.
- English Heritage; Historic Scotland; Cadw (Welsh Historic Monuments)
- Natural England; Scottish Natural Heritage; Countryside Council for Wales
- The Scottish Parliament and Welsh Assembly Government.

The SEA assessment will evaluate the environmental effects of the SDP's strategic options. The main output of the SEA assessment process will be an Environmental Report, which will be issued for public consultation alongside the draft SDP proposals.

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[3] The Environmental and Sustainability Appraisal Tool Handbook (Chapter Two: SEA) MOD, 2006. http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/DefenceEstateandEnvironmentPublications/DefenceEstates/SustainabiltyAndEnvironmentalAppraisalToolHandbook.htm

[4] A Practical Guide to the Strategic Environmental Assessment Directive. ODPM (now the Department for Communities and Local Government), 2006. http://www.communities.gov.uk/publications/planningandbuilding/practicalguidesea).

2. Background to the UK's Redundant Submarines

Laid-up submarines at Devonport

When a nuclear-powered submarine leaves service with the Royal Navy, the nuclear fuel is removed and sent for long-term storage at the Nuclear Decommissioning Authority (NDA) site at Sellafield, Cumbria. Serviceable equipment is removed for re-use. Currently, Babcock Marine at Devonport has the only nuclear Licensed site in the UK with the capability to defuel nuclear submarines. This work cannot be undertaken on an unlicensed site.

The hull is then laid up for long-term afloat storage in Devonport. Previously, submarines were also defueled at Rosyth in Scotland, and seven submarines remain there in long-term afloat storage. The majority of the radioactivity remaining in the defueled submarines is contained within the Reactor Pressure Vessel (RPV), in the form of radioactive steel. The RPV is contained within the Reactor Compartment (RC) and since it is held behind the same internal safety barriers as when the submarine was operational, it is safe to be stored afloat.

To date, 16 nuclear-powered submarines have left naval service and are stored safely afloat. Seven are at Rosyth; the remaining nine submarines are stored at Devonport, five of which await defueling. Whilst afloat storage has proved to be a very safe arrangement for over 30 years, it does not fulfil MOD or wider Government long-term nuclear decommissioning policies, which require that nuclear decommissioning and disposal operations should be carried out *as soon as reasonably practicable*. Additionally, afloat storage capacity at Devonport is expected to run out around 2020, and the cost of maintaining the redundant submarines is increasing significantly as they age and the number of submarines in afloat storage increases. As such, the current situation is not sustainable.

3. What is the Submarine Dismantling Project about?

Project ISOLUS (Interim Storage of Laid-Up Submarines) was set up in 2000 to develop and implement a safe, environmentally responsible, secure and cost-effective way of dismantling and disposing of the UK's 27 redundant and defueled nuclear submarines, of past and current classes[5], as a more sustainable alternative to continued afloat storage. In 2009, the project was renamed the Submarine Dismantling Project (SDP) to better reflect the nature of its objectives.

The SDP extends over an estimated 60-year period and involves dismantling the defueled submarines, reusing or recycling as much of the resulting non-radioactive material as practicable, and storing the residual Intermediate-Level Radioactive Waste (ILW) until the proposed Geological Disposal Facility (GDF) becomes available at some point beyond 2040 (see http://www.nda.gov.uk/aboutus/geological-disposal and http://mrws.decc.gov.uk/ for more details).

[5] (6x 'Superb' Class; 7x 'Trafalgar' Class; 2x 'Valiant' Class; 3x 'Churchill' Class; HMS Dreadnought; 4x 'Resolution' Class; 4x 'Vanguard' Class). The scope of the SDP *does not* include disposal of ASTUTE class or successor to the Vanguard Class submarines, although facilities will retain the flexibility to accommodate future classes of submarines where possible.

Low-Level Radioactive Waste (LLW) already has an established disposal route to the UK National LLW Repository in Cumbria, and there will be no high-level waste to manage, since the fuel will already have been removed. Both dismantling and ILW storage are likely to require specialist facilities to be developed (and eventually decommissioned). However, it will be possible to dismantle the non-radiological front and rear parts of the submarine at a commercial ship-breaking facility elsewhere in the UK. **Figure 1** explains the stages of the SDP.

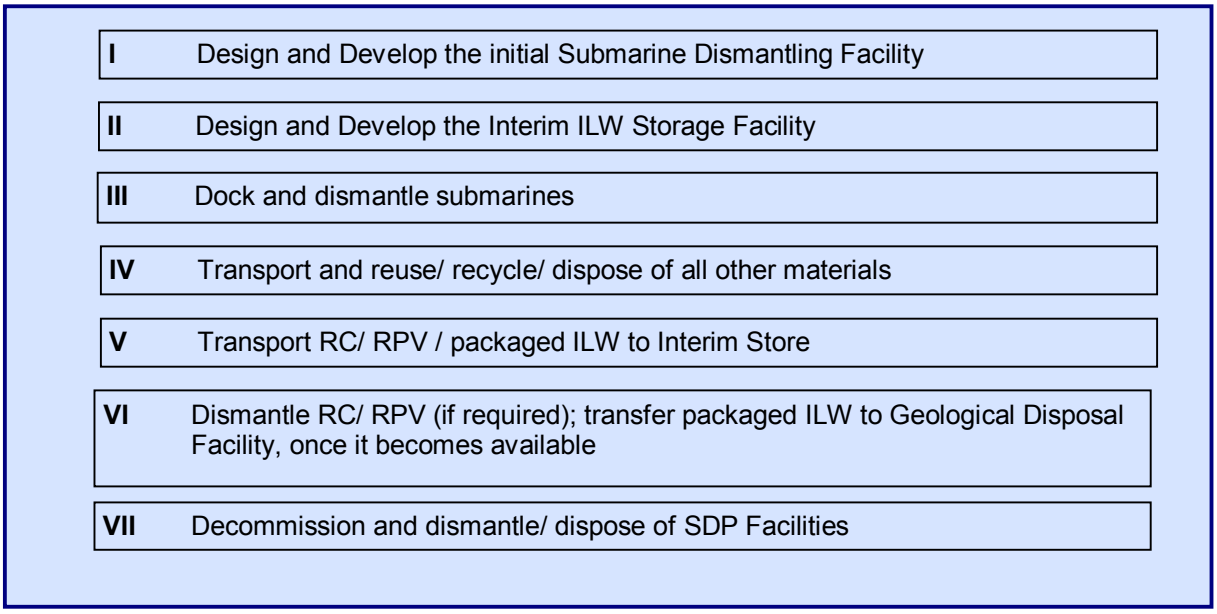


Figure 1 Key Stages and Activities of the SDP Programme

The key underpinning principles of the SDP are that:

- afloat storage is not a reasonable long term option, due to both MOD and wider Government decommissioning policies, together with storage capacity constraints;
- the UK's redundant submarines cannot be dismantled or disposed of abroad, for defence and security reasons;
- all submarines will already have been defueled before they undergo dismantling;
- the GDF is not expected to be available until at least 2040, necessitating the development of interim ILW storage;
- a dockyard with sufficient depth of water will be required to dock and dismantle the submarines;
- all dismantling activity on the reactor compartment must take place at a site that holds an appropriate nuclear licence and/ or authorisation (whether this is at a new or an existing facility);
- most of the radiological work involved in dismantling (e.g. work involving radioactive materials) is already established practice in submarine refits and civil reactor decommissioning, so there will be very few new technical procedures involved;
- the non-radiological front and rear parts of the submarine (which form the bulk of each vessel), do not have to be dismantled at a nuclear Licensed or Authorised site, so could potentially be handled at a commercial ship breaking facility;

- where feasible, non-radiological materials from dismantling will be re-used or recycled (rather than be disposed of);
- if the Reactor Compartment is to be stored intact, the interim ILW store will be restricted to a coastal / near-coastal site, due to transport restrictions. Storage of RPV or fully-packaged waste could, however, be more flexibly located;
- the principles of legal compliance, adopting industry good practice, openness and transparency will be fully applied to the project; further public consultation will be undertaken before any major decisions are made.

4. Public Consultation on the SDP

Two public consultations on the project have been held to date (in 2002 and 2003). An independent advisory group also provides ongoing advice and guidance. See www.submarinedismantling.co.uk for more information.

A key recommendation of these consultation processes was that MOD's management of its radioactive waste should fit with the recommendations made by the independent Committee on Radioactive Waste Management (CoRWM), set up by the Government in November 2003 to recommend a strategy for the long-term management of the UK's legacy higher-activity solid radioactive waste. CoRWM recommended that a programme of robust, safe and secure interim storage of ILW would be required until a national disposal facility is established, which fits well with the strategic aims of the SDP.

The third public consultation, of which the SEA Environmental Report will be a part, will be conducted on the proposed implementation options for the SDP.

5. What Options are being Considered?

The SDP is a national project which consists of seven stages (**Figure 1**). Stages I and II (development of the dismantling and interim ILW storage facilities) involve finding suitable locations for both activities. Stage III involves determining the best initial dismantling option (e.g. the extent to which the Reactor Compartment is taken apart 'up front'). Stages IV-VII are 'process' stages, whereby proven industry practices will be used to achieve the desired outcome. The third public consultation will specifically be seeking people's views on various options for achieving Stages I-III:

A. Where should submarine dismantling activities be undertaken (Stage I)? *and*

B. Where should interim ILW storage facilities be developed (Stage II)?

The initial dismantling and interim storage facilities could be developed on 'green-field,' undeveloped sites; on 'brown-field,' previously developed sites (both of which would need to be Licensed for nuclear work), or on existing sites which are already Licensed or Authorised to undertake nuclear work. Since 'green-field' and 'brown-field' site types could potentially be anywhere in the UK, it is considered reasonable to include these generic options in the public consultation.

There are only a relatively small number (around 40) of 'existing' nuclear Licensed or Authorised sites in the UK, so it is reasonable to select those that fulfil the project's requirements, and undertake the SEA environmental assessment upon them. These project requirements are based on practicalities such as space, ownership and operations, and on the underpinning principles listed in Section 3. The process of identifying credible sites is ongoing, and will be undertaken in collaboration with other government departments and Statutory Bodies, to ensure that it is robust. The results will be made public via the SDP web-site, and explained fully in the public consultation.

The non-radiological front and rear sections of the submarine (which form the bulk of each vessel) do not need to be dismantled at a nuclear Licensed or Authorised site (although a suitably-licensed ship-breaking facility will be required). This gives the MOD the option of i) undertaking all the dismantling work at the selected nuclear Licensed/ Authorised site; or ii) undertaking the nuclear work at this facility, and sending the remaining boat sections to a commercial ship-breaking facility elsewhere in the UK, which may present opportunities to maximise value for money. Defence and security reasons will prevent the submarines being dismantled abroad.

C. How should the submarines be dismantled (Stage III)?

The principal options at the present time are: Firstly, cutting out and storing the entire Reactor Compartment (the central 'slice' of the submarine), which is current practice in the USA, Russia and France; secondly, dismantling the RC but keeping the Reactor Pressure Vessel intact, or thirdly, fully dismantling the RC *in situ* and packaging the ILW into transportable containers, compatible with storage in the GDF. In all of these options, the reactor will have to be fully dismantled and packaged before the waste can be placed in the GDF, so the most significant difference between these options is when dismantling the RC and packaging the ILW will be carried out. Storing the RC or the RPV would mean deferring the full processing and packaging of ILW until the GDF becomes available.

6. What is the Proposed Scope of the SEA?

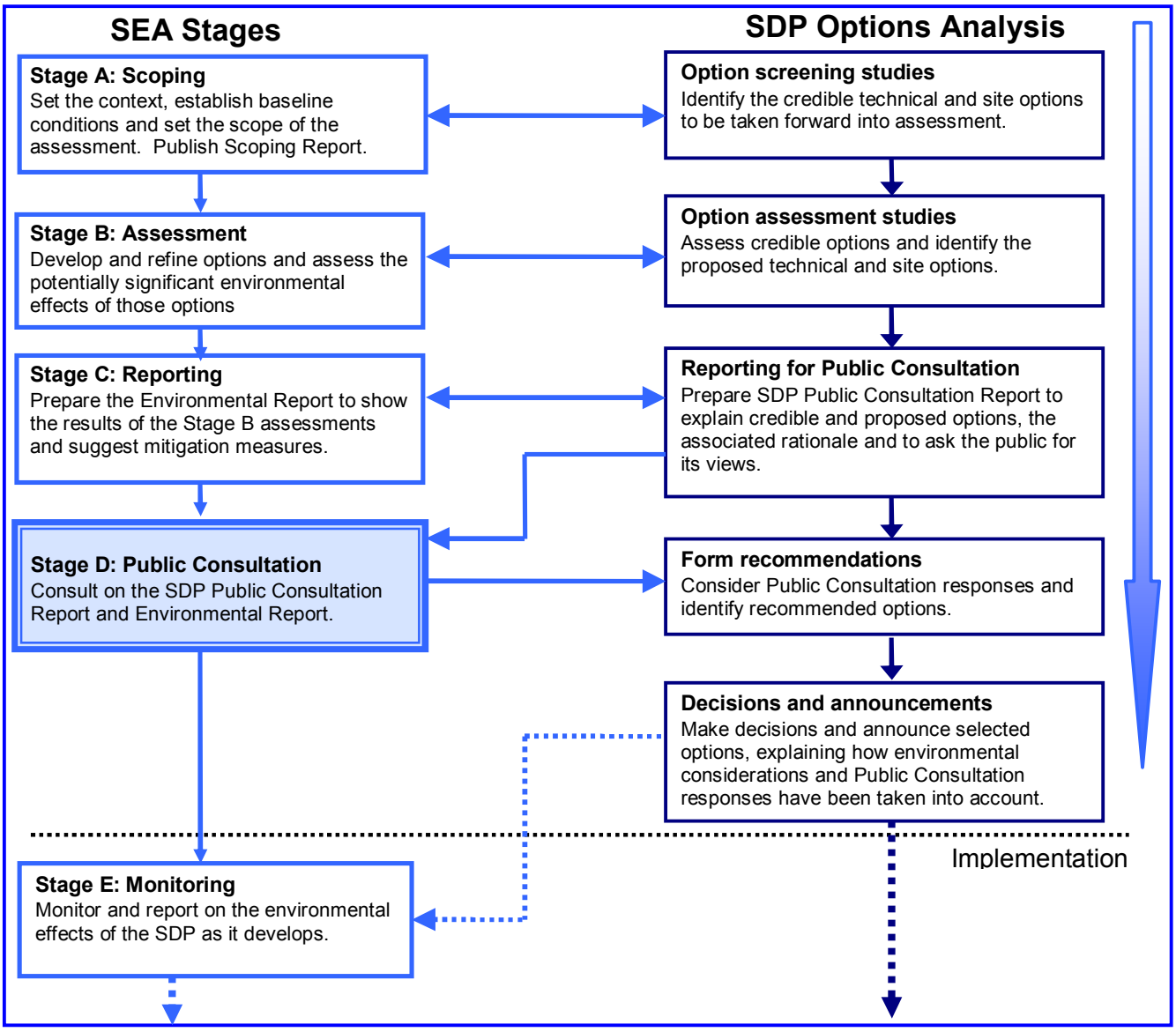
The MOD is proposing to do the following:-

- Firstly, to assess the generic environmental impacts that could arise at each stage of the SDP (Stages I to VII in **Figure 1**). This will include assessing the environmental impacts associated with the three different dismantling options, and with developing dismantling and / or storage facilities on 'green-field,' 'brown-field' or 'existing' UK nuclear-Licensed or Authorised sites.

- Secondly, to assess what the environmental impacts might be if SDP work takes place at any of the credible 'existing' Licensed or Authorised sites identified through the ongoing process mentioned above. Assessing individual candidate sites will clearly contain more detail than the generic assessments, since site-specific information will be available. However, SEA is not meant to be a detailed assessment of individual options, so the findings will remain relatively high-level. In addition, the inclusion of individual 'existing' sites does not mean that these are the only ones under consideration within the SEA; each feasible option (including the generic 'green-field' and

'brown-field' options) will be considered on an equal basis. This is explained further in **Figure 2** and **Table 1**.

Figure 2 Overview of the SEA Process within the SDP.



- Whichever site(s) are finally chosen, further site-specific environmental assessments will be needed before any development can take place. MOD expects that these will include (but not be

limited to) Town & Country Planning Environmental Impact Assessment, Environmental Impact Assessment for Nuclear Decommissioning and Environmental Permitting[6].

7. What is in the Scoping Report?

The Scoping Report forms the first formal stage (Stage A) of the SEA process and sets out the following information:

- An introduction to the SDP;
- the generic options for dismantling the submarines and managing the resulting waste streams until the Geological Disposal Facility becomes available;
- a description of the current and future state of the UK environment (the 'baseline conditions'), making particular reference to any existing environmental problems that the project could have an impact upon;
- a list of relevant plans, programmes and strategies at International and National level, to indicate how the SDP could be affected by outside factors (such as waste or climate change strategies);
- to identify relevant environmental protection objectives which will need to be taken into account during the SDP's preparation;
- the proposed SEA objectives and assessment questions, by which the environmental performance of the SDP and alternatives can be assessed (these are included in this NTS);
- a top-line assessment of the potentially significant effects of the SDP; and
- the proposed content of the Environmental Report.

The MOD will be asking UK Statutory Consultees (listed in **Box 1**) whether they agree with the information in the report or have anything to add.

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[6] The Town & Country Planning (Environmental Impact Assessment) (Amendment) (England) Regulations 2008, plus devolved equivalents; the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999; and the Environmental Permitting Regulations 2010

Table 1 Types of Assessment Proposed for Each Stage of the SDP

Key Stages of the Submarine Dismantling Project	Proposed Generi- Level SEA Assessment for the SDP's strategic options	Proposed Site-Level SEA Assessment for the SDP's strategic options
Stage I: Develop the initial dismantling facility on an undeveloped 'green-field' site, a developed 'brown-field' site or an 'existing' Licensed or Authorised nuclear site	Assessment of each generic site category	Following assessment of each generic site category, assessment(s) of each credible 'existing' Licensed/ Authorised initial dismantling site
Stage II: Develop of the interim storage facility for the reactor compartment, reactor pressure vessel or packaged ILW on an undeveloped 'green-field' site, a developed 'brown-field' site or an existing Licensed or Authorised nuclear site	Assessment of each generic site category	Following assessment of each generic site category, assessment(s) of each credible 'existing' Licensed/ Authorised interim storage site
Stage III: Dock and dismantle submarines	Generic assessment of each technical option	N/A
Stage IV: Reuse/ recycle/ dispose all materials except ILW	Generic assessment of the processes	N/A
Stage V: Transport ILW to the interim storage facility	Generic assessment of the process	Consideration of site-specific issues where relevant
Stage VI: Dismantle RC/ RPV (if required); transfer packaged ILW to Geological Disposal Facility (ca. 2040) on)	Generic assessment of the process	N/A
Stage VII: Decommission and dismantle/ dispose of SDP facilities once all submarines have been disposed of	Generic assessment of the process	N/A

8. What Environmental Issues are Relevant for the SDP?

The SEA Directive requires that the existing environmental issues which are relevant to the plan or programme are identified at scoping stage. These have been identified by reviewing the plans and programmes and assessing the baseline information, and are summarised in **Table 2** below. They are not exhaustive and are not presented in any order of priority.

Table 2 Key Environmental Issues for the SDP

Biodiversity and Nature Conservation: Consideration will be given to the potential effects of the SDP proposals on the natural environment, including fisheries and areas protected for their wildlife and conservation importance.
Population: Consideration will be given to the potential effects of SDP proposals on local communities, including socio-economic impacts and the extent to which proposals present opportunities for community benefit, e.g. through skills development. *(Note that assessment of economic effects is not an environmental issue and is not required by SEA, but has been included to reflect the importance of these issues to the wider public).*
Human Health and Wellbeing: The potential effects of SDP proposals on peoples health and on health service provision will be assessed. This will include issues related to radiological work.
Human Health (Noise): The potential noise-related impacts of the SDP options will be assessed, particularly on sensitive receptors such as people and wildlife.
Soil and Geology: Consideration will be given to potential effects of the SDP proposals on soil extent, variety and quality (including land contamination and the potential for disturbing historic contamination) and on protected/ important geological features. The effects of land instability and coastal erosion will also be assessed.
Water: Consideration will be given to the potential effects of SDP proposals on surface waters, groundwater systems and the marine environment, including flood risk and the effects of Licensed and unplanned discharges to water.
Air: Consideration will be given to the potential effects of the SDP on air quality, including the effects of Licensed and unplanned discharges to the atmosphere.
Climate Change and Energy Use: Consideration will be given to the likely impacts of climate change, such as sea level rise and increased flood risk on the SDP. The SEA will also assess the potential effects of the SDP itself on energy use and greenhouse gas emissions.
Material Assets (Transport): The SDP will necessarily involve dismantled components and materials being transported off-site. Consideration will be given to the potential effects of transporting oversized, hazardous and/ or radioactive materials on existing transport systems and infrastructure, particularly through urban and other sensitive areas.
Material Assets (Waste Management): The SDP is essentially a waste management programme. Consideration will be given to potential waste volumes and the effects this may have on current waste management infrastructure and the market for recycled materials. The extent to which the SDP proposals represent good practice (e.g. reduce, re-use, recycle, dispose) and overcome existing challenges will also be assessed.
Material Assets (Materials and Land Use): The SDP will involve the development of new or upgraded facilities. Consideration will be given to the potential effects of the SDP proposals on land use, on the use of finite resources such as minerals, and on the quality and environmental performance of buildings and facilities.
Cultural Heritage: Consideration will be given to the potential effects of the SDP proposals on the historic environment, including cultural heritage resources, historic buildings and archaeological features.
Landscape and Townscape: Consideration will be given to the potential effects of the SDP proposals on the quality and attractiveness of landscapes and townscapes, as well as on public access to open spaces.

9. What are the Proposed SEA Objectives and Guide Questions?

The review of international and national plans, programmes and environmental protection objectives, analysis of the baseline evidence and the assessment of the relevant environmental issues for the SDP (above) have been used to establish a number of SEA Objectives - essentially guiding principles for sustainable development - which the project should seek to accommodate. For each objective, guideline questions will be used to assess the environmental performance of the different project options. Suggested objectives and guide questions are shown in **Table 3** below. This is one of the areas on which we are seeking feed-back from consultees.

Table 3 Proposed SEA Objectives and Assessment Questions

Assessment Category & Overall Objective	Proposed Assessment Questions *Will the SDP Proposals…*
A. Biodiversity and Nature Conservation Protect and enhance habitats, species and ecosystems.	Affect animals or plants, including protected species? Affect important conservation sites? Affect the structure and function of natural systems (ecosystems)? Affect public access to areas of wildlife interest? Have an impact on fishery resources?
B. Population Promote a strong, diverse and stable economy with opportunities for all; minimise disturbance to local communities and maximise positive social impacts.	Affect social infrastructure and amenities available to local communities? Change local population demographics and/ or levels of deprivation? Affect opportunities for investment, education and skills development? Affect the number or types of jobs available in local economies? Affect how diverse and robust local economies are? Affect property values in the surrounding area? Affect the sense of positive self-image and the attractiveness of surrounding areas as places to live, work and invest in?
C. Health & Wellbeing Protect and enhance health, safety and wellbeing of workers and communities; minimise any health risks associated with processing submarines.	Affect the health or safety of SDP workers, or other people working at the proposed sites? Affect the health, safety and well-being of local communities? Affect local healthcare infrastructure and provision?
D. Health (Noise & Vibration) Minimise disturbance and stress to people, wildlife and historic buildings caused by noise and vibration.	Result in significant changes in noise and vibration sources or levels? Affect noise and vibration levels to sensitive receptors (e.g. people, wildlife and historic buildings)?

Assessment Category & Overall Objective	Proposed Assessment Questions *Will the SDP Proposals…*
E. Geology and Soils Minimise threats to the extent and quality of soils and geological resources.	Have an effect on soil quality, extent and/ or density? Have an effect on contamination levels? Affect geological conservation sites and important geological features? Affect land stability? Affect coastal processes and/ or erosion?
F. Water Maximise water efficiency, protect and enhance water quality and minimise flood risk.	Affect demand for water resources? Affect the amount of waste water and surface run-off produced? Cause any changes in radioactive or other hazardous discharges to water? Affect the quality of groundwater, surface waters or sea water? Affect the distribution and quality of freshwater or marine sediments? Affect existing flood risks? Be significantly affected by flooding from any source?
H. Climate Change and Energy Use Reduce energy consumption, minimise detrimental effects on the climate from greenhouse gases and maximise resilience to climate change.	Create a change in the amount of carbon dioxide and other greenhouse gases emitted? Be significantly affected by climate change (for example rising sea levels and more extreme weather events)? Affect how climate change might impact on the wider environment? Promote or impede the use of energy efficiency measures, low carbon and/ or renewable energy sources? Have wider implications for the mitigation of climate risks?
I. Material Assets (Transport) Minimise the detrimental impacts of travel and transport on communities and the environment, whilst maximising positive effects.	Affect the number and frequency of heavy, oversized, radioactive and/ or hazardous loads being transported off-site, particularly through population centres and other sensitive receptors? Increase or decrease traffic congestion around SDP sites? Increase or decrease accident risks around SDP sites?
J. Material Assets (Waste Management) Minimise waste arisings, promote reuse, recovery and recycling and minimise the impact of wastes on the environment and communities.	Increase the amount of radioactive waste to be disposed of? Affect the amount of hazardous waste to be disposed of? Affect the amount of non-hazardous wastes produced? Affect the capacity of existing waste management systems, both nationally and locally? Maximise re-use and recycling of recovered components and materials? Help achieve government and national targets for minimising, recovering and recycling waste? Affect the environmental risks associated with managing radioactive and hazardous wastes?

Assessment Category & Overall Objective	Proposed Assessment Questions *Will the SDP Proposals…*
K. Land Use and Materials Contribute to the sustainable use of land and natural and material assets	Change patterns of land use on or around SDP sites? Affect any existing or proposed redevelopment/ regeneration programmes? Lead to the loss of undeveloped land or green spaces? Increase the burden on limited natural resources such as aggregates or wood? Promote the use of sustainable design and construction practices and help the government achieve its targets for the built environment?
L. Cultural Heritage Protect and where appropriate enhance the historic environment including cultural heritage resources, historic buildings and archaeological features.	Affect designated or locally-important archaeological features? Affect the fabric and setting of historic buildings, places or spaces that contribute to local distinctiveness, character and appearances?
M. Landscape and Townscape Protect and enhance landscape and townscape quality and visual amenity	Have significant visual impacts (including those at night)? Affect protected/ designated landscapes or townscapes, such as National Parks or Conservation Areas? Affect the intrinsic character of local landscapes or townscapes? Affect public access to open spaces or the countryside?

10. How will the Assessments be Undertaken?

For each of the options within the SDP (shown in **Figure 1** and **Table 1**), assessment will be undertaken using an SEA matrix which has been developed by the MOD to meet the SEA's statutory requirements. The matrix is shown in **Table 4.** This will enable both the nature and magnitude of the environmental effects to be recorded. Specific elements to be included within the assessment will include:

- The potential environmental effects of each SDP option.
- The mitigation measures that might be used to reduce potentially significant negative effects and enhance potentially positive effects.
- The assumptions and uncertainties that underpin the assessment.
- The additional information that would be required to address any uncertainties and to undertake more detailed site-specific assessment.
- The timescales over which the potential effects are likely to occur. For the Submarine Disposal Programme, the proposed definitions of timescale are: Short term = up to 5 years after each activity begins; medium term = 5 years to the end of the activity; long term = after the activity has ceased.

Symbols and colour coding will also be used to indicate significant (positive or negative) impacts.

Table 4 **EXAMPLE Assessment Matrix for each SDP Option**

Assessment Category and Objective	Likely Effects (including direct , indirect, cumulative and synergistic effects, and possible mitigation measures)	Timescale		
		Short-Term	Medium-Term	Long-Term
A. Biodiversity and Nature Conservation: Protect and enhance habitats, species and ecosystem functionality.	A description of the biodiversity and nature conservation effects of each option will be provided here, with reasoning and justification included…	-	0	0
B. Population: Promote a strong, diverse and stable economy with opportunities for all, minimise disturbance to local communities and maximise positive social impacts.	A description of the population effects of each option will be provided here…	++	+	0
C. Health, Safety and Wellbeing Protect and enhance health, safety and wellbeing of communities and minimise potential risk associated with processing radioactive and non-radioactive materials.	A description of the health and wellbeing effects of each option will be provided here…	0	0	+
….etc				

++ Strongly positive effect	+ Positive effect	0 No significant effects	- Negative effect	- - Strongly negative effect

11. What are the Next Steps of the SEA Process?

This Non-Technical Summary and the accompanying Scoping Report has been provided to the UK's Statutory Consultation Bodies for comment. Input has also been invited from relevant Government Departments and Agencies, and the UK's Devolved Administrations. The proposed approach is as follows:-

1) Comments from Scoping Consultees will be invited during a standard five week consultation period, starting on the date the Scoping Report is received. Comments and responses received during that period will be considered and used to refine the scope of the assessment.

2) The environmental categories (once agreed upon) will be used to help identify the credible 'existing' Licensed or Authorised sites, as part of the wider site selection process. Once this indicative site list has been generated, the SEA Scoping Report will be updated to include these sites and relevant environmental information about them. The updated report will then be re-issued for a further statutory consultation. In both cases, the comments received (and MOD's response to them) will be made public.

3) The environmental assessments will then take place on the strategic options for the SDP, including an assessment of ‘green-field,’ ‘brown-field’ and the credible ‘existing’ Licensed or Authorised sites.

The Environmental Report will form part of the consultation materials for the third national public consultation on the SDP. The public consultation will seek the views of those interested in the SDP proposals. It will be a national consultation, although specific events will take place in the areas around credible sites. The views and representations received during the public consultation will be published once the consultation has ended, with MOD’s initial response to them. Whilst it may not be possible for all comments and suggestions to be accepted, MOD will take all feedback fully into account before any final decisions are made, and will make those decisions and justifications public.

Abbreviations and Glossary

Authorisation	Authorisations allow specific defence-related nuclear activity to take place at a specific site. Such 'Authorised' sites are not subject to the Nuclear Installations Act (unlike civil nuclear sites) and so activities are not formally 'Licensed.' Instead, Authorisations are granted by the Defence Nuclear Safety Regulator.
'Brown-field' land	This term refers to land which is, or has preciously, been previously been built upon or otherwise developed.
CoRWM	Committee on Radioactive Waste Management This independent committee provides scrutiny and advice to Government on the long term management of radioactive waste, including storage and disposal. See http://www.corwm.org.uk/default.aspx
'Cut Out'	This term refers to the technical option of cutting out the complete Reactor Compartment, thus separating it from the rest of the submarine. The RC is then stored intact.
'Cut Up'	This term refers to the technical option of cutting up the Reactor Compartment and the items within it to reduce their size, so that the radioactive waste can be packaged in appropriate containers for storage, transport and ultimate disposal.
GDF	Geological Disposal Facility This is the government's proposed long-term, below-ground facility for disposing of the UK's higher-level nuclear waste. The GDF has yet to be built. See http://mrws.decc.gov.uk/en/mrws/cms/home/What_is_geolog/What_is_geolog.aspx for more details.
'Green-field' land	This term refers to land that has not previously been developed, such as farmland. On such land, there would be no existing buildings, docks or other resources needed to undertake submarine dismantling or store ILW.
ISOLUS	Interim Storage of Laid-Up Submarines This is the former name of the Submarine Dismantling Project.
ILW	Intermediate-Level Waste This is radioactive waste with a radiological activity above 4 Giga Becquerels (GBq) per tonne of alpha or 12 GBq/tonne of beta-gamma decay, but which does not generate sufficient levels of heat to require it to be cooled during storage. The major components of ILW from submarines are metals and organic materials, with smaller quantities of cement, graphite and ceramics.
Licence	A nuclear Licence allows specific nuclear activities to take place at a specific site. Such 'Licensed' sites are subject to the Nuclear Installations Act (1965), with Authorisations being granted by the Nuclear Installations Inspectorate. Nuclear power stations and other civil activities are Licensed in this way.
LLW	Low-Level Waste This is defined as radioactive waste that has below 4 Gbq per tonne of alpha activity and below 12 GBq per tonne of beta-gamma activity. It covers a variety of materials which arise principally as lightly contaminated miscellaneous scrap and redundant equipment.

MRWS	Managing Radioactive Waste Safely This is the UK Government's published approach to managing the nation's radioactive wastes, irrespective of where they come from and their level of activity. The SDP will adhere to this approach.
RPV	Reactor Pressure Vessel This is the heart of the nuclear reactor that, prior to defueling, contains the uranium fuel. It is located in the Reactor Compartment (RC).
NDA	Nuclear Decommissioning Authority This government agency is responsible for (among others) developing the UK's nuclear low-level waste strategy and plans, and managing the long-term arrangements for the UK's higher-level radioactive waste.
RC	Reactor Compartment. This is the central 'slice' of the submarine which contains the nuclear reactor (housed within the Reactor Pressure Vessel) and associated pipe-work.
Repository	A permanent disposal facility for radioactive wastes.
SDP	Submarine Dismantling Project www.submarinedismantling.co.uk
SEA	Strategic Environmental Assessment

Defence Equipment and Support

Submarine Dismantling Project - Strategic Environmental Assessment

Scoping Report

June 2010

Defence Equipment & Support

MINISTRY OF DEFENCE

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Report for

In-Service Submarines
Defence Equipment and Support
Ministry of Defence

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Defence Equipment and Support

Submarine Dismantling Project

Strategic Environmental Assessment Scoping Report

June 2010

Prepared by Entec UK Limited and Defence Estates for Defence Equipment and Support, Ministry of Defence.

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1. Introduction

1.1 Context

Project ISOLUS (Interim Storage Of Laid-Up Submarines) was established in 2000 to define, develop, procure and implement a timely solution for the dismantling, disposal and/or re-cycling of the UK's de-fuelled nuclear submarines at the end of their life. The project, which extends over a 60 year period, encompasses the provision of facilities, personnel and processes to dismantle the 27 de-fuelled nuclear submarines (of past and current classes). This entails:

- reducing the submarines to achieve intermediate-level and low-level radioactive waste streams, non-radioactive waste streams and recyclable/ re-useable materials;
- providing interim storage on land for the resultant intermediate level waste (ILW) until at least 2040 (pending the availability of the proposed Geological Disposal Facility (GDF)); and
- the eventual decommissioning of the dismantling and storage facilities used in this process.

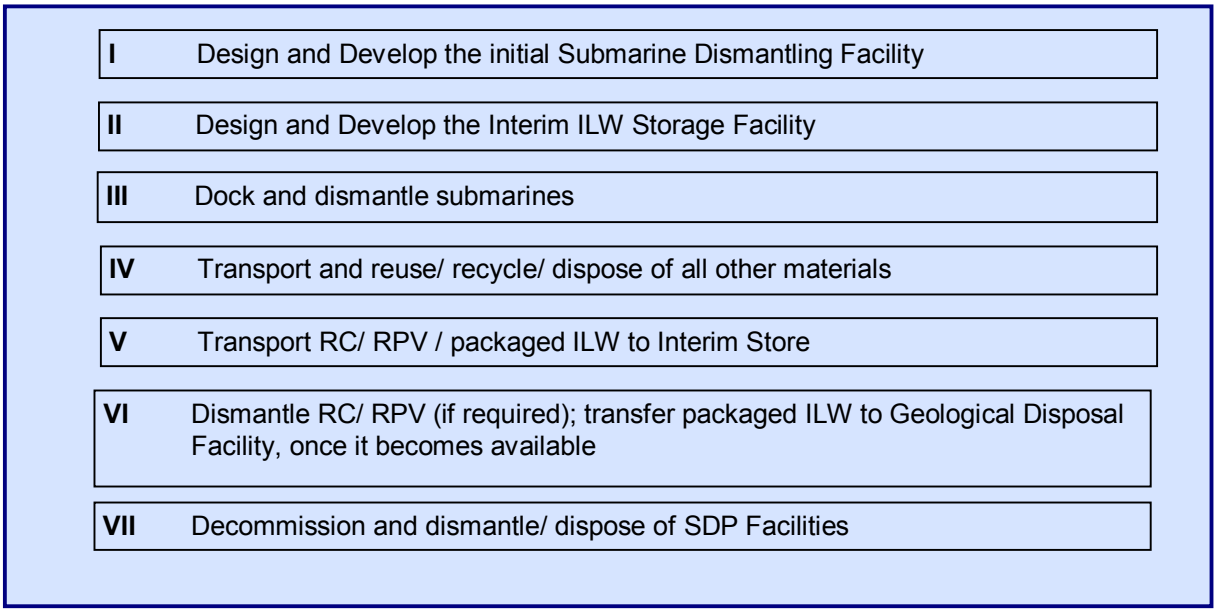
In May 2009, project ISOLUS was formally renamed the Submarine Dismantling Project (SDP) to more accurately reflect the scope of work.

Recognising the importance that public acceptability would play in the development of any solution, Ministerial commitments were made that public consultation would be undertaken before any major decisions are taken. Two Public Consultations on the project have been held to date, carried out by independent researchers at the Centre for the Study of Environmental Change at Lancaster University (see www.submarinedismantling.co.uk for further information).

The third Public Consultation will be conducted in due course on the proposed options for the SDP. The Strategic Environmental Assessment (SEA) Environmental Report will be available for this consultation and will inform the project as a whole, with assessments being undertaken of the key stages of the project (see (**Figure 1.1**). These stages will include:

- the location, development and operation of the initial submarine dismantling facilities;
- the location, development and operation of the interim ILW storage facilities;
- the technical options for submarine dismantling;
- the processing-related operations including, transport and waste management of wastes, including ILW, Low Level Waste (LLW), hazardous and inert materials;
- the eventual decommissioning of dismantling and storage facilities.

Figure 1.1 Key Stages and Activities of the SDP



The SEA assessment will firstly assess the likely significant environmental effects (including short and long term direct, indirect and cumulative effects) associated with each of the above stages, at a generic/ strategic level. It will then provide consideration of the potentially significant environmental impacts at those existing Licensed or Authorised sites which have been identified as being credible candidates to undertake SDP activity. The assessments will be particularly useful in illustrating the key potential environmental impacts arising from implementing the reasonable alternatives for each of these stages to help inform the consultation process.

The third Public Consultation, of which the SEA will be a part, will then inform decisions about the dismantling process, the dismantling site and the interim storage site for ILW arisings (required because the proposed Geological Disposal Facility which will eventually house the ILW is not expected to be available to the MOD until *at least* 2040.)

This assessment is strategic in nature. Whilst it will consider of a range of potential sites for dismantling and interim storage, it does not constitute a detailed site-level assessment. Following decisions on the proposed options for locating the dismantling and storage sites, detailed site-specific issues will be addressed through the consenting process for individual developments. This will include Environmental Impact Assessments associated with Town & Country Planning and nuclear decommissioning, Environmental Permitting, and/ or Habitats Regulation Assessment, as appropriate. The practices involved in the SDP may also be subject to the separate process of justification under the Justification of Practices Involving Ionising Radiation Regulations 2004.

Although the strict applicability of the SEA Regulations to the SDP remains unclear, the MOD will undertake an environmental assessment incorporating the requirements of the SEA Directive on the SDP proposals, as this is considered to be good practice. This precautionary position will help ensure that potential environmental implications of the proposals are assessed up-front and hence available to

inform the decision making process. The approach will follow both MOD[1] and wider government[2] guidance.

1.2 Purpose of this Report

This generic Scoping Report is the first formal output of the SEA process. The purpose of this report is:

- to set out our proposed approach for the preparation of the Environmental Report; and
- to provide the SEA scoping consultation bodies with sufficient information to enable them to comment on the information which, in their view, should be included in the Environmental Report, to ensure that the scope and detail of the SEA are appropriate and comply with the relevant statutory requirements[3].

The SEA scoping bodies comprise the Statutory Consultees referred to in the SEA Regulations and include representatives from England, Scotland, Wales and Northern Ireland. MOD also intends to consult with other relevant Government Departments and agencies, including (but not limited to) the Department of Health, DWP, DEFRA, DECC, DCLG and the UK Nuclear Decommissioning Authority. Comments from those bodies will be invited during a five week consultation period from the date on which the bodies receive the draft Scoping Report. We will also place the Scoping Report and Non-Technical Summary on the internet, via (www.submarinedismantling.org.uk), and will consider comments from the public and any interested parties who respond within the five week consultation period. Responses received will inform the final version of the generic Scoping Report.

This generic Scoping Report will then be updated to include relevant information on individual sites which have been assessed as being potentially feasible for SDP activities. This update will be consulted upon in the same manner. Together, this information (this generic report and the site-specific update) will set the scope and level of detail of the information to be included in the SEA assessment and the subsequent Environmental Report, which will identify, describe and evaluate the likely significant effects on the environment of implementing the SDP options (which constitute the 'reasonable alternatives' under the Directive.)

The SEA Environmental Report will be published for public consultation at the same time as the draft SDP proposals, as part of the third SDP public consultation exercise.

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[1] The Environmental and Sustainability Appraisal Tool Handbook (Chapter Two: SEA) MOD, 2006. http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/DefenceEstateandEnvironmentPublications/DefenceEstates/SustainabiltyAndEnvironmentalAppraisalToolHandbook.htm

[2] A Practical Guide to the Strategic Environmental Assessment Directive. ODPM (now the Department for Communities and Local Government), 2006. http://www.communities.gov.uk/publications/planningandbuilding/practicalguidesea).

[3] Directive 2001/42/EC on the assessment of certain plans and programmes on the Environment, enacted through the Environmental Assessment of Plans and Programmes Regulations 2004.

1.3 The Requirements for SEA

SEA became a statutory requirement following the adoption of the European Union's Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment. This was transposed into UK legislation on the 20 July 2004 as *Statutory Instrument No.1633 - The Environmental Assessment of Plans and Programmes Regulations 2004*. The objective of the SEA Directive is:

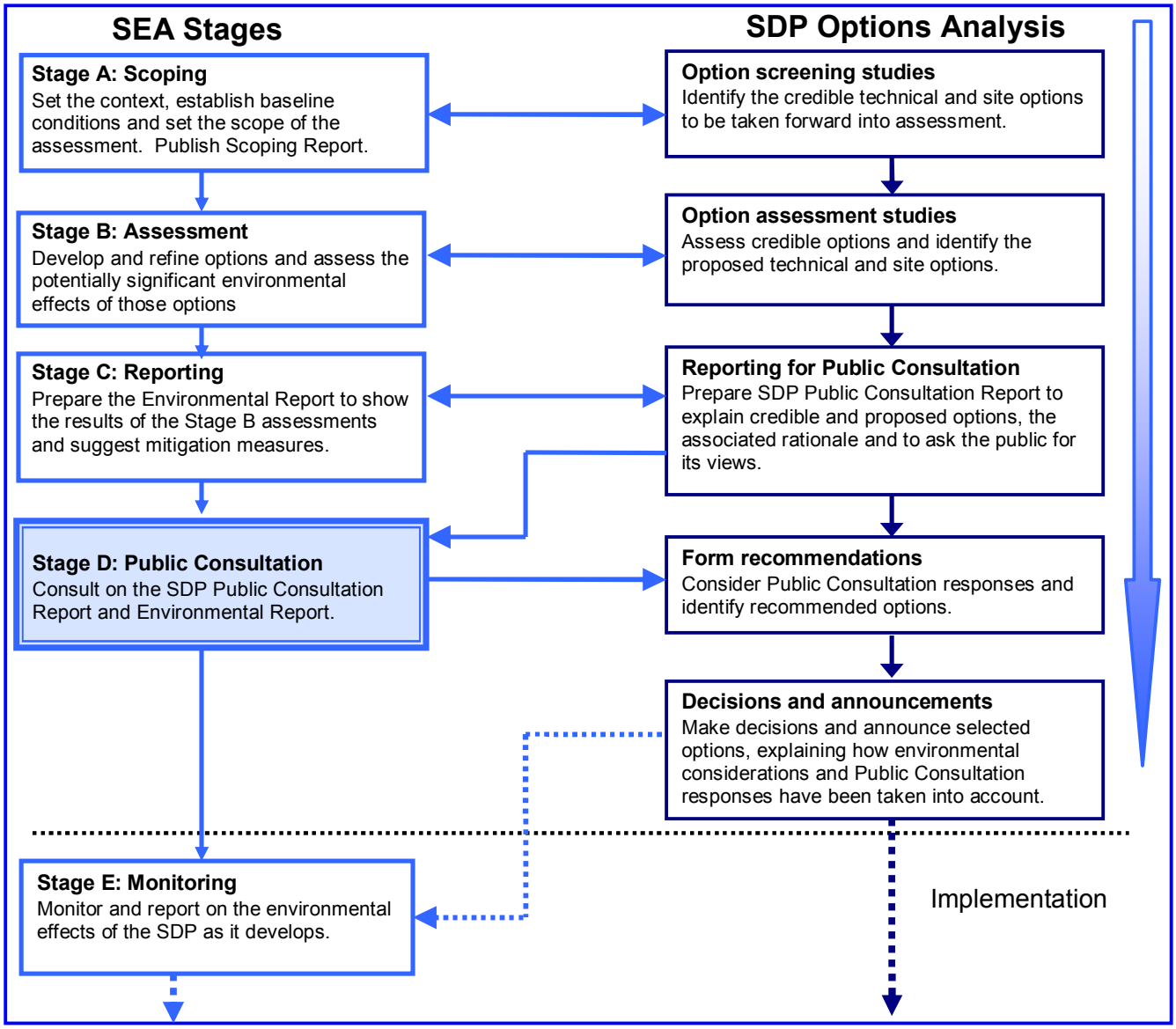
> '*To provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to contributing to sustainable development*'.

Throughout the course of the development of a plan or programme, the aim of the SEA is to identify the associated environmental effects of implementing the plan or programme and to propose measures to avoid, manage or mitigate any significant adverse effects and to enhance any beneficial effects. The main requirements and stages of the SEA are:

- determining the scope of the assessment and agreeing the proposed approach to assessment with Scoping Consultees (Stage A);
- assessing the likely direct, indirect and cumulative effects of the proposed SDP strategic options (Stage B);
- recording those effects in an SEA Environmental Report (Stage C);
- undertaking a consultation exercise on the SEA Environmental Report and the SDP proposals (Stage D);
- integrating the SEA findings into the final decisions on how to proceed with SDP (Stage D);
- informing the public about that decision and the extent to which the SEA and consultation findings have been taken into account (Stage D); and
- undertaking periodic monitoring of the associated impacts of the selected options (Stage E).

These stages (and the resulting outputs) are set out in **Figure 1.2**.

Figure 1.2 Overview of the SEA Process within the context of the SDP



Note: These stages are based on guidance in '*A Practical Guide to the Strategic Environmental Assessment Directive'*, ODPM (2005) and '*The Environmental and Sustainability Appraisal Tool Handbook for the MOD Estate (Volume Two: SEA)', MOD (2006).*

The following activities have been undertaken to complete Stage A and produce this Scoping Report (in line with the ODPM and MOD guidance):

- **Identifying other relevant plans and programmes**: A review has been undertaken of international, European and national level plans and programmes, to establish how the SDP could be affected by outside factors, and to help identify any relevant environmental protection objectives which need to be taken into account during the SDP's preparation.

- **Collecting baseline information**: Information from a range of sources (such as Defra, the Environment Agency, the Joint Nature Conservancy Council and the Office of National Statistics) provides an analysis of the current baseline environmental conditions and an indication of their likely evolution following a 'business as usual' scenario. This will provide an evidence base for current environmental problems, prediction of effects and proposals for monitoring. It also helps in the development of SEA objectives.

- **Identifying environmental problems**: The baseline has been used to identify key environmental issues to help show where the SEA should be focussed.

- **Developing SEA objectives**: Objectives have been developed to provide a means by which the environmental performance of the SDP options can meaningfully be assessed.

The final element is to complete consultation with appropriate bodies to ensure that the SEA covers the likely significant environmental effects of the SDP.

Regulation 12 of the SEA Regulations concerns the appropriateness, scope and level of detail of the information that must be included in the Environmental Report. Schedule 2 of the Regulations (and Annex I of the Directive) provides more specific direction in this regard. This Scoping Report presents proposals for the scope and level of detail of this information for the consultation bodies to comment upon. Following the conclusion of scoping consultation, it is intended that the information in this report will be used in the Environmental Report.

1.4 Scope of the Assessment

The Submarine Dismantling Project represents (for the purposes of SEA) a national programme which consists of seven stages (see **Figure 1.1**). *Note however that the SDP is referred to throughout this report as a **project**, as this fits with the MOD's standard nomenclature.*

Stages I and II (development of dismantling and interim ILW storage facilities) are spatial in nature and involve a number of site options. Stage III (dismantling the reactor compartment) has a number of potential technical options. The generic environmental effects associated with all seven stages of the SDP will firstly be considered at Stage B of the SEA. Once the generic environmental assessment has been completed, this will inform (and be followed by) an assessment (at strategic level) of the environmental effects associated with feasible sites and technical options. A Scoping Report update will be produced for Statutory Consultees once the credible existing Licensed/ Authorised sites have been selected, to ensure that baseline conditions and relevant plans/ programmes and environmental protection objectives are accurate and robust.

1.5 Proposed Scope of the Environmental Effects to be Considered

The range of potential environmental effects to be considered by this assessment has been informed primarily by the SEA Directive and Regulations, using published government guidance[4]. Annex I of the SEA Directive requires that the assessment should include information on the "*likely significant effects on the environment, including on issues such as: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape; and the inter-relationship between the issues referred to*". In order to demonstrate consistency with the SEA Directive, these environmental categories have been used throughout this report, with further definition taken from the MOD Sustainability and Environmental Appraisal Tools Handbook (2006).

In the absence of detailed guidance on their content, a number of these environmental categories (population, human health and material assets) can be subject to varying interpretation. Within this report:

- 'Population' includes information on demographics and generic socio-economic issues;
- 'Human Health' includes information on mortality, illness and indices of perceived well-being; and
- 'Material Assets' includes information on transport, waste management, land use and materials.

This SEA is not intended to address wider socio-economic issues that are outside the scope of the Directive. Should the SEA indicate that socio-economic effects may be significant, further socio-economic impact assessment will be undertaken as appropriate. The wider public consultation (of which the SEA will be a part) will demonstrate the project logic using PESTLE analysis[5] to provide a comprehensive understanding of all the social, economic and environmental issues associated with the SDP and show how these wider issues of public interest have been taken into account to arrive at specific options.

It is acknowledged that it will be important to ensure that both studies are consistent, and that where appropriate, the SEA draws upon the PESTLE data to inform commentary on aspects of population, human health or material assets.

The SEA will include consideration of direct, indirect and synergistic issues necessary to meet the SEA requirements.

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[4] Office of the Deputy Prime Minister (2005). A Practical Guide to the Strategic Environmental Assessment Directive.

[5] PESTLE Analysis: Political, Environmental, Social, Technological, Legislative and Economic Assessment.

1.6 Presentation of the Information

To meet the SEA requirements, (and subsequently to be presented in the Environmental Report), information on the following is required:

- the current state of the environment and likely evolution without the implementation of the plan or programme;
- the environmental characteristics of areas likely to be significantly affected;
- any relevant existing environmental problems in terms of nature conservation; and
- the relationship to other relevant plans and programmes.

Section 3 presents national baseline information for the generic assessment (which includes the state of the environment, its evolution and any relevant environmental problems). **Section 4** and **Appendix C** present the information on relevant plans, programmes and environmental protection objectives. **Section 5** outlines the potentially significant effects that we propose to include in the Stage B assessment.

1.7 Scoping Report Structure

This Scoping Report is structured as follows:

NTS **Non Technical Summary:** This Section provides a summary of the Scoping Report, including information on both the SDP and the proposed approach to assessment.

Section 1 **Introduction:** This Section provides an introduction to the draft Scoping Report, including a summary of the SDP, an overview of proposed scope, report contents and an outline of how to respond to the consultation.

Section 2 **The Submarine Dismantling Project:** Outlines the SDP and the reasonable alternatives, consistent with the SDP objectives and geographic scope of the assessment.

Section 3 **Baseline Information:** Outlines how baseline conditions for the environmental categories required by the Directive will be taken into account. It includes a commentary on key existing environmental problems.

Section 4 **Other Plans and Programmes and Environmental Protection Objectives:** Outlines the relationship of the SDP with other plans or programmes and identifies those relevant environmental protection objectives which it could affect, or to which it could make a contribution.

Section 5 **Scoping of Potential Significant Effects:** Outlines the potential significant effects of the SDP proposals on the key aspects of the environment to provide an indication of the proposed scope of the assessment.

Section 6 **Assessment and Reporting:** Outlines the proposed SEA objectives and guide questions, the approach to cumulative effects assessment and reporting.

Section 7 **Summary and Next Steps:** Provides the conclusion of the draft Scoping Report and the next steps in the assessment process.

Annex A **Review of Baseline Information:** Presents in detail the national baseline conditions for the environmental categories required by the SEA Directive and their likely evolution in the event of the SDP not taking place.

Annex B **Plans and Programmes Review:** Presents in detail the relationship of the SDP with other international, European and national plans or programmes identified in Section 4.

Annex C **Abbreviations and Glossary**

Annex D **Quality Assurance Checklist**

As indicated, this scoping report presents proposals for the scope, and level of detail, of information that will be presented in the Environmental Report. To help readers understand how the structure and contents of this Scoping Report anticipate the specific requirements of the SEA legislation, **Table 1.1** sets how the information requirements are addressed in this report.

Table 1.1 SEA Information Requirements Addressed Within this SEA Scoping Report

SEA Information Requirements	Scoping Report Reference
Schedule 2 of the SEA Regulations (SI 2004 No. 1633) sets out the following information requirements:	***The following sections of this scoping report address the requirements of the SEA Regulations:***
1. An outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes.	This requirement is addressed in **Section 2, Section 4** and **Annex B** and will be further reported on in the SEA Environmental Report.
2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	This requirement is addressed in **Sections 3.1, 3.2** and **Annex A**; and will be further reported on in the SEA Environmental Report.
3. The environmental characteristics of areas likely to be significantly affected.	This requirement is addressed in **Section 3.1, 3.2** and **Annex A**; and will be further reported on in the SEA Environmental Report.
4. Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Council Directive 79/409/EEC on the conservation of wild birds[6] and Council Directive 92/43/EEC (the Habitats Directive[7]).	This requirement is addressed in **Section 3.3** and will be further reported on in the SEA Environmental Report as specific sites are formally identified. .

[6] Council Directive 79/409/EEC on the conservation of wild birds. The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended) and The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

SEA Information Requirements	Scoping Report Reference
5. The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	This requirement is addressed in **Section 4,**; and will be further reported on in the SEA Environmental Report.
6. The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, on issues such as: biodiversity; population; human health; fauna; flora; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape; and the inter-relationship between the issues referred to in sub-paragraphs (a) to (l).	A provisional indication of the likely effects of the SDP proposed options (which constitute the 'reasonable alternatives') has been provided in **Section 5** to provide direction as to the scope of the assessment against the 12 categories within the legislation. However, it is the purpose of Stage B of the SEA process to assess the potential effects of the SDP proposals and the reasonable alternatives. In consequence, more specific detail on the likely significant effects of the SDP will be provided in the SEA Environmental Report.
7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	It is not appropriate to consider this requirement at this stage in the environmental assessment process. In many cases, effects will be so site specific that environmental measures and mitigations can only be meaningfully determined through the later tiers of environmental assessment such as Environmental Impact Assessment and Habitats Regulations Assessment. However in broad terms the 'mitigation hierarchy' will be applied where practicable and results reported in the SEA Environmental Report. Examples of these types of measure are included in **Section 6.2**.
8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	This requirement is addressed in **Section 2.2 and 2.3** and will be further reported on in the SEA Environmental Report.
9. A description of the measures envisaged concerning monitoring in accordance with regulation 17	It is not appropriate to consider this requirement at this stage in the environmental assessment process. In many cases effects will be so site specific that monitoring measures can only be meaningfully determined through the later tiers of environmental assessment such as Environmental Impact Assessment and Habitats Regulations Assessment. However where practicable monitoring regimes will be identified through the further SEA consultation and assessments, with results reported in the SEA Environmental Report.
10. A non-technical summary of the information provided under paragraphs 1 to 9.	A non-technical summary is provided at the start of this Scoping Report. A further Non-Technical Summary will accompany the SEA Environmental Report.

[7] Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). In the UK the Directive has been transposed into national laws by means of the Conservation (Natural Habitats, & c.) Regulations 1994 (as amended). The 'Habitats Regulations' apply to the UK land area and its territorial sea (to 12 nautical miles from the coast), and are supported by government policy guidance.

1.8 Consultation on Scoping

This generic Scoping Report is being sent to the UK Statutory Consultees identified under the SEA Regulations[8]. Other relevant central Government departments and agencies will also be invited to provide input.

For the purposes of this SEA, the Statutory and Non-Statutory Consultees shall be collectively referred to as the 'Scoping Consultees.' The Scoping Report and Non-Technical Summary will be posted on the SDP web-site at the beginning of the consultation period.

This generic Scoping Report will then be updated to include relevant information on the list of individual sites which the MOD considers to be potentially credible as a base for SDP activity. This update will be consulted upon in the same manner, subject to Scoping Consultees' agreement. Collectively, the scoping information (the generic Scoping Report and the site specific update) will form the basis of the proposed scope of the assessment.

[8] The Environment Agency, English Heritage, Natural England, Northern Ireland Environment Agency, Historic Scotland, Scottish Natural Heritage, Scottish Environment Protection Agency, Cadw (Welsh Historic Monuments), Countryside Council for Wales, and the Environment Agency Wales.

1.9 Key Questions for Scoping Consultees

We would welcome your views on this generic Scoping Report. The consultation period will run from June 17th – July 23rd 2010. We are particularly interested to receive your views on the following:

1. **Do you have any comments on the proposed alternative options outlined for the SDP?** These are presented in Section 2.2 and 2.3.

2. **Do you agree with the main environmental issues identified?** These are presented within section 3 and reflect information collected from the national baseline. Are there elements (or other topics) which should be scoped in or could be scoped out of consideration during the assessment stage? If so, please describe the reasons for this.

3. **Are there additional plans, programmes and strategies which should be considered in the SEA?** These are listed in Section 4 and Appendix A. If so, please state their source, how they are relevant to the assessment of the SDP and what objectives they contain. Please also state whether the objectives they contain are captured by other plans, programmes and strategies already reviewed.

4. **Do you know of any additional baseline evidence which will help to inform the SEA process?** The key national baseline information is presented in Section 3. If there is additional information please state clearly the source of this information and how this information is relevant to the SEA.

5. **Do you agree that the proposed SEA objectives (Section 6.1) cover the breadth of issues appropriate for assessing the SDP?** If not, please state clearly what additional objectives would be relevant and whether they could be captured by extending any of the existing topics/objectives.

6. **When and how should we be seeking your opinions on site-specific information?** This scoping report provides national-level information to inform the assessments of the generic SDP options (as detailed above). Once the credible 'existing' Licensed or authorised sites have been selected, this generic scoping report will be updated with the relevant baseline information and relevant plans, programmes and environmental protection objectives. A further five week statutory consultation is then planned. Do you agree with this view? If not, please state clearly when and how you think we should do this.

7. **Do you have any further suggestions regarding the proposed approach to SEA?**

Please provide comments by 5pm on Friday July 23rd. Comments should be sent to:

Post: Phill Minas
Entec UK Ltd
17 Angel Gate
City Road
London
EC1V 2SH

Email: Phillip.minas@entecuk.co.uk

2. The Submarine Dismantling Project

2.1 What is the SDP?

2.1.1 Aim and Scope

The overall aim of the Submarine Dismantling Project (SDP) is to define, develop, procure and implement a timely solution for the dismantling and disposal of the UK's redundant, de-fuelled nuclear-powered submarines which inspires public confidence, is safe, environmentally responsible, secure and cost-effective. The project (which was set up in 2000 as Project ISOLUS) will provide an alternative to the continued afloat storage of the de-fuelled submarines, which will include the eventual disposal of Intermediate Level Waste (ILW) to the proposed UK ILW facility (referred to throughout this report as the UK Geological Disposal Facility, or GDF).

The scope of the SDP, which extends over a 60 year period, encompasses the following:-

- provision of facilities and expertise to dismantle the 27 de-fuelled nuclear submarines (of past and current classes[9]), re-using and recycling as much non-radiological material as possible;
- provision of interim, land-based storage facilities for the resultant ILW until at least 2040, pending the availability of the proposed UK ILW facility; and
- the eventual decommissioning of the dismantling and storage facilities used in this process.

2.1.2 What is the Background to the SDP?

When a nuclear powered submarine leaves service with the Royal Navy, a process known as De-fuel, De-equip and Lay-Up Preparation (DDLP) is undertaken. This is conducted as soon as possible, but is dependant on the availability of suitable docks and facilities. Currently, Babcock Marine at Devonport has the only nuclear Licensed site in the UK to remove the used fuel (upgraded facilities are currently being built there, and are due to come into service in 2013). The reactor is de-fueled and the fuel, the most highly radioactive material in the submarine, is removed for long-term storage at the Nuclear Decommissioning Authority (NDA) site at Sellafield, Cumbria. The remaining radioactive material (mainly irradiated steel, classed as Low and Intermediate-Level Wastes (LLW/ ILW)), is contained securely in the reactor compartment and remains in the submarine, which is stored safely afloat.

To date, 16 nuclear powered submarines have left naval service and are stored safely afloat; seven are located at Rosyth, Scotland, and nine are on the south coast of England in Devonport, five of which

[9] 6x ‘Superb’ Class; 7x ‘Trafalgar’ Class; 2x ‘Valiant’ Class; 3x ‘Churchill’ Class; HMS Dreadnought; 4x ‘Resolution’ Class; 4x ‘Vanguard’ Class.

await defueling. Whilst afloat storage has proved to be a very safe arrangement for over 20 years, it no longer fulfils MOD[10] or wider Government[11] policies, which require that nuclear decommissioning and disposal operations should be carried out "as soon as reasonably practicable." There are also issues of public perception and afloat storage capacity, which is expected to run out before 2020. The cost of maintaining the redundant submarines (all of which will be out of service by 2040) and conducting unplanned remedial work is increasing as they age, and this situation is not sustainable in the long term.

In 1998, approval was given to proceed with an in-house study into options for the interim storage of nuclear submarines following their withdrawal from service. The resulting ISOLUS Investigation Concept Phase Report[12] recommended that a land storage strategy for the ILW contained within reactor compartments was the most viable option and should be pursued. In May 2000, the recommendations of the study were accepted and Project ISOLUS was formally established. The project gained Initial Gate approval in 2002, and is currently in its Assessment Phase. In May 2009, the project was formally re-titled the Submarine Dismantling Project (SDP) to better reflect the nature of the project.

The key underpinning principles of the SDP are that:

- due to both MOD and wider Government decommissioning policies, together with storage capacity constraints, afloat storage is not a reasonable long term option;
- for defence and security reasons, the UK's redundant submarines cannot be disposed of abroad;
- all submarines will already have been de-fuelled before they are docked for dismantling;
- the GDF is not expected to be available until at least 2040, necessitating the provision of an interim ILW storage solution;
- a dockyard with sufficient depth of water will physically be required to dock and dismantle the submarines;
- all dismantling activity on the reactor compartment must take place at a site that holds an appropriate nuclear Licence and/ or Authorisation (whether this is new or an existing facility);
- most of the radiological work involved in dismantling is already established practice in submarine refitting and decommissioning of civil reactors, so there will be very few new technical procedures involved;
- the non-radiological front and rear parts of the submarine do not have to be dismantled at a nuclear Licensed or Authorised site, and could be managed at a commercial ship-breaking facility;
- the waste hierarchy will apply throughout, such that, where feasible, non-radiological materials from dismantling will be re-used or recycled (rather than be disposed of);

. [10] "MOD policy for decommissioning and the disposal of radioactive waste and residual nuclear material arising from the nuclear programme", issued 9 Oct 07.

[11] Govt policy framework: Managing Radioactive Waste Safely (MRWS), DEFRA & Devolved Administrations, 2001. 'Managing the nuclear legacy – a strategy for action.' DTI, 2002. The Decommissioning of the UK Nuclear Industry's Facilities – Amendment to Command 2919. DTI, 2004.MRWS White Paper – A Framework for Implementing Geological Disposal. 2008.

[12] The ISOLUS Investigation Concept Phase Report, issued 26 May 1999

- if the Reactor Compartment is to be stored intact, the interim ILW store will be restricted to a coastal / near-coastal site, due to transport restrictions. Storage of RPV or fully-packaged waste could, however, be more flexibly located;
- the principles of legal compliance, adopting industry good practice, openness and transparency will be fully applied to the project, and that further public consultation will be undertaken before any major decisions are made.

2.1.3 Public Consultation on SDP

Recognising the importance that public acceptability plays in the development of any solution, an iterative process of public consultation is being undertaken prior to major decisions being made. Two consultations have been held to date, conducted by independent researchers at the Centre for the Study of Environmental Change at Lancaster University:

- **Front End Consultation (FEC**): this consultation in 2001[13] was to identify what members of the public and other stakeholders considered should be taken into account when developing a solution.

- **Consultation on ISOLUS Outline Proposals (CIOP):** in 2003, four Industry groups submitted outline proposals to meet the ISOLUS/SDP requirement to the MOD[14]. These formed the subject of the CIOP, and generated a degree of controversy and criticism. The CIOP report was published in May 04; MOD's response was released through the then Minister for Defence Procurement in Feb 05[15], following extensive consultation with Other Government Departments and Devolved Administrations.

A key CIOP recommendation was that ISOLUS should be aligned with the process of the Committee on Radioactive Waste Management (CoRWM), set up by Government in November 2003 as an independent body to recommend a strategy for the long term management of the UK's legacy higher-activity solid radioactive waste. Work on identification of potential interim ILW storage sites was suspended, in order to achieve a cohesive cross-Government approach to radioactive waste management. CoRWM's report was issued on 31 July 2006[16]; Government and Devolved Administrations responded on 25 October 2006[17].

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[13] See http://www.submarinedismantling.co.uk/assets/downloads/publicconsultation/ISOLUS_consultation_report.pdf

[14] See http://www.submarinedismantling.co.uk/ConsultationCOIP.asp

[15] Min(DP)'s statement in response to the Consultation on ISOLUS Outline Proposals (CIOP), Feb 05. http://www.submarinedismantling.co.uk/assets/downloads/documentlibrary/CONSULTATION-OUTLINE-2003/02/isolus-ciop-mod-responses.pdf

[16] Managing our Radioactive Waste Safely, CoRWM's recommendations to Government, 31/07/06, http://www.corwm.org.uk/Pages/Lnk_pages/key_issues.aspx

[17] Response to the Report and Recommendations from the Committee on Radioactive Waste Management (CoRWM), By the UK Government and he devolved administrations, 25 October 2006. http://www.corwm.org.uk/Pages/Lnk_pages/key_issues.aspx

As part of a package of recommendations, CoRWM recommended geological disposal coupled with a programme of robust, safe and secure interim storage until a higher-level waste disposal facility is available. This fitted well with the strategic aims of the SDP. As a result, the MOD was able to continue developing the strategies for processing submarines and interim storage of the resultant ILW.

2.2 Key Stages, Activities and Options of the SDP

At this stage, the SDP is essentially a national programme, consisting of a number of stages:

- **Stage I: Design and Develop the Initial Submarine Dismantling Facility -** This involves providing the means (essentially the facilities, processes and personnel) to safely dock and then dismantle the nuclear elements of the 27 de-fuelled and de-equipped nuclear-powered submarines. There are generic types of land where this could take place; namely undeveloped land, previously-developed land and existing Licensed or Authorised sites. These are discussed further in Section 2.2.1.

- **Stage II: Design and Develop the Interim Storage Facility** - This involves providing the means (essentially the facilities, processes and personnel) to safely store the arising intermediate-level radioactive waste (ILW), until such time as the proposed GDF becomes available. This could take place on the three generic land types described above.

- **Stage III: Dock and Dismantle Submarines** - This involves floating and docking the de-fuelled submarines into the dismantling facility before processing them, in line with industry good practice. There are a number of technical options available for processing the submarines, and there is an opportunity to take the non-radiological fore and aft sections of the submarine to a separate, existing commercial ship recycling facility elsewhere in the UK, since these sections will not need to be processed at a nuclear Licensed or Authorised site once they have been radiologically cleared.

- **Stage IV: Reuse/ Recycle/ dispose of all wastes except ILW** - This involves maximising re-use and recycling of recovered non-radioactive materials, which will be carried out in accordance with appropriate industry good practice. Low-level radioactive waste from MOD operations is currently disposed of to the NDA's National LLW Repository in Cumbria, and continued access for SDP materials via the NDA is assumed.

- **Stage V: Move and store Reactor Compartment/ Reactor Vessel/ packaged ILW** - This involves transporting the Intermediate-Level radioactive Waste from the dismantling facility to the interim ILW store. The mode(s) of transport used to transport the ILW will depend upon the size of the packages, the location(s) of the dismantling and storage facilities and the availability of suitable transport infrastructure. The size of the intact reactor compartments is likely to severely limit opportunities for off-site transport by road or rail. Whilst the development of the proposed

GDF (and accompanying SEA) will follow a timeframe separate from the SDP proposals, the issues with the ILW eventual disposal will also be considered.

- **Stage VI: Dismantle RC/ RPV (if required); transfer packaged ILW to Geological Disposal Facility.** If the Reactor Compartment is fully dismantled at Stage III, this stage will involve transporting the fully-packaged ILW to the GDF. If, however, initial dismantling at Stage III involves separation and subsequent storage of the Reactor Compartment or the Reactor Pressure Vessel (Stage V), this Stage will see these components being dismantled to fully-packaged ILW, in a similar manner to Stage I. The fully-packaged ILW will then be transported to the GDF.

- **Stage VII: Dismantle/ dispose of SDP Facilities** - This involves safely decommissioning the dismantling and interim storage facilities described in I and II above, and returning them to a condition that is consistent with any proposed future use.

2.2.1 Stage I – Site options for Submarine Dismantling and Stage II – Site options for ILW Storage

Stage I and II are site-related, and could feasibly be undertaken on a single site (if space were available) or on separate sites. Such a site or sites would fall into one of the following generic categories:

- **Undeveloped, 'green-field' sites**. These are sites, as defined by Planning Policy Statement (PPS) 3, that have not previously been developed, such as farmland. At such a site, there would be no existing dock, facility, License or expertise to undertake the required work.

- **Previously developed, 'brown-field' sites**. These sites are defined by PPS 3 as being previously developed land which is or was occupied by a permanent structure, including curtilage and any fixed surface infrastructure. If possible, there should be sufficient existing infrastructure in place (such as a dock to accommodate the submarines), but there would be no nuclear facilities or qualified personnel available. Commercial ship-breaking facilities without a nuclear License or Authorisation would fall into this category. The non-radiological fore and aft sections of the submarine could potentially be dismantled at such a site.

- **'Existing,' nuclear-Licensed and/ or Authorised sites**. These are existing sites where specific nuclear activity/ies have been Licensed or approved[18] by the UK nuclear regulators, and where suitable nuclear expertise exists. There are only a relatively small number (around 40) of such 'existing' nuclear Licensed or Authorised sites in the UK. These sites are owned by MOD, the UK Nuclear Decommissioning Authority (NDA) and commercial operators.

[18] It is important to note the distinction that it is the undertaking of the nuclear activity per se, rather than the site itself, that is approved, although the term "Authorised/ Licensed site" is commonly used. This option encompasses MOD Authorised sites, Nuclear Decommissioning Authority Authorised sites and commercially-owned, Licensed sites.

The assessment will therefore consider the environmental effects associated with developing each of these generic site types for the dismantling facility/ies and for interim ILW storage. However, as the location of the dismantling and interim storage sites will be a determining factor in the nature and scale of the subsequent environmental effects (especially in relation to EU-designated sites), it will be necessary to identify the list of credible sites within the scope of the SEA.

An indicative list of credible sites is being developed using criteria derived from the project's requirements and taking into account the underpinning principles at section 2.1.2, the proposed environmental criteria and the responses of scoping consultees to this report.

This report will then be updated to include the indicative list of credible sites (and associated baseline data) and forwarded to scoping consultees for further consideration. The criteria that have given rise to the indicative list of credible sites will also be referred to scoping consultees as part of this further consideration but will certainly include:

- **Dismantling sites** (whether publicly or privately owned) would have to be on a coastal site to allow direct submarine access, be big enough to reasonably accept the required facilities plus the largest boat, and hold (or reasonably be capable of gaining) a nuclear License or Authorisation.
- **Storage sites** must be safely accessible for the form of the waste being transported.

Following this further scoping consultation, the scope of the SEA will be confirmed and the assessment will be undertaken on the 'reasonable alternative' options (including specific credible sites).

The environmental impacts associated with depositing LLW or ILW in National repositories will not be assessed, as these have been (or will be) subject to environmental assessment by the NDA and so are outside the scope of the SDP**.**

2.2.2 Technical Options for Processing the Submarines (Stage III)

The SDP's technical options concern the extent to which the reactor compartment is deconstructed upon initial dismantling, which will determine the form of the resulting radioactive waste and affect the design of the interim store. Three such 'technical options' for managing the Reactor Compartment have been considered:

- **Storage of the Intact Reactor Compartment (RC)** would entail cutting out and removing the entire RC from the submarine hull following withdrawal from service and laid up storage. The rest of the submarine would be dismantled using standard commercial 'ship breaking' processes. This is the current approach adopted by the USA, Russian Federation and France. The RCs would be stored, intact, on land until at least 2040, after which the GDF is assumed to be available. Only at that point would the RC be fully dismantled (as described in Stage VI). ILW would be packaged into appropriate containers for transfer to the GDF, whilst the LLW arisings would be suitably packaged and transported to the National LLW Repository (the current disposal route for such

wastes). Dose reduction measures would be applied to demonstrate the application of As Low As is Reasonable Practicable (ALARP) to minimise occupational dose during dismantling.

- **Storage of the Reactor Pressure Vessel (RPV) and Packaged ILW** - this would entail cutting into the RC and removing the Reactor Pressure Vessel (RPV), which would then be stored intact. The other components of the RC would be fully dismantled, and the low-level radioactive wastes would be packaged and transported to the LLW Repository. Once the GDF becomes available, the stored RPV would be dismantled (as described in Stage VI) and the radioactive wastes sent for long-term storage. Dose reduction measures would be applied to demonstrate the application of As Low As is Reasonable Practicable (ALARP) to minimise occupational dose during dismantling.

- **Storage of Fully-Packaged ILW** - this would entail full processing of both the RC and the RPV 'up front,' prior to interim storage. LLW would be packaged and transferred to the national LLW facility, while ILW would be suitably packaged into compliant containers and then stored on land at the interim store until the GDF becomes available. Dose reduction measures would be applied to demonstrate the application of ALARP to minimise occupational dose during dismantling.

Note that all of these options require complete dismantling of the reactor compartment to allow the ILW to be placed in the GDF – the significant difference is when this will be completed. RC and RPV storage would mean deferring full dismantling and processing of ILW until some point in the future, when the GDF becomes available.

MOD is currently reviewing these options to determine which is the most practicable, delivers best value for money and should therefore become the proposed solution. The results of this assessment will be presented in the forthcoming public consultation, alongside all other supporting studies. These options were previously subject to public consultation through the FEC and CIOP. However, it is considered appropriate to consult on them again now, because the definition of these technical options and the supporting evidence have both matured significantly since those earlier consultations.

Detailed assessment will be undertaken, and the safety case proven, through the development of a Demonstrator, which will prove the industrial process by dismantling at least one submarine. The key decisions on the Demonstrator (including location) will not be taken until after the public consultation has been completed and feedback has been assessed.

Dismantling the Non-Radiological Fore and Aft Sections

The non-radiological front and rear sections of the submarine (which form the bulk of each vessel) do not need to be dismantled at a Licensed or Authorised site. This creates the options of i) undertaking all the dismantling work at the selected Licensed/ Authorised site; or ii) undertaking the nuclear work at this facility, and sending the remaining boat sections to a commercial ship-breaking facility elsewhere in the UK, which may present opportunities to maximise value for money. It is not proposed to include assessment of any commercial ship-breaking sites within the SEA.

2.2.3 Assessment of Stages IV-VII

Stages IV-VI will be subject to a 'generic' level of assessment, in line with SEA requirements:-

- **Stage IV: Recycle/ Dispose of all Wastes except ILW -** Unlike the ILW elements, the optimum disposal route for the non-nuclear elements of the submarine (which form the bulk of the craft) will follow proven industry good practice procedures for 'ship-breaking' and for managing the resulting recyclate and waste streams. It is not considered reasonable or necessary to assess any alternative to such well-established standards. Additionally, the current disposal route for the UK's LLW is well established (with a repository for MOD LLW in operation); future disposal options have now been set out at national level[19]. It is not considered 'reasonable' or necessary to consider alternative options to this established process.

- **Stage V: Move and store RC/ RPV/ packaged ILW -** The optimum form(s) of transport will be largely determined by the physical form of the waste (e.g. as an intact RC or as fully-packaged ILW) and by the physical characteristics and transport links of the processing and storage site(s). Whilst consideration will be concentrated on the generic impacts of transport by road, rail and sea/ waterways, the feasible transport links associated with proposed sites (and any relevant environmental issues) will be considered further during the detailed assessment.

- **Stage VI: Dismantle RC/ RPV (if required); transfer packaged ILW to Geological Disposal Facility.** The potential environmental effects associated with dismantling the stored RC or RPV in the future will be covered by the generic assessment of Stages I and II, as the processes and issues are expected to be very similar. The optimum form(s) of transport for the packaged ILW will be constrained by the physical characteristics and transport links of the processing and storage site(s). The same considerations as Stage V above will be included in the assessment.

- **Stage VII: Decommission SDP Facilities** - The processing facility will be operational until around 2046, and the interim storage facility until at least 2040. Since decommissioning is so far in the future, there are significant uncertainties about the nature and magnitude of any environmental effects. More detailed assessment at this stage would therefore not be meaningful. The environmental impacts of decommissioning the facilities will be minimised at design stage through the application of the MOD 'POEMS[20]' EMS process.

2.3 Summary

The proposed application of SEA to the activities is summarised in Table **2.1.** The SEA will firstly consider the generic environmental effects associated with each stage of the SDP. This assessment will

[19] Policy for the Long-Term Management of Solid Low-Level Radioactive Waste in the United Kingdom. Publ. Defra, DTI & Devolved Administrations; 26 March 2007.

[20] MOD Project Orientated Environmental Management System

be followed by assessment of the effects that could arise from dismantling and storing ILW on specific feasible sites.

Table 2.1 Summary of the Level of Assessment for the Key Stages of the SDP

Key Stages of the Submarine Dismantling Project	Proposed Generic Level SEA Assessment for the SDP's strategic options	Proposed Site Level SEA Assessment for the SDP's strategic options
Stage I: Develop the initial dismantling facility on an undeveloped 'green-field' site, a developed 'brown-field' site or an 'existing' Licensed or Authorised nuclear site	Assessment of each generic site category	Assessment(s) of credible sites (expected to fall within the 'existing' Licensed/ Authorised site category).
Stage II: Develop of the interim storage facility for the reactor compartment, reactor pressure vessel or packaged ILW on an undeveloped 'green-field' site, a developed 'brown-field' site or an existing Licensed or Authorised nuclear site	Assessment of each generic site category	Assessment(s) of credible sites (expected to fall within the 'existing' Licensed/ Authorised site category).
Stage III: Dock and dismantle submarines	Generic assessment of each technical option.	N/A
Stage IV: Reuse/ recycle/ dispose all materials except ILW	Generic assessment of the process.	N/A
Stage V: Transport ILW to the interim storage facility	Generic assessment of the process,	Consideration of site-specific issues where relevant.
Stage VI: Dismantle RC/ RPV (if required); transfer packaged ILW to Geological Disposal Facility (ca. 2040) on	Generic assessment of the process.	N/A
Stage VII: Decommission and dismantle/ dispose of SDP facilities once all submarines have been disposed of	Generic assessment of the process.	N/A

Relative assessment of individual candidate sites will clearly contain more detail than the generic assessments, since site-specific information will be available. Whichever site(s) are eventually chosen, further site-specific environmental assessments will be needed before any development can take place. We expect that these will include (but not be limited to) Town & Country Planning Environmental Impact Assessment, Environmental Impact Assessment for Nuclear Decommissioning and Environmental Permitting[21].

[21] The Town & Country Planning (Environmental Impact Assessment) (Amendment) (England) Regulations 2008, plus devolved equivalents; the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999; and the Environmental Permitting Regulations 2010

The SDP public consultation documents will provide detailed explanations as to why certain candidate sites have been selected as potentially suitable (and hence included in the SEA), whilst others been discounted. These will be summarised in the environmental report.

These choices are presented within the context that indefinite afloat storage of redundant submarines (the 'do minimum' option) is not a reasonable long-term solution for the United Kingdom. As a result, the 'do minimum' option will be used as a baseline comparator in the SEA and not be subject to assessment in its own right, as a 'reasonable alternative.' This option will also be used as a baseline comparator in the wider public consultation process.

3. Baseline Information

3.1 Introduction

An essential part of the SEA process is to identify the current state of the environment and its likely evolution following a 'business as usual' scenario. It is only with sufficient knowledge of the existing baseline conditions that the key potential effects of the SDP proposals can be identified, characterised and assessed. The SEA also requires that the actual effects of implementing the SDP on the baseline are also monitored.

Annex I of the SEA Directive requires that the subsequent assessment (to be contained in the Environmental Report) should include information on the "*likely significant effects on the environment, including on issues such as: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape; and the inter-relationship between the issues referred to*". In order to support a comprehensive assessment of potential effects, a baseline for each of these environmental categories has been considered. **Table 3.1** presents how the proposed categories used in this report are consistent with the SEA Directive requirements.

Consistent with the requirements of Annex 1 (b), (c) and (d) of the SEA Directive, this section (**Section 3)** and **Annex A** set out summaries for each SEA category on:

- relevant aspects of the current state of the environment;
- the likely evolution of these baseline conditions without the implementation of the SDP; and
- characteristics and current problems in areas of particular environmental importance.

Table 3.1 Scope of Effects Considered by SDP Scoping Report

Annex I SEA Directive Effects	Categories Considered by SDP Scoping
Biodiversity, Flora and Fauna	Biodiversity and Nature Conservation
Population	Population including socio-economic effects
Human Health	Human Health and Wellbeing
	Human Health (Noise)
Soil	Soil and Geology
Water	Water
Air	Air
Climatic factors	Climate Change and Energy Use
Material assets	Material assets (Transport)

Annex I SEA Directive Effects	Categories Considered by SDP Scoping
	Material assets (Waste Management)
	Material assets (Land Use and Materials)
Cultural heritage, including architectural and archaeological heritage	Cultural heritage, including architectural and archaeological heritage
Landscape	Landscape and Townscape

The baseline data for this generic Scoping Report (**Annex A**) has been collected at the UK national level, which provides a contextual overview of the state of the nation in each category area. This will be used to inform the assessment of the generic issues associated with the implementation of stages I to VII of the SDP.

Baseline data at sub-regional level will be will be scoped, consulted upon, and then used to inform the assessment of the 'credible existing site' options for dismantling and storage, to be reported in the environmental report. This information will give more detailed information on local conditions and trends, particularly for Special Areas of Conservation (SAC) and Special Protection Areas (SPA) designated under Directive 79/409/EEC and 92/43/EEC[22].

3.2 National Baseline Data

Annex A provides a summary of the current and projected National baseline for each SEA category, taken from Annex I of the Directive. Information has been used from a variety of sources including Defra, the Environment Agency, Natural England and the Office of National Statistics. On occasion for some of the categories within the national baseline, there are specific data that we have not been able to identify. Where this occurs, this has been identified and consultee support is welcomed in identifying suitable sources of the outstanding information.

3.3 Key Baseline Issues

From an analysis of the baseline, its current problems and its evolution, the following issues have been identified as being particularly significant for the SDP. Under each topic, the reference to the assessment objectives indicates how these issues have been reflected within the assessment methodology (detailed in **Section 6**).

[22] A European Site is any classified SPA and any SAC from the point where the Commission and the Government agree the site as a Site of Community Importance.

3.3.1 Key Biodiversity and Nature Conservation Issues

- Areas already covered by European designations and SSSIs are predominantly well managed and improving in condition. However protected species and habitats outside of such areas are more vulnerable and often in decline. Protected habitats and species (such as sensitive coastal locations) may affect where and how SDP activities can take place.

These issues are reflected in the assessment process though Objective A (Biodiversity and Nature Conservation),Objective D (Noise and Vibration), Objective F (Water), Objective G (Air), Objective H (Climate Change and Energy Use), Objective K (Land Use and Materials) And Objective M (Landscape and Townscape).

3.3.2 Key Population and Socio-Economic Issues

- The UK population is growing; however, there is a decline in those of working age and those with requisite civil or defence-related nuclear skills and experience. This may affect when and where the SDP's radiological activities can feasibly take place.
- The UK economy is in recovery; however unemployment rates are rising and may continue to rise beyond 2010. Deprivation continues to exist in many communities, both in remote areas and inner cities.
- Budget constraints may affect current delivery plans, in line with the situation for wider national and local government.
- Defence activity generally brings positive economic impacts around its facilities and bases, due to relatively stable employment levels and inward investment.

These issues are reflected in the assessment process though links with Objective B (Population).

3.3.3 Key Health Issues for the SEA

- Health problems associated with radiological exposure are generally a minor issue in the UK; the great majority of the average public dose comes from natural sources of radiation, although testing and accidental releases do contribute to this. Background levels of natural radiation vary considerably from area to area, and any additional industrial exposure may be an important issue for those communities who are already exposed to high background levels.
- Any radiological activity poses a remote risk of accidental release into the environment, which has the potential to affect health.
- Health inequalities exist in many communities, often exacerbated by poor access to, or use of, existing health services.

These issues are reflected in the assessment process though links with Objective C (Health and Wellbeing).

3.3.4 Key Human Health (Noise) Issues

- Ambient noise levels are gradually increasing in the UK as a result of an increasing – and increasingly mobile – population. Noise nuisance is a highly subjective issue; however the cumulative impacts of noise on sensitive groups in local communities may create or exacerbate existing health issues.

These issues are reflected in the assessment process though links with Objective D (Noise and Vibration), Objective I (Transport) and Objective A (Biodiversity and Nature Conservation).

3.3.5 Key Soils and Geology Issues

- Significant areas across the UK carry a burden of contamination from industrial activity, although this is progressively being cleaned up as sites are redeveloped. Redeveloping such contaminated sites can be expensive if remediation is required.
- Development or disturbance of contaminated sites carries the risk of pollution pathways being created or re-opened for any existing ground contamination.
- Many coastal sites (especially in the south and east of the country) are already prone to erosion, due to a combination of unstable underlying geology, rising sea levels and increasing storminess.

These issues are reflected in the assessment process though links with Objective E (Geology and Soils), Objective K (Land Use and Materials) and Objective F (Water).

3.3.6 Key Water Issues

- Between 1985 and 2005, UK radioactive emissions to water fell by 87% and that trend is on-going. The majority of UK coastal waters (around 94%) conform to the requirements of the Water Framework Directive.
- The majority of UK inland waters are now in good biological and chemical condition (72% and 76% respectively). However, climate change and the effects of an increasing population are placing growing pressure on the availability and quality of surface and ground-water resources. In some parts of the country, availability of sufficient water supplies may constrain future development.
- Sea levels are rising, with worst case scenarios of a 1.9m increase in sea level by 2100 (up to 0.76m more likely). The south and east of England will experience the greatest rises, due to the additional effects of post-glacial rebalancing.

These issues are reflected in the assessment process though links with Objective F (Water), Objective H (Climate Change and Energy Use) and Objective A (Biodiversity and Nature Conservation).

3.3.7 Key Air Issues

- Air quality is generally improving in the UK due to controls on industrial emissions and the loss of heavy industry. Between 1985 and 2005, UK radioactive emissions to the atmosphere fell by 83% and that trend is on-going. However, poor air quality – particularly from vehicles – remains a significant issue for community health and for biodiversity, especially in/ downwind of urban areas and major transport networks. Air pollution is a significant cause of decline in the condition of 55 of UK SSSIs.

These issues are reflected in the assessment process though links with Objective G (Air), Objective A (Biodiversity and Nature Conservation) and Objective C (Health and Wellbeing).

3.3.8 Key Climate Change and Energy Issues

- Energy security is becoming a significant emerging issue for the United Kingdom as national fossil fuel resources are depleted; the development of the energy National Policy Statement and sub-level NPSs is attempting to address these issues. This (currently) recommends development of low/ zero carbon sources, including new nuclear power facilities.

- Despite the fact that UK greenhouse gas emissions are falling, the predicted effects of climate change (including increasing temperatures, more/ less rainfall and increasing storminess) may have a significant impact on where and how submarine dismantling can take place.

- The UK national target of an 80% cut in greenhouse gas emissions by 2050 (compared to 1990 levels) is beginning to affect all MOD activities; this will include the design and execution of SDP activity.

These issues are reflected in the assessment process though links with Objective H (Climate Change and Energy Use), Objective A (Biodiversity and Nature Conservation) and Objective F (Water).

3.3.9 Key Material Assets (Transport) Issues

- The UK has major road, rail, air and water transport infrastructures. However, all are under increasing pressure as the population increases and becomes more mobile, and as networks age.

- The transport of radiological materials by road and rail in the UK has an excellent safety record; nevertheless, any transport of such materials off-site carries a remote risk of accidental damage.

These issues are reflected in the assessment process though links with Objective I (Transport).

3.3.10 Key Material Assets (Waste Management) Issues

- In 2007, defence accounted for 2% of UK total radiological waste arisings. The SDP will however add to the accumulation of ILW and LLW in the UK that will need to be disposed of.

- There is currently no centralised UK higher-level radioactive waste storage capacity; intermediate-level waste (ILW) is generally stored at or close to the point of generation. The delivery of a national, centralised disposal capability is being planned.

- Reuse and recycling are increasingly being adopted in the waste industry. However, there are still high levels of waste being disposed of, with limited opportunity for recycling hazardous materials.

These issues are reflected in the assessment process though links with Objective J (Waste Management) and Objective K (Land Use and Materials).

3.3.11 Key Material Assets (Land Use and Materials) Issues

- Although only 5.6% of UK land is currently 'built up,' regional development targets (which aim to deliver 3 million new homes by 2020) are placing significant pressure on undeveloped land and the green-belt, as brown-field sites cannot fully deliver the requirements.

- The Defence Estate strategy is driving progressive reductions in the amount of MOD-owned land across the UK; this may impact the availability of defence land for SDP activity.

These issues are reflected in the assessment process though links with Objective K (Land Use and Materials) and Objective A (Biodiversity and Nature Conservation).

3.3.12 Key Cultural Heritage Issues

- The MOD is responsible for a significant number of designated cultural heritage sites and features (782 listed buildings and 723 scheduled monuments). Appropriate management has resulted in over 80% of these now being in good or fair condition.

These issues are reflected in the assessment process though links with Objective L (Cultural Heritage) and Objective M (Landscape and Townscape).

3.3.13 Key Landscape and Townscape Issues

- The UK has many important and protected landscapes which may be sensitive to development. The character of the UK's landscapes are broadly being maintained, however 20% show signs of neglect.

- The natural environment of the UK is much less 'rich' than 50 years ago and remains under pressure from more intense use of the land and sea; continuing economic development, climate change and increased public access.

These issues are reflected in the assessment process though links with Objective M (Landscape and Townscape), Objective A (Biodiversity and Nature Conservation) and Objective L (Cultural Heritage).

4. Review of Plans, Programmes and Environmental Protection Objectives

This section outlines the environmental protection objectives established at International, European, or UK level which are relevant to the SDP. A full review of plans and programmes is provided in **Annex B.** Information relevant to individual areas will also be presented in the scoping report update, and in the SEA Environmental Report.

4.1 Review of Plans and Programmes

The SEA scoping process needs to identify and review other relevant plans, programmes, policies and strategies (herein after referred to as 'plans and programmes') that are applicable to the SDP and outline the nature of the project's relationship with them. They are set at an international, European or national level covering a variety of topics (including spatial and resource planning). **Annex B** contains the review of the plans and programmes relevant to the SDP.

4.2 Key Environmental Protection Objectives

From the review of these plans and programmes, a number of key environmental protection objectives have been identified. These are summarised below, along with an indication of where the policy objectives are reflected in the SEA assessment objectives (discussed further in **Section 6.1)**. The key objectives and policy messages have been structured around the environmental categories taken from SEA Directive Annex I issues (and used to structure the baseline information in the previous section).

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
Biodiversity and Nature Conservation		
International / European EC Habitats Directive (Directive 92/43/EEC) places a legal requirement on EU countries to make provision for the protection of specified habitats and species. This is achieved through the designation of Special Areas of Conservation. European Commission (1979) (79/409/EEC) Directive on the Conservation of Wild Birds makes it a legal requirement that EU countries make provision for the protection of birds. This includes the selection and designation of Special Protection Areas. Ramsar Convention on Wetlands (1971) requires national designation of protected Ramsar sites and an obligation to include wetland conservation consideration in land-use planning. OSPAR Commission (2003) Biological Diversity and Ecosystems Strategy seeks to protect and enhance the ecosystems and the biological diversity of the maritime area, which are, or could be, affected as a result of human activities. Environmental Liability Directive 2004/35/EC seeks to achieve the prevention and remedying of environmental damage - specifically, damage to habitats and species protected by EC law, and to species or habitat on a site of special scientific interest for which the site has been notified.	To protect international/European protected wildlife areas (including SACs, SPAs and Ramsar sites). To contribute to the conservation of global biodiversity. To ensure that the conservation and enhancement of natural heritage including wetland conservation is reflected in land use planning. To protect and enhance the ecosystems and the biological diversity of the maritime areas. To ensure the conservation of biodiversity in order to continue to harness the derived health and wellbeing benefits for the population. To identify where operators are financially liable for threats of or actual damage to the environment under the “polluter pays” principle. To anticipate, prevent and act on causes of significant reduction or loss of biodiversity.	Objective A Biodiversity and Nature Conservation Objective C Health, and Wellbeing
National The Conservation (Natural Habitats, &c.) Regulations (1994) require sites of importance to habitats or species to be designated. This includes the establishment of Special Areas of Conservation (SAC). Any impact on such designated sites or listed species must be considered in regards to planning permission applications. The Wildlife and Countryside Act 1981 provides legislation on the protection of named floral and faunal species and the network of nationally protected wildlife areas: Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA) for birds. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 make provision for the conservation of wild birds and for the protection of offshore marine areas beyond 12 nautical miles from the UK coast. ODPM (2005). PPS9: Biodiversity and Geological Conservation sets out key planning considerations and guidance in relation to biodiversity including that: planning decisions should aim to maintain, and enhance, restore or add to biodiversity conservation interests. DCLG (2010) Consultation Paper a new Planning Policy Statement: Planning for a Natural and Health Environment sets out proposed policies in relation to landscape protection, soil and agricultural land quality, forestry, coastal access, heritage coast and the undeveloped coast.	To conserve and enhance biological diversity within the UK. To ensure that the quality of habitats and biodiversity is enhanced or at least conserved and take account of key priority habitats and species in decision making. To protect of the network of nationally protected wildlife areas (including SSSIs). To protect marine biodiversity with UK jurisdiction, both within and beyond UK territorial waters.	

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
MOD MOD Sustainable Development Strategy 2008 and the MOD Sustainable Development Report and Action Plan (SDRAP) 2008 details the MOD's sustainable development principles and commitments. It supersedes and embeds the government-wide Sustainable Development in Government (SDiG) agenda and Sustainable Operations on the Government Estate (SOGE) targets. The MOD Sustainable Operations on the Government Estate (SOGE): Strategic Statement on Biodiversity details the MOD's on-going commitments to managing biodiversity. MOD JSP 418, leaflet 10 – Marine Environmental Legislation – gives a framework for the operation of coastal defence sites.	To conserve, and where appropriate, enhance biodiversity as part of estate ownership, to contribute to the UK commitment to halt the loss of biodiversity by 2010 and onwards, whilst ensuring the provision of defence capabilities. To achieve this aim the MOD will be an exemplar in the management of designated sites where compatible with military requirements; ensure natural environment requirements and best practice are fully integrated into estate management practices; and contribute, as appropriate, to the UK BAP and County biodiversity strategies.	
Population		
International / European United Nations (2001) Aarhus Convention: Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. European Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA Directive) outlines public consultation requirements. European Commission. European Employment Strategy aims to achieve: full employment, quality and productivity at work and promote inclusion by addressing disparities in access to labour markets. Integrated Guideline for Growth and Jobs 2008-11, Commission of the European Communities (Committee on Economic and Monetary Affairs, 2007) outlines guiding employment principles.	To grants public rights to information, public participation and access to justice. To undertake appropriate consultation with consultation bodies and the public during the SEA process. To achieve economic development and reduction of inequalities whilst adhering to the principles of social and environmental justice and sustainable development. To promote full employment, quality and productivity at work and promoting inclusion by addressing disparities in access to labour markets. To promote the economic development of disadvantaged areas within the European Union.	Objective B Population Objective C Health, and Wellbeing
National ODPM (2001) A New Commitment to Neighbourhood Renewal: National Strategy Action Plan sets out the Government's vision for narrowing the gap between deprived neighbourhoods and the rest of the country. Strong and prosperous communities Local Government White Paper (2006) aims to provide strong, prosperous communities and delivering better public services. DCLG (2009) Planning Policy Statement 4: Planning for Sustainable Economic Growth sets out planning policies for economic development and seeks to raise the productivity of the UK economy and maximise job opportunities. PSA Delivery Agreement 1: Raise the Productivity of the UK Economy (HM Government, 2007) aims to raise the	To create strong, prosperous communities and deliver better public services. To narrow the gap between deprived neighbourhoods and the rest of the country. To achieve economic development and reduction of inequalities whilst adhering to the principles of social and environmental justice and sustainable development. To create places shaped by their communities where people are proud to live. To raise the productivity of the UK economy, maximise job opportunities, improve economic performance and reduce the gap in economic growth rates between regions. To deliver sustainable development; build prosperous	

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
rate of the UK's productivity growth over the economic cycle. Planning for a Sustainable Future: White Paper (2007) outlines sustainable economic and employment objectives. MOD, Joint Service Publication (JSP) 434 – Defence Construction in the Built Environment aims to provide best value for MOD development.	communities; promote regeneration; and tackle deprivation. To ensure more and better jobs as a result of sustainable economic development To promote the vitality and viability of town and other centres as important places for communities To create inclusive and locally distinctive rural communities whilst continuing to protect the open countryside for the benefit of all To raise the quality of life and the environment in rural areas by promoting thriving	
MOD MOD Sustainable Development Strategy 2008 and the MOD Sustainable Development Report and Action Plan (SDRAP) 2008 detail the MOD's sustainable development principles and commitments.	The delivery of Defence capability will contribute to the creation of more sustainable UK communities, and an environment in which people can fulfil their potential. To deliver this aim the MOD will: • Help build the skills of young people. • Create a workforce that is drawn from the breadth of society and ensure that the unique contribution of every individual in that workplace is respected and valued. • Provide a safe and healthy workplace. • Manage the social impacts of Defence activities on UK communities (civilian and Armed Forces). • To improve effectiveness within the context of practicality, achievability and value for money on an ongoing basis. • To provide economic, environmental and social justification for any decision to procure new facilities as opposed to the re-use of existing facilities. • Ensure that procurement strategies take full account of economic, environmental and social impacts.	
Human Health		
International / European World Health Organization European Centre for Environment and Health (2001), Health impact assessment in strategic environmental assessment (World Health Organization, Rome) provides a review of Health Impact Assessment concepts, methods and practice to support the development of a protocol on Strategic Environmental Assessment. 'Together for Health – A Strategic Approach for the EU 2008-2013' aims to foster good health in an ageing Europe.	To ensure children have safe water and clean air. To ensure that measures to improve the health and wellbeing of the population are appropriately supported. To preserve, protect and improve the quality of the environment and to protect human health. To promote good health throughout the lifespan of the population. Support Dynamic Health Systems and New Technologies.	Objective C Health, and Wellbeing Objective B Population

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
	To reduce inequities in health.	
National Department of Health (2003) Tackling Health Inequalities: A Programme for Action aims to: support families; improve social housing, education and access to services; and reduce unemployment and low incomes amongst the poorest. Department of Health (1999) Saving Lives: Our Healthier Nation White Paper aims to improve health across the UK. Health and Safety Commission, A Strategy for Workplace Health and Safety in Great Britain to 2010 and beyond aims to promote a strong health and safety culture in the workplace. Health Effects of Climate Change in the UK 2008 – An update of the Department of Health Report 2001/2002 provides measures to mitigate the effects of climate change on health.	To ensure that measures to improve the health and wellbeing of the population are appropriately supported To provide health related information to the public and help create a stronger voice for patients, service users and members of the public at a national level. To improve access to resources to improve health particularly in disadvantaged communities. To improve the health of everyone and in particular the health of the worst off. To improve social housing and reduced fuel poverty among vulnerable populations.	
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008 Secretary of State's Policy Statement on Safety, Health, Environmental Protection and Sustainable Development in the Ministry of Defence (2009) MOD JSP 375, MOD Health and Safety Handbook implements top-level H&S policy. MOD JSP 392, Radiation Safety Handbook (2008) Provides MOD policy on the safe management of radiation. MOD JSP 418, leaflet 14 – Radiation - gives the framework for the safe environmental management of ionising radiation.	In addition to the MOD SD Action Plan targets detailed above in Population, the Secretary of State's policy statement requires the department to avoid work-related fatalities and minimise work-related injuries and ill-health. To comply with the letter and the spirit of UK environmental law applicable to ionising radiations so far as is reasonably practicable regardless of any Crown or Defence Exemptions. To reduce exposure of the workforce, members of the public and the environment to levels of radiation which are as low as reasonably practicable (ALARP).	
Human Health (Noise)		
International / European EU Sixth Environmental Action Plan (2002 – 2012) includes a long term objective to reduce the number of people regularly affected by long-term high noise levels. EU Directive (2002) 2002/49/EC Relating to the Assessment and Management of Environmental Noise – The Environmental Noise Directive aims to define a common approach to avoid, prevent or reduce the harmful effects of environmental noise WHO (2000) Transport, Environment and Health notes that road users generate noise which causes excessive costs to themselves, other individuals and society.	To prevent critical health effects as a result of high levels of noise in and around dwellings. To promote transport systems that do not generate noise levels which may have negative effects on human health. To avoid, prevent or reduce the harmful effects including annoyance due to exposure to environmental noise.	Objective D Health (Noise and Vibration) Objective C Health, and Wellbeing

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
National Environmental Protection Act 1990 defines the legal framework for duty of care for statutory nuisance including noise. ODPM (1994) PPG 24 Planning and Noise gives guidance on the use of their planning powers to minimise the adverse impact of noise.	To minimise the adverse impact of noise without placing unreasonable restrictions on development or adding unduly to the costs and administrative burdens of business. To ensure noise reduction occurs where there may be adverse impacts of noise on human health or protected species. To incorporate noise reduction measures in the construction of rail guided transport systems.	
MOD The MoD has an exemption from the Statutory Nuisance provisions of the Environmental Protection Act 1990 for operational activities directly related to national security. MOD, Joint Service Publication (JSP) 418, Sustainable Development and Environment Manual leaflet 15 – Statutory Nuisance – gives the framework for the control of environmental noise. The Secretary of State's Policy Statement on Safety, Health, Environmental Protection and Sustainable Development gives the framework for controlling workplace noise.	To and minimise work-related injuries and ill-health. To reduce and where possible avoid the effects and causes of statutory nuisance and to comply with all relevant UK environmental legislation. MOD establishments are not allowed to create excessive noise liable to cause a nuisance as part of activities not directly connected with the operation of equipment, training of personnel or other military operations. To make every effort to keep the disturbance to the public caused by the noise generated by military activity to a minimum. Where possible, activities generating substantial noise will be kept at a distance from residential areas, and night time activity will be limited to achieving training objectives which cannot be met during the day.	
Soil and Geology		
International / European EC (2006) Framework for the protection of soil (amending Directive 2004/35/EC) sets out requirements for the protection and classification of soil environments. EC (1991) Nitrates Directive (91/676/EEC) sets out designations and actions in relation to land draining to waters that are affected by nitrate pollution.	To ensure that soil resources are protected and that expansion of organic farmland and adoption sustainable farming techniques can be facilitated. To protect soil on the basis of the principles of: preservation of soil functions; prevention of soil degradation; mitigation of its effects; and restoration of degraded soils. To take precautionary measures where soil function may be affected. To identify areas at risk of erosion, organic matter decline, salinisation, compaction and landslides. To limit the introduction of dangerous substances into the soil, to avoid accumulation in soil that would hamper soil functions and create a risk to human health and the environment.	Objective E Geology and Soils Objective C Health, and Wellbeing Objective A Biodiversity and Nature Conservation

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
National ODPM (2005). PPS9: Biodiversity and Geological Conservation sets out planning principles in relation to conservation of geological features. 1995 Environment Act aims to protect and preserve the environment and guard against pollution to land including soils. Contaminated Land (England) Regulations 2006 SI 1380 (also equivalents for Scotland, Wales and N.Ireland) sets out provisions relating to the identification and remediation of contaminated land. Identifies sites requiring regulation as 'special sites' and adds land contaminated by radioactive substances to this classification. DCLG (2010) Consultation Paper a new Planning Policy Statement: Planning for a Natural and Health Environment sets out proposed policies in relation to landscape protection, soil and agricultural land quality, forestry, coastal access, heritage coast and the undeveloped coast.	To ensure development takes a strategic approach to the conservation, enhancement and restoration of geology; and where appropriate incorporate design features to beneficial geological features. To ensure contaminated land is identified and remediated where appropriate. To protect and preserve the environment and guard against pollution to land. To preserve, where possible, the best and most versatile agricultural land	
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008 MOD JSP 418, leaflet 2 – Land Contamination – gives the framework for the control of contaminated land. MOD JSP 418, leaflet 14 – Radiation - gives the framework for safely managing land contaminated with sources of ionising radiation.	To establish a complete picture of risks associated with land quality across the Defence Estate and have in place robust mechanisms for managing those risks to an acceptable level. To maintain a Corporate EMS based on ISO 14001 across the Estate. …to maintain a view of the impacts of MOD activities and the impact of land quality on MOD activities.	
Water		
International / European European Commission (2000) The Water Framework Directive which establishes a framework for the protection of inland surface waters, transitional waters, coastal water and groundwater. Groundwater Directive (80/68/EEC) which aims to prevent the pollution of groundwater. EU Marine Strategy Framework Directive Marine Strategy Framework Directive (June 2008) aims is to protect the marine environment across Europe to protect the resource base upon which marine-related economic and social activities depend. Drinking Water Directive (98/83/EC) aims to protect the quality of drinking waster across the EU. EU Floods Directive – On the assessment and management of flood risks (2007) aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity.	To ensure that the water and ecological quality of freshwater and marine environments is enhanced and at least conserved. To ensure sustainable use of water resources and reduced pollution and physical impacts. To facilitate the integrated management of both the coastal zone and River Basin Districts to ensure sustainable use and protection of resources. To encourage the sustainable use of water resources and protect: aquatic ecology, drinking water, and bathing waters. To provide information to the public on bathing water quality. To protect the environment from the adverse effects of urban waste water discharges and discharges from industrial processes. To prevent the pollution of groundwater. To protect the marine environment across Europe.	Objective F Water Objective C Health, and Wellbeing Objective L Cultural Heritage Objective H Climate Change and Energy Use Objective A Biodiversity and Nature Conservation

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
	To protect the health of European water consumers To reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity.	
National Environment Agency (2009) Water for people and the environment – Water resources strategy for England and Wales. Future Water, the Government's Water Strategy for England (Feb 08) sets out objectives for water management and quality to 2030. DCLG (2006) PPS25: Development and Flood Risk aims to ensure that flood risk is taken into account at all stages in the planning process. DCLG (2010) Planning Policy Statement 25 Supplement: Development and Coastal Change sets out planning policies for managing development on coastal areas affected by coastal change. UK Strategy for Radioactive Discharges 2001-2020 (published by Defra in July 2002) aims is to prevent pollution of the maritime area covered by the OSPAR Convention from ionising radiation.	To protect the water environment in a way that allows it to adjust flexibly to changing climate. To reduce pressure on the environment caused by water taken for human use; promote water use efficiency; and protect vital water supply infrastructure. To reduce the threat of flooding to people and their property; avoid inappropriate development in areas at risk of flooding; and sustainably manage risks from flooding and coastal erosion. To improve the coastal environment particularly in urbanised or despoiled areas. To improve quality of the UK water environment and the ecology which it supports To prevent pollution of the maritime area covered by the OSPAR Convention from ionising radiation. To ensure that policies and decisions in coastal areas are based on an understanding of coastal change over time To prevent new development from being put at risk from coastal change	
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008 MOD JSP 418, leaflet 19 – Water Pollution Land – gives the framework for the protection of water from pollution. MOD JSP 418, leaflet 10 – Marine Environmental Legislation – gives a framework for the operation of coastal defence sites.	To ensure all MOD sites become more water efficient to comply with Government and MOD targets. To conduct activities in accordance with government policy and to comply with the letter and spirit of environmental law. To support the aims and objectives of the UK Marine Bill, with exceptions negotiated solely to support operational capability or retain classified information.	
Air		
International / European EC Ambient Air Quality and Cleaner Air for Europe (2008) (Directive 2008/50/EC) defines and establishes objectives for ambient air quality to avoid, prevent or reduce harmful effects on human health and the environment. European Commission (1996) Air Quality Framework Directive (Directive 96/62/EC) sets mandatory limits or reductions for 11 air pollutants. EU Thematic Strategy on Air Quality (2005) sets out the CAFÉ Programme which aims to establish a longterm,	To promote cleaner transport technologies and manage the demand for transport to prevent detrimental effects to human health from air pollution. To ensure that air quality is enhanced or at least maintained and ensure that measures are adopted to support continued air quality standards To monitor and reduce trans-boundary atmospheric pollution. To ensure that information on ambient air quality is made	Objective G Air Objective C Health, and Wellbeing Objective I Transport Objective A Biodiversity and Nature

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
integrated strategy to tackle air pollution. WHO (2005) Health Effects of Transport-Related Air Pollution notes that an increase in car use across the world disproportionately affects the most vulnerable social groups.	available to the public. To maintain air quality where it is good and improving it in other cases. To attain levels of air quality that do not give rise to significant negative impacts on and risks to human health and the environment.	Conservation
National Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007) identifies potential national policy measures which modelling indicates could give health benefits. Air Quality Regulations 2000 and The Air Quality (Amendment) Regulations 2002 sets out the air quality objectives for the UK for various air pollutants. 1995 Environment Act aims to protect and preserve the environment and guard against pollution to air.	To align with the principles of sustainable development and the importance of controlling and minimising pollution. To protect and preserve the environment and guard against pollution to air.	
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008 The MoD has an exemption from the Statutory Nuisance provisions of the Environmental Protection Act 1990 for operational activities directly related to national security. MOD JSP 418, leaflet 9 – Local Air Quality – and Leaflet 15 - Statutory Nuisance – give the framework for the control of air quality from MOD activities.	To comply with the provisions of relevant environmental legislation and work towards reducing the Department's contributions to, and impacts of, air pollution. Crown exemption remains for smoke, but for training and operational purposes only. To ensure all establishments operating prescribed processes (that would require an Environmental Permit) comply with the letter and spirit of the statutory requirements. To minimise gaseous and particulate emissions, particularly where they include heavy metals or other substances on the Red List of substances considered particularly harmful in water. To ensure vehicles comply with emission limits. To ensure vessels in harbour or close to shore comply with Clean Air legislation.	
Climate Change and Energy Use		
International / European United Nations (1997) The UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol to the UNFCCC sets targeted reductions in greenhouse gas emissions. EU Sixth Environmental Action Plan (2002 – 2012) takes a broad look at the environmental challenges and provides a strategic framework for the Commission's environmental policy up to 2012 including issues of climate change. 2020 Climate and Energy Package (EC, 2008) sets out far-reaching proposals aims to deliver the EU's commitments to fight climate change and promote renewable energy up to 2020.	To prevent "dangerous" human interference with the climate system, namely through reductions in the emissions of greenhouse gases. To promote renewable energy sources. To promote sustainable development with regards to: energy development, efficiency and consumption, transportation, industrial development, terrestrial and marine resource development and land use. To reduce emissions of carbon dioxide and combat the serious threat of climate change. To help transform Europe into a low-carbon economy and	Objective H Climate Change and Energy Objective G Air Objective B Population Objective F Water Objective A Biodiversity and Nature Conservation

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
	increase its energy security. To ensure that energy efficiency measures are put in place and, where possible, renewables are employed to contribute to appropriate Climate Change targets.	
National UK Climate Change Act 2008 set out a transition towards a low carbon economy in the UK and sets binding targets to achieve an 80% reduction in UK carbon emissions by 2050 (against 1990 baseline). Stern Review of the Economics of Climate Change (2007) sets out a wide range of evidence on the impacts of climate change and on the economic costs. DCLG (2007) Planning Policy Statement: Planning and Climate Change – Supplement to Planning Policy Statement 1 aims to deliver sustainable development, and in doing so a full and appropriate response on climate change. DECC (2009) The UK Low Carbon Transition Plan: National Strategy for Climate and Energy ODPM (2004) PPS22: Renewable Energy aims to encourage positive planning which facilitates renewable energy developments.	To improve carbon management and help the transition towards a low carbon economy. To promote climate change risk management in all aspects of business to ensure future resilience for communities, businesses and the environment. To pursue new development in places that are resilient to climate change; and in ways that are consistent with social cohesion and inclusion. To conserve and enhance biodiversity, recognising that the distribution of habitats and species will be affected by climate change. To reduce energy consumption, minimise detrimental effects on the climate from greenhouse gases and maximise resilience to climate change.	
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008. MOD JSP 418, leaflet 4 – MOD Climate change Strategy – gives the framework for the control of climate change impacts from, and upon, MOD activities.	To be a leader amongst UK Government departments and Defence departments in EU and NATO States in the sustained reduction of CO_2 and other GHG emissions, and to ensure the continued delivery of Defence capability in a changing climate. To ensure that the emissions of the GHGs that result from defence activities are continually reduced, such that Defence will eventually not be a significant contributor to the causes of climate change. To agree and implement an effective process to enable Defence activities to continually adapt to a changing climate, such that Defence capability is not compromised and any potential benefits from the future climate are realised. To reduce dependency on fossil fuels by ensuring that military equipment, estate and services are energy efficient and use low or zero-carbon energy sources where practicable.	
Material Assets (Transport)		
International / European European Transport Policy for 2010: A Time to Decide (EC, 2001) outlines the need to improve the quality and effectiveness of transport in Europe. WHO (2000) Transport, Environment and Health notes that road users generate excessive costs to themselves, other individuals and society - through noise, pollution	To promote renewable energy usage in transport systems. To promote healthy and sustainable transport alternatives. To improve the quality and effectiveness of transport in	Objective I Transport Objective C Health, and Wellbeing Objective A Biodiversity and

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
and accidents.	Europe.	Nature Conservation Objective B Population
National PPG13 Transport (DfT, 2001) sets out guidance in relation to transport systems. DfT (2008) Delivering a Sustainable Transport System (DaSTS) aims to promote sustainable transport in the UK. DfT (2008) Carbon Pathways: Informing Development of a Carbon Reduction Strategy for Transport aims to promote low carbon transport in the UK. (DfT, 2004)The Future of Transport White Paper – A Network for 2030 sets out the vision for transport for the following 30 years that can meet the challenges of a growing economy and the increasing demand for travel, but that can also achieve environmental objectives. HM Government (2007) PSA Delivery Agreement 5: Deliver Reliable and Efficient Transport Networks that Support Economic Growth sets out a framework for investment in transport to support sustainable economic growth.	To reduce transport's emissions of CO2 and other greenhouse gases, with the desired outcome of minimising climate change. To reduce the risk of death, injury or illness arising from transport, and promote travel modes that are beneficial to health. To promote greater equality of transport opportunity for all citizens, To improve journey time reliability on the strategic road network To improve experiences of travel and reduce barriers to travel by different modes of transport. To support national economic competitiveness and growth, by delivering reliable and efficient transport networks	
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008. MOD JSP 418, leaflet 16 – Travel and Transport - - gives the framework for managing the environmental impacts of defence-related transport. MOD JSP 418, leaflet 4 – MOD Climate Change Strategy - gives the framework for achieving greater efficiencies in MOD transport.	To continually reduce emissions from air, road and rail business admin travel by MOD personnel. To reduce the use of marine, land and aviation fuels as much as reasonably practicable, without impacting on operational capability, while at the same time assessing the viability of alternatives to these fuels. To develop a Defence Travel Emissions Strategy with targets and actions for all modes of transport. To reduce dependency on fossil fuels by ensuring that military equipment, estate and services are energy efficient and use low or zero-carbon energy sources where practicable. To eliminate all sources of fluorinated greenhouse gasses and ozone-depleting substances as soon as is technically and economically feasible. The development of a Defence Travel Emissions Strategy in 2009 will bring with it targets and actions for modes of business transport other than road transport.	
Material Assets (Waste Management)		
International / European European Commission (2008) Waste Framework Directive (Directive 2008/98/EC) lays down waste management principles such as the "polluter pays principle" or the "waste hierarchy". EU Thematic Strategy on the Prevention and Recycling of Waste (2002-2012) (to be reviewed in 2010) Council Directive establishing a Community framework for the nuclear safety of nuclear installations [23/06/2009]	To ensure that waste reduction is at the forefront of waste management and where disposal is unavoidable ensure a high level of protection for the environment and human health. To adopt waste management principles such as the "polluter pays principle" and the "waste hierarchy". To protect human health and the environment against harmful effects caused by the collection, transport,	Objective J Waste Objective C Health, and Wellbeing Objective A Biodiversity and Nature

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
establishes a Community framework to maintain and promote the continuous improvement of nuclear safety and its regulation. Shipments of radioactive waste (Directive 92/3/Euratom) established a system of control and prior authorisation for shipments of radioactive waste, to protect the health of workers and the general public and to avoid illicit traffic of such materials.	treatment, storage and tipping of waste. To help Europe become a recycling society that seeks to avoid waste and uses waste as a resource. To achieve and maintain a high level of nuclear safety through the enhancement of national measures and technical cooperation. To establish and maintain effective defences against radiological hazards in nuclear installations in order to protect people and the environment, etc. To prevent nuclear accidents and limit their consequences.	
National ODPM (2005) PPS10 Planning for Sustainable Waste Management sets out key planning objectives for waste management. Ionising Radiations Regulations 1999 SI 3232 requires employers to protect employees and other people against ionising radiation arising from work with radioactive substances and other sources of ionising radiation. Radioactive Material (Road Transport) (Amendment) Regulations 2003 SI 1867 sets out measures to regulate the transportation of radioactive material by road.	To decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use. To increase diversion from landfill of municipal and non-municipal waste and secure better integration of treatment for all waste. To increase recycling of resources and recovery of energy from residual waste using a mix of technologies. To ensure waste is disposed of as near as possible to the place of production. To ensure the layout and design of new development should support sustainable waste management. To ensure workers and the public are protected from ionising radiation. To ensure radioactive material is safely transported.	
MOD MOD Sustainable Waste Management Strategy 2007 details MOD's vision for sustainable waste management (excluding explosive and radiological wastes). MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008 updates the above strategy. MOD JSP 418, leaflet 18 –Waste Management- gives the framework for managing defence-related wastes. MOD JSP 418, leaflet 14 – Radiation – gives the framework for the safe environmental management of ionising radiation. MOD JSP 392, Radiation Safety Handbook (2008) Provides MOD policy on the safe management of radioactive wastes.	To recover and recycle more waste than we send to landfill by 2012. To become a zero waste to landfill organisation by 2020. To justify the use of ionising radiations before their introduction and to reduce exposure of the workforce, members of the public and the environment to levels which are as low as reasonably practicable (ALARP). The production of all waste streams (both hazardous and non-hazardous waste) from all units and/or establishments must be reduced and minimised. To manage waste in accordance with the Waste Hierarchy and waste management options must move to the preferred options of waste reduction and re-use.	

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
Material Assets (Land Use and Materials)		
International / European European Sustainable Development Strategy (2006) aims to promote sustainable consumption and production. United Nations World Summit on Sustainable Development, Johannesburg (2002) Commitments arising from Johannesburg Summit proposes broad principles which should underlie sustainable development and growth.	To adopt a sustainable approach to land use though consideration of: economic development, social inclusion, environmental protection and prudent use of resources. To promote establishment of a multi centre regional organisation structures and balanced urban system.	Objective K Land Use and Materials Objective B Population Objective A Biodiversity and Nature
National ODPM (2005) Planning Policy Statement (PPS) 1: Delivering Sustainable Development sets out the Government's vision for planning, and the key policies and principles that should underpin the planning system. ODPM (2004) PPS7: Sustainable Development in Rural Areas sets out Government objectives for rural area. UK Government Sustainable Procurement Action Plan (2007) aims for a sustainably built and managed central government estate that minimises carbon emissions, waste and water consumption and increases energy efficiency. UK Government Sustainable Development Strategy: Securing the Future (2005) and the UK's Shared Framework for Sustainable Development, One Future – Different Paths (2005) set out guiding sustainability principles for the UK.	To improve housing affordability in the market sector and ensure appropriate social housing availability. To develop and support successful, thriving, safer and inclusive urban and rural communities. To promote and enhance existing centres, by focusing development in such centres and encouraging a wide range of services in a good environment, accessible to all. To encourage well-designed and greener homes, linked to good schools, transport and healthcare. To promote development of previously developed land. To achieve a sustainably built and managed central government estate that minimises carbon emissions, waste and water consumption and increases energy efficiency. To achieve sustainably built and managed properties and roads throughout the public sector. To implement government supply-chains and public services that are increasingly low carbon, low waste and water efficient, which respect biodiversity and deliver wider sustainable development goals. To adopt an integrated approach to sustainable development which includes: economic development; social inclusion; environmental protection; and prudent use of resources. To engage in positive planning and proactive management of development, rather than simply regulation and control. To have a planning system this is transparent, accessible and accountable. To promote more sustainable patterns of development. To raise the quality of life and the environment in rural areas.	

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008. MOD JSP 418, Chapter 17 – Sustainable Procurement – details MOD policy on materials and supply chain integrity. MOD JSP 434, Defence Construction in the Built Environment MOD Sustainable Procurement Strategy 2009 (in draft)	To procure, use and dispose of its estate, equipment, goods and services in a way that meets Government sustainable development objectives and targets, whilst ensuring the continued effective delivery of Defence capability. To become a national leader in sustainable procurement by 2009. To embed Sustainable Procurement in all aspects of MOD acquisition and throughout the Defence supply chain. To deliver sustainable defence buildings (through the application of Office of Government Commerce (OGC) minimum procurement standards, including the application of BREEAM standards or equivalent. To improve effectiveness within the context of practicality, achievability and value for money on an ongoing basis. To provide economic, environmental and social justification for any decision to procure new facilities as opposed to the re-use of existing facilities. To ensure that procurement strategies take full account of economic, environmental and social impacts.	
Cultural Heritage		
International / European European Convention on the Protection of the Archaeological Heritage 1992 establishes archaeological definitions and protection. UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972) defines the natural or cultural sites which can be considered for inscription on the World Heritage List.	To identify, protect and preserving potential sites of World Heritage. To protect and sustain the historic environment for the benefit of current and future generations To identify and protect important heritage features. To collect and disseminate scientific information on cultural and archaeological heritage to aid conservation and public awareness.	Objective L Cultural Heritage

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
National ODPM (1994) PPG15: Planning and the Historic Environment makes provision for the protection of the historic environment. ODPM (1990) PPG16: Archaeology and Planning outlines guidance in relation to archaeological protection. Ancient Monuments and Archaeological Areas Act (1979) provides for the scheduling of ancient monuments and protection of archaeological sites. The Planning (Listed Buildings and Conservation Areas) Act (1990) outlines the level of protection received by listed buildings, scheduled monuments and buildings within conservation areas. Protection of Wrecks Act 1973 makes provision for the protection of heritage features associated with wrecks on the seabed. English Heritage: Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment (2008) provides guidance on all aspects of England's historic environment.	To protect listed buildings, scheduled monuments and buildings within conservation areas. To protect and promote stewardship of the historic environment. To promote positive planning and management to bring about sensible solutions to the treatment of sites with archaeological remains and to reduce the areas of potential conflict between development and preservation. To adopt a presumption in favour of the physical preservation of nationally important archaeological remains and their settings, whether scheduled or not. To protect shipwreck features of historical, archaeological or artistic importance. To safeguard internationally and nationally designated historically or culturally significant sites.	
MOD MOD Sustainable Development Strategy 2008 MOD Sustainable Development Report and Action Plan (SDRAP) 2008. MOD SOGE Strategic Statement on Heritage.	To conserve and enhance the historic environment for the benefit of future generations and to reflect the ethos and heritage of the MOD. To promote the sustainable use of our historic environment, in recognition of its importance as an integral part of cultural heritage and the role it plays in supporting defence capability. Adopt the Department for Culture Media and Sport's Protocol for the Care of the Historic Government Estate. Where responsibility for management of historic property is transferred to the private sector, for example through PPP/PFI arrangements, the Protocol standards will be incorporated into contractual arrangements.	
Landscape and Townscape		
International / European European Landscape Convention of 2000 promotes protection, management and planning of landscapes throughout Europe.	Ensure that development is 'appropriate' particularly in relation to protected landscapes. To protect, manage and plan landscapes throughout Europe.	Objective N Landscape and Townscape Objective A Biodiversity and Nature Conservation Objective B Population

SEA Topic Key Plans and Programmes (see Annex B for full list)	Summary Objectives and Policy Messages (see Annex B for full list)	SEA objectives link (see Section 6.1)
National PPG 2: Green Belts (ODPM, 1995, Amended 2001) provides guidance on maintaining and enhancing attractive landscapes. ODPM (2002) PPG17: Planning for Open Space, Sport and Recreation provides guidance on the development of managed open areas. The Natural Environment and Rural Communities (NERC) Act 2006 makes provisions about the natural environment and rural communities. DCLG (2010) Consultation Paper a new Planning Policy Statement: Planning for a Natural and Health Environment sets out proposed policies in relation to landscape protection, soil and agricultural land quality, forestry, coastal access, heritage coast and the undeveloped coast.	To provide public access to the countryside and promote sustainable farming and protection of wildlife. To retain attractive landscapes, and enhance landscapes near to where people live. To improve damaged and derelict land around towns. To retain land in agricultural, forestry and related uses.	
MOD MOD, Joint Service Publication (JSP) 362 - Defence Lands Handbook aims to set out defence estate management policy.	To promote the objectives of statutory designated areas (National Parks and AONBs) wherever possible. In respect of landscape designations, reasonable measures should be undertaken to mitigate the impacts of any development proposals on landscape character. Management of sites should seek to maintain the character of the landscape by safeguarding and, where practicable, enhancing or developing significant landscape features.	

5. Scoping the Potentially Significant Environmental Effects of the SDP

This section sets out the potentially significant environmental issues of the SDP, which will be considered in more detail in the subsequent stages of the SEA. The effects outlined below are indicative and illustrate those issues that are likely to be determined as relevant during the assessment phase. Information is presented for construction, operation and decommissioning phases and includes reference to all six stages of the SDP. In many cases, potentially significant effects can only be considered in general terms, as detailed site specific information will not be determined until later tiers of environmental assessment, such as EIA or Habitats Regulation assessment are undertaken.

Where appropriate, the opportunity to scope out specific effects which are not considered relevant, or for which no effects are anticipated, is identified. However, issues (or topics) may be scoped in at later stages in the assessment process as additional information emerges. In this way, the scoping stage is seen as an ongoing and iterative process and as the SDP is developed, alternatives are considered and opinions expressed during consultation are reviewed.

5.1 Biodiversity and Nature Conservation

The significance of any local construction effects to biodiversity, flora or fauna will depend upon site location relative to sensitive local receptors. Such effects will generally be uncertain until specific sites are identified.

5.1.1 Construction Phase

- Internationally and nationally important biodiversity sites are only likely to be significantly affected if there are adverse effects to the conservation features (whether a habitat or species) that underpin the reasons for the designation. Levels of disturbance to designated sites could increase from SDP construction. Where the potential for any adverse effect on the conservation objectives of a European designated site could arise, individual proposals will be subject to a Habitat Regulations Assessment and formal discussion with the relevant statutory conservation body (e.g. Natural England, Scottish Natural Heritage or the Countryside Council for Wales).

- Construction of new or upgraded facilities may have an indirect impact on habitats and species through supply chain impacts, for example through the sourcing of mineral, aggregate or timber resources. Such potentially significant effects from resource use are therefore scoped in for further assessment.

- Both land take and construction disturbance effects (such as noise or dust) are likely to be of greater magnitude where ‘green-field’ or ‘wild’ brown-field sites, as opposed to developed or existing Licensed/ Authorised sites are developed. Land take effects on localised biodiversity, flora and fauna are likely to be permanent; whilst construction disturbance effects are likely to be of short duration and can be mitigated. The degree to which both land take and disturbance

effects are significant will depend on factors including: the scale of construction required and the proximity to protected species or habitats. Both potentially significant effects from land take and construction disturbance are therefore scoped in for further assessment.

- The construction phase may require large material movements with consequent impacts on biodiversity, flora and fauna adjoining local transport networks. Such effects are likely to be of short duration and which can be mitigated, but are scoped in for further assessment.

- Potentially significant effects to biodiversity, flora and fauna may also occur due to accidental discharges to water, air or land either from materials used during construction, or from the creation of new pollution pathways for existing contaminants on the site. Such potentially significant effects are therefore scoped in for further assessment.

5.1.2 Operation Phase

- Operational activities at the dismantling site will be closely regulated and subject to stringent health and safety standards. To a large extent these measures will also safeguard local biodiversity. However, this does not provide a basis for scoping potentially significant effects out of further assessment, so they are scoped in on a precautionary basis.

- Operational activities resulting in elevated disturbance levels (such as noise or vibration) are likely to be sustained throughout the submarine dismantling process, but are unlikely to have a large radius of effect. Such disturbance is likely to be associated with the operation of plant and power tools, and will be similar in nature to current refit and repair activities. Although environmental measures would necessarily be in place to manage disturbance, potentially significant effects are scoped in on a precautionary basis.

- Operational discharges of both radioactive and non-radioactive liquids, gases and solid wastes (including dusts) will largely be managed through environmental permitting regimes, so there is little risk of significant effects on biodiversity from normal operations. Nevertheless, the potential for significant effects are scoped in for further assessment, due the potential for the receiving environment to be sensitive and/or protected.

- Removal or cut up of the reactor compartment carry a remote risk of unforeseen accidental discharges of both radioactive and non-radioactive contaminants to water, air or land, which could affect biodiversity. Potentially significant effects from accidental discharges are therefore scoped in for further assessment.

- Dismantling and interim storage will both entail the use of transport. Activity will be relatively small in magnitude relative to local and national transport levels, but sustained throughout the operational phase. Potentially significant effects on biodiversity from transport (including the remote risk of accident) are scoped in for further assessment in the ‘transport’ section.

- Once the RC, RPV or packaged ILW has been placed into interim storage, it is assumed that there will be limited activity at the site until the GDF becomes available and the waste is processed and/ or moved. Potential effects from operation of the interim storage site are associated with on-site transport, movement of storage containers and potential further processing of the RC or RPV. Potential effects from accidental discharges are therefore scoped in for further assessment.

- Interim storage will be closely regulated and subject to stringent health and safety standards. However, there is a remote risk of accidental emissions from unforeseen breaches of storage containers coupled with pollutant pathways into the air, land or water. Such potentially significant effects to biodiversity are therefore scoped in for further assessment.

5.1.3 Decommissioning Phase

- Decommissioning of the dismantling and interim storage facilities (following the movement of stored radioactive wastes to a permanent disposal facility) will have similar impacts to those of the construction phase (such as dust, wastes and noise). Although these are unlikely to have a significant effect on biodiversity the issue is scoped in for further assessment on a precautionary basis.

5.2 Population

The significance of effects on local populations are likely to depend upon site location, the nature of the adjacent community, prevailing economic conditions, labour market conditions and the workforce skills required. Such effects will generally be uncertain until specific sites are identified.

5.2.1 Construction Phase

- The construction phase will undoubtedly require labour. Effects on employment from the construction phase are therefore scoped in for further assessment.

- The construction of the dismantling and interim storage facilities is unlikely to require significant development of specialist construction skills. The potential for significant effects to local skills development is therefore not taken forward for further assessment.

- The construction phase may require large material movements, with consequent effects on populations adjoining local transport networks. These are likely to be of short duration and can be mitigated, but are scoped in for further assessment on a precautionary basis.

- The construction required for both the dismantling and interim storage facilities is likely to require significant investment in products, services and people. It is expected that such investment would benefit local economies and service providers; however, it will depend upon the scale and duration of the proposals, the level of investment, procurement practices, the site location, prevailing economic conditions and labour market conditions. Potentially significant effects on local economies are therefore scoped in for further assessment.

- Effects to the wider economy may also be significant and construction may take advantage of products and services from across the UK. The potential significant effects to the wider economy are therefore scoped in for further assessment.

5.2.2 Operation Phase

- The operational phase will create and support jobs, skills development and inward investment, in proportion to the scale of the operations themselves. This is expected to be greatest for the dismantling operation, which will require a mix of manual, semi-skilled and skilled workers. Potential effects of job creation and inward investment are therefore scoped in for further assessment.

- The proximity of industrial operations to deprived communities may exacerbate existing deprivation issues. Potential effects on deprivation levels of communities already suffering from single or multiple deprivations are therefore scoped in for further assessment.

- SDP activities could create additional demands on local community infrastructure (depending on the number of additional employment opportunities created, the extent to which the additional employment opportunities will be met by local people and the circumstances of each employee). Potentially significant effects to local service provision requirements are therefore scoped in for further assessment.

- Operational activities (including transport) may result in increased levels of disturbance from noise or traffic. Such disturbance is likely to be sustained throughout the dismantling process, but is unlikely to have a large radius of effect. Although controls measures would necessarily be in place to minimise disturbance, the potential for significant effects on local populations is scoped in.

5.2.3 Decommissioning Phase

- In the long-term, there may be a reduction in investment, skills development and employment opportunities once the SDP is complete. Such effects are not likely to be significant, due to the transferable skills associated with those roles. Potentially significant effects from long-term labour market changes on completion of the SDP are therefore not taken forward for further assessment.

- Decommissioning of the dismantling and interim storage facilities may create additional disturbance for local populations, through additional through traffic, noise, dust etc. The scale of the impact will depend on the size and complexity of the facilities. Such disturbance is likely to be sustained throughout the decommissioning process, but is unlikely to have a large radius of effect. Although measures would necessarily be in place to manage levels and durations of disturbance; the potential for significant effects is scoped in on a precautionary basis.

5.3 Human Health

The significance of any local construction effects to human health will depend upon site location and nature relative to sensitive local receptors. Such effects will generally be uncertain until specific sites are identified.

5.3.1 Construction Phase

- The construction of the dismantling and the interim storage facilities is not expected to have any potentially significant health and safety risks beyond those encountered on a normal construction

project, since all standard precautions will be taken to safeguard workers and the public. However, this issue is scoped in for further assessment on a precautionary basis.

- The construction phase may require large material movements on and off site, with consequent implications for health and safety, particularly adjoining local transport networks. Such effects are likely to be of short duration and can be minimised, but are scoped in for further assessment on a precautionary basis.

- There is a remote risk of health effects from accidental discharges of construction-related materials to water, air or land, or from the creation of new pollution pathways for existing contaminants on the site (for example where contaminated land or sediment is disturbed). Such effects are therefore scoped in for further assessment.

5.3.2 Operation Phase

- Operational activities at the dismantling site will be closely regulated and subject to stringent health and safety standards. However, this does not provide a basis for *unilaterally* scoping potentially significant effects associated with 'normal' operations out of further assessment. Each issue should be considered on its merits.

Dismantling

- Dismantling operations on the reactor compartment will result in those workers involved being exposed to ionising radiation, although this is not expected to be as high as for day-to-day operations on in-service submarines due to radioactive decay in the laid-up submarines. No elevated exposure is expected under normal conditions for other workers in the area or for the wider community. The potential for effects on workers health is scoped in for further assessment.

- Operational discharges of liquids, gases and solid wastes to the environment will be closely managed through environmental permitting regimes; such discharges are therefore unlikely to have any significant effects on people's health. However, the importance of perceived risks to health from radiological discharges means that the potential for significant effects to occur must be scoped in for further consideration.

- Dismantling activities always carry a remote risk of unforeseen accidental discharges of radioactive or non-radioactive contaminants, which could potentially affect the health of workers and the local population. The effects of such accidental discharge are therefore scoped in for further assessment, on a precautionary basis.

Transport

- Dismantling and interim storage will both require transport activities, the nature of which will be dictated by the form of the waste. Such activities are likely to be small in magnitude relative to local and national transport levels, but sustained throughout the operational phase. Transport carries health and safety implications, particularly for workers and the communities adjoining transport networks. Such effects are likely to be of short duration and can be minimised, but are scoped in for further assessment on a precautionary basis.

- The transport of radioactive materials to the interim storage site will be strictly regulated and subject to stringent packaging and health and safety requirements to prevent workers or the public

from being injured or exposed to any accidental emissions from radioactive material. There is always a remote risk of an accident resulting in injury or release of harmful materials or radiation into the environment. Nevertheless, the importance of safety issues, particularly for radioactive materials, necessitates this issue to be scoped in for further assessment on a precautionary basis.

Storage

- Once the RC, RPV or packaged ILW has been placed into interim storage, it is assumed that there will be limited activity at the site until the GDF becomes available and the waste is processed and/ or moved. Potential effects from operation of the interim storage site are associated with on-site transport, movement of storage containers and potential further processing of the RC or RPV.

- These operational activities are strictly controlled by health and safety requirements to prevent workers or the public from being injured or exposed to radiation. Nevertheless, the importance of safety issues, particularly for radioactive materials, necessitates this issue to be scoped in for further assessment on a precautionary basis.

5.3.3 Decommissioning Phase

- Decommissioning may lead to an increase in permitted and unforeseen discharges of dusts, effluent and run-off to the environment. The scale of the impact will depend on the size and complexity of the facilities. Operational discharges to the environment will be managed through environmental permitting regimes in force at the time; such discharges are therefore very unlikely to have any significant effects on health. Again, however, the importance of safety issues necessitates this issue to be scoped in for further assessment.

5.4 Human Health (Noise)

The significance of noise impact will depend upon site location relative to local populations and other sensitive local receptors. Such effects will generally be uncertain until sites are identified.

5.4.1 Construction Phase

- Use of plant and tools has the potential to generate levels of noise which may have health and safety implications for construction works and site visitors. However, statutory construction health and safety requirements will require noise minimisation and appropriate safety equipment to be used, including the use of ear defenders. Potential significant effects to workers and site visitors from construction noise are therefore not taken forward for further assessment.

- Construction is expected to generate similar noise levels to any industrial construction project, with effects being relatively localised. Although standard noise reduction measures would need to be employed to reduce levels of disturbance where required, the potential for health effects from construction noise are scoped in for further assessment.

- The construction phase may require large material movements with consequent impacts on noise levels adjoining local transport networks. Such potential significant effects are likely to be of short duration and reversible, but are scoped in for further assessment.

5.4.2 Operation Phase

- As for the construction phase, occupational noise levels may be significant. However, health and safety requirements will again require appropriate mitigation measures to be taken before operations can proceed. Potential significant effects on workers and site visitors are therefore not assessed further.

- Operational activities (including transportation) may result in elevated noise levels (e.g. through the use of grinding and cutting tools, pressure hammers etc) throughout the submarine dismantling process. These are likely to be localised in nature and not have a large radius of effect. However, in combination with other noise from local industry, traffic etc. they may be locally significant. Although measures will be taken to minimise noise disturbance, the potential for health effects are scoped in for further assessment on a precautionary basis.

- Interim storage is unlikely to generate levels of noise that could significantly affect worker or public human heath. However any further processing may do so, as detailed above. Potential effects from on-site activity at the interim storage site are therefore are therefore scoped in for further assessment.

Decommissioning Phase

- Decommissioning of the dismantling and interim storage facilities is expected to generate similar noise levels to those encountered on a normal demolition project, with the duration of disturbance proportional to the size and complexity of the facilities. Any effects are likely to be localised in nature. However, in combination with other noise from local industry, traffic etc. they may be locally significant. Although measures will be taken to minimise noise disturbance, the potential for health effects are scoped in for further assessment on a precautionary basis.

5.5 Soil and Geology

The significance of construction on soils and geology will depend upon site location relative to sensitive local receptors. Such effects will generally be uncertain until specific sites are identified.

5.5.1 Construction Phase

- It is unclear at this stage whether development of the dismantling or interim storage sites (which are planned to be on-surface facilities) would directly affect any geological SSSI features or Regionally-Important Geological Sites. This will become clearer once the indicative site list is clarified. This issue is therefore scoped in for further assessment.

- Development is likely to result in permanent loss of the soil resource. The degree to which these effects are significant will depend on factors including the scale of construction, the amount of permanent land take and the importance of soil type affected. Effects will be greater where the soil has been activity used, for example agricultural use on green-field, as opposed to brown-field, sites. Potentially significant effects from land take are therefore scoped in for further assessment.

- There is a small risk of significant effects on the soil from accidental discharges to land (including via air or water) during construction. There is also a risk of new pollution pathways being created for existing contaminants on the site. This risk is greater for an existing site or previously-developed land where contaminated land or sediment could be disturbed. The potential for significant effects are therefore scoped in for further assessment.

- There is a risk that construction, demolition or change of use may affect land stability and/ or erosion rates, on- or off-site. The nature of the effects will depend on the geology and physical nature of the area, the size of the development and the extent to which piling and other invasive construction techniques are used. Such potential effects are therefore scoped in for further assessment.

5.5.2 Operation Phase

- Operational discharges of radioactive and non-radioactive liquids, gases and/or solid wastes will be strictly managed through permitting regimes. Such discharges are therefore unlikely to cause significant effects on the soil resource or geological features and are not considered further.

- Dismantling activities always carry a remote risk of unforeseen accidental discharges of radioactive or non-radioactive contaminants to land. The effects on such an accidental discharge are therefore scoped in for further assessment, on a precautionary basis.

- Operational activities associated with interim storage will be limited and are unlikely to significantly affect soils or geology. However, any further processing may do so, as detailed above. Potential effects from on-site activity at the interim storage site are therefore are therefore scoped in for further assessment.

- Although the interim storage site will be closely regulated, there remains a remote risk of an unforeseen breach of the storage containers, which could potentially affect land. Such potentially significant effects are therefore scoped in for further assessment, on a precautionary basis.

5.5.3 Decommissioning Phase

- Decommissioning may lead to an increase in discharges of dusts, effluent, solid wastes and run-off to the soil. The scale of the impact will depend on the size and complexity of the facilities. Discharges will be managed through environmental permitting regimes in force at the time, minimising the risk of significant impact from ‘normal’ decommissioning operations; however the possible risk of unforeseen discharges necessitates this issue to be scoped in.

5.6 Water

The significance of any effects on water resources and the water environment will depend upon site location relative to sensitive local receptors. Such effects will generally be uncertain until specific sites are identified.

5.6.1 Construction Phase

- Construction activities will necessarily involve the discharge of waste water and run-off. Although required surface and ground water control and protection measures would be employed during construction, there remains the possibility that water quality in streams, rivers, inshore waters or aquifers could be affected. Potential effects on water quality are therefore scoped in for further assessment.

- Development will lead to increased land-take, with development of green-field sites likely to lead to a relatively higher increase in runoff rates (and subsequent flood risk) than developing a previously-developed site. The degree to which development increases local flood risk will depend on factors including the scale of construction, the elevation, topography and geology of the site, the local water infrastructure and projected rain-fall. The potential for development to increase local flood risk is therefore scoped in for further assessment.

- Construction activities have the potential to be affected by flooding. This may result in flood damage to facilities, disruption of activity or the potential mobilisation of hazardous material both on and off site. Flood risk assessments will inform site selection and appropriate flood defence measures will be used; however the potential effects of flooding at dismantling and disposal construction sites are scoped in for further assessment.

- There is a risk of significant effects from accidental discharges (including via air or land) of construction materials or excavated soil or sediment. This is a particular risk where dredging activities are required. There is also a risk of new pollution pathways being created for existing contaminants on the site (especially for previously-developed land where contaminated land or sediment could be disturbed). The potential for significant effects are therefore scoped in for further assessment.

- There is a small risk of significant effects on the water environment from accidental discharges to land (including via air or water) during construction. There is also a risk of existing pollution becoming mobilised. This risk is greater for an existing site or previously-developed land where contaminated land or sediment could be disturbed. The potential for significant effects are therefore scoped in for further assessment.

5.6.2 Operation Phase

- SDP operations will both use and discharge fresh water. Depending on the nature and scale of operations, this may have an indirect effect on water resources, particularly in dryer areas or those with existing drainage capacity problems. The effects of water use and discharge are therefore scoped in for further assessment.

- Operational activities may be affected by flooding, particularly in low-lying and/or coastal areas. This may result in flood damage to facilities, disruption of activity or the potential mobilisation of hazardous materials (although all radioactive materials would necessarily be held safely in a sealed and water-tight environment). Appropriate flood defence measures will be incorporated into site designs; nevertheless, the effects of flooding are scoped in for further assessment.

- Operational discharges of both radioactive and non-radioactive liquids, gases and solid wastes will be strictly managed through environmental permitting regimes. Such discharges are therefore

unlikely to cause significant effects on the water environment; nevertheless they are scoped in for further assessment on a precautionary basis.

- Dismantling and storage activities always carry a remote risk of unforeseen accidental discharges of radioactive or hazardous contaminants, which could affect the water environment. This would be a particular issue where a site is close to an internationally or nationally-designated freshwater or marine environment. Although the risk is very small, the effects of accidental discharge are scoped in for further assessment, on a precautionary basis.

5.6.3 Decommissioning Phase

- Decommissioning of the dismantling and interim storage facilities may lead to an increase in both permitted and unforeseen discharges to ground or surface waters. The scale of the impact will depend on the size and complexity of the facilities. Operational discharges of to the environment will be managed through tightly-controlled permitting regimes in force at the time; such discharges are therefore unlikely to have any significant effects on water quality. However, the potential for significant effects to occur is scoped in for further consideration on a precautionary basis.

- Decommissioning may lead to an increase in discharges of pollutants into the water environment. Discharges of to the environment will be managed through environmental permitting regimes in force at the time, minimising the risk of significant impact. However the possible risk of unforeseen discharges necessitates this issue to be scoped in.

5.7 Air

The significance of effects on air quality will depend upon site location relative to sensitive local receptors. However, such effects will generally be uncertain until specific sites are identified.

5.7.1 Construction Phase

- The construction of both the dismantling and the interim storage facilities is expected to generate dust and particulate levels similar to those encountered on any construction project. The amount of dust will be proportional to the amount of excavation required, and the pollution potential will tend to be higher for previously-developed sites where contamination could expected. Effects are likely to have a relatively small radius of effect, with longer-range impacts expected in the direction of the prevailing wind. Although standard dust reduction measures would be employed where required, the potential for the effects on air quality from construction dust are scoped in for further assessment.

- The construction phase may require large material movements with consequent impacts on air quality adjoining local transport networks. Such potential significant effects are likely to be of short duration and reversible, but are scoped in for further assessment on a precautionary basis.

- Air quality effects may also occur due to (accidental) discharges to air (including via land or water) from materials used during construction, or from the creation of new pollution pathways for existing contaminants on the site. Such potentially significant effects are therefore scoped in for further assessment.

5.7.2 Operation Phase

- The dismantling process may result in direct and indirect emissions of gasses and particulates to air. These will be controlled through environmental permitting regimes; and as such, emissions are not envisaged to have significant effects on air quality. However, the potential for significant effects is scoped in for further consideration on a precautionary basis.

- Dismantling and interim storage will both require transport activities. Vehicle movements are likely to be relatively small in magnitude compared to local and national transport levels, but sustained throughout the operational phase. Potentially significant effects to air quality from operational transport are therefore expected to be limited, but are scoped in on a precautionary basis.

- Dismantling activities always carry a remote risk of accidental discharges of radioactive or non-radioactive contaminants to air (including via land or water). The effects of such accidental discharge are scoped in for further assessment, on a precautionary basis.

- Once radioactive waste has been placed in the interim storage facility, it is assumed that there will be limited activity at the site until the GDF becomes available and the waste is processed and/ or moved. Operational emissions to air will be associated with generators and mobile plant. These operational activities are unlikely to significantly affect air quality; however, any further processing may do so, as detailed above. Potential effects on air from interim storage site are therefore are therefore scoped in for further assessment.

- There is a remote risk of an unforeseen breach of the storage containers, potentially allowing pollutants into the air. Although the risk is very small, the effects of accidental discharge are scoped in for further assessment, on a precautionary basis.

5.7.3 Decommissioning Phase

- Decommissioning may lead to an increase in discharges of pollutants to air. Discharges of to the environment will be managed through environmental permitting regimes in force at the time, minimising the risk of significant impact. However the possible risk of unforeseen discharges necessitates this issue to be scoped in.

5.8 Climate Change and Energy Use

5.8.1 Construction Phase

- Construction activities will use energy and hence cause the direct and indirect emission of CO_2 and other greenhouse gasses. The magnitude of effects depends on the size of the development the type of materials used and the distance travelled - construction traditionally uses material with high embodied carbon values, such as concrete and steel. This issue therefore is scoped in for further assessment.

- Climate change effects such as sea level rise and intensified weather events have the potential to affect the construction of both the dismantling site and the interim storage site. Such effects may

result in damage to facilities, disruption of activity or the mobilisation of hazardous material both on- and off-site. This issue is scoped in for further assessment.

5.8.2 Operation Phase

- The significance of climate change on operational activities will be predicated upon the location of the site. Such effects will generally be uncertain until specific sites are identified.
- Dismantling (and associated transportation) has the potential to be energy intensive and result in direct/ indirect greenhouse gas emissions. At this stage, total carbon footprint of the operational phase is uncertain; however the potential for climatic effects is scoped in for further assessment.
- The interim storage activities are not expected to be energy intensive, although any subsequent waste processing may be. There is the opportunity to drive significant energy efficiency in the development and in transportation; this issue is therefore scoped in for further assessment.

5.8.3 Decommissioning Phase

- Decommissioning and any associated remediation activities are expected to have an energy demand (and greenhouse gas emissions profile) similar to other industrial demolition projects. This issue is scoped in for further consideration on a precautionary basis.

5.9 Material Assets (Transport)

The significance of any construction effects to transport infrastructure will generally be uncertain until specific sites are identified. Note that the effects of transport on other environmental receptors such as air quality, climate change, health etc. are discussed in those sections, rather than in this section.

5.9.1 Construction Phase

- The construction phase at both the dismantling and interim storage sites may require large numbers of vehicle movements to transport construction materials to site and remove construction waste. Such movements will have consequent impacts on local and regional transport networks, the magnitude of which will depend on the sensitivity and capacity of those networks. Potential significant effects are likely to be of short duration, but are scoped in for further assessment.
- The transport requirements of the construction phase may necessitate improvements to local transport networks. The potential effects of transport network improvements are therefore scoped in for further assessment.

5.9.2 Operation Phase

- The SDP will involve dismantled components and materials being transported off-site to the Interim ILW storage facility and/or a commercial ship-breaking facility.

- The significance of dismantling on local and regional transport infrastructure will generally be uncertain until specific sites are identified; however, an increase in the overall number of vehicle movements (when compared to baseline conditions) may be expected. The form of the waste (e.g. RC, RPV, packaged waste) will dictate the potential for out-size loads to be moved off-site, necessitating infrastructure improvements and causing disruption. As these effects would be sustained throughout the operational phase, such issues are scoped in for further assessment.

- Increased traffic during the operational phase may affect noise levels felt by communities and wildlife close to the affected transport networks. Such noise effects are likely to be small in magnitude relative to existing traffic noise levels, but sustained throughout the operational phase. In consequence, noise effects on the local community are unlikely to be significant, but are scoped in on a precautionary basis.

- The operation phase at both the dismantling and interim storage sites may result in increased use of local and regional transport networks. Increased use may have consequent impacts on local and regional transport networks, the magnitude of which will depend on the sensitivity and capacity of those networks. This issue is therefore scoped in for further assessment.

- Transportation always carries a risk of an unforeseen accident. Where radioactive materials are being carried, the public perception that there may be a risk of radioactive discharge requires that the issue of transport safety is considered further, even though the actual risk of any discharge is remote.

5.9.3 Decommissioning Phase

- Decommissioning of the dismantling and interim storage facilities will require the use of transport infrastructure in a similar manner to the construction phase, with the scale and duration of disturbance proportional to the size and complexity of the facilities. Effects are likely to be most obvious locally to the facilities. This issue is scoped in for further consideration on a precautionary basis.

5.10 Material Assets (Waste Management)

5.10.1 Construction Phase

- Facility construction will inevitably give rise to construction wastes, including excavated material. Waste volumes will depend on the scale of development, design, the materials used and the construction and site waste management practices adopted. Potentially significant effects from construction waste are therefore scoped in for further assessment.

5.10.2 Operation Phase

- The SDP is essentially a waste management project. Dismantling activities will generate radioactive, non-radioactive and hazardous waste streams. The magnitude of effects will depend on the volume of wastes generated, the capacity of existing waste management infrastructure and the viability of recycling and reuse options. Although the impact of these wastes on the

environment will be managed through environmental permitting and other statutory regimes, this issue is scoped in for further assessment.

- Once the RC, RPV or packaged ILW has been placed into interim storage, it is assumed that there will be limited operational wastes arising until the material is removed to the GDF and the facility is decommissioned. Waste will be generated, however, if the RC or RPV is stored, as this will necessitate further dismantling, which may take place at the storage site(s). This issue is therefore scoped in for further assessment.

- The interim storage site will be secure and closely regulated. There is a remote risk of unforeseen breaches of waste storage containers; however the waste will be in a secure, solid form, and the risk of waste being released into the environment is not considered significant. It is therefore proposed that this issue is not considered further.

5.10.3 Decommissioning Phase

- Decommissioning and any associated remediation is expected to generate a significant amount of materials that may become waste. Non-hazardous materials may be reused, recycled or disposed of as waste; hazardous wastes (which may include a small quantity of LLW) will require a specialist disposal route. The volume of waste will depend on the size and complexity of the facilities. Effects of decommissioning waste on the environment and on existing waste management capacity is scoped in for further assessment.

5.11 Material Assets (Land Use and Materials)

5.11.1 Construction Phase

- Construction is likely to require the development of land. The scale of effects will depend on the size of plot required, location, current land use, surrounding land uses, and the potential effects of climate change. Such effects will generally be uncertain until specific sites are identified.

- The use of ‘existing’ nuclear Licensed sites for dismantling and interim storage decreases the likelihood that undeveloped, ‘green-field’ sites will need to be used, as existing Licensed sites are likely to be surrounded by previously-developed land. However, the potential use of undeveloped land cannot be excluded. The potential for the loss of ‘green-field’ land is therefore scoped in.

- Construction is likely to require extensive use of building materials and services. The potential effects of this on supply chains and on limited or sensitive natural resources (such as minerals, rare metals and timber products) is scoped in for further assessment.

5.11.2 Operation Phase

- The significance of operational effects will depend upon site location and the size of the dismantling and interim storage facilities. Such effects will generally be uncertain until specific sites are identified.

- The majority of land use effects are associated with the initial land take during construction and any consequent land use change. As the operational activities constitute the proposed land use, the potential significant effects of operational activities on land use are not taken forward for further assessment.

- Effects on neighbouring land might occur as a result of operational actives at the dismantling or interim storage sites, although the precise nature and risk of such effects has yet to be defined. This is scoped in for further assessment on a precautionary basis.

5.11.3 Decommissioning Phase

- Decommissioning and any associated remediation is expected to leave the sites in a suitable state for either reuse or redevelopment. Any effects on the supply of previously developed land will depend on the size of the site, the level of remediation and the range of uses to which the remediated site could be suitable. Therefore, the potential for significant effects on patterns of land use are scoped in for further consideration.

5.12 Cultural Heritage

The significance of any local construction effects on cultural heritage will depend upon site location relative to sensitive local receptors. Such effects will generally be uncertain until specific sites are identified.

5.12.1 Construction Phase

- Construction has the potential to affect unknown archaeological features. Any effects are likely to be very localised in areas of ground disturbance, and the potential for disturbance is likely to depend on the size of the land take, the historic context of the site and the density of previous finds. The potential effects of construction archaeology are therefore scoped in for further assessment.

- Construction also has the potential to affect the setting of existing heritage features. Any effects could potentially have a large radius of effect, depending on viewpoints and the local historic context. The potential effects of construction on the setting of heritage features are therefore scoped in for further assessment.

- Use of construction plant and ground-disturbing activities such as piling and HGV movements have the potential to generate vibration and dust, which may adversely affect sensitive historic/ designated structures in the immediate vicinity of the site and/or access roads. This issue is scoped in for further assessment on a precautionary basis.

5.12.2 Operation Phase

- Operational activities are not expected to involve ground disturbance. The potential for significant effects to unknown archaeology from operational activities are therefore not taken forward for further assessment.

- Visual and other impacts (such as dust) from operational activities and off-site transport could *potentially* affect the setting and value of cultural heritage features. These could potentially have a large radius of effect, depending on viewpoints and the local historic context. This issue is therefore scoped in for further assessment.

- ILW will be periodically placed in the interim storage facility, so there will be very limited activity associated with storage. Potential disturbances are therefore only associated with on-site transport and placement of storage containers. Such activities are unlikely to significantly affect cultural heritage, so are not considered further.

5.12.3 Decommissioning Phase

- Decommissioning and any associated remediation are not expected to result in greater below ground disturbance than has already occurred during the construction phase. Consequently effects of decommissioning on below ground archaeology are not considered further.

- Decommissioning may generate disturbance (such as noise, traffic and dust); as well as potentially changing the built environment if structures are removed or replaced. Such effects have the potential to affect the setting of cultural heritage features. Although measures would necessarily be in place to manage levels and durations of disturbance; the potential for significant effect on heritage features are scoped in, on a precautionary basis.

5.13 Landscape and Townscape

The significance of any local construction effects on the landscape will depend upon site location relative to sensitive local receptors and the degree of change in the prevailing landscape and townscape character. Such effects will generally be uncertain until specific sites are identified.

5.13.1 Construction Phase

- Construction activity has the potential to affect landscape and townscape. Any effects could potentially have a large radius of effect, depending on viewpoints and local topography. This issue is therefore scoped in for further assessment.

- Construction activities are more likely to result in significant effects where developments are within (or have viewpoints from) conservation areas, or designated landscapes. This issue is scoped in for further assessment, on a precautionary basis.

- Landscape effects are likely to be of greater magnitude where undeveloped land (and previously developed land which has reverted to a ‘wild’ state) are affected, as such sites are perceived to contribute more positively to prevailing landscape character. The effects of developing such land is scoped in for further assessment, on a precautionary basis.

5.13.2 Operation Phase

- The provision of facilities and subsequent operational activities at the dismantling site may entail changes in landscape or townscape character. These potential effects of are therefore scoped in for further assessment.

- Interim storage is not expected to be associated with significant landscape or visual effects, so is not considered further.

5.13.3 Decommissioning Phase

- Decommissioning is expected to generate disturbance (such as noise, traffic and dust); as well as potentially changing the built environment if long-standing structures are removed or replaced. Such effects have the potential to affect the setting of landscape or townscape features, as well as the amenity value of landscapes themselves. Although measures would necessarily be in place to manage levels and durations of disturbance, the potential for significant effect on landscapes and townscapes are scoped in, on a precautionary basis.

6. Assessment and Reporting

This section presents the proposed framework for undertaking the SEA including the draft objectives and guide questions (**Section 6.2**). The draft objectives reflect the issues arising from the analysis of the environmental baseline, its evolution and the review of plans, programmes and strategies (see **Section 3 and 4, Annex A** and **Annex B**). The method of considering cumulative effects in the Environmental Report is described in **Section 6.3**. The proposed form and content of the Environmental Report is outlined in **Section 6.4**.

6.1 Proposed SEA Categories, Objectives and Guide Questions

The establishment of appropriate objectives and guide questions is central to the assessment process and provides a method to enable the consistent and systematic assessment of the effects of the SDP.

What are SEA Objectives?

'Objectives specify a desired direction for change and how they should *focus on outcomes*, not how the outcomes will be achieved (e.g. not specifying targets). They should focus on the ends rather than the means; on the state of the environment rather than the pressures on it. For instance, they should focus on "improving biodiversity" or "improving access", rather than say establishing wildlife areas or protecting rail corridors (Therivel, R. (2005) *SEA in Action*).

The draft SEA objectives described in this section have been informed by examination of the baseline evidence, incorporating the identification of key issues, and the review of plans and programmes and the issues summarised in the previous sections. Their development also reflects guidance contained in *The Environmental and Sustainability Appraisal Tool Handbook for the MOD Estate (Volume Two: SEA)* (MOD 2006). Broadly, the objectives present the preferred environmental outcome which usually involves minimising detrimental effects and enhancing positive effects.

Guide questions are proposed for each objective and have been developed to provide a detailed framework against which the SDP proposals can be assessed. A general assumption that underpins the proposed objectives is that all existing legal requirements will be met, and as such, statutory compliance has not been reflected individually in the objectives or guide questions.

The objectives and assessment questions listed in **Table 6.1** will be reviewed following the consultation period. Please note that some of the guide questions begin to anticipate the more site specific effects outlined in Section 5. Following the update of the Scoping Report to include more site specific contextual information, these questions (along with the objectives) will be reviewed.

Table 6.1 Proposed SEA Themes, Objectives and Guide Questions

Assessment Category & Overall Objective	Proposed Assessment Questions *Will the SDP Proposals…*
A. Biodiversity and Nature Conservation Protect and enhance habitats, species and ecosystems.	Affect animals or plants, including protected species? Affect important conservation sites? Affect the structure and function of natural systems (ecosystems)? Affect public access to areas of wildlife interest? Have an impact on fishery resources?
B. Population Promote a strong, diverse and stable economy with opportunities for all; minimise disturbance to local communities and maximise positive social impacts.	Affect the social infrastructure and amenities available to local communities? Affect local population demographics and/ or levels of deprivation in surrounding areas? Affect opportunities for investment, education and skills development? Affect the number or types of jobs available in local economies? Affect how diverse and robust local economies are? Affect the sense of positive self-image and the attractiveness of surrounding areas as places to live, work and invest in?
C. Health & Wellbeing Protect and enhance health, safety and wellbeing of workers and communities; minimise any health risks associated with processing submarines.	Affect the health or safety of SDP workers, or other people working at the proposed sites? Affect the health, safety and well-being of local communities? Affect local healthcare infrastructure and provision?
D. Health (Noise & Vibration) Minimise disturbance and stress to people, wildlife and historic buildings caused by noise and vibration.	Result in significant changes in noise and vibration sources or levels? Affect noise and vibration levels to sensitive receptors (e.g. people, wildlife and historic buildings)?
E. Geology and Soils Minimise threats to the extent and quality of soils and geological resources.	Have an effect on soil quality, extent and/ or density? Have an effect on contamination levels? Affect geological conservation sites and important geological features? Affect land stability? Affect coastal processes and/ or erosion?
F. Water Maximise water efficiency, protect and enhance water quality and minimise flood risk.	Affect demand for water resources? Affect the amount of waste water and surface runoff produced? Cause any changes in radioactive or other hazardous discharges to water? Affect the quality of groundwater, surface waters or sea water? Affect the distribution and quality of freshwater or marine sediments? Affect existing flood risks? Be significantly affected by flooding from any source?

Assessment Category & Overall Objective	Proposed Guide Questions *Will the SDP Proposals…*
G. Air Minimise emissions of pollutant gases and particulates and enhance air quality.	Affect air quality? Cause a change in radioactive emissions to air? Affect emissions of ozone-depleting substances? Create a nuisance for people or wildlife (for example from dust or odours)?
H. Climate Change and Energy Use Reduce energy consumption, minimise detrimental effects on the climate from greenhouse gases and maximise resilience to climate change.	Create a change in the amount of carbon dioxide and other greenhouse gases emitted? Be significantly affected by climate change (for example rising sea levels and more extreme weather events)? Affect how climate change might impact on the wider environment? Promote or impede the use of energy efficiency measures, low carbon and/ or renewable energy sources? Have wider implications for the mitigation of climate risks?
I. Material Assets (Transport) Minimise the detrimental impacts of travel and transport on communities and the environment, whilst maximising positive effects.	Affect the number and frequency of heavy, oversized, radioactive and/ or hazardous loads being transported off-site, particularly through population centres and other sensitive receptors? Increase or decrease traffic congestion around SDP sites? Increase or decrease accident risks around SDP sites?
J. Material Assets (Waste Management) Minimise waste arisings, promote reuse, recovery and recycling and minimise the impact of wastes on the environment and communities.	Increase the amount of radioactive waste to be disposed of? Affect the amount of hazardous waste to be disposed of? Affect the amount of non-hazardous wastes produced? Affect the capacity of existing waste management systems, both nationally and locally? Maximise re-use and recycling of recovered components and materials? Help achieve government and national targets for minimising, recovering and recycling waste? Affect the environmental risks associated with managing radioactive and hazardous wastes?
K. Land Use and Materials Contribute to the sustainable use of land and natural and material assets.	Change patterns of land use on or around SDP sites? Affect any existing or proposed redevelopment/ regeneration programmes? Lead to the loss of undeveloped land or green spaces? Increase the burden on limited natural resources such as aggregates or wood? Promote the use of sustainable design and construction practices and help the government achieve its targets for the built environment?

6.2 Completing the Assessment

The assessment of the SDP proposals will be undertaken by testing the options against the SEA objectives and detailed assessment questions identified in this Scoping Report. Commentary on impacts will include:

- the nature and scale of the potential environmental effects (what is expected to happen);
- when the effect could occur (timing);
- what mitigation measures might be appropriate for potentially significant negative effects;
- what options there are to enhance positive effects;
- assumptions and uncertainties that underpin the appraisal; and
- what additional information will be required to address uncertainties and to undertake more detailed site-specific assessment.

Effects will be characterised as short, medium or long term. It is proposed that, for SDP, short term effects = up to 5 years after each activity begins; medium term effects = 5 years to the end of the activity; long term effects = after the activity has ceased. *Consultees' views on this proposal are welcomed.*

Tables 6.2 and 6.3 set out the proposed assessment framework developed to meet the requirements of the SEA Directive. It contains the SEA themes, objectives and guide questions. **Table 6.2** will be used to record the assessment of the generic effects associated with each SDP stage and with developing the three generic site types ('green-field,' 'brown-field' and 'Existing' Licensed/ Authorised sites). **Table 6.3** will be used to record the assessment of the effects associated with developing individual Licensed or Authorised sites.

Table 6.2 Proposed assessment framework for generic site options

Options / Objectives	Option 1: 'Greenfield' site	Option 2: 'Brownfield' site	Option 3: 'Existing' Licensed/ Authorised Site
A. Biodiversity and Nature Conservation Protect and enhance habitats, species and ecosystem functionality.	**Context:** The UK Government is committed to promoting sustainable development by conserving and enhancing biodiversity and the integrity of the habitats on which wildlife depends. This is set out in a number of documents such as the *Habitat Regulations* (as amended 1998), *UK Sustainable Development Strategy, PPS9 Biodiversity and Geological Conservation* and the Biodiversity Strategy for England *Working with the grain of nature* (2002). A variety of legislation exists to enforce this in a number of circumstances (e.g. Countryside and Rights of Way Act (1981, 2000) and the Environmental Protection Act (1990)). There are also a number of European Directives which place requirements on the UK and other Member countries to make the provision for the protection of specified habitats and species. The MOD is the UK's largest public owner of sites designated for nature conservation, including 171 SSSI and their equivalent in Northern Ireland, Areas of Special Scientific Interest (ASSIs). Over 110 also had international and European nature conservation designations. In March 2008 the following percentages of MOD managed SSSIs were in target condition: 85% in England (against a Government target of 95% by 2010), 68% in Scotland (target 95% by 2010), 78% in Wales (target 85% by 2013) and 57% in Northern Ireland (target 95% by 2013). The Defence Lands Handbook (JSP 362,		

Options / Objectives	Option 1: 'Greenfield' site		Option 2: 'Brownfield' site		Option 3: 'Existing' Licensed/ Authorised Site	
	1980), following amendment, reflects the need for appropriate assessment regarding EU protected sites. A Memorandum of Understanding exists between the MOD and Defra which enables mutual agreement to be agreed on planned activities. Similarly, the MOD has a Joint Declaration of Intent with statutory bodies including Natural England, Scottish Natural Heritage and the Countryside Council for Wales. This requires the MOD to consult the statutory bodies before changing patterns of landuse, activities or changes in intensification of use.					
	Score: Negative	-	**Score:** Positive	+	**Score:** Major positive	++
	Key Impacts: **Uncertainty:** **Mitigation:**		**Key Impacts:** **Uncertainty:** **Mitigation:**		**Key Impacts:** **Uncertainty:** **Mitigation:**	

Table 6.3 Proposed assessment matrix for specific sites

Assessment Category and Objective	Likely Effects (including direct , indirect, cumulative and synergistic effects, and possible mitigation measures)	Timescale		
		Short-Term	Medium-Term	Long-Term
A. Biodiversity and Nature Conservation: Protect and enhance habitats, species and ecosystem functionality.	A description of the biodiversity and nature conservation effects of each option will be provided here, with reasoning and justification included…	-	0	0
B. Population: Promote a strong, diverse and stable economy with opportunities for all, minimise disturbance to local communities and maximise positive social impacts.	A description of the population effects of each option will be provided here…	++	+	0
C. Health, Safety and Wellbeing Protect and enhance health, safety and wellbeing of communities and minimise potential risk associated with processing radioactive and non-radioactive materials.	A description of the health and wellbeing effects of each option will be provided here…	0	0	+
….etc				

++ Strongly Significant positive effect	+ Significant positive effect	0 No significant effects	- Significant negative effect	- - Strongly significant negative effect

Note: This draft SEA matrix is for illustrative purposes only. The full matrix will be finalised after comments have been received on the SEA categories, objectives and appraisal criteria.

Box 6.1 provides examples of the factors that are likely to be considered when determining the relative significance of a potential effect (and will be in addition to the information that is provided in Annex II of the SEA Directive). The SEA Directive includes the following as material factors to be considered:

- the probability, duration, frequency and reversibility of the effects;
- the cumulative nature of the effects;
- the trans-boundary nature of the effects;
- the risks to human health or the environment (e.g. due to accidents);
- the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);
- the value and vulnerability of the area likely to be affected; and
- the effects on areas or landscapes which have a recognised national, European or international protection status.

Box 6.1 Examples of Factors that Could Influence the Determination of Significance

Significant Effect	Minor Effect
Extensive	Localised
Will affect many people	Will affect few people
Large change in environmental conditions	Small change in environmental conditions
Effect will be unusual or particularly complex	Effect will be ordinary or simple
Will affect valuable or scarce features or resources	Will not affect valuable or scarce features or resources
High risk that environmental standards will be breached	Low risk that environmental standards will be breached
High likelihood that protected sites/areas/features will be affected	Low likelihood that protected sites/areas/features will be affected
High probability of effect occurring	Low probability of effect occurring
Irreversible	Reversible
Mitigation difficult	Mitigation straightforward

Identifying effective mitigation measures will also be a fundamental part of the SEA. **Box 6.2** provides information on types and examples of mitigation measures that might be proposed. However, any mitigation measures that are identified will be suggestions only and may not necessarily be the responsibility of MOD and/or Contractor(s) to implement. No attempt will be made to estimate financial costs for mitigation.

Box 6.2 Suggested Mitigation measures

Mitigation measures may include:

a. Enhancement – where there are no negative impacts, but measures are adopted to achieve a positive move towards the sustainability objectives;

b. Avoidance or reduction – where negative impacts are avoided or minimised;

c. Mitigation – where negative impacts occur but measures can be put in place to ameliorate them; and

d. Compensation – where negative impacts occur that cannot be mitigated (e.g. an area of habitat that is unavoidably damaged may be compensated for by recreating similar habitat elsewhere). Compensation is a last resort.

Examples of how mitigation measures could be incorporated into the SDP proposals could include:

e. Applying technical measures during the implementation stage of an option (e.g. application of design principles or considerate constructors' scheme);

f. Undertaking further research to provide more information on major issues and resolve uncertainties;

g. Undertaking further assessments to assess specific issues in depth (e.g. Archaeological Evaluation, Appropriate Assessment or Built Environment Assessments such as BREEAM, CEEQUAL or DREAM);

h. Applying ongoing management tools (e.g. Environmental Management System or Construction Environmental Management Plan); and

i. Working with partners such as the Environment Agency, Local Authority or Regional Development Agency.

6.3 Considering Cumulative Effects

The SEA Directive, and its implementing regulations in the UK, requires that secondary, cumulative and synergistic effects are considered as part of the assessment.

Table 6.4 Definitions of Secondary, Cumulative and Synergistic Effects

Type of Effect	Definition*
Secondary (or indirect)	Effects that do not occur as a direct result of the SDP, but occur at distance from the direct impacts or as a result of a complex pathway. Examples of a secondary effect of the SDP would include the materials (and embedded carbon) used in the construction of the dismantling and interim storage facility.
Cumulative	Effects that occur where several individual activities which each may have an insignificant effect, combine to have a significant effect. Examples of a cumulative effect of the SDP could include the potential effects on a European designated site, where a habitat or species is vulnerable and the cumulative effects of disturbance and pollutant emissions arising from construction and operation causes a significant impact.
Synergistic	Effects that interact to produce a total effect that is greater than the sum of the individual effects. This may also relate to the potential for additive synergy between radioactive materials and non-radioactive materials, such as other chemical compounds, asbestos etc).

*Adapted from SEA guidance, ODPM (2005)

For the assessment of cumulative effects to be effective, guidance indicates that these effects should be considered throughout the stages of assessment in preference to being seen as a separate assessment. In the course of completing this Scoping Report, this was achieved by:

- collecting baseline information and completing a review of plans and programmes which took a broad view of potential impacts (please refer to **Section 3, 4 and 5**); and
- ensuring appropriate reference is made to guidance such as that produced by Institute of Ecology and Environmental Management which includes consideration of potential direct, indirect and cumulative effects arising from activities on European designated sites (SACs and SPAs) and sites of national nature conservation importance (SSSIs and NNRs).

A matrix similar to that shown in **Table 6.5** could be used to summarise the effects of each of the stages considered for the SDP proposals. The cumulative effects of each of the stages can then be summarised and their relative positive and negative effects considered.

Table 6.5 Example of a Cumulative Assessment Matrix (illustrative purposes only)

Stage	Stage I Location and development of dismantling and processing facility				Stage II Location and development of Interim Storage Facility				Stage III etc…			
Sustainability Objectives	Biodiversity & Nature Conservation	?	Energy & Climate Change	0	Biodiversity & Nature Conservation	+	Energy & Climate Change	+	Energy & Climate Change	++	Energy & Climate Change	++
	Communities & Social Values	0	Transport	0	Communities & Social Values	+?	Transport	+	Transport	+?	Transport	+
	Health, Safety & Well-Being	+	Waste	+	Health, Safety & Well-Being	0	Waste	?	Waste	0	Waste	?
	Noise & Vibration	+	Land Use & Built Environment	+	Noise & Vibration	?	Land Use & Built Environment	+	Land Use & Built Environment	?	Land Use & Built Environment	?
	Geology & Solis	0	Economy & Employment	+	Geology & Solis	++	Economy & Employment	++	Economy & Employment	++	Economy & Employment	+
	Water & Drainage	+	Historic Environment	0	Water & Drainage	++	Historic Environment	-	Historic Environment	++	Historic Environment	--
	Air Quality	0	Landscape & Townscape	0	Air Quality	++	Landscape & Townscape	++	Landscape & Townscape	++	Landscape & Townscape	+
	• Positive impacts because…. • Negative impacts because… • Impacts dependent on…..				• Positive impacts because…. • Negative impacts because… Impacts dependent on…..				• Positive impacts because…. • Negative impacts because… Impacts dependent on…..			

6.4 Environmental Report Content

The assessment of potential effects will then be presented in the SEA Environmental Report which will be published alongside the other public consultation documents for the SDP. The Environmental Report has the following purpose:

- To ensure that the significant potential environmental (and, where relevant, social and economic) impacts associated with the different SDP options are identified, characterised and assessed.
- To propose measures to mitigate the adverse effects identified and, where appropriate, to secure enhancement of any potential positive effects.
- To provide a framework for monitoring the potential impacts arising from the adoption of the selected SDP option.
- To provide sufficient information to those affected so that the SDP achieves it's stated aims with respect to public consultation and stakeholder engagement.

In accordance with the requirements of Schedule 2 of the SEA Regulations (which reproduce the SEA Directive Annex I issues), the SEA Environmental Report will consist of:

i. A Non-technical Summary
ii. A chapter setting out the scope and purpose of the assessment
iii. A chapter setting out the main objectives of the SDP and its relationship to other relevant plans and programmes. This will include consideration of all stages of the SDP
iv. A chapter setting out the relevant aspects of the current state of the environment, the likely evolution of the baseline and any existing problems which are relevant to the SDP
v. A chapter setting out the proposed approach to assessment including the relevant environmental protection objectives
vi. A chapter outlining the likely significant environmental effects of the SDP options (e.g. the 'reasonable alternatives' within the project), including cumulative effects, mitigating measures, uncertainties and risks. This will also include issues associated with transport of waste and the eventual decommissioning of the dismantling and storage facilities. The reasons for selecting the proposed options and any difficulties encountered in completing the assessment will be explained
vii. A chapter presenting views on implementation and monitoring
viii. An appendix outlining how the Quality Assurance checklist identified in the ODPM SEA Guidance has been met.

Please also refer to **Table 1.1 (Section 1)** which sets how the information gathered in this Scoping Report (and the later 'existing' site update) will be used to support the completion of the Environmental Report, in line with the SEA requirements.

7. Summary and Next Steps

This generic Scoping Report presents the initial findings of the initial stage (Stage A) of the assessment process for undertaking the SEA of the SDP. The structure is derived from good practice guidance provided by ODPM (now DCLG) and the MOD. It has been prepared to meet the requirements of the SEA Directive and associated Regulations. It fulfils the requirements relevant to Stage A, as outlined within the Quality Assurance Checklist presented in **Annex D**.

Comments from Scoping Consultees will be invited during the five week consultation period on the proposed methodology, objectives, and other information set out within this report. Following the end of consultation, the comments received will be considered and the assessment process amended as appropriate. The scoping report will be updated to include consultation responses and appropriate information on the credible Licensed or Authorised sites that will have been identified through a parallel site selection work-stream. Further consultation will then take place with Scoping Consultees on the updated scoping report and site short-list. The information will also be placed in the public domain.

The next stages of the SEA process (Stages B and C) involve the prediction and evaluation of the effects that the credible SDP options are likely to have. The assessment will identify and characterise the impacts associated with the implementation of specific aspects of the SDP and will propose, where appropriate, mitigating measures for adverse impacts as well as opportunities to enhance beneficial aspects.

Submarine Dismantling Project

SEA Scoping Report

Annex A – Review of National Baseline Conditions

June 2010

Defence Equipment & Support

Summary of the current National baseline by SEA Annex I issue

Biodiversity and Nature Conservation

Number of SSSIs: Over 4,000 (around 1,400 SSSIs in Scotland).[1]
Number of SACs: 608 covering around 2,505,165 ha (approximately 10% of the UK's land area).[1]
Number of SPAs: 256 covering around 1,610,812 ha (approximately 6.7% of the UK land area).[1]
Other important sites: 146 Ramsar sites covering around 3% of the UK land area[1]. UK maps showing the distribution of protected sites are available online.[2]

Current issues for biodiversity, flora and fauna: Current cause of unfavourable condition in designated sites include: lack of remedial management; under- or over-grazing; water management; water quality; development with planning permission; and air pollution.[1]
In 2006, 56% of all SSSI assessment features were in a 'favourable' condition; 43% in 'unfavourable' condition; and the remaining 1% had been partly or wholly destroyed. The unfavourable condition of SSSIs is attributable to the following activities: lack of remedial management (850 SSSI features affected); under- or over-grazing (736 and 679 features affected respectively); water management (311); water quality (314); development with planning permission (55); and air pollution (18).[1]

MOD specific data:
The MOD rural and urban estate supports 37 UK Government Biodiversity Action Plan (UK BAP) priority habitats and 139 UK BAP priority species.[3]
In March 2009 the MOD had management responsibility for 172 Sites of Special Scientific Interest (SSSIs) and their equivalent in Northern Ireland, Areas of Special Scientific Interest (ASSIs). Over 110 also had international and European nature conservation designations.[3 4]
In March 2009 the following percentages of MOD managed SSSIs were in target condition: 91.5% in England (against a Government target of 95% by 2010), 68% in Scotland (target 95% by 2010), 78% in Wales (target 85% by 2013) and 57% in Northern Ireland (target 95% by 2013).[3 4]

References:

1. State of the Natural Environment Report' (2008) http://naturalengland.etraderstores.com/NaturalEnglandShop/product.aspx?ProductID=31a51089-6654-4d48-8f89-30d3c8c66aee
2. Magic maps, http://www.magic.gov.uk/StaticMaps/gb.asp
3. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf. And MOD, Stewardship Report on the Defence Estates, 2007-08, http://www.defence-estates.mod.uk/estate/estatestrategy.php
4. MOD, Stewardship Report on the Defence Estates, 2008/09, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt200809v7.pdf

Population

Demographics
Resident population of 61,383,200 in mid-2008.[1]
62% of population is of working age (aged 16 to 59/64). (66.1% of males and 58.1% of females).[1]
79.1% of working age population is economically active.[2]
74.8% of working age population is in employment.[2]
5.4% of working age population is unemployed.[2]

Of those of working age in 2008: 28.9% have NVQ4 and above; 47.0% have NVQ3 and above; 65.1% have NVQ2 and above; 78.7% have NVQ1 and above; 8.6% have other qualifications; and 12.7% have no qualifications.[3]

In England and Wales, between 2007/08 and 2008/099 estimates from the British Crime Survey (BCS) indicate vehicle-related thefts fell by 10 per cent, burglary remained the same and violent crime by 6 per cent. BCS violence in 2008-9 was 4 per cent lower than estimated in 2007-8.
Differences in legal systems and police recording mean that the recorded crime figures for Scotland are not directly comparable with recorded crime figures for England and Wales. In Scotland, recorded vehicle theft and robbery decreased by 5 per cent and 3 per cent respectively between 2007/08 and 2008/09.
Number of crimes recorded by the police in England and Wales:[7]

	2007/08	2008/09	Change
	Number of offences (thousands)		%
Violence against the person	961.2	904	-6
Sexual offences	53.5	51.5	-4
Robbery	84.8	80.1	-5
Burglary	583.7	581.4	0

References:

1. Office for National Statistics http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15106
2. NOMIS, Summary of Labour Force Survey Data, Jan-March 2010, https://www.nomisweb.co.uk/articles/news/files/LFS%20headline%20indicators.xls#National!A1
3. NOMIS, Official Labour Market Statistics, Annual Population Survey, 2008, https://www.nomisweb.co.uk/output/dn87000/{AFB7B1A5-142C-4D4F-BDE2-467C1389CB90}/nomis_2009_08_20_133409.xls
4. NOMIS, Official Labour Market Statistics, Annual survey of hours and earnings - resident analysis, 2008, https://www.nomisweb.co.uk/output/dn87000/{AFB7B1A5-142C-4D4F-BDE2-467C1389CB90}/nomis_2009_08_20_135116.xls
5. NOMIS, Official Labour Market Statistics, Job Density, 2007, https://www.nomisweb.co.uk/output/dn87000/{AFB7B1A5-142C-

Offences against vehicles	656.4	592.1	-10
Other theft offences	1,121.10	1,080.70	-4
Fraud and forgery	155.4	163.3	5
Criminal damage	1,036.20	936.7	-10
Drug offences	229.9	242.9	6
Miscellaneous other offences	69.4	71.1	3
Total recorded crime	4,951.50	4,703.80	-5

In 2008/09, the UK had 33,396 schools: 3,209 nursery (150,300 students); 21,568 primary (4,868,800 students); 4,183 secondary (3,928,500 students); 1,378 special (100,900 students); and 511 pupil referral units (15,700 students).[8] (Total of 9,064,200 pupils at maintained schools and a further 627,100 at non-maintained schools). [8]

MOD specific data:
MOD employs some 281,000 military and civilian personnel. [9]

4D4F-BDE2-467C1389CB90}/nomis_2009_08_20_135513.xls

6. Defra, Sustainable Development Indicators, 2009, http://www.defra.gov.uk/sustainable/government/progress/documents/SDIYP2009_a9.pdf
7. Home Office, British Crime Survey in England and Wales 2008/09, http://rds.homeoffice.gov.uk/rds/pdfs09/hosb1109vol1.pdf
8. DCSF, Education and Training Statistics for the United Kingdom: 2009, http://www.dcsf.gov.uk/rsgateway/DB/VOL/v000891/Chapter1.xls
9. MOD, Sustainable Development Report and Action Plan, 2009, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt200809v7.pdf

Socio-Economic

In 2008 UK per capita Gross Value Added (GVA) was 20,520.[1]
In 2009 the median full-time gross hourly pay in UK was £12.43. This compares to £11.98in 2008. [2]
In Jan-March 2010, UK had an unemployment rate of 8% (all people aged over 16). This compares to Jan-March 2009, when UK had an unemployment rate of 7.1 %.[3]
The recent UK recession has caused a downturn in many sectors and markets of the UK economy. In the first quarter of 2010 the UK Economy contracted by 0.2% compared to the first quarter of 2009. Changes between quarters have however been positive (UK GDP rose by 0.3% between the fourth quarter of 2009 and the first quarter of 2010). [4]

Output of the production industries rose by 1.2% between the last quarter of 2009 and the first quarter of 2010; construction output fell by 0.5%; output in the service industries rose by 0.2%; and household expenditure remained unchanged and was 0.5% lower than the first quarter of 2009. Manufacturing output gre by 1.2% [4]

In the period October 2008 – September 2009 the UK had a total of 27,543,300 [5] jobs with an estimated job density of 0.67 [6]. Over the year between April 2009 and April 2010 the unemployment rate has remained stable at 4.1% although the number of unemployed increased by 0.67% (the unemployment rate has not been higher since 1997). However the economic inactivity rate stands at 21.5% (first quarter 2010), an increase of 0.2% on the previous quarter. [6]

Median hourly pay for full time workers in the UK was £12.43. (males' median being £12.50 and the female median being £9.70). [2] In the three months to March 2010 pay growth (including bonuses) rose by 3.6% in the private sector over the previous year compared with 4.4% for the public sector. Excluding bonus payments, growth in the private sector over the year was 1.2% compared with 4% for the public sector.[6]

MOD specific data:
The MOD is a major source of employment. Some 281,000 [8] sailors, soldiers, airmen and civilians are directly employed in Defence, and many more are sustained indirectly in the Defence industry through the £38.6Bn the Department spent in 2008/09 to support and equip the Armed Forces. [3]
Defence and Aerospace is the United Kingdom's second largest industry sector. The Typhoon programme alone sustains an estimated 100,000 UK jobs, many highly skilled and paid, and has produced a number of technology spin-offs. [9]

References:

1. Regional, sub-regional and local gross value added 2009, http://www.statistics.gov.uk/pdfdir/gva1209.pdf
2. NOMIS, Official Labour Market Statistics, Annual survey of hours and earnings - resident analysis https://www.nomisweb.co.uk/output/dn87000/{AFB7B1A5-142C-4D4F-BDE2-467C1389CB90}/nomis_2009_08_20_160703.xls
3. NOMIS, Official Labour Market Statistics, National Indicators, June-August 2009, https://www.nomisweb.co.uk/articles/news/files/LFS%20headline%20indicators.xls
4. ONS, UK Snapshot, http://www.statistics.gov.uk/instantfigures.asp
5. Nomis, Labour Force Survey, 2009, https://www.nomisweb.co.uk/output/dn99342/%7B72392694-DD7D-4881-BA52-FECDECC61DC1%7D/nomis_2010_06_10_102048.xls
6. ONS Labour Market Statistics, May 2010, http://www.statistics.gov.uk/pdfdir/lmsuk0510.pdf
7. Based on estimated 2009 working age population contained in ONS, 2008 based National Population Projections, http://www.statistics.gov.uk/downloads/theme_population/NPP2008/NatPopProj2008.pdf
8. MOD, Sustainable Development Report and Action Plan, 2009, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprp

	t200809v7.pdf 9. MOD, Stewardship Report on the Defence Estates, 2007-08, http://www.defence-estates.mod.uk/estate/estatestrategy.php

Human Health and Wellbeing

Non-radiological

Life expectancy at birth for males of 77.2 years (2006). [1]
Life expectancy at birth for females of 81.5 years (2006). [1]

In 2007 70% of males and 66% of females in UK rated their health as Good; 21% of males and 22% of females rated their health as fairly good [1].

In 2007 the main causes of death in the UK were diseases of the circulatory system, and neoplasms (cancers) [1]. There are high levels of hypertension and overweight/obesity in the UK. Public health trends often correlate with deprivation and these figures for illness are invariably far less favourable in deprived areas. [2]

Radiological

Public radiological dose limits (excluding natural background radiation and medical procedures) are:
- The sum of exposures should not exceed the dose limit of 1mSv per year
- The dose received from any new source does not exceed 0.3mSv per year
- The dose received from any single site does not exceed 0.5mSv per year.

Exposures to members of the public from artificial sources remain at a very low level. Individual annual doses to members of the public from practices, other than medical procedures, are generally much less than the annual dose limit of 1 mSv.[3]

The average radiation dose (including natural background radiation and medical procedures) to the UK population is approximately 2.7 mSv/y (around 84% is due to natural sources, which varies in intensity as a function of underlying geology). Only 0.1% of the annual average dose is directly due to radioactive discharges from nuclear and non nuclear sources. (The 2.7mSv is composed of: 0.33mSv natural Cosmic radiation; 0.35mSv natural Gamma radiation; 0.25mSv natural internal radiation; 1.3mSv natural Radon radiation; 0.41mSv artificial medical radiation; 0.006mSv artificial occupational radiation; 0.006mSv artificial fallout radiation from weapons testing in the past; 0.0009mSv artificial disposal radiation; and 0.0001mSv artificial consumer products radiation). [3]

The legal radiation dose limit set for workers is 20 mSv/y. [3]

MOD specific data:
In 2003 radiological discharge was assessed as being insignificant or extremely low at all main defence related sites. Exposures of less than 5µSv were received by all critical groups around all defence sites except Holy Loch (9µSv). [3]

References:
1. ONS, United Kingdom Health Statistics, 2009 online update, http://www.statistics.gov.uk/downloads/theme_health/ukhs3-supp/UKHS2009.pdf
2. Health Survey for England 2007 Healthy lifestyles: knowledge, attitudes and behaviour Summary of key findings, Office of National Statistics, http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=6637).
3. Health Protection Agency, Ionising Radiation Exposure of the UK Population: 2005 Review, http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733839711?p=1197637096018

Human Health (Noise)

Percentage of people disturbed by residential sources: 26% in 2008. [1]
Percentage of people disturbed by non-residential sources: 10% in 2008. [1]
Major sources of noise: Traffic, alarms, fireworks and children were the most cited causes of disturbing noise.[1]

Current issues for noise: Noise and vibration are predominantly local in nature, and difficult to measure on a regional or national scale.[1] The UK planning system recognises that noise has the potential to seriously impact on quality of life and to cause disturbance to sensitive ecological receptors. [1]
Essential operational military activities such as training and flying are exempt from Part III of the Environmental Protection Act 1990 and Directive 2002/49/EC on the Assessment and Management of

References:
1. Environmental Protection UK, National Noise Survey Report 2008, http://www.environmental-protection.org.uk/assets/library/documents/National_Noise_Survey_2008.pdf
2. MOD, Aircraft Environmental Noise Report, revised version dated May 2008, http://www.mod.uk/NR/rdonlyres

Environmental Noise.[3] **MOD specific data:** The MOD's activities that are principal sources of noise are flying from airfields; ground-running and testing of engines; low flying; and use of air, gunnery and explosive ranges. There is no central analysis of MOD sources of environmental noise.[2]	/72677C06-190B-41F0-A166-F28AABED2CEB/0/WRAYReportRevisedHolmesFOIRequestPartialUnredact.pdf The Pattern of Military Lowflying across the United Kingdom 2007/2008 http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/AirSafetyandAviationPublications/MilitaryLowFlying/AnnualReports/

Soil and Geology

Contamination:
There is estimated to be around 300,000 hectares of land affected by industrial activity in England and Wales which may be contaminated, (around 2% of the land area in England and Wales).[1] Scotland is estimated to have around 82,034 hectares of contaminated land.[2]

Predominant geology: The geology of the UK is diverse and has resulted in over 800 soil types. As a broad overview the following rock types exist in a progression from North West to South East: Tertiary Volcanic Rocks; Crystalline Rocks of Pre-Cambrian and later age; Lower Carboniferous to Cambrian; Triassic and Permian; Jurassic; Cretaceous; Tertiary; and finally a return to Cretaceous.[3]
Topographic features: The UK has a diversity of mountain ranges and flood plains.
SSSIs with geological designation: Around 1,200 in UK (507 in Scotland).[3]
Other important features: There are over 50 Local Geological Sites (formerly Regionally Important Geological and Geomorphological Sites (RIGS)) groups in the UK.[4] The UK has 7 Geoparks (3 in England, 2 in Scotland and 1 each in Wales and Northern Ireland).[3]

Current issues for soils and geology: Human activity has left a legacy of soil contamination and pollution that pose a risk to water quality, ecosystems and human health as well as to land and property value.[3]

MOD specific data:
In March 2008 75% of the UK built estate (around 59,600 ha) was covered by a land assessment.[5]

References:

1. Indicators for Land Contamination, Science Report SC030039/SR, Environment Agency, August 2005
2. Dealing with land contamination in Scotland A review of progress 2000-2008
3. The European Geoparks Network, http://www.europeangeoparks.org/isite/home/1%2C1%2C0.asp
4. Natural England, RIGS, http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/lgs/default.aspx
5. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf

Water

Major surface water features: The UK has a diversity of: inland and coastal waters (such as reservoirs, lakes, rivers, canals, estuaries, transitional waters, and coastal waters).
Major ground water features: The principal aquifers of the UK are found in the lowlands of England. The most important are the Chalk, the Permo-Triassic sandstones, the Jurassic limestones and the Lower Greensand.[2]

Flood risks: In England and Wales an estimated 2.8 million properties (approximately 12% of all properties) lie in areas at risk of flooding. In Scotland, an estimated 99,000 properties (around 3.9% of all properties) lie in areas at risk of flooding (26,000 at risk from the sea and 73,000 at risk from rivers).[2]

Water quality: In 2008 72% of rivers in England were of good biological quality; and 79% of rivers were of good chemical quality. River water quality has been steadily increasing since 1990.[2]
Coastal water quality information is only available for Scottish waters, classified by the ADRIS coastal classification scheme. Of the 6,950 km of coastal waters around the Scottish coast 89 per cent were classified as excellent, 7 per cent as good, 3 per cent as fair/poor and less than 1 per cent as seriously polluted in 2000.[4]

In 2009, all but 14 of the 587 (97.6%) coastal bathing waters in the UK met the mandatory standards of the European Bathing Water Directive.[2]

Protected water features: Protected water features include: waters designated for human consumption (including those abstracted from groundwater); areas designated for the protection of economically significant aquatic species (e.g. shellfish or freshwater fish); bathing waters (under the Bathing Waters Directive); nutrient-sensitive areas; and areas with waters important to protected habitats or species under the Habitats Directive or the Birds Directive.[5]

References:

1. UK ground water forum, http://www.groundwateruk.org/archive/the_aquifers_of_the_uk.pdf
2. Defra, Environment in your Pocket Statistics, 2009, http://www.defra.gov.uk/evidence/statistics/environment/eiyp/pdf/eiyp2009.pdf. And Scottish Government, Flood Risk Responsibilities, http://www.scotland.gov.uk/Resource/Doc/921/0052798.doc
3. Defra, http://www.defra.gov.uk/environment/statistics/coastwaters/cwquality.htm. And http://www.defra.gov.uk/ENVIRONMENT/statistics/inlwater/alltables.htm
4. United Kingdom Technical Advisory Group (UKTAG), Water Framework Directive, http://www.wfduk.org/UKCLASSPUB/LibraryPublicDocs/sw_status_classification
5. Health Protection Agency, Ionising Radiation Exposure of

Current issues for the water environment: The Environment Agency's Catchment Abstraction Management Strategies (CAMS) have identified a number of catchments in England and Wales which are designated as Over-Licensed or Over-Abstracted. Climate change is likely to result in lower summer rainfalls and more frequent/sever winter flood events. Such changes are likely to increase pressure on summer freshwater water availability and increase pollutant runoff into controlled waters during flood events.

The annual per capita radiation dose to people in the UK from all EC marine discharges was 0.68μSv (from 1.17μSv in 1998). Around 10% of these discharges are from the nuclear industry. In the UK between 1985 and 2005 radioactive emissions to water fell by 87%.[5]

MOD specific data:
The MOD water consumption baseline for 2004/05 was established at 33.5 Mm^3. The latest target is to reduce water consumption to an average of $3m^3$ per person per year for office builds or major office refurbishments. [7]
In 2002 radiological discharges at submarine berths in: Plymouth, Loch Striven, Isle of Bute, Lock Goil, Loch Long and Gare Loch were below detectable levels. Levels were detectable at RRL Rosyth Dockyard (critical group dose of <1μSv), Barrow-in-Furness (critical group dose of 2μSv), Portsmouth and Isle of Wight (critical group dose of 1μSv). [7]

the UK Population: 2005 Review, http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733839711?p=1197637096018
6. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf
7. MOD, Sustainable Development Report and Action Plan, 2009, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshipprpt200809v7.pdf
8. Health Protection Agency, Ionising Radiation Exposure of the UK Population: 2005 Review, http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733839711?p=1197637096018

Air

Air quality: Air quality in the UK is generally good. In 2008 urban background particulate levels averaged 20 micrograms per cubic metre (μg m-3) (Air Quality Strategy Objective and EU Limit Value is 40 microgrammes per cubic metre); roadside particulate levels averaged 28 μg m-3; urban background ozone levels averaged 59 μg m-3; and rural ozone levels averaged 71 μg m-3. [1]

The annual per capita radiation dose to people in the UK from nuclear power station atmospheric discharges was 0.11μSv.[2] In the UK between 1985 and 2005 radioactive emissions to air fell by 83%. [1]
Number of AQMAs: 235 Local Authorities have declared AQMAs.[3]

Major sources of air pollution: Air Quality Management Areas (AQMAs) are predominantly in urban areas and are generally related to nitrogen dioxide (NO_2) and particulates (PM_{10}) emissions largely caused around road networks.
Number of days of moderator high air pollution: 26 days in urban areas in 2008. 45 days in rural areas in 2008. [1]

Current issues for air quality: People in deprived communities are exposed to 41% higher concentrations of nitrogen dioxide than those people living in average communities. [3]
55 of the UK's SSSIs are in unfavourable condition as a result of air pollution.[4]
UK air quality distribution maps are available online.[5]

MOD specific data:
The MoD's air quality effects are largely the result vehicle emissions from operational vehicles (green fleet), troop transport/ business vehicles (white fleet), aircraft and shipping.

References:
1. Defra, Environment in your Pocket Statistics, 2009, http://www.defra.gov.uk/evidence/statistics/environment/eiyp/pdf/eiyp2009.pdf.
2. Health Protection Agency, Ionising Radiation Exposure of the UK Population: 2005 Review, http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733839711?p=1197637096018
3. UK Air Quality Archive, www.airquality.co.uk/archive
4. Joint Nature Conservation Committee (2006) Common Standards Monitoring for Designated Sites: First Six Year Report, http://www.jncc.gov.uk/
5. UK Health Statistics 2008, Office of National Statistics http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=6637

Climate Change and Energy Use

Total (final) energy consumption: 164.9 m tonnes oil equivalent in the UK (2008).[1]
Split between energy sources: petroleum; 47% natural gas; 32% electricity; 18% , others; 3.5% (includes coal, manufactured fuels, biomass, etc.). [1]
Average commercial and industrial electricity usage per customer: 0.079077 GWh in Great Britain (2007). [2]
Average commercial and industrial gas usage per customer: 0.63377900 GWh in Great Britain (2007).[2]

Total carbon dioxide emissions: In 2009, UK net emissions of carbon dioxide were provisionally estimated to be 480.9 million tonnes.[4] Carbon dioxide (CO_2) accounts for around 85% of total UK greenhouse gas emissions. [3] In 2009, 39% of CO_2 emissions were from the energy supply sector, 25%

References:
1. Digest of United Kingdom Energy Statistics 2009, http://www.decc.gov.uk/en/content/cms/statistics/publications/dukes/dukes.aspx
2. Department of Business, Enterprise and Regulatory Reform (BERR) Energy Consumption at Regional and Local Authority Level, 2006 http://www.berr.gov.uk/energy/statistics/regional/index.html

from road transport, 15% from business and 16% from residential fossil fuel use.[4]

UKCP09 key findings
All areas of the UK are getting warmer, and the warming is greater in summer than in winter. [5]
There is little change in the amount of precipitation (rain, hail, snow etc) that falls annually, but more is falling in the winter, with drier summers, for much of the UK. [5] Sea levels are rising, and are greater in the south of the UK than the north.[5]

Current issues for energy and climate change: UK is experiencing sea level rise of approximately 1mm per year. Global sea-level is rising at about 3mm per year [8]. Central England Temperature has risen by about 0.7 ºC over the last century, with 2004 being the warmest on record. [9] Sea-surface temperatures around the UK coast have risen over the past three decades by about 0.7 ºC. Global average temperatures are rising at about 0.2 ºC/decade. Severe windstorms around the UK have become more frequent in the past few decades, though not above that seen in the 1920s. Annual mean precipitation over England and Wales has not changed significantly since records began; however seasonal rainfall appears to be decreasing in summer and increasing in winter.[8]

MOD specific data:
In 2008-09 the MOD produced 5.6 million tonnes of CO_2 [10]. Over 2007-08 1.9 million tonnes of CO_2 was from estate energy use; 4.1 million tonnes of CO_2 was from motive fuel use; and 0.1 million tonnes of CO_2 was from business travel. Of the 4.1 million tonnes of CO_2 from fuel use: 0.4 million tonnes CO_2 was from ground fuel; 0.8 million tonnes CO_2 was from marine fuel; and 2.9 million tonnes of CO_2 was from aviation fuel.[7]

3. Defra Provisional 2008 UK Greenhouse Gas emissions http://www.defra.gov.uk/environment/statistics/globatmos/index.htm
4. DECC Statistical Release March 2010, http://www.decc.gov.uk/en/content/cms/statistics/climate_change/gg_emissions/uk_emissions/2009_prov/2009_prov.aspx
5. Department for Energy and Climate Change: 2007 Greenhouse Gas Emissions, Final Figures 3rd February 2009
6. UK Climate Projections, UKCP09, http://ukcp09.defra.gov.uk/content/view/6/6/
7. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf
8. Defra, Environment in your Pocket Statistics, 2008, http://www.defra.gov.uk/environment/statistics/eiyp/index.htm
9. Defra, Environment in your Pocket Statistics, 2009, http://www.defra.gov.uk/evidence/statistics/environment/eiyp/pdf/eiyp2009.pdf.
10. MOD, Sustainable Development Report and Action Plan, 2009, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt200809v7.pdf

Material Assets (Transport)

Principal roads: The UK has a network of Motorways and A-roads with provide good connectivity between regions and urban centres. Urban centres are served by 'dense and inter-twined road networks' reflecting the historic development these intra urban road links. [1] In 2008 the UK saw road freight totalling 161 billion tonne kilometres. The volume of motor vehicle traffic in the UK has decreased by 0.7% between 2007 and 2008.[2]

Principal rail lines: The UK has a network of main line rail connections with plans to improve capacity and track speeds. The volume of freight transported by rail has increased from 16.9 billion tonne kilometres in 1997 to 20.6 billion tonne kilometres in 2008. [2] Over the last ten years, the percentage of domestic freight being transported by rail increased by 1 percentage point (up to 8% of total freight movements). However, over the past 55 years rail freight volumes have generally been in decline to 57% of those seen in 1953. [2]

Principal airports: There are 30 'major' airports in the UK. In 2008 there were 2,327,000 air traffic movements in Great Britain. Major UK airports include Heathrow, Gatwick, Stansted, East Midlands, Manchester, Glasgow, Aberdeen and Belfast. [2]

Principal ferry ports: Major UK sea ports include: Sullom Voe; Forth; Tees and Hartlepool; Hull; Grimsby and Immingham; Felixstowe; Harwich; London; Ramsgate; Dover; Portsmouth; Southampton; Milford Haven; Holyhead; Liverpool.[4] In 2008, 123 million tonnes of domestic freight was moved by water. In the last ten years the amount of domestic freight transported by water has remained relatively constant at around 50 billion tonne kilometres which represents approximately 20% of the domestic freight movements. [2]

Capacity or congestion issues: Changes in the UK's rural/urban demographic have resulted in greater traffic volumes around certain urban hubs than those links were originally designed for. Congestion in

References:

1. Department for Transport (2006) The Eddington Transport Study http://www.dft.gov.uk/about/strategy/transportstrategy/eddingtonstudy.
2. Department for Transport website, www.dft.gov.uk
3. Network Rail, http://www.networkrail.co.uk/aspx/1530.aspx
4. ONS, Port Statistics, http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7820
5. ONS, Travel to work statistics, http://www.statistics.gov.uk/StatBase/ssdataset.asp?vlnk=6521&Pos=1&ColRank=2&Rank=272
6. MOD, UK Defence Statistics, 2007, http://bravo.dasa.r.mil.uk/modintranet/UKDS2008/chapter6.html
7. Nuclear Decommissioning Authority, www.nda.gov.uk

towns and cities, and on some parts of the strategic road network, has become an ever increasing issue of importance.[1] Improvements to the rail network are helping to alleviate congestion on road networks.[3]

Travel to work distance: UK average of 9.7 kilometres for women and 16.6 kilometres for men. UK average time to travel to work of 22 minutes for women and 28 minutes for men (1999-2001 data).[5] Current issues for transport: Half a million packages of radioactive materials are shipped within the UK each year, with the MoD making up only a very small proportion of these movements. The Low Level Waste (LLW) Repository at Drigg in Cumbria receives between 500 and 700 half-height ISO containers of LLW per year, predominantly by rail.[7]

MOD specific data:
In 2007 the MOD had 1,200 Ha of Naval Bases.[6]

Material Assets (Waste Management)

Waste management facilities: There are 3 LLW disposal sites within Great Britain; the main national repository is the LLW Repository near Drigg. Further LLW disposal sites are at Dounreay and Clifton Marsh.[1]

Radioactive waste arisings: In 2007 the total predicted volume of radioactive waste from all sources in the UK was estimated at 3.4 million m^3 unpackaged volume, resulting in an estimated 3.83 million m^3 of conditioned and packaged waste.[2] The MoD is estimated to account for 2% of these total arisings Radioactive waste is classified by the level of radioactivity of the material. Low Level Waste (LLW) (93% of UK arisings), Intermediate Level Waste (ILW) (7% of UK arisings) and High Level Waste (HLW) (<0.05% of UK arisings).

Low Level Waste (LLW): LLW is defined as *w*aste that does not exceed specified levels of radioactivity (below 4 GBq/tonne of alpha or 12 GBq/tonne of beta-gamma activity). Overall, the major components of LLW are building rubble, soil and steel items such as framework, pipework and reinforcement from the dismantling and demolition of nuclear reactors and other nuclear facilities and the clean up of nuclear sites. However, at the present time most LLW is from the operation of nuclear facilities, and this is mainly paper, plastics and scrap metal items. Most LLW is sent to the LLWR near Drigg in Cumbria or in certain cases to specific landfill sites soon after it is produced. About 93% (about 3.2 million cubic metres) of radioactive waste falls into the LLW category.[2]

Intermediate Level Waste (ILW): ILW is defined as wastes exceeding the upper boundaries for LLW that do not generate sufficient heat for this to be taken into account in the design of waste storage or disposal facilities. The major components of ILW are metal items such as nuclear fuel casing and nuclear reactor components, graphite from reactor cores, and sludges from the treatment of radioactive liquid effluents. ILW is stored in tanks, vaults and drums, with most waste requiring concrete to shield operators from the radiation. About 7% (about 240,000 cubic metres) of radioactive waste is in the ILW category.[2]

High Level Waste (HLW): HLW is defined as wastes in which the temperature may rise significantly as a result of its radioactivity, so this factor has to be taken into account in the design of waste storage or disposal facilities. Initially HLW comprises nitric acid solutions containing the waste products of reprocessing spent nuclear fuels. HLW is stored as liquid in water-cooled, stainless steel tanks or as glass blocks, and needs thick concrete walls to shield operators from the high radiation. Less than 0.1% (1,100 cubic metres) is in the HLW category.[2]

At present there are no facilities in the UK for disposing of LLW not suitable for near-surface disposal, ILW and HLW - these wastes are currently stored.[2] Managing Radioactive Waste Safely (MRWS) is the process to identify and implement long-term management solutions for the UK's higher-activity radioactive waste. As part of the MRWS programme the Government set up the independent Committee on Radioactive Waste Management (CoRWM). In 2006, CoRWM recommended that geological disposal, coupled with a programme of robust, safe and secure interim storage until a disposal facility is available, would be the best approach for managing the UK's inventory of legacy higher activity radioactive waste. In 2007 CoRWM was reconstituted to provide independent scrutiny on the Government's and Nuclear Decommissioning Authority's (NDA) proposals, plans and programmes to deliver geological disposal, together with robust interim storage, as the long-term management option for the UK's higher activity wastes. On 12 June 2008, UK Government, in conjunction with the devolved administrations for Wales and Northern Ireland (not Scotland), published a White Paper setting out the framework for managing higher-activity radioactive waste in the long-term through geological disposal, coupled with safe and secure interim storage and ongoing research

References:

1. NDA (2008) The 2007 UK Radioactive Waste Inventory
2. NDA, http://www.nda.gov.uk/ukinventory/summaries/index.cfm
3. BERR, http://www.berr.gov.uk/energy/sources/nuclear/key-issues/waste/mrws/page47832.html
4. Defra, Sustainable Development Indicators in your Pocket 2008 edition http://www.defra.gov.uk/sustainable/government/progress/data-resources/sdiyp.htm
5. Defra, edigest waste statistics, http://www.defra.gov.uk/environment/statistics/waste/wrindustry.htm
6. MOD, Sustainable Development Report and Action Plan, 2009, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt200809v7.pdf
7. Defra, Sustainable Development Indicators in your Pocket 2009, http://www.defra.gov.uk/sustainable/government/progress/documents/SDIYP2009_a9.pdf

and development to support its optimised implementation. [3]

Non-radioactive waste arisings:
In 2004, total UK waste arisings were around 335 million tonnes. Of this 32% was construction and demolition waste; 29% was mining and quarrying waste; 13% was industrial waste; 12% was commercial waste; 9% was household waste; 5% was dredging waste; and agricultural and sewage wastes made up for less than 1% each. Commercial and industrial waste arisings were therefore around 0.84 million tonnes in 2004.[4] In 2007 73 million tonnes of waste were sent to landfill (a decrease of 19.5% since 2002). The amount of waste recycled or composted has increased accounting for 34% of waste in 2007/08. [7]

In 2002, 41% of commercial and industrial waste arisings were landfilled; 33% were recycled; 9% were reused; 4% were treated; 4% were thermally treated; 4% were unrecorded; 3% went to land recovery; 2% were transferred; and 1% was unsampled.[5]

Current issues for waste management: Commercial and industrial waste data is not routinely collated. However it is subject to similar pressures as municipal waste, namely reduced reliance on landfill and increased adoption of recycling and reuse alternatives.

MOD specific data:
In 2008/09 the MOD recycled and reused 51% of its total 177,000 tonnes of waste [6]

Material Assets (Land Use and Materials)

Total area: The UK covers an area of 2,472,900, ha. [1]
Major land uses:
In 2007 the UK had the following land cover: [2]

UK Land Cover 2007	'000s ha	% area
Broadleaved, Mixed and Yew Woodland	1488	6.0
Coniferous Woodland	1380	5.6
Linear Features	527	2.1
Arable and Horticulture	4657	18.8
Improved Grassland	5067	20.5
Neutral Grassland	2407	9.7
Calcareous Grassland	59	0.2
Acid Grassland	1599	6.5
Bracken	263	1.1
Dwarf Shrub Heath	1360	5.5
Fen, Marsh, Swamp	439	1.8
Bog	2393	9.7
Standing Open Waters	265	1.1
Rivers and Streams	64	0.3
Montane	42	0.2
Inland Rock	106	0.4
Built-up Areas and Gardens	1397	5.6
TOTAL	24729	100

Area of previously developed land available for redevelopment: In 2007 there were an estimated 62,130 hectares of previously-developed (brown-field) land in England, down 1% from 2006. 54% of this land was derelict or vacant; the remaining 46% of land was in use but with potential for development. In 2008 in Scotland there were 10,832 hectares of derelict and urban vacant land recorded, of which 2,630 hectares (24%) were urban vacant and 8,203 hectares were derelict (76%).[3]
Average population density of UK: presently 254 per km2 [7] *No baseline data identified in relation to previously developed land in Wales, (consultee input welcome).*

Current land use issues: There is currently increasing pressure on rural and agricultural land from developers as urban areas expand.

References:

1. ONS, http://www.statistics.gov.uk/geography/uk_countries.asp
2. Countryside Survey 2007, http://www.countrysidesurvey.org.uk/reports2007.html
3. National Land Use Database, Previously-developed land that may be available for Development: England 2007 http://www.communities.gov.uk/publications/corporate/statistics/previouslydevelopedland2007. And, ONS, Scottish Vacant and Derelict Land Survey 2008, http://www.scotland.gov.uk/Resource/Doc/259018/0076787.pdf
4. ONS, http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7662
5. MOD Sustainable Development Report and Action Plan 2008 http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/HealthandSafetyPublications/SSDCD/SustainableDevelopmentPolicy/SustainableDevelopmentStrategyReportsAndActionPlans.html
6. MOD, Stewardship Report on the Defence Estates, 2008-09, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt200809v7.pdf
7. Based on 2008 mid-year population estimates and land area of UK of 241,590 km^2

MOD specific data: The MoD is the third largest landowner in the UK with a diverse estate of some 240,000 hectares (1% of the UK mainland) valued at some £15.3 billion.[5] Since 2003 the MOD delivered 35,000 modernised Single Living Accommodation bedspaces it is anticipated that a further 21,000 bedspaces will be delivered by 2013, a total of 56,000 overall.[6] The MOD's built estate covers approximately 80,000 hectares, with at least 45,000 buildings (including single living units) and approximately 52,000 houses. The MOD owns or manages an overall stock of 70,000 houses worldwide and 160,000 single living units, spread across more than 200 sites in 16 countries. [5, 6]	

Cultural Heritage

Number of Scheduled Ancient Monuments: No UK wide data. 19,717 in England[1] and 8,089 in Scotland.[2] Number of listed building: No UK wide data. 374,081 in England (this relates to entries).[1] *No baseline data identified in relation to total number in Scotland and Wales, (consultee input welcome).* Number of conservation areas: No UK wide data. 9,080 in England.[1] *No baseline data identified in relation to total number in Scotland and Wales, (consultee input welcome).* Sites currently at risk: No UK wide data. 19,446 in England. [1] *No baseline data identified in relation to total number in Scotland and Wales, (consultee input welcome).* Other important sites: The UK has 28 World Heritage Sites[3]. England has 43 registered historic battlefields; and 46 designated wrecks.[1] Current issues for cultural heritage: In 2009 89% of MoD listed buildings and 82% of MoD scheduled monuments, were in good/ fair condition. [6, 7] **MOD specific data**: In 2008/09, the MOD's historic estate comprised 797 listed buildings and 737 scheduled monuments.[7] In 2009,34 listed buildings were Grade I; 134 were Grade II*; and 629 were Grade II. [8] At March 2009 the MOD report that 89% of the listed buildings and 80% of the scheduled monuments were in either good or fair condition.. [7] In 2007 the MOD had 28 Buildings at Risk entries. Since that report 3 buildings have been removed from the list (1 by repair, 1 by disposal and 1 by transfer to English Partnerships) and 3 have been added. [5] A number of MoD sites are within the boundaries of 9 cultural World Heritage Sites. (Cornwall and West Devon Mining Landscape; Derwent Valley Mills; Edinburgh World Heritage Site; Liverpool - Maritime Mercantile City; The Tower of London; Stonehenge, Avebury and Associated Sites; Hadrian's Wall; St Kilda World Heritage Site; and City of Bath). [4] A number of MoD sites have been placed on the English Heritage (EH) and Historic Scotland (HS) Registers of Parks and Gardens. These include: Halton House and Gardens; Chicksands Priory; RAF Bentley Priory; Amport House and Gardens; Minley Manor; Royal Naval Hospital, Haslar; Craigiehall and RAF Leuchars. [4] Parts of the MoD estate lie within Local Planning Authorities (LPA) designated Conservation Areas including: RAF Bicester; RAF Hullavington; HMNB Portsmouth; Gosport; and RMA Sandhurst. [4]	**References:** 1. English Heritage, http://www.english-heritage.org.uk/server/show/nav.1373 2. Historic Scotland, http://www.historic-scotland.gov.uk/index/ancientmonuments/searchmonuments.htm 3. Department of Culture, Media and Sport, 2009, http://www.culture.gov.uk/4168.aspx 4. MOD, Heritage Report 2006-07, http://www.defence-estates.mod.uk/publications/corporate/MODHeritateReport2005-2007final.pdf 5. MOD, Stewardship Report on the Defence Estates, 2007-08, http://www.defence-estates.mod.uk/estate/estatestrategy.php 6. MOD Sustainable Development Report and Action Plan 2008 http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/HealthandSafetyPublications/SSDCD/SustainableDevelopmentPolicy/SustainableDevelopmentStrategyReportsAndActionPlans.html 7. MOD, Stewardship Report on the Defence Estates, 2008-09, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt200809v7.pdf 8. MoD Heritage Report 2007 – 2009, http://www.mod.uk/NR/rdonlyres/D0EEBC4D-5982-4C9F-BA4A-555936E544CD/0/heritage_report_0709.pdf

Landscape

Number of AONB: 49 AONBs in England, Wales and Northern Ireland (Scotland has 40 National Scenic Areas).[1] Other areas designated for their landscapes: 15 National Parks [2]. Statutory Designated sites for	**References:** 1. National Association of AONB, http://www.aonb.org.uk 2. Association of National Park

protection of wildlife and landscape include: Country Parks; Historic Gardens and Designed Landscapes; Natural Heritage Areas (in Scotland); Regional Parks (in Scotland); and World Heritage Sites.[3] Other important sites or features: Non-statutory sites include: Areas of Great Landscape Value (AGLVs) in Scotland; Heritage Coasts (in England and Wales); National Scenic Areas (in Scotland); and National Trust / National Trust for Scotland properties.[3] Current issues for landscapes: The natural environment in England is much less rich than 50 years ago and remains under pressure from a significant range of threats: more intense use of the land and sea; continuing economic development and climate change. Although the character of England's landscapes are broadly being maintained, economic growth and development is putting pressure on many protected and sensitive landscapes and 20% show signs of neglect.[5] **MOD specific data**: The Ministry of Defence (MOD) is the third largest landowners in the United Kingdom with a diverse estate of some 240,000 hectares (1% of the UK mainland).[4]	Authorities, http://www.nationalparks.gov.uk/ 3. JNCC, landscape designations, http://www.jncc.gov.uk/page-1527 4. Source MOD Sustainable Development Report and Action Plan 2008 http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/HealthandSafetyPublications/SSDCD/SustainableDevelopmentPolicy/SustainableDevelopmentStrategyReportsAndActionPlans.html 5. State of the Natural Environment Report' (2008) http://naturalengland.etraderstores.com/NaturalEnglandShop/product.aspx?ProductID=31a51089-6654-4d48-8f89-30d3c8c66aee

Summary of the Likely Evolution of the National Baseline by SEA Annex I Issue

Biodiversity and Conservation

National Trends: The general global trend in biodiversity is generally towards a decreased level of variability among living organisms. "Biodiversity loss has accelerated to an unprecedented level, both in Europe and worldwide. It has been estimated that the current global extinction rate is 1000 to 10000 times higher than the natural background extinction rate. In Europe some 42% of European mammals are endangered, together with 15% of birds and 45% of butterflies and reptiles".[1] The global trend towards a decline in biodiversity is mirrored in the UK. In the UK, 30% of current biodiversity indicators are showing long term deterioration with 27% showing improvement. Areas of concern are: farmland/woodland/wetland birds; butterflies; bats; and marine ecosystem integrity.[5] In England the trend in populations of breeding wading birds on unprotected lowland wetland grasslands is towards a major decline.[3] However, SSSIs in England have experienced a dramatic improvement in the overall site condition over the last 10 years as a result of protection and management.[3] In the UK there has been a trend (between 1996 and 2008) of a steady increase in the areas of SPAs and SACs in the UK. In 2009 over 80% of SACs and SPAs in England were in favourable or recovering condition. In 2008 in Scotland over 60% of SACs and over 70% of SPAs were in favourable or recovering condition.[4] There is a UK trend towards increased areas protected for biodiversity, flora and fauna. The overall total extent of land and sea protected in the UK has increased from 2.3 million to 3.8 million hectares between 1996 and 2009.[4] **National Targets:** Coastal defence authorities have a specific target to ensure no net loss of habitats covered by Biodiversity Action Plans. Defra set out the aim of halting biodiversity loss in the UK by 2010. The pan-government biodiversity framework target (captured within the MOD biodiversity strategy) requires 95% of SSSIs to be in 'Favourable' or 'Unfavourable Recovering' condition by 2010 (85% for Wales). In 2008 85% of SSSIs in England were in target conditions, 68% in Scotland, 78% in Wales and 57% in Northern Ireland. In March 2008 the following percentages of MOD managed SSSIs were in target condition: 85% in England, 68% in Scotland, 78% in Wales and 57% in Northern Ireland.	**References:** 1. European Commission, http://ec.europa.eu/environment/nature/biodiversity/intro/index_en.htm 2. Joint Nature Conservation Committee, 2009 Biodiversity Indicators, http://www.jncc.gov.uk/page-4229 3. State of the Natural Environment Report' (2008) http://naturalengland.etraderstores.com/NaturalEnglandShop/product.aspx?ProductID=31a51089-6654-4d48-8f89-30d3c8c66aee 4. Joint Nature Conservation Committee, Protected Areas, http://www.jncc.gov.uk/page-4241) 5. UK Biodiversity Indicators in Your Pocket 2010, http://www.jncc.gov.uk/pdf/BIYP_2010.pdf

Population

Demographics	**References:** 1. Defra, Environment in your

National Trends:
The current UK population is generally increasing, and projected to reach 71.6 million by 2033. [4]
The age structure of the UK population is moving towards an ageing population: those of pensionable age are projected to increase from 19.2% in 2008 to 21.8% of the population by 2033 (note that the pensionable age is to change over this period). Those aged between 15-64 years are projected to decrease from 62.1% to 60.5% of the population, whilst those under 16 are projected to decrease from 18.7% to 17.9% of the population by 2033. [4]

National Targets:

Scotland has a population target of matching the average European (EU15) population growth over the period from 2007 to 2017. Population growth in 2008 was slower than that of the EU 15 countries, and the gap in annual growth rates has increased. [2]

MOD targets to reach 8% ethnic minority representation in the Armed Forces by 2013 (existing MOD commitment). [3] MOD targets to reach 15% women representation in the Senior Civil Service (SCS) by 2009 (existing MOD commitment). [3] In 2009, 9.5% of the military workforce was female. [5]

pocket, 2008, http://www.defra.gov.uk/environment/statistics/eiyp/index.htm
2. Scottish Government, http://www.scotland.gov.uk/About/scotPerforms/purposes/population
3. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf
4. ONS, National Population Projections 2008-based, http://www.statistics.gov.uk/pdfdir/pproj1009.pdf
5. MoD Annual Report and Accounts Volume One 2008-2009 Annual Performance Report, http://www.mod.uk/NR/rdonlyres/0981769C-D30A-469B-B61D-C6DC270BC5C5/0/mod_arac0809_vol1.pdf

Socio-Economic

National Trends:
The current trend in the UK economy is generally towards (relatively small) economic growth and rising unemployment. [1]

Preliminary estimates for 2010 and 2011 showed a further further growth in UK output. Forecasts for predict the UK economy will grow by (an average forecast of) 1.3% in 2010 and 2.1%,in 2011. [1]

Production industries, specifically manufacturing, contributed most to the recent recession. The government and other services sector on the other hand is the only part of the economy that has bucked the trend and maintained positive growth although this can be expected to reverse due to expected budgetary changes in the coming years. Public finances showed continued budget deficits. The labour market continues to weaken with unemployment rising. [1]

National Targets:

DCLG aims to raise the productivity of the UK economy, maximise job opportunities for all and improve the economic performance of all English regions and reduce the gap in economic growth rates between regions.[2]

The UK Government aims to raise the rate of the UK's productivity growth over the economic cycle and narrow the productivity gap with our major industrial competitors.

References:
1. ONS, Economic & Labour Market Review | Vol 4 | No 5 | May 2010 http://www.statistics.gov.uk/elmr/05_10/downloads/ELMR-May10.pdf
2. DCLG, Planning Policy Statement 4: Planning for Sustainable Economic Growth
3. HM Government, PSA Delivery Agreement 1: Raise the Productivity of the UK Economy

Human Health

National Trends:
Between the 1970s and 2000 the Radiological dose to the UK population as a whole, presented as a per capita dose to a population of 55 million, did not changed significantly as it was dominated by the constant level of exposure to natural sources of radiation.[1]

Between 2001 and 2003 the average annual dose to the public was 2.7 mSv. This is a slight increase over that found in the previous HPA review (where the average annual dose to the public was 2.6mSv (period 1992-1997)), mainly due to an increased contribution from medical irradiation. There has been a long-term trend towards lower occupational doses in the nuclear industry, and worker doses in medicine, general industry and research tend to be low. [2]

The current general trend in human health is generally towards improved health, greater life expectancy and reduced mortality from treatable conditions. [3]

References:
1. A L Jones et al 2007, Review of trends in the UK population dose, J. Radiol. Prot. 27 381-390 http://www.iop.org/EJ/abstract/0952-4746/27/4/R01
2. Health Protection Agency, Ionising Radiation Exposure of the UK Population: 2005 Review, http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733839711?p=1197637096018
3. Health Survey for England 2007 Healthy lifestyles: knowledge, attitudes and behaviour Summary of key findings, Office

Health in the UK is improving, but over the last 10 years health inequalities between the social classes have widened. [4]

National Targets:

National target to reduce health inequalities by 10% in the three-year period 2009-2011, as measured by infant mortality and life expectancy at birth.

No targets identified in relation to UK radiation doses, (consultee input welcome).

MOD to reduce the rate of fatal and major injury accidents by 10% between 2000 and 2010 (Government target)

MOD to reduce the rate of cases of work related ill health by 20% between 2000 and 2010 (Government Target)

By 2010, to reduce the death rate by cancer in people under 75 by at least a fifth (Department of Health (DoH), Saving Lives: Our Healthier Nation White Paper)

By 2010, to reduce the death rate by Coronary Heart Disease and Stroke in people under 75 by at least two fifths (DoH, Saving Lives: Our Healthier Nation White Paper)

By 2010, to reduce the death rate due to accidents by at least a fifth and serious injury by at least a tenth (DoH, Saving Lives: Our Healthier Nation White Paper)

By 2010, to reduce the death rate from mental illness due to suicide and undetermined injury by at least a fifth (DoH, Saving Lives: Our Healthier Nation White Paper)

DoH to reduce smoking in manual social groups, prevent and manage other risks for coronary heart disease and cancer especially targeting the over-50s and improve housing quality by tackling cold and dampness and reducing accidents (DoH, Saving Lives: Our Healthier Nation White Paper)

NHS to improve health as well as treating sickness; give patients more rights and control over their own health and care; ensure quality at the heart of the NHS; strengthen the involvement of clinicians in decision making at every level of the NHS; empower frontline staff to lead change that improves quality of care for patients; value the work of NHS staff (Darzi, High quality care for all: NHS Next Stage Review final report)

of National Statistics, http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=6637

4. The Government's Response to the Health Select Committee Report on Health Inequalities, May 2009, http://www.official-documents.gov.uk/document/cm76/7621/7621.pdf

Human Health (Noise)

National Trends:
The current trend in ambient noise is generally towards increased levels.

With the increase in development there is a 'noise creep' occurring across the UK with gradual increases in noise levels resulting in an overall increase in ambient noise levels.

National Targets:

The Department for Business, Innovation and Skills (BIS) sets permissible sound levels for different types of equipment (DTI, The Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001).

Scottish Executive sets out noise exposure categories for dwellings (Scottish Executive, Planning Advice Note 56: Planning and Noise).

Soil and Geology

National Trends:
As there are now more stringent statutory controls on land contamination and remediation, increased areas of historic contamination are being remediated and fewer areas are being left in a contaminated state following decommissioning of commercial and industrial sites.

Soil degradation is accelerating. This is in part a natural phenomenon but some soil degradation processes are exacerbated by unsustainable human uses. Major threats include: erosion, organic matter decline, compaction, salinisation, landslides, contamination, sealing and biodiversity decline.[1]

There is a steady loss of soils to development, contaminated sites, damage by muddy floods and

References:

1. Environment Agency, The state of soils in England and Wales, http://www.environment-agency.gov.uk/static/documents/Leisure/stateofsoils_1747056_1879364.pdf

water pollution by silt and fertilisers. [1]

National Targets:

By 2010, the MOD will establish an estate-wide Land Quality Assessment (LQA) programme to make sure resources are prioritised effectively and to allow improved reporting in this area.

ODPM sets out sites of regional and local biodiversity and geological interest have a fundamental role to play in meeting overall national biodiversity targets, contributing to the quality of life and the well-being of the community and in supporting research and education (ODPM, PPS9: Biodiversity and Geological Conservation)

No targets identified in relation to UK contaminated land, (consultee input welcome).

Water

National Trends:

The current trend in water condition is generally towards increased water quality across natural environments, drinking water and bathing waters. Climate change may affect patterns of seasonal water availability in the UK; however total rainfall is likely to remain relatively unchanged. [1] Between 1990 and 2008 the percentage of rivers of good biological quality in England rose from 55 to 72 per cent. Similarly, 79 per cent of English rivers were of good chemical quality in 2008, compared with 55 per cent in 1990. [11]

In 2008, 88 per cent of rivers in Wales were of good biological quality. In all years since 1993 over 90 per cent of rivers in Wales have been of good chemical quality. [11]

In 2006, 54 per cent of rivers in Northern Ireland were of good biological quality, and 74 per cent of rivers were of good chemical quality. [1,11]

In Scotland, the percentage of rivers of good quality has remained stable at around 88 per cent between 2000 and 2006, based on a combined chemical, biological and aesthetic assessment.[1,11]

MOD trend - In March 2009 water use had already reduced by almost 25%, against the 2004/05 baseline, due to leakage reduction, against a Government target of 25% by 2020. [12]

UK strategy for radioactive discharges projected liquid discharges for 2001 to 2020 from the defence sector: [3]

- Tritium levels are projected to fall from around 700 GBq/yr in 2001-2005 to around 400 GBq/yr by 2016-2020. [3]
- Total Beta levels are projected to fall from around 5 GBq/yr in 2001-2005 to around 3 GBq/yr by 2016-2020. [3]
- Total Alpha levels are projected to fall from around 0.1 GBq/yr in 2001-2025 to around 0 GBq/yr by 2016-2020. [3]

Current climate change predictions indicate that rainfall patterns will become increasingly seasonal, with lower amounts of flow in the summer.[4] This will lead to lower summer river flows, especially in those catchments with a low groundwater component. This could lead to increased abstraction pressure, increased stress on sensitive hydrological systems and a decrease in dilution potential leading to a failure against water quality targets. Increased flooding and storm events also have the potential to increase runoff of pollutants into controlled waters, thus reducing water quality. Population pressures are predicted to increase in certain parts of Great Britain, for example in the south east. Increased population density will result in an increased pressure on natural resources and could exacerbate current problems or cause new ones.

National Targets:

MOD target - Reduce water consumption by 25% on the Office and non-Office Estate by 2020, relative to 2004/2005 levels (SOGE target) [5]

MOD target - Reduce water consumption to an average of 3m3 per person/year for all office builds or major office refurbishments(SOGE target) [5]

Environment Agency aims that by 2030 water use per person in England should fall by 130 litres/day.[6]

The Water Framework Directive (Directive 2000/60/EEC) requires that river basin management plans are prepared by December 2009. The objectives of the river basin management plans are required to be achieved by 2015. [7] Those objectives are to:

- prevent deterioration, enhance and restore bodies of surface water, achieve good chemical and ecological status of such water and reduce pollution from discharges and emissions of hazardous substances; [7]
- protect, enhance and restore all bodies of groundwater, prevent the pollution and deterioration of groundwater, and ensure a balance between groundwater abstraction and replenishment; [7]
- preserve protected areas. [7]

References:

1. Defra, Sustainable Development Indicators, 2009, http://www.defra.gov.uk/sustainable/government/progress/documents/SDIYP2009_a9.pdf
2. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf
3. Defra, http://www.defra.gov.uk/environment/radioactivity/government/discharges/pdf/rad_dischargestrat2.pdf
4. UKCIP Climate Change Scenarios http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=156&Itemid=299
5. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf
6. Water for people and the environment - Water resources strategy for England and Wales'
7. EUROPA, http://europa.eu/legislation_summaries/agriculture/environment/l28002b_en.htm
8. Future Water, the Government's Water Strategy for England
9. EA, Water Resources for the Future: A Strategy for England and Wales
10. Scottish Government, The Water Environment and Water Services (Scotland) Act
11. Defra, Environment in your Pocket Statistics, 2009, http://www.defra.gov.uk/evidence/statistics/environment/eiyp/pdf/eiyp2009.pdf.
12. MOD, Sustainable Development Report and Action Plan, 2009, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt200809v7.pdf

Defra aims that by 2030 at the latest, England has improved the quality of our water environment and the ecology which it supports, and continued to provide high levels of drinking water quality from its taps; sustainably manage risks from flooding and coastal erosion, with greater understanding and more effective management of surface water; ensure a sustainable use of water resources, and implement fair, affordable and cost reflective water charges; cut greenhouse gas emissions; and embed continuous adaptation to climate change and other pressures across the water industry and water users. [8] Environment Agency aims to enhance water supply by up to 1100 Ml/d above present levels by the improvement of existing schemes and the development of some new resources. [9]	

Air

National Trends: The current trend in air condition is generally towards improved air quality, both in rural and urban settings. [1] Between 1990 and 2008 there is no clear long-term trend in ozone levels with increases in urban background ozone levels of 40.5%, however between 1980 and 2007 nitrogen oxides (NOx) fell by 42 per cent, particulates (PM10) fell by 59 per cent and sulphur dioxide (SO2) by 84 per cent (between 1990 and 2007). [4] Reductions are a product of: improved technology; changes in energy generation; targeted air quality management policies; and reductions in specific greenhouse gases, CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). Projections of UK total emissions [2] Best case scenario (full air quality target compliance): • NOx: 2010 = 1136.4 ktonnes/yr; 2015 = 963.1 ktonnes/yr; 2020 = 799.1 ktonnes/yr. • PM10: 2010 = 133.5 ktonnes/yr; 2015 = 129.4 ktonnes/yr; 2020 = 134.4 ktonnes/yr. Worst case scenario (extension of 2003 baseline): • NOx: 2010 = 1151.0 ktonnes/yr; 2015 = 1030.3 ktonnes/yr; 2020 = 910.7ktonnes/yr. • PM10: 2010 = 134.9 ktonnes/yr; 2015 = 135.4 ktonnes/yr; 2020 = 143.5 ktonnes/yr. **National Targets:** The Air Quality Strategy for England, Scotland, Wales and Northern Ireland sets out specific target levels for air pollutants. • In the UK between 1980 and 2006, total emissions of PM10 fell by 56%; • In the UK between 1980 and 2006 total emissions of NOx fell by 42%; • In the UK between 1985 and 2005 radioactive emissions to air fell by 83%; Outstanding targets of the UK Air Quality Objectives (The Air Quality Standards Regulations 2007): [3] • By December 2010 for England and Wales to achieve a benzene concentration of 5.00 µg m-3 (as an annual mean). [3] • By December 2010 for Scotland and N. Ireland to achieve a benzene concentration of 3.25 µg m-3 (as a running annual mean). [3] • By December 2010 for Scotland to achieve a PM10 concentration of 50 µg m-3, not to be exceeded more than 7 times a year (as a daily mean). [3] • By December 2010 for Scotland to achieve a PM10 concentration of 18 µg m-3 (as an annual mean). [3]	**References:** 1. Defra, Sustainable Development Indicators, 2009, http://www.defra.gov.uk/sustainable/government/progress/documents/SDIYP2009_a9.pdf 2. UK Air Quality Archive, Updated Projections of Air Quality in the UK for Base Case and Additional Measures for the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007, http://www.airquality.co.uk/reports/reports.php?action=category&section_id=17 3. UK Air Quality Achieve, http://www.airquality.co.uk/standards.php 4. Defra, Environment in your Pocket Statistics, 2009, http://www.defra.gov.uk/evidence/statistics/environment/eiyp/pdf/eiyp2009.pdf

Climate Change and Energy Use

National Trends: The current trend in energy use is generally towards increased consumption, however there have been some slight declines in recent years associated with mild winters. Since 1980 UK energy consumption by individual sectors has changed substantially: there have been rises of 68% for transport, 10% for the domestic sector and 3% for the service sector, whilst consumption by industry has fallen by 34%.[2] These reductions have also led to reductions in specific greenhouse gases, CO_2,	**References:** 1. BERR, UK energy in brief, 2008, http://www.berr.gov.uk/energy/statistics/publications/in-brief/page17222.html 2. UK Climate Projections,

[1] Work is ongoing with Defra to define Carbon Neutrality and how this can be delivered. These targets will be reviewed in light of the ongoing work on the definition of carbon neutrality.

CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6).

UKCP09 medium emission scenario with 90% probability: [3]

- 2080 mean winter temperature: the central estimates of change are projected to be generally between 2 and 3ºC across most of the country, with slightly larger changes in the south east and slightly smaller in the north west of Britain. [3]
- 2080 mean summer temperature: a more pronounced south to north gradient exists with changes in some parts of southern England being just over 4ºC and in parts of northern Scotland about 2.5ºC. [3]
- 2080 mean summer daily maximum temperature: central estimates show a gradient between parts of southern England, where they can be 5ºC or more, and northern Scotland, where they can be somewhat less than 3ºC. [3]
- 2080 mean annual precipitation: shows little change (few percent or zero). [3]
- 2080 mean winter precipitation: increases are in the range +10 to +30% over the majority of the country. Increases are smaller than this in some parts of the country, generally on higher ground. [3]
- 2080 mean summer precipitation: general south to north gradient, from decreases of almost 40% in SW England to almost no change in Shetland. [3]
- The range of absolute sea level rise around the UK (before land movements are included) and across the three emissions scenarios is projected to be between 12 and 76 cm for the period 1990–2095, which is a wider spread than that of the global average. (The unlikely but plausible High++ scenario predicts levels of 93 cm to 1.9 m by 2100). [3]
- The projected long-term future trends in storm surge that we find in UKCP09 are physically small everywhere around the UK, and in many places can be accounted for by natural variability. The surge level we expect to be exceeded on average once in 2, 10, 20 or 50 yr is not projected to increase by more than 9 cm by 2100 anywhere around the UK coast (not including the mean sea level change). The largest trends are found in the Bristol Channel and Severn Estuary. [3]
- Seasonal mean and extreme waves are generally expected to increase to the South West of the UK, reduce to the north of the UK and experience a small change in the southern North Sea. Changes in the winter mean wave height are projected to be between –35 and +5 cm. Changes in the annual maxima are projected to be between –1.5 and +1 m. [3]
- The shelf seas around the UK are projected to be 1.5–4ºC warmer and ~0.2 practical salinity units (p.s.u.) fresher (lower salinity) by the end of the 21st century for a medium emissions scenario. [3]

National Targets:

The Climate Change Act requires an 80% cut in UK greenhouse gas emissions by 2050 (compared to 1990 levels). [4] DECC aims to put the UK on a path to a low carbon UK by cutting CO_2 emissions; investing in energy efficient and clean technologies, maintain secure energy supplies; and protecting the most vulnerable.[6]

The UK is committed to delivering 20% of its energy from renewable sources by 2020. [7,8]

There are plans for a new generation of nuclear power stations in the UK. [1]

MOD target - Reduce carbon dioxide emissions from buildings across the non-operational Estate by 12.5%, by 2010-11 and by 30% by 2020, relative to 1999/ 2000 baseline (SOGE target). [5]

MOD target - Source at least 15% of our total non-operational electricity needs by 2010 from good quality Combined Heat and Power Systems (SOGE target) [5]

MOD target - Source at least 10% of our total electricity needs from renewable sources by 2010 (SOGE target for MOD) [5]

MOD target - Ensure the MOD Office Estate and all Top Level Budget Holders' Head Offices are carbon neutral by 20121 (MOD Commitment against SOGE) [5]

DECC aims for no homes to be in fuel poverty by 2016-2018.[6]

Scottish Executive targets to exceed the Scottish share of CO_2 reductions by one million tonnes of carbon in 2010.[9]
Scottish Executive sets the expectation that all future applications proposing development with a total cumulative floorspace of 500 sq metres or more should incorporate on-site zero and low carbon equipment contributing at least an extra 15% reduction in CO_2 emissions beyond the 2007 building regulations CO_2 emissions standard.[10]

UKCP09, Briefing Report http://ukclimateprojections.defra.gov.uk/content/view/516/500/
3. OPSI, Climate Change Act 2008, http://www.opsi.gov.uk/acts/acts2008/ukpga_20080027_en_1
4. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf
5. DTI, White Paper: 'Our Energy Future: Creating a Low Carbon Economy'
6. DECC, The UK Low Carbon Transition Plan: National Strategy for Climate and Energy http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx
7. BERR, Meeting the Energy Challenge, A White Paper on Nuclear Power, January 2008, http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk//energy/nuclear-whitepaper/page42765.html
8. DECC, The UK Renewable Energy Strategy
9. http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx
10. Scottish Executive, Changing our ways: Scotland's Climate Change Programme
11. Scottish Executive, SPP 6: Renewable Energy Developments

Material Assets (Transport)

National Trends:
The current trend in transport infrastructure is generally towards increased transport journeys. Road traffic in Great Britain has grown by 85% since 1980; rail travel has increased by nearly 70% since 1980; bus travel has increased over the last 8 years (having fallen between 1980 and the mid 1990s);

References:

1. Department for Transport, Transport Trends 2009, http://www.dft.gov.uk/adobepdf/162469/221412/190425/220778/tr

freight tonne kilometres moved in the UK has increased 40% since 1980; however walking and cycling for travel purposes have both declined significantly over the period 1996 - 2007.[1]

Freight moved (tonne-kilometres) increased roughly in line with economic growth (Gross Domestic Product) until 1998. Since then freight moved has remained stable while GDP has increased by 28 per cent.[2]

Carbon dioxide (CO_2) emissions from Heavy Goods Vehicles (HGV) rose until 1998, but thereafter broadly stabilised in line with freight moved. Overall, emissions increased by 14 per cent between 1990 and 2007, compared with economic growth of 52 per cent over the same period.[2]

National Targets:

Department for Transport (DfT) aims to:[3]

- Maximise the overall competitiveness and productivity of the national economy, so as to achieve a sustained high level of GDP growth.[3]
- Reduce transport's emissions of CO_2 and other greenhouse gases, with the desired outcome of avoiding dangerous climate change.[3]
- Contribute to better health and longer life expectancy through reducing the risk of death, injury or illness arising from transport, and promoting travel modes that are beneficial to health.[3]
- Improve quality of life for transport users and non-transport users, including through a healthy natural environment, with the desired outcome of improved well-being for all.[3]
- Promote greater equality of transport opportunity for all citizens, with the desired outcome of achieving a fairer society.[3]
- By 2010, increase the use of public transport (bus and light rail) by more than 12 per cent in England compared with 2000 levels, with growth in every region.[4]

Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40 per cent and the number of children killed or seriously injured by 50 per cent, by 2010 compared with the average for 1994-98, tackling the significantly higher incidence in disadvantaged communities.[4]

ends2009.pdf
2. Defra, Sustainable Development Indicators, 2009, http://www.defra.gov.uk/sustainable/government/progress/documents/SDIYP2009_a9.pdf
3. DfT, Towards a Sustainable Transport System (TaSTS): Supporting Economic Growth in a Low Carbon World
4. DfT, The Future of Transport White Paper – A Network for 2030

Material Assets (Waste Management)

National Trends:

Non-radiological

Waste management in the UK is moving towards greater reuse and recycling and less landfill. Between 2002 and 2007 in the UK, there was 19.5% decrease in waste disposed of in landfill sites. This includes waste produced by households, commerce and industry and construction and demolition.[1]

Between 1998/99 and 2002/03 there was a 1% reduction in the total amount (in tonnes) of commercial and industrial waste produced in England. Within this total, industrial waste had reduced to 38 million tonnes in 2002/3 while the amount of commercial waste had grown to 30 million tonnes.

In 2002/3 disposal of commercial and industrial waste to landfill was 13 per cent lower than in 1998/9 and, for the first time, recycling and reuse had overtaken landfill as the most common method of waste management. Overall 44 per cent was sent to landfill and 45 per cent recycled.

Radiological

There is currently a trend of increasing volumes of low level radioactive waste generated in the UK, predominantly due to dismantling of decommissioned nuclear sites. This trend for existing waste is not expected to be sustained into the long term as 95% of the total projected nuclear waste arisings for the next century have already been produced (excluding arisings from planned new build nuclear power stations).[3]

NDA UK waste projections (excluding new build nuclear power stations) are set out below:[4]

	Volume (cubic metre)		
Waste type	Stocks at 1 April 2007	Estimated future arisings [(1)]	Lifetime total once all wastes are packaged
HLW	1,730	-646 [(2)]	1,420
ILW	92,500	143,000	364,000
LLW	196,000	3,000,000	3,470,000

[(1)] These figures assume no new nuclear power stations. There are not currently projections which include new nuclear power station arisings.

[(2)] Future arisings of HLW have negative volumes. This is because Sellafield has reported future arisings of HLW to show that the volume of accumulated waste (liquid plus vitrified product) will fall as liquid waste existing at 1 April 2007 and forecast in the future is conditioned to a vitrified product.

Plans for a new generation of nuclear power stations in the UK are likely to result in increased radiological waste arisings in the future. As yet the volumes of waste have not been quantified.

References:

1. Defra, Sustainable Development Indicators, 2009, http://www.defra.gov.uk/sustainable/government/progress/documents/SDIYP2009_a9.pdf
2. Defra, Commercial and Industrial waste, http://www.defra.gov.uk/environment/statistics/waste/kf/wrkf03.htm
3. NDA, 2007 UK Nuclear Waste Inventory, http://www.nda.gov.uk/ukinventory/the_inventory/2007-inventory.cfm
4. NDA, http://www.nda.gov.uk/ukinventory/summaries/index.cfm
5. BERR, Meeting the Energy Challenge, A White Paper on Nuclear Power, January 2008, http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk//energy/nuclear-whitepaper/page42765.html).
6. Defra, Waste Strategy for England 2007
7. MOD, Sustainable Development Report and Action Plan, 2008, http://www.mod.uk/NR/rdonlyres/D8407A1C-CA68-4AD4-8E17-9F71B151AF6A/0/SusDevReport2008.pdf
8. MOD, Sustainable Development Report and Action Plan, 2009, http://www.mod.uk/NR/rdonlyres/F9E34976-9E39-4E0D-BADA-157975DF2118/0/stewardshiprpt

However disposal is expected to be met nationally, with appropriate capacity planned into deep geological disposal infrastructure.[5] **National Targets:** Defra has established targets for England which includes a greater focus on waste prevention seeking to achieve a fall of 50% per person of household waste arising. Recycling and composting of household waste targets have been established - at least 40% by 2010, 45% by 2015 and 50% by 2020; and recovery of municipal waste – 53% by 2010, 67% by 2015 and 75% by 2020.[6] *No targets identified in relation to UK commerical and industrial waste arisings, (consultee input welcome).* On the basis of the policies set out in Waste Strategy for England 2007, levels of commercial and industrial waste landfilled are expected to fall by 20% by 2010 compared to 2004. The Government is considering, in conjunction with the construction industry, a target to halve the amount of construction, demolition and excavation wastes going to landfill by 2012.[6] *No targets identified in relation to UK new build nuclear power station radiological waste arisings, (consultee input welcome).* MOD target - Reduce total waste arisings by 5%, by March 2011, and by 25% by 2020 relative to the 2004/05 baseline (SOGE target).[7, 8] MOD target - Increase recycling levels to be at 40% of the baseline by March 2011, and to 75% by 2020 (SOGE target).[7,8]	200809v7.pdf

Material Assets (Land Use and Materials)

National Trends:
The current trend in land use is generally towards increased development on previously developed land accompanied by a decline in stocks of previously developed land available for redevelopment.

The percentage of all new development occurring on previously developed land measured by land area) increased from 47% in 1990 to 52%in 2007.[1]

Between 2002 and 2007 the total amount of previously-developed land in England declined by around 6%. In the same period vacant and derelict land declined by 17.5%, while land currently in use with potential for redevelopment increased by around 12%.[2]

Agricultural land use has increased (following on from a 3% increase of crop area and a 6% increase of grazing area between 1996 and 2008)[7]. There is also a fall in the amount of set aside land (which decreased by 14% between 1996 and 2007) as crop prices have increased[3]. Land use for forest and woodland is currently showing an upward trend, with around a 4% increase between 1996 and 2008.[7]

In England between 1989 and 2009 there has been a general trend of increasing development of residential buildings on previously developed land. There has also been a decline in development on agricultural land in favour of redevelopment of existing residential areas.[4]

In Scotland approximately 600ha of vacant or derelict land is brought back into use each year.[5]

MOD trend - The number of new build and refurbishment projects achieving the to achieve an excellent rating against the Defence Related Environmental Assessment Methodology (DREAM), the Building Research Establishment's Environmental Assessment Method (BREEAM) or equivalent (SOGE mandate) rating has improved from 50% of all projects assessed in 2006/2007, to 100% of new build and 78% of refurbishment projects for completed assessments undertaken in 2007/08.[6]

National Targets:

MOD target - All new build and major refurbishment construction projects will be designed to achieve an excellent rating against the Defence Related Environmental Assessment Methodology (DREAM), the Building Research Establishment's Environmental Assessment Method (BREEAM) or equivalent (SOGE mandate).[6]

DCLG's (2007) Homes for the future: more affordable, more sustainable Green Paper for England aims to deliver 2 million homes by 2016 and 3 million homes by 2020.

References:

1. Defra, Sustainable Development Indicators, 2009, http://www.defra.gov.uk/sustainable/government/progress/documents/SDIYP2009_a9.pdf
2. National Land Use Database, Previously-developed land that may be available for Development: England 2007 http://www.communities.gov.uk/publications/corporate/statistics/previouslydevelopedland2007
3. Defra, Environment in your pocket, 2008, http://www.defra.gov.uk/environment/statistics/eiyp/index.htm
4. Department for Communities and Local Government, Land use change statistics, http://www.communities.gov.uk/publications/corporate/statistics/lucs2008provisionalmay
5. Scottish vacant and derelict land survey 2007, http://www.scotland.gov.uk/Publications/2008/01/24150145/10
6. MoD Sustainable Development Report and Action Plan 2008, http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/HealthandSafetyPublications/SSDCD/SustainableDevelopmentPolicy/SustainableDevelopmentStrategyReportsAndActionPlans.htm
7. Defra, Environment in your Pocket Statistics, 2009, http://www.defra.gov.uk/evidence/statistics/environment/eiyp/pdf/eiyp2009.pdf

Cultural Heritage

National Trends:
The current trend in cultural heritage condition is generally towards little change in the number of historic assets and a decline in the percentage of historic assets at risk. [1]
English Heritage report that: there has been little change in the total number of historic assets between 2002 and 2008 [1]; the proportion of Grade I and II* buildings at risk in England fell from 3.8% in 1999 to 3.1% in 2009; the number of registered parks and gardens increased by 7.3% (104) between 2002 and 2009 [6]; and the number of scheduled monuments increased by 1.9% between 2002 and 2009.[6]

There is a trend of improving condition of MoD cultural heritage assets.[2]

Between 2005/06 and 2008/09 there was an 28% increase in the number of MoD scheduled monuments are either in good or fair condition. [7]

There is currently little change in the number of MOD buildings at risk. In 2007 the MOD had 28 Buildings at Risk entries. Since that report 3 buildings have been removed from the list (1 by repair, 1 by disposal and 1 by transfer to English Partnerships) and 3 have been added. [3]

National Targets:

ODPM sets out that the planning process should reconcile the need for economic growth with the need to protect the natural and historic environment [4]

ODPM aims to adopt a presumption in favour of the physical preservation of nationally important archaeological remains, whether scheduled or not, and their settings when they are affected by proposed developments.[5]

References:

1. English Heritage, Heritage Counts 2008, England, http://www.english-heritage.org.uk/hc/upload/pdf/HC08_National_Acc.pdf).
2. MOD Heritage Report 2005/07 http://www.defence-estates.mod.uk/publications/corporate/MODHeritateReport2005-2007final.pdf
3. MOD, Stewardship Report on the Defence Estates, 2007-08, http://www.defence-estates.mod.uk/estate/estatestrategy.php
4. ODPM, PPG15: Planning and the Historic Environment
5. ODPM, PPG16: Archaeology and Planning
6. English Heritage, Heritage Counts 2009, England, http://hc.english-heritage.org.uk/upload/pdf/HC09_England_Acc.pdf?1276513285
7. MoD Heritage Report 2007 – 2009, http://www.mod.uk/NR/rdonlyres/D0EEBC4D-5982-4C9F-BA4A-555936E544CD/0/heritage_report_0709.pdf

Landscape

National Trends:
No trends identified in relation to UK landscapes, (consultee input welcome).

The current trend in English landscape condition is generally towards increasing maintenance or enhancement of landscape character. [1]

Over the last century we have experienced the following landscape character trends: [1]

- A gradual erosion of local distinctiveness in some areas, through a process of standardisation and simplification of some of the components that make up landscape character.
- A loss of some natural and semi-natural features and habitats such as ancient woodlands and unimproved grassland.
- A decline in some traditional agricultural landscape features such as farm ponds and hedgerows, and a loss of archaeological sites and traditional buildings.
- Increased urbanisation, often accompanied by poor design standards and a decline in the variety of building materials, and the importation of urban and suburban building styles into rural areas.
- A loss of remoteness and reduced tranquillity because of built development and traffic growth.

Natural England report that in 2008 existing landscape character was being maintained in 51% of England's landscapes, whilst in a further 10% existing character was being enhanced. However, 20% of landscapes were showing signs of neglect. [1]

Data from 1990 to 2003 indicates that in England the number of Character Areas with patterns of change that either maintain or enhance character has increased from 36% to 61%. The number of Character Areas with evidence of neglect or erosion of character has decreased. This evidence suggests that the character of the majority of English landscapes, at Character Area scale, is being sustained.[1]

National Targets:

UK Government seeks to conserve and protect countryside and National Parks through legislation.[2]

ODPM aims to recognise open space and sports and recreational facilities that are of high quality should be recognised and given protection by Local Authorities. Further subject to designated areas, Local Authorities should encourage the creation of sports and recreational facilities in countryside

References:

1. Natural England, State of the Natural Environment 2008, Landscape Characterisation and Change, http://www.naturalengland.org.uk/publications/sone/sections.aspx
2. UK Government, The National Parks and Access to the Countryside Act 1949
3. ODPM, PPG17: Planning for Open Space, Sport and Recreation
4. Forestry Commission Scotland, Scottish Forestry Strategy

around towns and the development of areas of managed countryside, such as countryside parks, community forests and agricultural show-grounds.[3] Forestry Commission Scotland aims to see Scotland's woodlands increase from 17.1% of our land area to about 25%.[4] The Scottish Executive has two wider commitments relevant to forestry in bringing 80% of the special features on Scotland's nationally important nature sites into favourable condition by March 2008 and the forestry sector delivering annual carbon savings of 0.6 million tonnes of carbon (MtC) by 2010, 0.8 MtC by 2015 and 1.0 MtC by 2020.[4]	

Submarine Dismantling Project

SEA Scoping Report

Annex B – Relevant Plans, Programmes and Environmental Protection Objectives

June 2010

Defence Equipment & Support

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
Biodiversity and Nature Conservation	
International/European (e.g. Directives)	
EC Habitats Directive (Directive 92/43/EEC)	**Objectives:** This Directive places a legal requirement on EU countries to make provision for the protection of specified habitats and species. This is achieved through the designation of Special Areas of Conservation. **Targets:** No formal targets
European Community (1979) Bern Convention of European Wildlife and Natural Habitats	**Objectives:** Contracting parties are under legal obligation to protect the species listed in the appendices to the convention. **Targets:** No formal targets
United Nations (1979) Bonn - Convention on Migratory Species	**Objectives:** Signatories are under agreements or memoranda of understanding relating to the protection of migratory species. **Targets:** No formal targets
European Commission (1979) (79/409/EEC) Directive on the Conservation of Wild Birds	**Objectives:** Makes it a legal requirement that EU countries make provision for the protection of birds. This includes the selection and designation of Special Protection Areas. **Targets:** No formal targets
Ramsar Convention on Wetlands (1971)	**Objectives**: Nationally to designate at least one wetland under the treaty. More relevant is the obligation to include wetland conservation consideration in land-use planning. **Targets:** No formal targets
OSPAR Commission (2003) Biological Diversity and Ecosystems Strategy	**Objectives:** This Strategy seeks to protect and enhance the ecosystems and the biological diversity of the maritime area, which are, or could be, affected as a result of human activities. **Targets:** No specific targets or indicators have been identified.
Freshwater Fish Directive (78/659/EEC) (updated in 2006 by Directive 2006/44/EC on the Quality of Fresh Waters Needing Protection or Improvement in Order to Support Fish Life)	Directive on the quality of fresh waters needing protection or improvement in order to support fish life has been significantly amended on several occasions. **Objectives:** In order to attain the objectives of the Directive, Member States should designate the waters to which it will apply and set limit values corresponding to certain parameters. The waters so designated should be brought into conformity with these values within five years of this designation. **Targets:** No formal targets
EU (2005) European Community Biodiversity Strategy (COM98/42)	**Objectives:** The Biodiversity Strategy aims to anticipate, prevent and attack the causes of significant reduction or loss of biodiversity at the source, which will help both to reverse present trends in biodiversity decline and to place species and ecosystems, including agro-ecosystems, at a satisfactory conservation status, both within and beyond the territory of the EU. **Targets:** No specific targets or indicators have been identified.
UN (1992) Convention on Biological Diversity	**Objectives:** This convention was one of the main outcomes of the 1992 Rio Earth Summit. The key objectives of the Convention are: • The conservation of biological diversity • The sustainable use of its components • The fair and equitable sharing of the benefits arising from the use of genetic resources The achievement of the objectives in the Convention relies heavily upon the implementation of action

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	at the national level.
Environmental Liability Directive 2004/35/EC	**Objective:** Directive seeks to achieve the prevention and remedying of environmental damage - specifically, damage to habitats and species protected by EC law, and to species or habitat on a site of special scientific interest for which the site has been notified, damage to water resources, and land contamination which presents a threat to human health. It reinforces the "polluter pays" principle - making operators financially liable for threats of or actual damage. **Targets:** No formal targets but legislation.
National (UK)	
The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007	**Objectives:** These Regulations make provision for implementing Council Directive 79/409/EEC on the conservation of wild birds and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora in relation to marine areas where the United Kingdom has jurisdiction beyond its territorial sea. The 2007 Regulations apply in the 'offshore area' beyond 12 nautical miles from the UK coast. They provide protection for a variety of marine species and wild birds through a number of offences that aim to prevent damaging activities affecting protected species and habitats. **Targets:** No formal targets
A Strategy for England's Trees, Woodlands and Forests (2007)	**Objectives:** • provide, in England, a resource of trees, woods and forests in places where they can contribute most in terms of environmental, economic and social benefits now and for future generations • ensure that existing and newly planted trees, woods and forests are resilient to the impacts of climate change and also contribute to the way in which biodiversity and natural resources adjust to a changing climate • protect and enhance the environmental resources of water, soil, air, biodiversity and landscapes (both woodland and non-woodland), and the cultural and amenity values of trees and woodland • increase the contribution that trees, woods and forests make to the quality of life for those living in, working in or visiting England • • improve the competitiveness of woodland businesses and promote the development of new or improved markets for sustainable woodland products and ecosystem services where this will deliver identifiable public benefits, nationally or locally, including the reduction of carbon emissions. **Targets:** No formal targets
The Conservation (Natural Habitats, &c.) Regulations (1994)	**Objective:** The regulations require sites of importance to habitats or species to be designated. It also makes it an offence to collect damage or kill any species listed under schedules 2 or 4. Any impact on such designated sites or listed species must be considered in regards to planning permission applications. **Targets:** No formal targets
Conserving Biodiversity – The UK Approach (2007)	**Objectives:** Sets out an approach to biodiversity conservation that is designed not only to meet the commitment to halt the loss of biodiversity by 2010, but to guide action well into the second decade of the 21st century at a time when the challenges faced by the natural environment are great. The integrating framework of an Ecosystem Approach sets out the following priorities: • protecting the best sites for wildlife; • targeting action on priority species and habitats; • embedding proper consideration of biodiversity and ecosystem services in all relevant sectors of policy and decision-making; • engaging people, and encouraging behaviour change; • developing and interpreting the evidence base;

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• ensuring that the UK plays a proactive role in influencing the development of Multilateral Environmental Agreements, and contributes fully to their domestic delivery. **Target:** Halt the loss of biodiversity by 2010.
UK Biodiversity Partnership (1994) The UK Biodiversity Action Plan	**Objectives:** The overall goal of the UK Biodiversity Action Plan (BAP) is to conserve and enhance biological diversity within the UK and to contribute to the conservation of global biodiversity through all appropriate mechanisms. The UK BAP incorporates six underlying principles: • Where biological resources are used, such use should be sustainable. • Wise use should be ensured for non-renewable resources. • The conservation of biodiversity requires the care and involvement of individuals and communities as well as • Governmental processes. • Conservation of biodiversity should be an integral part of Government programmes, policy and action. • Conservation practice and policy should be based upon a sound knowledge base. • The precautionary principle should guide decisions. **Targets:** There are no key targets listed.
The Protection of Badgers Act 1992	**Objectives:** Sets out it is a serious offence to kill, injure or take a badger, or to damage or interfere with a sett unless a license is obtained from a statutory authority. In spite of this, it can be hard to enforce the law, so badger baiting continues. **Targets:** No formal targets.
The Natural Environment and Rural Communities (NERC) Act 2006	**Objectives:** Establishes Natural England as the main body responsible for conserving, enhancing and managing England's natural environment. It also covers biodiversity, pesticides harmful to wildlife and the protection of birds. The Act • makes provision about bodies concerned with the natural environment and rural communities; • makes provision in connection with wildlife, sites of special scientific interest, National Parks and the Broads; • amends the law relating to rights of way; • makes provision as to the Inland Waterways Amenity Advisory Council; • provides for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes. **Targets:** Legislation rather than targets in Act.
The Wildlife and Countryside Act 1981	**Objectives:** This is the main UK legislation relating to the protection of named floral and faunal species and the network of nationally protected wildlife areas: Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA) for birds. **Targets:** No formal targets
The National Parks and Access to the Countryside Act 1949	**Objectives:** An Act to: • make provision for National Parks and the establishment of a National Parks Commission; • to confer on the Nature Conservancy and local authorities powers for the establishment and

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	maintenance of nature reserves; • to make further provision for the recording, creation, maintenance and improvement of public paths and for securing access to open country, and to amend the law relating to rights of way; • to confer further powers for preserving and enhancing natural beauty; • and for matters connected with the purposes aforesaid. **Targets:** Ultimately seeks to conserve and protect countryside and National Parks through legislation.
Defra (2002) Working with the grain of nature: a biodiversity strategy for England	**Objectives:** This strategy sets out a number of indicators for biodiversity which are to be monitored by Defra, including the condition of SSSIs, populations of wild birds and progress with implementing biodiversity action plans (BAPs). Updated indicators were published in March 2007. **Targets:** No formal targets
The Conservation (Natural Habitats, &c.) Regulations (1994)	**Objective:** The regulations require sites of European importance to habitats or species to be designated. This includes the establishment of Special Areas of Conservation (SAC). It also makes it an offence to collect, damage or kill any species listed under schedules 2 or 4. Any impact on such designated sites or listed species is a material consideration with regard to planning applications. **Targets:** No formal targets
ODPM (2005). PPS9: Biodiversity and Geological Conservation	**Objectives:** The statement sets out a number of key planning principles: • Development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas; • Plan policies and planning decisions should aim to maintain, and enhance, restore or add to biodiversity and geological conservation interests; • Plan policies on the form and location of development should take a strategic approach to the conservation, enhancement and restoration of biodiversity and geology and should recognise the contributions that sites, areas and features make, both individually and in combination; • Plan policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development; • Development proposals where the principal objective is to conserve or enhance biodiversity and geological conservation interests should be permitted; and • The aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. **Targets:** No specific targets are given but it is noted that Sites of regional and local biodiversity and geological interest have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education.
Communities and Local Government (2010) Consultation Paper a new Planning Policy Statement: Planning for a Natural and Health Environment	**Objectives:** Once approved, this PPS will replace PPS9, PPG17, PPG20 and PPS7 in so far as it relates to landscape protection, soil and agricultural land quality, forestry, coastal access, heritage coast and the undeveloped coast, With regard to biodiversity, it states that, where granting planning permission would result in significant harm to biodiversity or geodiversity interests, local planning authorities should be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that, before planning permission is granted, adequate mitigation measures are put in place. Where harm cannot be prevented or adequately mitigated against, appropriate compensation measures should be sought. Local authorities should use conditions or planning obligations to ensure that mitigation or compensation measures take place. **Targets:** No formal targets.
Environmental Protection Act (1990)	**Objectives**: This Act sets out key statutory requirements for the UK regarding environmental protection (including waste and nature conservation).

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: No formal targets
The Hedgerows Regulations 1997	**Objective:** Regulations that it is against the law to remove most countryside hedgerows without permission of the LPA. **Targets:** No formal targets.
Marine Environment Protection is also afforded by relevant PPGs: PPG 1 General guide to the prevention of pollution PPG 2 Above ground oil storage tanks PPG 5 Works and maintenance in or near water PPG 8 Storage and disposal of oil PPG 13 Vehicle washing and cleaning PPG 14 Marinas and crafts PPG 21 Pollution incident response planning PPG 22 Dealing with spillages on highways PPG 26 Storage and handling of drums and intermediate bulk containers (IBCs)	**Objective:** These PPGs provide guidance on activities that are likely to be relevant to coastal construction and industrial operational activities. **Targets:** No formal targets.
Sustainable Development Commission (2010) Sustainable Development in Government Framework Targets	**Objectives:** The Sustainable Development in Government (SDiG) framework was announced in March 2010, this will replace the SOGE targets when they expire in 2010/11. This framework is intended to reduce greenhouse gas emissions and ensure that the Government's estate is resilient to the impacts of changing climate. The framework also includes challenging targets on waste reduction and recovery, more efficient use of water, and it promotes the protection and enhancement of biodiversity, and positive engagement with the community. **Targets:** Targets relating to biodiversity include: • Produce a biodiversity action plan (or demonstrate how they are building biodiversity planning into their estate/environmental management systems) and report progress annually. • Where applicable Sites of Special Scientific Interest (SSSIs) are maintained in target condition with continued progress towards achieving favourable condition. • All Departments, Agencies and Executive NDPBs to conduct sustainability appraisals of office relocations.
National (MOD)	
MOD Sustainable Operations on the Government Estate (SOGE): Strategic Statement on Biodiversity	**Objectives:** • To be an exemplar in the management of designated sites where compatible with military requirements • To ensure natural environment requirements and best practice are fully integrated into the estate management; • To contribute, as appropriate, to the UK Biodiversity Action Plan (and Country Biodiversity Strategies). **Targets:** • To maintain and, where appropriate, enhance the biodiversity interest of Natura 2000 sites, Ramsar sites and SSSIs / ASSIs for which MOD has direct management responsibility.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• To minimise the potential impacts of MOD activities on SSSIs /ASSIs which are the management responsibility of other landowners. • To ensure that where there is significant biodiversity interest on the estate, integrated rural / land management plans (IRMP / ILMP) are developed, or otherwise integrated with estate management • processes and military objectives. • To ensure high quality and consistent application of appraisal tools that facilitates the sustainable use of biological resources and identification of impacts on biodiversity. • To improve the co-ordination of biodiversity enhancement on the defence estate, and deliver the actions identified as priorities for MOD action for biodiversity. • To improve methods to monitor biodiversity resources to ensure use is sustainable. • To identify species at risk on the defence estate, and evaluate potential for recovery. (Vulnerable species will be considered for recovery on a case-by-case basis).
MOD Sustainable Development Report and Action Plan (SDRAP) 2008	**Objectives:** Conserve and enhance biodiversity, as part of estate stewardship, and to contribute to Government biodiversity objectives. **Targets:** By 2010, 95% of Sites of Special Scientific interest (SSSI's) in sole ownership or control in target condition (SOGE target).
MOD JSP 418, leaflet 10 – Marine Environmental Legislation	**Objectives:** No formal targets. **Targets:** No formal targets.
National (Scotland)	
Nature Conservation Act (Scotland) 2004.	**Objectives:** The Act places duties on public bodies in relation to the conservation of biodiversity, increases protection for Sites of Special Scientific Interest (SSSI), amends legislation on Nature Conservation Orders, provides for Land Management Orders for SSSIs and associated land, strengthens wildlife enforcement legislation, and requires the preparation of a Scottish Fossil Code. **Targets**: No formal targets
Scottish Executive Proposed Marine National Park.	**Objectives:** The proposal is to create a marine national park around an as-yet-undecided area of Scotland's coast. Two of the proposed locations are close to the Clyde NB. This is at the consultation stage. **Targets:** There are no key targets listed.
Scottish Government (2010) Scottish Planning Policy	**Objectives**: Scottish Planning Policy (SPP) sets out the Scottish Government's policy on land use planning. Biodiversity and nature conservation is primarily addressed within the Landscape and Heritage chapter which promotes a broad approach to landscape and natural heritage incorporating the conservation of designated or protected sites and species taking into account the ecosystems and natural processes. SPP also seeks to establish integrated habitat networks. In this context, the SPP: • sets out national planning policy considerations in relation to Scotland's natural heritage; • summarises the main statutory obligations in relation to the conservation of natural heritage; • explains, as part of a wider framework for conservation and development, how natural heritage objectives should be reflected in development plans; • describes the role of the planning system in safeguarding sites of national and international

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	importance; • provides guidance on the approach to be adopted in relation to local and non-statutory designations; and • draws attention to the importance of safeguarding and enhancing natural heritage beyond the confines of designated areas. **Targets:** There are no targets listed.
Scottish Executive (2004) Scotland's Biodiversity: It's in Your Hands – A strategy for the conservation and enhancement of biodiversity in Scotland	**Objectives:** An Executive strategy setting out a 25 year framework for action to conserve and enhance biodiversity in Scotland. The overall aim of this strategy is to conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland now and in the future The foregoing analysis suggests the need for balanced action across a range of areas to meet this broad aim. The required actions can be grouped under five major strategic objectives: • Species & Habitats: To halt the loss of biodiversity and continue to reverse previous losses through targeted action for species and habitats • People: To increase awareness, understanding and enjoyment of biodiversity, and engage many more people in conservation and enhancement • Landscapes & Ecosystems: To restore and enhance biodiversity in all our urban, rural and marine environments through better planning, design and practice • Integration & Co-ordination: To develop an effective management framework that ensures biodiversity is taken into account in all decision making • Knowledge: To ensure that the best new and existing knowledge on biodiversity is available to all policy makers and practitioners
Scottish Executive (2000) Planning Advice Note 60: Planning for Natural Heritage	PAN 60 provides advice on how development and the planning system can contribute to the conservation, enhancement, enjoyment and understanding of Scotland's natural environment and encourages developers and planning authorities to be positive and creative in addressing natural heritage issues. PAN 60 complements the National Planning Policy Guideline on Natural Heritage (NPPG 14) with examples of good planning practice in relation to natural heritage. It aims to promote good practice in planning for natural heritage and demonstrate that planning and the development process can be powerful mechanisms for realising natural heritage objectives and creating quality environments. **Objectives/Targets:** The note does not include any specific objectives or targets.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales sets out the land use planning policies of the Welsh Assembly Government. Chapter 5 sets out the following objectives for the conservation and improvement of natural heritage: • promote the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats; • ensure that action in Wales contributes to meeting international responsibilities and obligations for the natural environment; • ensure that statutorily designated sites are properly protected and managed; • safeguard protected species, and to • promote the functions and benefits of soils, and in particular their function as a carbon store. **Targets:** No formal targets.
Welsh Assembly Government (2008)	**Objectives:** The Plan contains the following key theme in relation to the natural environment:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
People, Places, Futures: The Wales Spatial Plan2008 Update	*Valuing our Environment* The quality of our environment is a fundamental asset for its intrinsic value, and for our economy and quality of life. By safeguarding and enhancing both the natural and built environment we will attract people to and retain them within our communities and preserve the foundations for the future. **Targets:** No formal targets.
Welsh Assembly Government (2009) Technical Advice Note 5: Nature Conservation and Planning	**Objectives: T**echnical Advice Note 5 sets out how the planning system should contribute to protecting and enhancing biodiversity and geological conservation. It stipulates that the planning system should: • work to achieve nature conservation objectives through a partnership between local planning authorities, Countryside Council for Wales (CCW), the Environment Agency Wales, voluntary organisations, developers, landowners and other key stakeholders; • integrate nature conservation into all planning decisions looking for development to deliver social, economic and environmental objectives together over time; • ensure that the UK's international and national obligations for site, species and habitat protection are fully met in all planning decisions; • look for development to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally; • help to ensure that development does not damage, or restrict access to, or the study of, geological sites and features or impede the evolution of natural processes and systems especially on rivers and the coast; and • plan to accommodate and reduce the effects of climate change by encouraging development that will reduce damaging emissions and energy consumption and that help habitats and species to respond to climate change. **Objectives/Targets:** Does not include any specific objectives or targets.
Welsh Assembly Government (2008) Wales Environment Strategy Action Plan 2008 - 2011	This second Environment Strategy Action Plan sets out rolling actions until 2010, to facilitate a more strategic approach to environmental improvement, and recognise the longer-term nature of environmental action and change. The Action Plan sets out actions under the headings: biodiversity, marine, access and recreation, flood and water management, ecosystems services, research and evidence, the historic environment, people and the environment, partnership and environmental quality. **Objectives/Targets:** Does not include any specific objectives or targets.
Population	
International / European (e.g. Directives)	
United Nations (2001) Aarhus Convention: Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters	**Objectives:** The Aarhus Convention contains three broad themes or 'pillars': • access to information, • public participation, and • access to justice. The Convention grants the public rights and imposes on Parties and public authority's obligations regarding access to information and public participation and access to justice. **Targets:** No formal targets
European Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA Directive).	**Objectives:** The SEA Directive creates the following requirements for consultation: • Authorities which, because of their environmental responsibilities, are likely to be concerned by the effects of implementing the plan or programme, must be consulted on the scope and level of detail of the information to be included in the Environmental Report. These authorities are designated in the SEA Regulations as the Consultation Bodies (Consultation Authorities in Scotland). • The public and the Consultation Bodies must be consulted on the draft plan or programme and the

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Environmental Report, and must be given an early and effective opportunity within appropriate time frames to express their opinions. • Other EU Member States must be consulted if the plan or programme is likely to have significant effects on the environment in their territories. • The Consultation Bodies must also be consulted on screening determinations on whether SEA is needed for plans or programmes under Article 3(5), i.e. those which may be excluded if they are not likely to have significant environmental effects. **Targets:** No formal targets
European Commission. European Employment Strategy	**Objectives:** The overarching themes of the European Commission's European Employment Strategy: full employment, quality and productivity at work and promoting inclusion by addressing disparities in access to labour markets **Targets:** No formal targets
Integrated Guideline for Growth and Jobs 2008-11, Commission of the European Communities (Committee on Economic and Monetary Affairs, 2007)	**Objectives:** • Full employment • Improving quality and productivity at work • Strengthening social and territorial cohesion • Combating discrimination through removal of barriers to entry. **Targets:** No formal targets
National (UK)	
Strong and prosperous communities Local Government White Paper (2006)	**Objectives:** The aim of this White Paper is to give local people and local communities more influence and power to improve their lives. It is about creating strong, prosperous communities and delivering better public services through a rebalancing of the relationship between central government, local government and local people. The key area objectives are: • Responsive services and empowered Communities • Effective, accountable and responsive local Government • Strong cities, strategic regions • Local government as a strategic leader and place-shaper • A new performance framework • Efficiency – transforming local services • Community cohesion. **Targets:** No formal targets but aims are included in areas outlined above.
ODPM (2001) A New Commitment to Neighbourhood Renewal: National Strategy Action Plan.	**Objectives:** The strategy sets out the Government's vision for narrowing the gap between deprived neighbourhoods and the rest of the country through delivering the following goals: • In all the poorest neighbourhoods, to have common goals of lower worklessness and crime, and better health, skills, housing and physical environment. • To narrow the gap on these measures between the most deprived neighbourhoods and the rest of the country. **Targets:** Various targets sourced from other strategies under the headings of work, crime, education, health, and housing.
Department of Trade and Industry	**Objectives:** Assisted Areas are where regional aid is used to promote the economic development areas of certain disadvantaged areas within the European Union. This includes part of Argyll and Bute

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
(2006) Review of Assisted Areas	and Devonport **Targets:** No formal targets
Planning Policy Statement 4: Planning for Sustainable Economic Growth (2009)	**Objectives:** Planning Policy Statement 4 (PPS4) sets out planning policies for economic development which is taken to include development which: 1. provides employment opportunities; 2. generates wealth; or 3. produces or generates an economic output or product. PPS4 states that the Government's objectives with respect to planning for economic development are to: • build prosperous communities by improving the economic performance of cities, towns, regions, sub-regions and local areas, both urban and rural'; • reduce the gap in economic growth rates between regions, promoting regeneration and tackling deprivation; • deliver more sustainable patterns of development, reduce the need to travel, especially by car and respond to climate change; • promote the vitality and viability of town and other centres as important places for communities; • raise the quality of life and the environment in rural areas by promoting thriving; and • inclusive and locally distinctive rural communities whilst continuing to protect the open countryside for the benefit of all. **Targets:** No formal targets
PSA Delivery Agreement 1: Raise the Productivity of the UK Economy (HM Government, 2007)	The Government's primary aim for the 2007 Comprehensive Spending Review (CSR07) period is to demonstrate further progress on its long-term objectives to: • raise the rate of the UK's productivity growth over the economic cycle; and • narrow the productivity gap with our major industrial competitors. **Targets:** Indicator 1: Labour productivity (output per hour worked) over the economic Cycle
Planning for a Sustainable Future: White Paper (2007)	**Objectives:** • More and better jobs as a result of sustainable economic development • Better infrastructure so people have access to reliable transport, clean and secure energy, clean water supplies, and better local amenities • Continued protection and enhancement of the natural and historic environment • Places shaped by their communities where people are proud to live • More efficient and timely systems in which controls are proportionate to impact and unnecessary costs are eliminated • A more transparent and accountable planning system in which national and local government work together to ensure decisions at every level deliver the best outcomes for all. **Targets:** No formal targets.
Sustainable Development Commission (2010) Sustainable Development in Government Framework Targets	**Objectives:** The Sustainable Development in Government (SDiG) framework was announced in March 2010, this will replace the SOGE targets when they expire in 2010/11. This framework is intended to reduce its greenhouse gas emissions and ensure that the Government's estate is resilient to the impacts of changing climate. The framework also includes challenging targets on waste reduction and recovery, more efficient use of water, and it promotes the protection and enhancement of biodiversity, and positive engagement with the community. **Targets:** Targets relating to population include:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• All Departments, Agencies and Executive NDPBs to conduct sustainability appraisals of office relocations. • All Departments to encourage staff to take an active role in volunteering in the community.
National (MOD)	
MOD Sustainable Development Strategy, December 2008 & MOD Sustainable Development Report and Action Plan 2008	**Objectives:**: • Help build the skills of young people. • Create a workforce that is drawn from the breadth of society and ensure that the unique contribution of every individual in that workplace is respected and valued. • Provide a safe and healthy workplace. • Manage the social impacts of Defence activities on UK communities (civilian and Armed Forces). **Targets:** • Ongoing target to continue to support the Cadet movement, by providing a range of opportunities for young people across the country including those in socially deprived areas, to help them meet life's challenges and realise their potential. • Ongoing target to work with other Departments and external partners on initiatives for young people and activities for school curricula to build skills. • Ongoing target to work closer with the Department for Children, Schools and Families to explore options for widening the reach of the Cadet Forces experience into a greater number of State schools/pupils. • Ongoing target to publish annually a report against the Equality and Diversity Scheme (MOD commitment). • By 2013 reach 8% ethnic minority representation in the Armed Forces. • By 2009 reach 15% women representation in the Senior Civil service (SCS) (MOD commitment).
MOD, Joint Service Publication (JSP) 434 - Defence Construction in the Built Environment	**Objectives:** To improve effectiveness within the context of practicality, achievability and value for money on an ongoing basis. This is defined as the optimum combination of whole life cost and quality to meet user requirements effectively and efficiently. Justification should be provided for any decision to procure new facilities as opposed to the re-use of existing facilities and should take account of all likely economic, environmental and social costs and benefits. Procurement strategies should take full account of the Government's commitment to sustainable development and of the economic, environmental and social impacts of its decisions. **Targets:** No formal targets.
National (Scotland)	
The Scottish Government (2008) Scottish Sustainable Communities Initiative	**Objectives:** SSCI settlements will provide high quality, affordable homes for all sectors of the community, they may include opportunities for the creation of jobs, provision of education and other services necessary to enable high standards of living, cultural identity and create an environment which encourages healthy and active living. These new communities should fit well in the local landscape, maximise the opportunities of the location and should be fully integrated with public and active transport networks, rather than being dependent on the car. They will be successful places which have meaning for the people who will call them home.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: No formal targets
General Register Office (2007) Scotland's Population 2007	**Objectives:** Provides a demographic breakdown of Scotland's population trends. **Targets:** No formal targets
Scottish Government (2010) Scottish Planning Policy	**Objectives:** Scottish Planning Policy (SPP) sets out the Scottish Government's policy on land use planning. With regard to economic development, SPP sets out the following five areas where planning can support growth: • taking account of the economic benefits of proposed development in development plans and development management decisions; • promoting development in sustainable locations, particularly in terms of accessibility; • promoting regeneration and the full and appropriate use of land, buildings and infrastructure; • supporting development which will provide new employment opportunities and enhance local competitiveness; and • promoting the integration of employment generation opportunities with supporting infrastructure and housing development. **Targets:** There are no key targets listed.
Scottish Executive (2004) Framework for Economic Development in Scotland	**Objectives:** Achieving four key outcomes is fundamental to the Executive's economic policy: • Economic Growth – with growth accelerated and sustained through greater competitiveness in the global economy. • Regional Development – with economic growth a pre-requisite for all regions to enjoy the same economic opportunities and with regional development itself contributing to national economic prosperity. • Closing the opportunity gap – with economic growth a pre-requisite for all in society to enjoy enhanced economic opportunities, and with social development in turn contributing to national economic prosperity. • Sustainable Development – in economic, social and environmental terms. The enabling objectives: The achievement of these desired outcomes depends upon a complex array of economic drivers. Establishing the underlying conditions and context for economic growth to flourish is, therefore, a critical step. There are four key enabling objectives: • A stable and supportive macroeconomic environment; • A facilitating national economic context: encompassing the physical, human and electronic infrastructure; • Dynamic competitiveness in Scottish enterprises; and • Economic policies and programmes to secure the social, regional and environmental objectives. **Targets:** There are no key targets listed.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** With respect to economic development, Planning Policy Wales sets out that the Welsh Assembly Government's objectives are to: • enhance the economic success of both urban areas and the countryside, helping businesses to maximise their competitiveness; • support initiative and avoid placing unnecessary burdens on enterprise; • respect and encourage diversity in the local economy, for example in rural areas encouraging farm diversification and in urban areas promoting mixed use development; and • promote the exploitation of new technologies which can provide new opportunities; and ensure that development for enterprise and employment uses is in line with sustainability principles and respects the environment in its location, scale and design, especially so as to address climate

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	change. **Targets:** No formal targets.
Welsh Assembly Government (2008) People, Places, Futures: The Wales Spatial Plan2008 Update	**Objectives:** The Wales Spatial Plan contains the following key themes which relate to population: **Building Sustainable Communities** Our future depends on the vitality of our communities as attractive places to live and work. We need to reduce inequalities between communities whilst retaining their character and distinctiveness. **Promoting a Sustainable Economy** We need an innovative, high value-added economy for Wales which utilises and develops the skills and knowledge of our people; an economy which both creates wealth and promotes the spreading of that prosperity throughout Wales; an economy which adds to the quality of life as well as the standard of living and the working environment. **Respecting Distinctiveness** A cohesive identity which sustains and celebrates what is distinctive about Wales, in an open and outward-looking way, is central to promoting Wales to the World, as well as to our future economic competitiveness and social and environmental wellbeing. **Targets:** No formal targets.
Welsh Assembly Government (2009) Technical Advice Note 12: Design	**Objectives:** TAN 12 sets out the Assembly Government's policies and objectives in respect of the design of new development. In relation to population, these objectives include: • Ensuring attractive, safe public spaces • Security through natural surveillance • Ensuring ease of access for all **Targets:** No formal targets.
Welsh Assembly Government (2009) Capturing the Potential: A Green Jobs Strategy for Wales	**Objectives:** The Strategy sets out how businesses and other organisations could be helped to adapt and capitalise on the opportunities presented by the drive towards a local carbon, resource efficient and sustainable products and processes. It is underpinned by the following priorities: • Supporting Business: developing ways that Assembly Government can support businesses to help them successfully adapt and seek competitive advantage through resource efficiency and new low carbon products and services. • Fostering Innovation and Technology: Supporting the development and commercialisation of new sustainable technologies, energy services and low carbon products for the future. • Investing in a More Sustainable Economy: Building upon the way decisions and investments are made to help drive the transition to a more sustainable economy. **Targets:** None identified.
Human health	
International / European (e.g. Directives)	
Children's Environment and Health Action Plan for Europe (CEHAPE) 2004	**Objectives:** The CEHAPE highlights the main commitments on children's health and environment focusing on four regional priority goals (RPGs) for Europe: • ensure safe water and adequate sanitation • ensure protection from injuries and adequate physical activity • ensure clean outdoor and indoor air

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Target: No quantified targets but sub-targets within objectives above.
The (current) Bathing Water Directive (76/160/EEC) As revised by Bathing Water Directive (2006/7/EC)	Directive concerns the management of bathing water quality and repeals Directive 76/160/EEC. **Objective:** The purpose of this Directive is to preserve, protect and improve the quality of the environment and to protect human health. **Targets**: Legislation rather than targets in Act.
World Health Organization European Centre for Environment and Health (2001), Health impact assessment in strategic environmental assessment (World Health Organization, Rome)	**Objective:** Provides a review of Health Impact Assessment concepts, methods and practice to support the development of a protocol on Strategic Environmental Assessment to the Espoo Convention, which adequately covers health impacts. **Targets:** No formal targets
'Together for Health – A Strategic Approach for the EU 2008-2013'.	**Objectives:** The Health Strategy aims to: • Foster Good Health in an Ageing Europe by promoting good health throughout the lifespan; • Protect Citizens from Health Threats including communicable diseases, bioterrorism, and patient safety; and • Support Dynamic Health Systems and New Technologies. The White Paper also sets out a number of cross-cutting principles such as solidarity, citizen participation in policy-making and the need to reduce inequities in health, to promote investment in health, to mainstream health in all policies, and to strengthen the EU's voice in Global Health. **Targets:** No formal targets.
Canadian Lalonde Report 1974	Report identified four health fields that were interdependently responsible for individual health: • Environment - All matters related to health external to the human body and over which the individual has little or no control. Includes the physical and social environment. • Human Biology - All aspects of health, physical and mental, developed within the human body as a result of organic make-up. • Lifestyle - The aggregation of personal decisions, over which the individual has control. Self-imposed risks created by unhealthy lifestyle choices can be said to contribute to, or cause, illness or death. • Health Care Organisation - The quantity, quality, arrangement, nature and relationships of people and resources in the provision of health care. **Targets:** No formal targets
National (UK)	
Department of Health (2004) Choosing Health: making healthy choices easier	**Objectives:** This white paper outlines the results of a public consultation and the Government's broad approach to the improvement of public health. The themes of relevance involve the provision of information to the public and the demand of the public for access to resources to improve health. Information includes provision on the effects of personal life choices but will also include information on environmental circumstances which might affect personal health. The demand for access to health resources includes the provision of health care facilities but also includes facilities to maintain a healthy lifestyle, e.g. sports fields.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: No formal targets
Health Protection Agency (2007) Children's Environment and Health Action Plan. A summary of current activities which address children's environment and health issues in the UK	Applies the objectives in the European document to the UK context.
Department of Health (1999) Saving Lives: Our Healthier Nation White Paper	**Objectives:** An action plan to tackle poor health. DoH set out to: • improve the health of everyone; • and the health of the worst off in particular. **Targets:** By the year 2010: • Cancer: to reduce the death rate in people under 75 by at least a fifth • Coronary Heart Disease and Stroke: to reduce the death rate in people under 75 by at least two fifths • Accidents: to reduce the death rate by at least a fifth and serious injury by at least a tenth • Mental Illness: to reduce the death rate from suicide and undetermined injury by at least a fifth.
Department of Health (2003) Tackling Health Inequalities: A programme for action	**Objectives:** • improvements in early years support for children and families • improved social housing and reduced fuel poverty among vulnerable populations • improved educational attainment and skills development among disadvantaged populations • improved access to public services in disadvantaged communities in urban and rural areas, and • reduced unemployment, and improved income among the poorest. **Targets:** Key targets are: • reducing smoking in manual social groups • preventing and managing other risks for coronary heart disease and cancer such as poor diet and obesity, physical inactivity and hypertension through effective primary care and public health interventions – especially targeting the over-50s • improving housing quality by tackling cold and dampness, and reducing accidents at home and on the road.
Securing good health for the whole population Report to the Treasury (Wanless, 2004)	This Review has been focused particularly on prevention and the wider determinants of health in England and on the cost-effectiveness of action that can be taken to improve the health of the whole population and to reduce health inequalities. **Targets:** No formal targets
Department of Health (2006) 'Our health, our care, our say: a new direction for community services' White Paper	**Objectives:** The White Paper is aiming to achieve four main goals: • Health and social care services will provide better prevention services with earlier intervention. • We will give people more choice and a louder voice. • We need to do more on tackling inequalities and improving access to community services.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• We will provide more support for people with long-term needs. **Targets:** No formal targets
Department of Health (2006) A stronger local voice: A framework for creating a stronger local voice in the development of health and social care services (July 2006)	**Objectives:** This document sets out a framework for creating a stronger local voice in the development of health and social care services. Provides for the following actions: • The Commission for Patient and Public Involvement in Health (CPPIH) and patient forums will be abolished and local involvement networks (LINks) will be established for every local authority area with social services responsibilities. • LINks will establish a specific relationship with overview and scrutiny committees (OSCs) and have the power to refer matters to the OSCs. • OSCs will be encouraged to focus their attention on the work of commissioners of health and social care services and are ideally placed to ask commissioners about the decisions they have made. • The duties to involve and consult will be simplified and strengthened. There will be a new duty placed on commissioners to respond to what patients and the public have said. • Work is being undertaken to explore ways of creating a stronger voice for patients, service users and members of the public at a national level. • There will be a stronger user voice in regulation and in the regulation of involvement. **Targets:** No formal targets
High quality care for all: NHS Next Stage Review final report. (Darzi, 2008)	**Objective:** The vision this report sets out is of an NHS that gives patients and the public more information and choice, works in partnership and has quality of care at its heart – quality defined as clinically effective, personal and safe. **Targets / Measures:** • Create an NHS that helps people to stay healthy. For the NHS to be sustainable in the 21st century it needs to focus on improving health as well as treating sickness. • We will give patients more rights and control over their own health and care. • We will ensure quality at the heart of the NHS • We will strengthen the involvement of clinicians in decision making at every level of the NHS. • We will empower frontline staff to lead change that improves quality of care for patients. • We will value the work of NHS staff. NHS staff make the difference where it matters most and we have an obligation to patients and the public to enable them to make best use of their talents.
Health and Safety Commission A Strategy for Workplace Health and Safety in Great Britain to 2010 and beyond	**Objectives/Aims:** HSC/E's continuing aims: • protect people by providing information and advice; promoting and assuring a goalsetting system of regulation; undertaking and encouraging research and enforcing the law where necessary; • influence organisations to embrace high standards of health and safety and to recognise the social and economic benefits; • work with business to prevent catastrophic failures in major hazard industries; and • seek to optimise the use of resources to deliver our mission and vision. HSC/E's new aims: • develop new ways to establish and maintain an effective health and safety culture in a changing economy, so that all employers take their responsibilities seriously, the workforce is fully involved and risks are properly managed; • do more to address the new and emerging work-related health issues; • achieve higher levels of recognition and respect for health and safety as an integral part of a

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	modern, competitive business and public sector and as a contribution to social justice and inclusion; and • exemplify public sector best practice in managing our resources. **Targets:** No formal targets.
Working for a Healthier Tomorrow – Dame Carol Black's Review of the health of Britain's working age population (2008)	**Objectives:** • prevention of illness and promotion of health and well-being; • early intervention for those who develop a health condition; and • an improvement in the health of those out of work – so that everyone with the potential to work has the support they need to do so. **Targets:** No formal targets.
Health Effects of Climate Change in the UK 2008 – An update of the Department of Health Report 2001/2002	**Objectives:** • the need for greater emphasis to be placed on climate change and its impacts and the need for governments to focus on this problem; • measures individuals can take to mitigate the effects of climate change on their health. Keeping cool in hot weather is important. The easy-to-remember advice "keep cool, keep clean, keep covered" remains sensible; • the need for further research in many of the areas touched on in this report. **Targets:** No formal targets.
HM Government (2007) PSA Delivery Agreement 23: Make Communities Safer	**Objectives:** The Government's vision is that: • continuing to build on the significant reductions in crime achieved over recent years, fewer people are victims of crime, especially the most serious crime – violent, drug and alcohol-related crime – and the public are protected from the most harmful offenders; and • local agencies are accountable and responsive to the needs and priorities of the local community, leading to increased public confidence in those agencies. **Targets:** Indicator 4: The percentage of people perceiving ASB as a problem
National (MOD)	
Secretary of State's Policy Statement on Safety, Health, Environmental Protection and Sustainable Development in the Ministry of Defence (2009)	**Objectives:** • To avoid work-related fatalities and minimise work-related injuries and ill-health. **Targets:** No formal targets.
MOD JSP 375, MOD Health and Safety Handbook (largely re-written under)JSP 815, Defence Environment and Safety Management)	**Objectives:** • **C**onduct defence activities in a way that minimises the risk to personnel and **to** others, including members of the public, to As Low as is Reasonably Practicable (ALARP). **Targets:** No formal targets.
MOD JSP 392, Radiation Safety Handbook (2008) and MOD JSP 418, leaflet 14 – Radiation.	**Objectives:** • To comply with the letter and the spirit of UK environmental law applicable to ionising radiations so far as is reasonably practicable regardless of any Crown or Defence Exemptions. • To reduce exposure of the workforce, members of the public and the environment to levels of radiation which are as low as reasonably practicable (ALARP). **Targets:** No formal targets.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
MOD Sustainable Development Strategy, December 2008 & MOD Sustainable Development Report and Action Plan 2008	**Objectives:** • Provide a safe and healthy workplace. • Manage the social impacts of Defence activities on UK communities (civilian and Armed Forces). **Targets:** • Ongoing target of no fatalities attributable to Health and Safety failures. • Ongoing target of 10% reduction in the number of serious injuries against previous years' performance. • By 2010 reduce number of working days lost per 100,000 workers from work related injury by 30% against figures from 2000 (Government target). • By 2010 reduce the rate of fatal and major injury accidents by 10% between 2000 and 2010 (Government target). • By 2010 Reduce the rate of cases of work related ill health by 10% between 2000 and 2010 (Government Target).
National (Scotland)	
Sport Scotland (2009) A sport Scotland policy statement on sport and physical recreation in the outdoors	**Objectives:** • Statement looks to a future where sport and recreation in the outdoors is increasingly welcomed and positively managed, with an informed approach. • Where outdoor sport is well resourced and well promoted, and is supported by the provision of quality services, facilities and infrastructure, set in a quality environment. • Where the value and contribution of outdoor sport and recreation is recognised and where existing opportunities to participate are protected and enhanced, and new opportunities developed, for all sectors of Scottish society.
Scottish Executive Physical Activity Task Force (2003) Let's Make Scotland More Active: A strategy for physical activity	**Objectives:** • To develop and maintain long-lasting, high-quality environments to support inactive people to become active. • To provide accurate and evidence-based advice to staff who are involved in government policy and service delivery, and who work in the voluntary and private sectors. • To raise awareness and develop knowledge and understanding about the benefits of physical activity and provide access to information. • To carry out research, monitoring and evaluation.
Scottish Executive (2003) 'Partnership for Care': Scotland's Health White Paper	**Objectives:** The white paper sets out the Executive's policy on health. It is about the promotion of health in the broadest possible sense and the creation of a health service that is fit for the 21st century. It sees patients and national standards as key drivers of change in the health service and frontline staff as leaders of the change process; it outlines ways in which the redesign, integration and quality of services can be systematically progressed and it seeks a step change in approach to health improvement as an essential complement to the modernised, patient focused services of the 21st century. The health improvement strategy identifies the following broad objectives: • A new approach to improve health in Scotland and to reduce health inequalities; • A sustained effort to tackle the lifestyles and circumstances which damage health; • New actions focused on early years; teenage transition; the workplace; and in communities; and • Legislation to secure the place of Health Improvement in Community Planning.
The Scottish Executive (2003)	**Objectives:**

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
Improving Health in Scotland – The Challenge	To set out the work programme of: • The Scottish Executive's actions to improve health the strengthened Special Health Board formed by the integration of the Public Health Institute of Scotland (PHIS) with the Health Education Board for Scotland (HEBS) health improvement activities within NHS Boards. • To relate work programmes and processes across Scotland that are central to health improvement including health improvement as a cross-cutting policy for the whole Programme for Government; Community Planning Partnerships; the health improvement work of COSLA and local authorities and the impact on health that arises from the work of the business sector, voluntary sector and other strands of Scottish life. • To encourage the many organisations and individuals within Scotland who contribute to health improvement and to allow them the opportunity to influence future work and phases of this long-term plan for change.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales sets out the land use planning policies of the Welsh Assembly Government. With regard to health, the Assembly states that planning policies and proposals should contribute to the protection and, where possible, the improvement of people's health and well-being. Consideration of the possible impacts of developments – positive and/or negative – on people's health at an early stage will help to clarify the relevance of health and the extent to which it needs to be taken into account. **Targets:** No formal targets.
Human Health (Noise)	
International / European (e.g. Directives)	
EU Sixth Environmental Action Plan (2002 – 2012)	**Objectives:** The 6th EAP takes a broad look at the environmental challenges and provides a strategic framework for the Commission's environmental policy up to 2012. The 6th EAP identifies four priority areas: • Climate change • Nature and biodiversity • Environment and health • Natural resources and waste. **Targets:** This includes a long term objective which states: "to achieve reduction of the number of people regularly affected by long-term high noise levels from an estimated 100 million in 2000 by around 10% in 2010, and by 20% in 2020".
EU Directive (2002) 2002/49/EC Relating to the Assessment and Management of Environmental Noise - The Environmental Noise Directive	**Objectives:** The aim of the Directive is to define a common approach intended to avoid, prevent or reduce the harmful effects including annoyance due to exposure to environmental noise. Each Member State is expected to determine exposure to environmental noise through noise mapping, ensure that information on environmental noise and its effects is made available to the public and to adopt action plans based upon noise mapping results with a view to preventing and reducing environmental noise where necessary, and particularly where exposure effects could induce harmful effects on human health. **Targets:** There are no specific targets or indicators of relevance.
World Health Organization (1999) Guidelines for Community Noise	**Objectives:** This provides recommendations for guideline levels to prevent critical health effects including LAeq levels for outdoor living areas, dwelling indoors, inside bedrooms and sound pressure levels for impulse sounds: toys, firearms, fireworks. **Targets:** This sets specific standards to prevent health impacts.
WHO (2000) Transport, Environment and Health	**Objectives:** This report primarily focuses on increasing road transport, noting that road users generate excessive costs to themselves, other individuals and society - through noise, pollution and accidents - in the form of illness, injuries, deaths and damage to mental health and social relationships. The

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	challenge is to promote healthy and sustainable transport alternatives to prevent the negative effects of transport systems on human health. Meeting this challenge requires commitment and action from governments. It summarises the latest scientific evidence on the impact of transport-generated air pollution, noise and accidents on behaviour and physical and mental health. The report also highlights the potential health benefits from non-motorised forms of transport, such as cycling and walking. **Targets:** The report highlights the need for policy-makers to address the following issues: • transport-related noise pollution • transport-related air pollution • the effects of transport of mental health and wellbeing • identifying key groups affected by transport health risks • improving provisions for cycling and walking.
National (UK)	
Environmental Protection Act 1990	**Objectives:** Defines within England, Scotland and Wales the legal framework for duty of care for waste, contaminated land and statutory nuisance (including noise emitted from premises so as to be prejudicial to health or a nuisance). **Targets:** No formal targets.
Control of Pollution Act 1974 (and subsequent amendments)	**Objectives:** This makes further provision with respect to waste disposal, water pollution, noise, atmospheric pollution and public health. **Targets:** There are no specific targets or indicators of relevance.
Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996	**Objectives:** These Regulations apply to railway, tramway and other guided transport systems which have been authorised by or under statute. They impose a duty on the authority responsible for constructing the transport system concerned, or for adding to an existing system, to provide certain buildings with insulation against noise or to pay grant for insulation work to be carried out to such buildings. **Targets:** There are no specific targets or indicators of relevance.
DTI (2001) The Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001 (SI 2001/1701 as amended)	**Objectives:** Guide seeks to explain the requirements of the Regulations for technical documentation only and does not attempt to address all requirements of the Regulations, with respect to noise emissions in the environment by equipment for use outdoors. **Targets:** Permissible sound levels are given for different types of equipment.
Environmental Noise (England) Regulations 2006	**Objectives:** These regulations transpose the requirements under Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 (often known as the Environmental Noise Directive (END). The END requires: • The use of harmonised noise indicators and computational measures so that data can be collected and compared in a standardised way • Common protocols for noise mapping • The drawing up of noise maps • Making information available to the public • The drawing up of local action plans • Collection of data by the Commission to inform future Community policy. The Regulations will help identify: • The extent to which people are exposed to high levels of noise • What areas of relative quiet we might or could have to enable the development of measures to protect them and not have the noise environment inadvertently eroded. **Targets:** No relevant targets or indicators.
ODPM (1994) PPG 24 Planning and Noise	**Objectives:** This PPG gives guidance to local authorities in England on the use of their planning powers to minimise the adverse impact of noise and builds on the advice previously contained in DOE

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	Circular 10/73. The aim of this guidance is to provide advice on how the planning system can be used to minimise the adverse impact of noise without placing unreasonable restrictions on development or adding unduly to the costs and administrative burdens of business. The PPG: • Outline the considerations to be taken into account in determining planning applications both for noise sensitive developments and for those activities which will generate noise • Introduce the concept of noise exposure categories for residential development, encourages their use and recommends appropriate levels for exposure to different sources of noise • Advise on the use of conditions to minimise the impact of noise. **Targets:** No relevant targets or indicators.
Rail Safety and Standards Board (2007) Overview of Environmental Noise, Diffuse Pollution and Biodiversity Management in the Great Britain Rail Industry	**Objectives:** This research summarises the current situation in the management of environmental noise, diffuse pollution and biodiversity. The output of this work is intended to inform the rail industry in the development of a sustainability strategy and inform Department for Transport (DfT) in the development of the long-term strategy for rail. **Targets:** No formal targets.
Clean Neighbourhoods and Environment Act 2005	**Objectives:** Introduces noise, litter and waste controls including site waste management plans, and classifies artificial lighting and insects as statutory nuisances. **Targets:** No formal targets.
Noise Emission in the Environment by Equipment for Use Outdoors Regulations 2001 SI 1701	**Objectives:** Establishes maximum noise levels for equipment used outdoors, mainly in construction and land maintenance, such as generators, lawn mowers, compaction machines and concrete breakers. **Targets:** No formal targets.
Control of Noise (Codes of Practice for Construction and Open Sites) (England) Order 2002 SI 461	**Objectives:** Approves four British Standards Institution codes of practice for appropriate methods of minimising noise and vibration from construction and open sites in England. **Targets:** No formal targets.
National (MOD)	
Secretary of State's Policy Statement on Safety, Health, Environmental Protection and Sustainable Development in the Ministry of Defence (2009)	**Objectives:** • To minimise work-related injuries and ill-health. **Targets:** No formal targets.
MOD JSP 375, MOD Health and Safety Handbook (largely re-written through JSP 815, Defence Environment and Safety Management)	**Objectives:** • **C**onduct defence activities in a way that minimises the risk to personnel and **to** others, including members of the public, to As Low as is Reasonably Practicable (ALARP). **Targets:** No formal targets.
JSP 418 Leaflet 15, Statutory Nuisance.	The MOD has exemption from the health and statutory nuisances provisions of Part III of the Environmental Protection Act, in relation to Clause 79 (1) (g) - noises emitted from premises so as to be prejudicial to health or a nuisance. However this only applies to operational activities directly related to national security. MOD establishments are not allowed to create excessive noise liable to cause a nuisance as part of activities not directly connected with the operation of equipment, training of personnel or other military **operations. Objectives:** To reduce and where possible avoid the effects and causes of statutory nuisance and to comply with all relevant UK environmental legislation. To make every effort to keep the disturbance to the public caused by the noise generated by military activity to a minimum. Where possible, activities generating substantial noise will be kept at a distance from residential areas, and night time activity will be limited to achieving training objectives which cannot be met during the day.

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	Targets: No formal targets.
National (Scotland)	
Scottish Executive - Sound Advice on Noise - Don't suffer in silence	**Objectives:** • tells you what you can do about noise from neighbours, local commercial and industrial premises and vehicles. • describes additional noise controls such as bylaws and specific controls on noise from construction sites and loudspeakers. • explains how you can get involved in planning to prevent noise. **Targets:** No formal targets.
Scottish Executive Development Department Circular 10/1999 - Planning and Noise	**Objectives:** Development plans should: • guide noise-sensitive developments away from existing sources of significant noise or from programmed development such as new roads or areas reserved for noisy uses or activities; and • ensure that potentially noisy developments are located in areas where noise will not be such an important consideration or where its impact can be contained or minimised. **Targets:** No formal targets.
Scottish Executive (1999) Planning Advice Note: PAN 56 Planning and Noise	**Objectives:** • indicates how noise issues should be handled in development plans and development control; • outlines ways of mitigating the adverse impact of noise; • provides specific guidance on noisy and noise-sensitive development; • introduces the use of noise exposure categories; • gives guidance on the use of planning conditions relating to noise. **Targets:** Sets out noise exposure categories for dwellings.
NHS Highland (2007) Your guide to local health services in Argyll & Bute Community Health Partnership	**Objectives:** Guide has been produced to inform public about community health services across Argyll and Bute. It outlines some of their plans for improving services and how you can get involved. It includes useful contact information to help you get the services you need. **Targets:** No formal targets.
National (Wales)	
Welsh Assembly Government (1997) Technical Advice Note 11: Noise	**Objectives:** Sets out that local planning authorities must ensure that noise generating development does not cause an unacceptable degree of disturbance. They should also bear in mind that if subsequent intensification or change of use results in greater intrusion, consideration should be given to the use of appropriate conditions. Conversely, local planning authorities should consider whether proposals for new noise-sensitive development would be incompatible with existing activities, taking into account the likely level of noise exposure at the time of the application and any increase that may reasonably be expected in the foreseeable future. Such development should not normally be permitted in areas which are, or are expected to become, subject to unacceptably high levels of noise and should not normally be permitted where high levels of noise will continue throughout the night. **Targets:** Contains recommended noise exposure categories for new dwellings near existing noise sources.
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Assembly Government. With regard to noise, PPW states that local planning authorities should make a careful assessment of likely noise levels where appropriate and have regard to any relevant Noise Action Plan before determining planning applications. **Targets:** No formal targets.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
Soil and Geology	
International / European (e.g. Directives)	
EC (2006) Framework for the protection of soil and amending Directive 2004/35/EC	**Objectives:** The proposed Directive includes: • The establishment of a common framework to protect soil on the basis of the principles of preservation of soil functions, prevention of soil degradation, mitigation of its effects, restoration of degraded soils and integration in other sectoral policies. • The requirement to identify, describe and assess the impact of some sectoral policies on soil degradation processes with a view to protect soil functions. • The requirement for land users to take precautionary measures when their use of the soil can be expected to significantly hamper soil functions. • An approach to soil sealing to ensure a more rational use of land • Identification of areas at risk of erosion, organic matter decline, salinisation, compaction and landslides, and establishment of national programmes of measures. • Measures to limit the introduction of dangerous substances into the soil, to avoid accumulation in soil that would hamper soil functions and create a risk to human health and the environment. • Setting up an inventory of contaminated sites, a mechanism for funding the remediation of orphan sites, a soil status report, and establishing a national strategy for remediation of the contaminated sites identified. **Targets:** No formal targets
EC (1991) Nitrates Directive (91/676/EEC)	**Objectives:** • designate as Nitrate Vulnerable Zones (NVZs) all land draining to waters that are affected by nitrate pollution. • establish a voluntary code of good agricultural practice to be followed by all farmers throughout the country. • establish a mandatory Action Programme of measures for the purposes of tackling nitrate loss from agriculture. The Action Programme should be applied either within NVZs or throughout the whole country. • review the extent of their NVZs and the effectiveness of their Action Programmes at least every four years and to make amendments if necessary. **Targets:** No formal targets.
Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 – Amended in 2007	**Objective:** Regulations require consent to be obtained for geological surveys related to oil and gas activities undertaken on the UKCS. The Amendment Regulations 2007 extend these provisions to UK waters (sea adjacent to UK from the low water mark up to the seaward limits of territorial waters), as well as requiring prior consent for the testing of equipment to be used in geological surveys. **Targets:** No formal targets.
National (UK)	
ODPM (2005). PPS9: Biodiversity and Geological Conservation	**Objectives:** The statement sets out a number of key planning principles: • Development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas; • Plan policies and planning decisions should aim to maintain, and enhance, restore or add to biodiversity and geological conservation interests; • Plan policies on the form and location of development should take a strategic approach to the conservation, enhancement and restoration of biodiversity and geology and should recognise the contributions that sites, areas and features make, both individually and in combination;

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• Plan policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development; • Development proposals where the principal objective is to conserve or enhance biodiversity and geological conservation interests should be permitted; and • The aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. **Targets:** No specific targets are given but it is noted that Sites of regional and local biodiversity and geological interest have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education.
UK Soil Indicators Consortium (Defra) – Formed in 2003	**Objectives:** 1. To develop a set of policy relevant and scientifically robust indicators of soil quality that: • Cover all of the functions of soil • Will pick up significant changes in soil quality in a timely manner • Will meet the different requirements of the member organisations (make best use of collected data) • Make use of existing research into indicators being supported by the member organisations. 2. To develop a UK monitoring scheme that: • Will better establish the state of our national soils • Can be tailored to available resources and individual organisation needs • Will be designed to pick up significant changes in soil quality • Builds upon previously funded research on the design of monitoring schemes. **Targets:** No formal targets
PPG14 Development on Unstable Land (1990)	**Objective:** Purpose of PPG14 is principally to advise local authorities, landowners and developers on the exercise of planning controls over development on land which is unstable or is potentially unstable. **Targets:** No formal targets
Minerals Policy Statements (MPS) 1 – 'Planning and Minerals' (2006)	**Objectives:** • to ensure the prudent, efficient and sustainable use of minerals and recycling of suitable materials, thereby minimising the requirement for new primary extraction; • to conserve mineral resources through appropriate domestic provision and timing of supply; • to safeguard mineral resources as far as possible; • to prevent or minimise production of mineral waste; • to secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals; • to protect internationally and nationally designated areas of landscape value and nature conservation importance from minerals development, other than in exceptional circumstances; • to secure adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment; • to maximise the benefits and minimise the impacts of minerals operations; • to promote the sustainable transport of minerals; • to protect and seek to enhance the overall quality of the environment once extraction has ceased; • to secure closer integration of minerals planning policy with national policy on sustainable construction and waste management; and

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• to encourage the use of high quality materials. **Targets:** No formal targets
MPS 2 – 'Controlling and Mitigating the Environmental Effects of Minerals Extraction in England' (2005)	**Objectives:** Mineral Planning Authorities (MPAs) should incorporate the objectives of sustainable development in minerals planning. These objectives recognise the potential conflict between the exploitation of resources and environmental aims. In order to reconcile such conflicts, MPAs should aim to: • conserve minerals as far as possible, whilst ensuring an adequate supply to meet the needs of society; • ensure that the environmental impacts caused by mineral operations and the transport of minerals are kept to an acceptable minimum; • minimise production of waste and to encourage efficient use of materials, including appropriate use of high-quality materials, and recycling of waste; • encourage sensitive working, restoration and aftercare practices during minerals extraction and to conserve or enhance the overall quality of the environment once extraction has ceased; • safeguard the long-term capability of best and most versatile agricultural land, and conserve soil resources for use in a sustainable way; and • protect areas of nationally-designated landscape or archaeological value, cultural heritage or nature conservation from mineral development, other than in exceptional circumstances where it has been demonstrated that the proposed development is in the public interest. **Targets:** No formal targets
MPG 7 – Reclamation of mineral workings (1996)	**Objective:** Guidance deals with policies, consultations and conditions which are relevant to achieving effective reclamation of mineral workings. **Targets:** No formal targets
Contaminated Land (England) Regulations 2006 SI 1380 (also equivalents for Wales and N.Ireland).	**Objective:** Sets out provisions relating to the identification and remediation of contaminated land. Identifies sites requiring regulation as 'special sites' and adds land contaminated by radioactive substances to this classification. **Targets:** No formal targets
1995 Environment Act	**Objectives:** The main purpose of the Environment Act is to protect and preserve the environment and guard against pollution to air, land or water. The Act adopts an integrated approach to environmental protection and outlines where authorisation is required from relevant authorities to carry out certain procedures as well as outlining the responsibilities of the relevant authorities. **Targets:** No formal targets
Communities and Local Government (2010) Consultation Paper a new Planning Policy Statement: Planning for a Natural and Health Environment	**Objectives:** Once approved, this PPS will replace PPS9, PPG17, PPG20 and PPS7 in so far as it relates to landscape protection, soil and agricultural land quality, forestry, coastal access, heritage coast and the undeveloped coast. With regard to soil, the paper sets out that, when considering applications involving significant areas of agricultural land, local planning authorities should take account of the presence of best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) alongside other sustainability considerations. Where significant development of agricultural land is unavoidable, local planning authorities should seek to develop areas of poorer quality land (grades 3b, 4 and 5) in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations. Little weight should be given to the loss of agricultural land in grades 3b, 4 and 5, except in areas (such as uplands) where particular agricultural practices may themselves contribute to the quality and character of the environment or the local economy. Regarding geology, the paper states that local planning authorities should maximise opportunities for building-in beneficial geodiversity features in and around developments, as part of good design, using planning obligations where appropriate. Development

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	proposals on previously developed land which has significant biodiversity, geodiversity or landscape interest of recognised local importance, or which provides opportunities for public access, should aim to retain this interest or access and incorporate it into any development of the site. **Targets:** No formal targets.
National (MOD)	
MOD Sustainable Development Strategy, December 2008 & MOD Sustainable Development Report and Action Plan 2008	**Objective:** • To establish a complete picture of risks associated with land quality across the Defence Estate and have in place robust mechanisms for managing those risks to an acceptable level. **Targets:** • By 2010 establish an estate-wide Land Quality Assessment programme to make sure resources are prioritised effectively and to allow improved reporting in this area.
MOD JSP 418, leaflet 2 – Land Contamination	**Objectives:** • To assess the land quality across the entire estate in order to provide a proper knowledge of the condition of the estate and ensure that it is 'suitable for use' and not causing harm to human health or the environment. Where it is identified that an unacceptable risk is posed by the presence of contamination early action must be taken to reduce and control those risks to an acceptable level. • To maintain a Corporate EMS based on ISO 14001 across the Estate. …to maintain a view of the impacts of MOD activities and the impact of land quality on MOD activities. **Targets:** No formal targets
MOD JSP 418, leaflet 14 – Radiation	**Objectives:** • To reduce exposure of the workforce, members of the public and the environment to levels of radiation which are as low as reasonably practicable (ALARP). **Targets:** No formal targets.
National (Scotland)	
The Scottish Executive (2003) Organic Action Plan for Scotland	**Objective:** The aim is to build a prosperous and sustainable organic sector. The Executive aims to see accelerated growth of organic farming where this can make the best contribution to environmental sustainability. The Executive will act, within the powers and resources available to it, to remove barriers and create conditions to help the sector to develop such that: • For products where Scotland's climate supports organic production, Scottish organic products can secure a market share at least the same as that attained by Scottish non-organic produce. Only an estimated 35% of organic produce sold is currently provided from domestic sources (as opposed to around 70% for non-organic products). We want to see Scottish organic products grow in market penetration so that they can meet at least 70% by value of overall Scottish consumer demand for organic products which can be sourced in Scotland, as well as succeeding in the broader UK and international markets. • There can be a doubling of the area of arable land and improved grassland in organic conversion or production, with a view to these areas comprising 30% of Scotland's organic area by 2007, against a current 15%.
Scottish Government (2010) Scottish Planning Policy	**Objectives:** Scottish Planning Policy (SPP) sets out the Scottish Government's policy on land use planning. The following objectives are laid out for sustainable use of Scotland's sustainable resources: • Safeguard minerals as far as possible for future use; • Ensure a steady and adequate supply is maintained to meet the needs of society and the economy; • Encourage sensitive working practices during mineral extraction that minimise the environmental and transport impacts and once extraction has ceased, ensure sites are reclaimed to a high standard or enhance the value of the wider environment;

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• Promote the use and recycling of secondary materials in development plan policies in addition to those for the release of sites for extraction of primary materials; • Protect international, national and locally designated areas of acknowledged natural or built heritage importance from adverse impacts; and • Minimise the potential adverse impact of minerals extraction on communities. SPP also states that development on prime agricultural land should not be permitted unless it is to meet an established need, for example for major infrastructure development, where no other suitable site is available. **Targets:** No formal targets
Contaminated Land (Scotland) Regulations 2000 SSI 178	**Objectives:** Introduces a scheme for remedying contaminated land, identifies 'special sites' enforced by SEPA, remediation notices and their contents, and sets out the information to be held on a contaminated land register maintained by local councils. **Targets:** No formal targets
National (Wales)	
Welsh Assembly Government (2000) Technical Advice Note 6: Agricultural and Rural Development	**Objectives:** TAN 6 stipulates that, in considering planning applications, local planning authorities should consider the quality of agricultural land and other agricultural factors and seek to minimise any adverse affects on the environment. **Targets:** No formal targets.

Welsh Assembly Government (2004) Minerals Technical Advice Note 1: Aggregates	**Objectives:**
	• To provide aggregate resources in a sustainable way to meet society's needs for construction materials in line with the following objectives:
	  ○ maximising the use of secondary and recycled materials and mineral waste where practicable;
	  ○ ensuring planning permissions for future primary extraction are essential and properly planned for in accord with the Regional Technical Statement;
	  ○ eliminating over the next 5 years any likelihood of future primary aggregate extraction at historically obsolete and long dormant sites.
	• To prevent unacceptable aggregates extraction from areas of acknowledged landscape, cultural, nature and geological conservation and hydrological importance.
	• To reduce the impact of aggregates production
	• To achieve a high standard of restoration and aftercare, and provide for a beneficial after-use
	• To encourage the efficient use of minerals and maximising the potential use of alternative materials as aggregates
	Targets: To increase the proportion of aggregates production n Wales from secondary and recycled sources to at least 25% of total aggregates supply within 5 years.

Water	
International / European (e.g. Directives)	
European Commission (2000) The Water Framework Directive	**Objectives:** This Directive establishes a framework for the protection of inland surface waters, transitional waters, coastal water and groundwater. It also encourages the sustainable use of water resources. The key ones at European level are general protection of the aquatic ecology, specific protection of unique and valuable habitats, protection of drinking water resources, and protection of bathing water. **Targets:** Requires surface freshwater and ground water bodies - such as lakes, streams, rivers,

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	estuaries, and coastal waters - to be ecologically sound by 2015 and that the first review of the River Basin Management Plans should take place in 2020.
Dangerous Substances Directive (76/464/EEC)	Directive covers discharges to inland surface waters, territorial waters, inland coastal waters and ground water. **Objective:** It had the ambitious objective of regulating potential aquatic pollution by thousands of chemicals already produced in Europe at that time. **Targets:** Directive uses legislation to reinforce the above objective.
Directive 2006/7/EC concerning the management of bathing water quality	**Objectives:** Directive lays down provisions for: (a) the monitoring and classification of bathing water quality; (b) the management of bathing water quality; and (c) the provision of information to the public on bathing water quality. The purpose of this Directive is to preserve, protect and improve the quality of the environment and to protect human health by complementing Directive 2000/60/EC. **Targets:** No formal targets
Urban Waste Water Treatment Directive (91/271/EEC)	**Objective:** Its objective is to protect the environment from the adverse effects of urban waste water discharges and discharges from certain industrial sectors (see Annex III of the Directive) and concerns the collection, treatment and discharge of: • Domestic waste water • Mixture of waste water • Waste water from certain industrial sectors (see Annex III of the Directive). **Targets:** Directive uses legislation to reinforce the above objective.
Directive on Priority Substances (Directive 2008/105/EC)	**Objective:** That good chemical status is reached for a water body when compliance with all environmental quality standards for the priority substances and other pollutants listed in Annex I of the directive is achieved. **Targets:** Directive uses legislation to reinforce the above objective.
Groundwater Directive (80/68/EEC)	**Objective:** The purpose of this Directive is to prevent the pollution of groundwater by substances belonging to the families and groups of substances in lists I or II in the Annex. Member States shall take the necessary steps to: (a) prevent the introduction into groundwater of substances in list I ; and (b) limit the introduction into groundwater of substances in list II so as to avoid pollution of this water by these substances. **Targets:** Directive uses legislation to reinforce the above objective.
EU Marine Strategy Framework Directive Marine Strategy Framework Directive(June 2008)	**Objective:** The aim of the Marine Strategy Framework Directive is to protect more effectively the marine environment across Europe. It aims to achieve good environmental status of the EU's marine waters by 2021 and to protect the resource base upon which marine-related economic and social activities depend. It dictates that the marine strategies to be developed by each Member State must contain a detailed assessment of the state of the environment, a definition of "good environmental status" at regional level and the establishment of clear environmental targets and monitoring programmes. **Targets:** Member States shall take the necessary measures to achieve or maintain good environmental status in the marine environment by the year 2020 at the latest.
Drinking Water Directive (98/83/EC)	**Objectives:** The objective of this Directive is to protect the health of the consumers in the European Union and to make sure the water is wholesome and clean. The Directive also sets standards for the most common substances (so-called parameters) that can be

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	found in drinking water. In the DWD a total of 48 microbiological and chemical parameters must be monitored and tested regularly. **Targets:** Directive uses legislation to reinforce the above objective.
EU Floods Directive - On the assessment and management of flood risks (2007)	**Objectives:** Directive's aim is to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. The Directive applies to inland waters as well as all coastal waters across the whole territory of the EU. **Targets:** Directive requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.
Surface Water Abstraction Directive (75/440/EEC)	**Objective:** Directive concerns the quality requirements which surface fresh water used or intended for use in the abstraction of drinking water, hereinafter called "surface water", must meet after application of appropriate treatment. Ground water, brackish water and water intended to replenish water-bearing beds are not subject to this Directive. **Targets:** No formal targets but legislation.
Shellfish Waters (79/923/EEC)	**Objective:** Directive concerns the quality of shellfish waters and applies to those coastal and brackish waters designated by the Member States as needing protection or improvement in order to support shellfish (bivalve and gasteropod molluscs) life and growth and thus to contribute to the high quality of shellfish products directly edible by man. **Targets:** Directive uses legislation to reinforce the above objective.
National (UK)	
Environment Agency (2009) Water for people and the environment - Water resources strategy for England and Wales	**Objectives:** • enable habitats and species to adapt better to climate change • allow the way we protect the water environment to adjust flexibly to a changing climate • reduce pressure on the environment caused by water taken for human use • encourage options resilient to climate change to be chosen in the face of uncertainty • better protect vital water supply infrastructure • reduce greenhouse gas emissions from people using water, considering the whole life-cycle of use • improve understanding of the risks and uncertainties of climate change. **Target:** In England, the average amount of water used per person in the home is reduced to 130 litres each day by 2030.
Defra (2005) Making Space for Water: Taking forward a new Government Strategy for flood and coastal erosion risk management in England	**Objectives:** To reduce the threat of flooding to people and their property. Also to deliver the greatest environmental, social and economic benefit, consistent with the Government's sustainable development principles. **Targets:** No formal targets.
DCLG (2006) PPS25: Development and Flood Risk	**Objectives:** PPS25 aims to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and where possible, reducing flood risk overall. The PPS also instructs regional and local planning authorities to prepare and implement planning strategies that help to deliver sustainable development that take into account flood risk. **Targets:** Does not contain any targets.
DCLG (2010) *Planning Policy Statement 25 Supplement:*	**Objectives:** This supplement sets out planning policies for managing development on coastal areas affected by coastal change. It states that planning should:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
Development and Coastal Change	• ensure that policies and decisions in coastal areas are based on an understanding of coastal change over time; • prevent new development from being put at risk from coastal change by: -avoiding inappropriate development in areas that are vulnerable to coastal change or any development that adds to the impacts of physical changes to the coast, and -directing development away from areas vulnerable to coastal change • ensure that the risk to development which is, exceptionally, necessary in coastal change areas because it requires a coastal location and provides substantial economic and social benefits to communities, is managed over its planned lifetime, and • ensure that plans are in place to secure the long term sustainability of coastal areas. **Targets:** Does not contain any targets.
Future Water, the Government's Water Strategy for England (Feb 08)	**Objectives:** By 2030 at the latest, we have: • improved the quality of our water environment and the ecology which it supports, and continued to provide high levels of drinking water quality from our taps; • sustainably managed risks from flooding and coastal erosion, with greater understanding and more effective management of surface water; • ensured a sustainable use of water resources, and implemented fair, affordable and cost reflective water charges; • cut greenhouse gas emissions; and • embedded continuous adaptation to climate change and other pressures across the water industry and water users. **Targets:** Key targets are within the objectives above & further a number of sub-targets are included within the document.
Water Resources for the Future: A Strategy for England and Wales (2001)	**Objectives:** This strategy seeks to promote water efficiency with household water metering to become widespread over the next 25 years. It also recommends the active promotion of water efficiency opportunities for commerce and industry. **Targets:** Enhancement of water supply by up to 1100 Ml/d above present levels by the improvement of existing schemes and the development of some new resources.
1995 British Waterways Act	**Objectives:** Act covers entry onto land and sets out regulations and management for inland waterways. **Targets:** No formal targets
UK Strategy for Radioactive Discharges 2001-2020 (published by Defra in July 2002)	**Objectives:** To deliver the UK's obligations under the OSPAR Radioactive Substances Strategy, in respect of progressive and substantial reductions in radioactive discharges. The objective of the OSPAR strategy is to prevent pollution of the maritime area covered by the OSPAR Convention (Convention for the Protection of the Marine Environment of the North-East Atlantic) from ionising radiation. In particular, the OSPAR objective for 2020 is to reduce discharges to levels where the additional concentrations in the marine environment above historic levels, resulting from such discharges, are close to zero. **Targets:** • progressive and substantial reduction of radioactive discharges and discharge limits, to achieve the strategy targets for each sector; • progressive reduction of human exposure to ionising radiation arising from radioactive discharges, as a consequence of reductions in discharges, such that a representative member of a critical group of the general public will be exposed to an estimated mean dose of no more than 0.02 millisieverts (mSv) a year from liquid radioactive discharges to the marine environment made from

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	2020 onwards; • progressive reduction of concentrations of radionuclides in the marine environment resulting from radioactive discharges, such that by 2020 they add close to zero to historic levels. (The terms "close to zero" and "historic levels" are not defined in the OSPAR Strategy and the OSPAR Commission is continuing to work on establishing agreed definitions.)
Sustainable Development Commission (2010) Sustainable Development in Government Framework Targets	**Objectives:** The Sustainable Development in Government (SDiG) framework was announced in March 2010, this will replace the SOGE targets when they expire in 2010/11. This framework is intended to reduce its greenhouse gas emissions and ensure that the Government's estate is resilient to the impacts of changing climate. The framework also includes challenging targets on waste reduction and recovery, more efficient use of water, and it promotes the protection and enhancement of biodiversity, and positive engagement with the community. **Targets:** Targets relating to water include: • Reduce water consumption by 7% (non-office estate) by 2016/17, relative to 2010/11 levels • Achieve a water consumption level of 6m3 per FTE on office estate by 2016/17
National (MOD)	
MOD Sustainable Development Strategy, December 2008 & MOD Sustainable Development Report and Action Plan 2008	**Objectives:** • Ensure all our sites become more water efficient to comply with Government and MOD targets. **Targets:** • By 2020 reduce water consumption by 25% on the office and non-office estate, relative to 2004/2005 levels (SOGE target). • By December 2020 reduce water use (from consumption and leakage) by 6 million cubic metres from 2005/06 (MOD commitment). • Ongoing target to ensure that all new builds and major refurbishments are designed in line with water efficiency best practice through adherence to BREEAM/DREAM standards. • By 2012 conduct water audits across our whole estate and implement recommendations.
MOD JSP 418, leaflet 19 - Water Pollution MOD JSP 418, leaflet 10 – Marine Environmental Legislation	**Objectives:** To conduct activities in accordance with government policy and to comply with the letter and spirit of environmental law. To support the aims and objectives of the UK Marine Bill, with exceptions negotiated solely to support operational capability or retain classified information. **Targets:** No formal targets.
National (Scotland)	
Scottish Government (2010) Scottish Planning Policy	**Objectives:** Scottish Planning Policy (SPP) sets out the Scottish Government's policy on land use planning. With regard to flood risk, SPP states that developers and planning authorities should take a precautionary approach in taking decisions when flood risk is an issue and that development should not take place on land that could otherwise contribute to managing flood risk, for instance through managed coastal realignment, washland creation or as part of a scheme to manage flood risk. With respect to coastal issues, SPP states that planning authorities should take the likely effect of proposed development on the marine environment into account when preparing when making decisions on planning applications. **Targets:** No formal targets
Scottish Water Delivery Plan - May	**Objectives:** Delivery Plan sets out two key objectives:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
(2006)	• We will progressively remove constraints on development in Scotland that are currently caused by lack of capacity for water or for waste water treatment; and • We will improve the standard of service to our customers, giving even better quality and reliability. **Targets:** In turn Scottish Water is committed to delivering the Ministerial Directions and other regulatory targets for the 2006 – 2010 period within the financial limits set out in the Final Determination. A number of targets are specified throughout the document in order to achieve this.
The Water Environment (Controlled Activities) (Scotland) Regulations 2005	These regulations set out the process by which activities that have the potential to affect Scotland's water environment are regulated. Authorisation under the Controlled Activities Regulations (CAR) is required for discharging to waters, disposal of pollutants to land, abstractions, impoundments and engineering works affecting water bodies. The CAR provide for three levels of authorisation over point source discharges, abstractions, impoundments and engineering activities. This allows for proportionate controls over such activities so that environmental protection can be provided whilst minimising the regulatory burden. **Targets:** No formal targets
Scottish Environment Protection Agency 19 Groundwater Protection Policy for Scotland	**Objective:** Details policies aimed to provide a sustainable future for Scotland's groundwater resources by protecting legitimate uses of groundwater and providing a common SEPA framework.
Scottish Executive (2006) Bathing Water Strategy for Scotland	**Objectives:** The Bathing Water Strategy sets out a framework for meeting the challenges associated with implementing the revised Bathing Water Directive. This revision requires stricter bacteriological standards to be met in the future and sets new requirements for the provision of information on water quality to the public, as well as for engaging public participation in matters relating to bathing waters.
Scottish Executive Scottish Coastal Forum (2004) A Strategy for Scotland's Coast and Inshore Waters	**Objectives:** The main goals are: • To deliver integrated management for the whole Scottish coast at the most appropriate geographical scale. • Establish an integrated system of spatial planning for Scotland's inshore marine area which combines with the terrestrial planning system. • To achieve effective, strategic and adequately resourced leadership for the management and sustainable use of coastal resources. • To safeguard the resources of Scotland's coast and inshore waters and to promote awareness of their value. • To better understand and work with natural processes as far as possible. • To achieve effective stakeholder participation at the appropriate geographical and administrative levels. • To co-ordinate research, data and information management activities, monitoring and evaluation of Scotland's Coasts and Inshore waters across Scotland.
Scottish Executive (2001) Rivers, Lochs, Coasts: The Future for Scotland's Waters	**Objectives:** Improvements to management and protection practises will involve: • Putting ecology at the heart of the system; • Tackling issues such as the impact of diffuse pollution from agriculture and urban areas; • Establishing a system of management that recognises that water systems are interdependent and ensures all those with an interest get their say; • Requiring the collection of better information so the problems are located; • Introducing a regime for regulation of the abstraction of water and other physical impacts on water

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	courses so that where they cause problems they can be tackled; • Improving the existing system for control of discharges to make it more relevant and better able to cope with new industries; • Promoting sustainable development and biodiversity; and • Doing all of the above in a manner that properly balances the interests of the environment with those who depend upon it.
Scottish Executive (2004) Implementation of the Water Environment and Water Services (WEWS) (Scotland) Act 2003 – Annual Report to the Scottish Parliament	**Objectives:** The basic objectives to be achieved as set out in Article 4(1) of the WFD are summarised as follows: • prevent deterioration in the status of surface water bodies; • protect, enhance and restore all bodies of surface water with the aim of achieving good surface water status by 2015; • prevent deterioration of the status of groundwater bodies; • protect, enhance and restore all bodies of groundwater with the aim of achieving good groundwater status by 2015; • prevent or limit the input of pollutants to groundwater and reverse any significant and sustained upward trend in the concentration of pollutants in groundwater; • comply with European wide measures against priority and priority hazardous substances; and • achieve compliance with any relevant standards and objectives for protected areas.
Scottish Environment Protection Agency (2005) River Basin Planning Strategy for the Scotland River Basin District	**Objectives:** This Strategy describes planned actions within three key areas necessary for the development of effective river basin planning: • Establishing administrative arrangements and working principles to support RBMP production; • Delivering opportunities for participation and consultation; and • Integrating and coordinating the RBMP with other plans and planning.
Scottish Environment Protection Agency (2007) Solway Tweed River Basin Planning – A Plan of Action (Consultation Document)	The Plan of Action describes: • Stakeholders who SEPA/EA want to involve in river basin planning; • The ways in which the public can influence the river basin planning work; • The way SEPA/EA will work with existing groups; • The key documents that SEPA/EA will produce; • How SEPA/EA will link with other planning processes; and • The river basin planning process and time scales set out in the Solway Tweed Regulations.
The Water Environment and Water Services (Scotland) Act 2003	**Objectives:** • prevent deterioration in the status of surface water bodies; • protect, enhance and restore all bodies of surface water with the aim of achieving good surface water status by 2015; • prevent deterioration of the status of groundwater bodies; • protect, enhance and restore all bodies of groundwater with the aim of achieving good groundwater status by 2015; • prevent or limit the input of pollutants to groundwater and reverse any significant and • sustained upward trend in the concentration of pollutants in groundwater; • comply with European wide measures against priority and priority hazardous substances; and • achieve compliance with any relevant standards and objectives for protected areas. • Establish a River Basin Management Plan (RBMP) for each River Basin District.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: The WEWS sets out a timetable for implementation of requirements of the WDF up until 2015.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Assembly Government. Regarding water resources, PPW seeks to: • protect and improve water resources through increased efficiency and demand management of water, particularly in those areas where additional water resources may not be available; and • ensure that appropriate sewerage facilities are provided to convey, treat and dispose of waste water in accordance with appropriate legislation and sustainability principles. In relation to flooding, Planning Policy Wales states that development proposals in areas defined as being of high flood hazard should only be considered: Development proposals in areas defined as being of high flood hazard should only be considered where: • new development can be justified in that location, even though it is likely to be at risk from flooding; and • the development proposal would not result in the intensification of existing development which may itself be at risk; and • new development would not increase the potential adverse impacts of a flood event. In terms of coastal development, PPW states that, before major developments are permitted, it will be essential to demonstrate that a coastal location is required. Where development is considered to satisfy this test it should be designed so as to be resilient to the effects of climate change over its lifetime. **Targets:** No formal targets.
Welsh Assembly Government (2004) Technical Advice Note 15: Development and Flood Risk	**Objectives:** TAN 15 sets out a precautionary framework to guide planning decisions. The approach seeks to first, direct new development away from those areas which are at high risk of flooding and, second, where development has to be considered in high risk areas (zone C), allow only those developments which can be justified to be located within such areas. **Targets:** No formal targets.
Welsh Assembly Government (1998) Technical Advice Note 14: Coastal Planning	**Objectives:** • Protect the coastline in relation to development, landscape, biodiversity and recreation **Targets:** No formal targets
Air	
International / European (e.g. Directives)	
EC Ambient Air Quality and Cleaner Air for Europe (2008) (Directive 2008/50/EC)	**Objectives:** • defines and establishes objectives for ambient air quality to avoid, prevent or reduce harmful effects on human health and the environment as a whole; • assesses the ambient air quality in Member States using common methods and criteria; • obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and Community measures; • ensures that such information on ambient air quality is made available to the public; • maintain air quality where it is good and improving it in other cases; • promote increased cooperation between the Member States in reducing air pollution.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: Targets set out in methodology for ambient air quality assessment.
UNCED Earth Summit Rio (1992) Agenda 21, Chapter 9: Protection of the Atmosphere.	**Objectives:** This chapter of Agenda 21 seeks to: • Improve the scientific basis for decision-making; • Promote sustainable development with regards to: energy development, efficiency and consumption, transportation, industrial development, terrestrial and marine resource development and land use; • Prevent stratospheric ozone depletion; and • Monitor and reduce transboundary atmospheric pollution. **Targets:** No formal targets
European Commission (1996) Air Quality Framework Directive (Directive 96/62/EC)	**Objectives:** Overall, the improvement of air quality with adequate information obtained on ambient air quality to be provided to the public. **Targets:** Mandatory limits or reductions for 11 air pollutants including: sulphur dioxide, nitrogen dioxide, particulate matter, lead, ozone, benzene, carbon monoxide, poly-aromatic hydrocarbons, cadmium, arsenic, nickel and mercury.
EU Thematic Strategy on Air Quality (2005)	The CAFÉ Programme forms the basis of the Thematic Strategy for Air Pollution for the EU. The Strategy sets health and environmental objectives and emission reduction targets for the main pollutants. The aim of the CAFE Programme is to establish a longterm, integrated strategy to tackle air pollution and to protect against its effects on human health and the environment. CAFE's objectives are: • To develop, collect and validate scientific information on the effects of air pollution. • To support the correct implementation and review the effectiveness of existing legislation and to develop new proposals as and when necessary. • To ensure that the requisite measures are taken at the relevant level, and to develop structural links with the relevant policy areas. To develop an integrated strategy to include appropriate objectives and cost-effective measures. The thematic strategy on air quality identifies that despite significant improvements in air quality across the EU, a number of serious air quality issues still persist. The strategy promotes an approach, which focuses upon the most serious pollutants, and that more is done to integrate environmental concerns into other policies and programmes. The objective of the strategy is: • To attain levels of air quality that do not give rise to significant negative impacts on and risks to human health and the environment. The strategy emphasises the need for a shift towards less polluting modes of transport and the better use of natural resources to help reduce harmful emissions.
EU Sixth Environmental Action Plan (2002 – 2012)	The 6th EAP takes a broad look at the environmental challenges and provides a strategic framework for the Commission's environmental policy up to 2012. The 6th EAP identifies four priority areas: • Climate change • Nature and biodiversity • Environment and health • Natural resources and waste. The fields for which the strategies are developed are: • Air • Waste prevention and recycling • Marine environment • Soils

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• Pesticides • Natural resources • The urban environment. **Targets:** A number of targets arise out of the priority areas, originating from other policy sources.
European Commission (1999) The Landfill Directive	The Directive is intended, by way of stringent operational and technical requirements on the waste and landfills, to prevent or reduce the adverse effects of the landfill of waste on the environment, in particular on surface water, groundwater, soil, air and human health. **Targets:** Directive establishes guidelines and targets for the quantities of biodegradable waste being sent to landfill.
WHO (2005) Health Effects of Transport-Related Air Pollution	**Objectives:** This WHO report highlights the dangers which transport-related air pollution poses to people and society. Based on a substantial amount of evidence, it notes that an increase in car use across the world disproportionately affects the most vulnerable social groups, such as children and the elderly. The effects highlighted in the report mainly relate to those presented by air pollutants such as particulate matter (PM) and volatile organic compounds (VOCs). However, it also highlights the increased risk of road accidents and fatalities with increased car use. **Targets:** Transport-related air pollution must be reduced so its effects on health can be prevented, and this requires: • combining the development of cleaner transport technologies with the implementation of effective policies to manage the demand for transport • selecting modes of transport that are safer for health and the environment
National (UK)	
Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007)	**Objective:** The Strategy sets out a way forward for work and planning on air quality issues; sets out the air quality standards and objectives to be achieved; introduces a new policy framework for tackling fine particles; identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives. **Targets:** Specific limits on concentrations of the following air pollutants: benzene; butadiene; carbon monoxide; lead; nitrogen dioxide; ozone; particulate matter (PM10) and sulphur dioxide.
ODPM (2004) PPS23: Planning and Pollution Control	**Objectives:** The PPS is in line with the Government's commitment to the principles of sustainable development and the importance of controlling and minimising pollution. Appendix A contains matters that should be considered in the preparation of development plan documents and when taking decisions on individual planning applications. However, it does not contain a specific set of objectives. **Targets:** Does not contain any targets.
UK Government Sustainable Development Strategy: Securing the Future (2005) and the UK's Shared Framework for Sustainable Development, One Future – Different Paths (2005)	**Objectives:** The Strategy sets out five guiding principles: • Living within Environmental Limits: Respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations. • Ensuring a Strong, Healthy and Just Society: Meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity for all. • Achieving a Sustainable Economy: Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays), and efficient resource use is incentives. • Using Sound Science Responsibly: Ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle) as well as public attitudes and values.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• Promoting Good Governance: Actively promoting effective, participative systems of governance in all levels of society – engaging people's creativity, energy, and diversity. It also sets out four priorities shared across the UK, namely: • Sustainable Consumption and Production; • Climate Change and Energy; • Natural resources protection and environmental enhancement; • Sustainable Communities. **Targets:** Strategy lists 68 high level UK government strategy indicators, which will be used to measure the success with which the above objectives are being met. Relevant to air quality are: Air quality and health: (a) annual levels of particles and ozone (b) days when air pollution is moderate or higher.
Defra (2000) Rural White Paper "Our Countryside: the Future: A Fair Deal for Rural England"	**Objectives:** The aim of this paper is to sustain and enhance the distinctive environment, economy and social fabric of the English countryside for the benefit of all. The vision is of: • A living countryside, with thriving rural communities and access to high quality public services • A working countryside, with a diverse economy giving high and stable levels of employment • A protected countryside in which the environment is sustained and enhanced, and which all can enjoy A vibrant countryside which can shape its own future and with its voice heard by Government at all levels. **Targets:** This paper sets a number of targets in order to achieve its aims. However a number of these are not directly relevant to this AoS. The paper also sets out a number of useful indicators including: • Change in countryside quality including biodiversity, tranquillity, heritage, and landscape character • Populations of farmland birds • Condition of SSSIs • Rivers of good or fair quality • Air quality (low level ozone) in rural areas
Air Quality Regulations 2000 and The Air Quality (Amendment) Regulations 2002	**Objectives:** The Air Quality Regulations set out the air quality objectives for the UK for the following pollutants: • Benzene, • 1,3 Butadiene • Carbon Monoxide • Lead • Nitrogen Dioxide • Particulates (PM10) • Sulphur Dioxide. **Targets:** The Regulations sets objectives for each air quality pollutant e.g. to achieve and maintain 40µg.m-3 of annual average nitrogen dioxide.
HM Government (2007) PSA Delivery Agreement 28 Secure a Healthy Natural Environment for Today and the Future	**Objectives:** "Lead the global effort to avoid dangerous climate change", and PSA 28, "Secure a healthy natural environment for today and the future". For each of these Agreements the Treasury has set out a number of individual areas in which progress will be tracked, to# build up a picture of how well the overall objective is being delivered. **Targets:** Indicator 3 is relevant to this topic:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Air quality—meeting the Air Quality Strategy objectives for eight air pollutants as illustrated by trends in measurements of two of the more important pollutants which affect public health: particles and nitrogen dioxide.
1995 Environment Act	**Objectives:** The main purpose of the Environment Act is to protect and preserve the environment and guard against pollution to air, land or water. The Act adopts an integrated approach to environmental protection and outlines where authorisation is required from relevant authorities to carry out certain procedures as well as outlining the responsibilities of the relevant authorities. **Targets:** No formal targets
WHO (2000) Transport, Environment and Health	**Objectives:** This report primarily focuses on increasing road transport, noting that road users generate excessive costs to themselves, other individuals and society - through noise, pollution and accidents - in the form of illness, injuries, deaths and damage to mental health and social relationships. The challenge is to promote healthy and sustainable transport alternatives to prevent the negative effects of transport systems on human health. Meeting this challenge requires commitment and action from governments. It summarises the latest scientific evidence on the impact of transport-generated air pollution, noise and accidents on behaviour and physical and mental health. The report also highlights the potential health benefits from non-motorised forms of transport, such as cycling and walking. **Targets:** The report highlights the need for policy-makers to address the following issues: • transport-related noise pollution • transport-related air pollution • the effects of transport of mental health and wellbeing • identifying key groups affected by transport health risks • improving provisions for cycling and walking.
National (MOD)	
MOD JSP 418, leaflet 9 – Local Air Quality MOD JSP 418 leaflet 15 - Statutory Nuisance	The MoD has an exemption from the Statutory Nuisance provisions of the Environmental Protection Act 1990 for operational activities directly related to national security. **Objectives:** • To comply with the letter and spirit of relevant environmental legislation and work towards reducing the Department's contributions to, and impacts of, air pollution. Crown exemption remains for smoke, but for training and operational purposes only. • To minimise gaseous and particulate emissions, particularly where they include heavy metals or other substances on the Red List of substances considered particularly harmful in water. • To ensure vehicles comply with emission limits. • To ensure vessels in harbour or close to shore comply with Clean Air legislation. **Targets:** No formal targets
National (Scotland)	
Scottish Environment Protection Agency Policy Priorities Relevant to the Scottish Environment Protection Agency (Paper 2004/13)	**Objectives:** Paper summarises policies and priorities of the Scottish Executive, which, together with the specific provisions in SEPA's Management Statement Financial Memorandum and SEPA's statutory powers and duties, form the main elements of the policy framework for SEPA's activities. **Targets:** Key target with reference to this topic: • Air Quality and Global Atmosphere – minimise emissions of harmful pollutants to the air. Work within the UK strategy with a view to meeting by 2010 the targets in the National Emissions Ceilings Directive.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Assembly Government. Regarding air quality, PPW sets out the following potential material planning considerations: • location, taking into account such considerations as the reasons for selecting the chosen site itself; • impact on health and amenity; • the risk and impact of potential pollution from the development, insofar as this might have an effect on the use of other land and the surrounding environment (• prevention of nuisance; and • impact on the road and other transport networks, and in particular on traffic generation. **Targets:** No formal targets.
Climate Change and Energy Use	
International / European (e.g. Directives)	
EU Emission Trading Scheme (EU ETS)	**Objectives:** The EU Emissions Trading Scheme (EU ETS) is a Europe wide scheme which aims to reduce emissions of carbon dioxide and combat the serious threat of climate change. EU ETS puts a price on carbon that businesses use and creates a market for carbon. It has been in place since 2005. The UK is committed to building on the EU ETS as its main way of pricing carbon in the economy, to ensure emissions are effectively limited, and sees the EU ETS Review as an excellent opportunity to map out a long term policy framework and provide clear and convincing signals about the scheme. The key areas that need to be addressed to ensure EU ETS meets its potential are as follows: • setting safe, stable and affordable emissions limits • building a global carbon market • expanding the scheme • Improving efficiency. **Target:** The UK will allocate 246,175,998 allowances per annum in the second phase of the EU ETS (2008-2012), including those to be auctioned or sold. This equates to a cap of 1230,879,9916 allowances over the whole period.
UNCED Earth Summit Rio (1992) Agenda 21, Chapter 9: Protection of the Atmosphere.	**Objectives:** This chapter of Agenda 21 seeks to: • Improve the scientific basis for decision-making; • Promote sustainable development with regards to: energy development, efficiency and consumption, transportation, industrial development, terrestrial and marine resource development and land use; • Prevent stratospheric ozone depletion; and • Monitor and reduce transboundary atmospheric pollution. **Targets:** No formal targets
United Nations (1997) The UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol to the UNFCCC	**Objectives:** To prevent “dangerous” human interference with the climate system, namely through reductions in the emissions of greenhouse gases. **Targets**: A 12.5% reduction by 2008-2012 in the 1990 levels of the six listed gases: Carbon dioxide; Methane; Nitrous oxide; Hydrofluorocarbons; Perfluorocarbons and Sulphur hexafluoride.
EU Green Paper “adaptation to climate change in Europe – options for EU action”	**Objectives:** Sets out how Europe must adapt to climate change and a number of scenarios on how the EU can react. **Targets:** No formal targets

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
European Climate Change Programme (ECCP)	**Objective:** The goal of the ECCP is to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol. The Second ECCP (running from 2005) includes a review of ECCP 1, aviation, CO2 & cars, carbon capture and storage, adaptation and a review of the EU ETS. **Targets**: No formal targets
EU Sixth Environmental Action Plan (2002 – 2012)	The 6th EAP takes a broad look at the environmental challenges and provides a strategic framework for the Commission's environmental policy up to 2012. The 6th EAP identifies four priority areas: • Climate change • Nature and biodiversity • Environment and health • Natural resources and waste. **Targets:** A number of targets arise out of the priority areas, originating from other policy sources.
Directive to Promote Electricity from Renewable Energy (2001/77/EC)	**Objective:** The Community recognises the need to promote renewable energy sources as a priority measure given that their exploitation contributes to environmental protection and sustainable development. In addition this can also create local employment, have a positive impact on social cohesion, contribute to security of supply and make it possible to meet Kyoto targets more quickly. It is therefore necessary to ensure that this potential is better exploited within the framework of the internal electricity market. The Directive's various Articles set out how this is to be achieved. **Targets:** Targets are largely enforced through Directive's Articles. The European Community as a whole is to generate 22% of its electricity from renewable energy by 2010, with an individual 10% figure placed on the UK.
2020 Climate and Energy Package (EC, 2008)	This package of far-reaching proposals aims to deliver the EU's ambitious commitments to fight climate change and promote renewable energy up to 2020 and beyond. The main aim is to help transform Europe into a low-carbon economy and increase its energy security.
National (UK)	
UK Climate Change Act 2008	**Objectives:** • to improve carbon management and help the transition towards a low carbon economy in the UK; and • to demonstrate strong UK leadership internationally, signalling that we are committed to taking our share of responsibility for reducing global emissions in the context of developing negotiations on a post-2012 global agreement at Copenhagen next year. **Key Targets:** • Legally binding targets - Green house gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline. The 2020 target will be reviewed soon after Royal Assent to reflect the move to all greenhouse gases and the increase in the 2050 target to 80%. • A carbon budgeting system which caps emissions over five year periods, with three budgets set at a time, to set out our trajectory to 2050. The first three carbon budgets will run from 2008-12, 2013-17 and 2018-22, and must be set by 1 June 2009. The Government must report to Parliament its policies and proposals to meet the budgets as soon as practical after that.
Climate Change – The UK Programme 2006: Tomorrow's Climate Today's Challenge (HM Government, March	**Objectives:** The Climate Change Programme sets out the Government's commitments both at international and domestic levels to meet the challenge of climate change. It also sets out our approach to strengthening

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
2006)	the role that individuals can play. We will encourage individuals as citizens, consumers, motorists and business people to take the action needed to help meet our goals. The Programme addresses: The primary elements of the programme come at the following levels: • International • Domestic sector • Energy supply sector • Business sector • Transport sector • Public sector and local government • Agriculture, forestry and land management sector • Personal action. **Targets:** The package of existing and new policy measures in the Programme are projected to reduce carbon dioxide emissions to 15-18 per cent below 1990 levels – the new measures saving 12 million tonnes of carbon by 2010.
Stern Review of the Economics of Climate Change (2007)	Review assessed a wide range of evidence on the impacts of climate change and on the economic costs, and has used a number of different techniques to assess costs and risks. The Review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. **Objectives:** Key elements of future international frameworks should include: • Emissions trading: Expanding and linking the growing number of emissions trading schemes around the world is a powerful way to promote cost-effective reductions in emissions and to bring forward action in developing countries. • Technology cooperation: Informal co-ordination as well as formal agreements can boost the effectiveness of investments in innovation around the world. Globally, support for energy R&D should at least double, and support for the deployment of new low-carbon technologies should increase up to five-fold. • Action to reduce deforestation: The loss of natural forests around the world contributes more to global emissions each year than the transport sector. Curbing deforestation is a highly cost-effective way to reduce emissions; largescale international pilot programmes to explore the best ways to do this could get underway very quickly. • Adaptation: The poorest countries are most vulnerable to climate change. It is essential that climate change be fully integrated into development policy, and that rich countries honour their pledges to increase support through overseas development assistance. **Targets:** The review does not provide specific targets but does outline scenarios for climate change adaptation and their potential economic consequences.
Environment Agency Climate Change Adaptation Strategy (2008-11)	**Objective:** Seeks to embed climate change risk management into all aspects of its business to ensure future resilience for communities, businesses and the environment. A key aim is to continue to collect adaptation case-studies which capture best practice, and lessons learned. **Targets:** No formal targets.
DCLG (2007) Planning Policy Statement: Planning and Climate Change - Supplement to Planning Policy Statement 1	**Objectives:** To deliver sustainable development, and in doing so a full and appropriate response on climate change, regional planning bodies and all planning authorities should prepare, and manage the delivery of, spatial strategies that: • make a full contribution to delivering the Government's Climate Change Programme and energy policies, and in doing so contribute to global sustainability; • in providing for the homes, jobs, services and infrastructure needed by communities, and in

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	renewing and shaping the places where they live and work, secure the highest viable resource and energy efficiency and reduction in emissions; • deliver patterns of urban growth and sustainable rural developments that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, which overall, reduce the need to travel, especially by car; • secure new development and shape places that minimise vulnerability, and provide resilience, to climate change; and in ways that are consistent with social cohesion and inclusion; • conserve and enhance biodiversity, recognising that the distribution of habitats and species will be affected by climate change; • reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change; and • respond to the concerns of business and encourage competitiveness and technological innovation in mitigating and adapting to climate change. **Targets:** No specific targets
ODPM (2004) PPS22: Renewable Energy	**Objectives:** This planning policy statement aims to encourage positive planning which facilitates renewable energy developments to contribute to all four elements of the Government's sustainable development strategy. The PPS contains a number of principles that should be adhered to in planning for renewable energy, including: • Development proposals should demonstrate environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures. In siting a renewable energy development: • Likely to have an adverse effect on a site of international importance for nature and heritage conservation, permission should only be granted once it has been shown that the site's integrity would not be adversely affected; • Within nationally recognised designations, permission for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development and any significant adverse effects on the area are clearly outweighed by the environmental, social and economic benefits; • In Green Belt, careful consideration will need to be given to the visual impact of projects and developers will need to demonstrate very special circumstances that clearly outweigh any harm by reason of inappropriateness and other harm if projects are to proceed. **Targets:** To generate 10% of UK electricity from renewable energy sources by 2010. The 2003 Energy White Paper ('Our energy – creating a low carbon economy') sets out the Government's aspirations to double that figure to 20% by 2020.
DTI (2003) White Paper: 'Our Energy Future: Creating a Low Carbon Economy' Also '	**Objectives**: Long-term the objective of the white paper is to cut the UK's carbon dioxide emissions by 60% by the year 2050. It also seeks to: • Maintain the reliability of energy supplies; • Promote competitive markets to help sustainable economic growth and improved productivity; and • Ensure that every home is adequately and affordably heated. **Targets:** • 10% of energy to be generated from renewable sources by 2010 and 20% by 2020. • No homes to be in fuel poverty by 2016-2018.
DTI (2006) The Energy Challenge: Review' (2006)	**Objectives:** Provides an update of the 2003 White Paper.
DTI (2007) 'Meeting the Energy Challenge: A White Paper on Energy'	**Objectives:** White Paper sets out the Government's international and domestic Energy Strategy to respond to changing circumstances with respect to tackling climate change and ensuring secure, clean and affordable energy as we become increasingly dependent on imported fuel. It addresses the long term energy challenges faced and delivers four energy policy goals.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: • To put ourselves on a path to cutting CO2 emissions by some 60% by 2050 with real progress by 2020; • To maintain the reliability of energy supplies; • To promote competitive markets in the UK and beyond; • To ensure that every home is adequately and affordably heated.
Energy Electricity Act 1989	**Objectives:** Provides the core legislation for planning consents for the construction and operation of generating stations within England and Wales. All planning proposals must address concerns about potential local environmental impacts, and effects on the community, etc. All Section 36 proposals must be submitted with an Environmental Impact Statement (ES). LPAs can also request an ES for non-Section 36 proposals. However, the development of renewables must be kept in the overall context of climate change and improving security of energy supply. **Targets**: No formal targets, but legislation supports objectives.
DECC (2010) CRC Energy Efficiency Scheme	**Objectives:** The CRC Energy Efficiency Scheme is a new Government backed legislative carbon emissions trading scheme and will cover large business and public sector organisations. CRC is intended to have a significant impact on reducing UK carbon emissions and offers the potential to save money through energy efficiency. It is designed to drive changes in behaviour and infrastructure, generate corporate awareness of the detrimental impacts of carbon emissions, and improve energy management practice. The Scheme will begin in Mid 2010. Organisations that meet the criteria to participate will have to monitor emissions from energy use, report these emissions annually, and purchase and surrender a corresponding number of carbon emission allowances on a cap and trade basis. CRC is considered to be broadly revenue neutral to the Exchequer. All revenue raised from the annual sale of allowances will be recycled back to participants. A proportion of this repayment will be based on the participant's performance in the Scheme. **Targets:** No formal targets.
Sustainable Development Commission (2010) Sustainable Development in Government Framework Targets	**Objectives:** The Sustainable Development in Government (SDiG) framework was announced in March 2010, this will replace the SOGE targets when they expire in 2010/11. This framework is intended to reduce its greenhouse gas emissions and ensure that the Government's estate is resilient to the impacts of changing climate. **Targets:** • To reduce its greenhouse gas emissions by 34% by 2020 (from 1999/2000 levels). • By 2015 all Departments to have completed a risk assessment and developed, implemented, monitored and reviewed an action plan to improve their estate's preparedness to the impacts of climate change.
National (MOD)	
MOD Sustainable Development Strategy, December 2008 & MOD Sustainable Development Report and Action Plan 2008	**Objectives:** • To be a leader amongst UK Government departments and Defence departments in EU and NATO States in the sustained reduction of CO_2 and other GHG emissions, and to ensure the continued delivery of Defence capability in a changing climate. • Ensure that the effect of emissions from the GHGs that result from defence activities are continually reduced, such that Defence will eventually not be a significant contributor to the causes of climate change • Agree and implement an effective process to enable Defence activities to continually adapt to a

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	changing climate, such that Defence capability is not compromised and any potential benefits from the future climate are realised **Targets:** • Reduce carbon dioxide emissions from buildings across the non operational estate by 12.5% by 2010/ 2011 and 30% by 2020, relative to 1999/2000 baseline (SOGE target). • Source at least 15% of MOD total non operational electricity needs from good quality Combined Heat and Power Systems, and 10% from renewable sources by 2010 (SOGE target). • Increase MOD-wide energy efficiency by 15% per m^2 by 2010 and 30% per m^2, relative to 1999/ 2000 levels (SOGE target). • Ensure all new buildings comply with "Planning Policy Statement 22: Renewable energy" so a percentage of energy requirements are from on-site renewable sources (aiming for 10%) and, wherever possible, carbon neutral (by means of energy efficiency, self generation and carbon offsetting). • Gain accreditation to the Energy Efficiency Accreditation Scheme across the MOD estate by December 2009. • By March 2010 validate MOD TLB energy management structures through accreditation to the Carbon Trust Standard (previously the Energy Efficiency Accreditation Scheme).
MOD Climate Change Strategy 2009	**Objectives:** • To reduce non-operational energy consumption and consequent CO_2 emissions across the MOD estate to their lowest sustainable levels, without compromising the delivery of UK defence capability • Embed climate change awareness into MOD leadership, decision making and working culture. • Ensure that MOD GHG data reporting is timely, relevant, comprehensive, transparent and of the highest quality. • Ensure that ownership and responsibility for the development and delivery of the climate change strategy is clearly defined throughout the MOD. • To reduce the use of marine, land and aviation fuels as much as is reasonably practicable without impacting on operational capability, whilst at the same time assessing the viability of alternatives to those fuels. • To reduce dependency on fossil fuels by ensuring that military equipment, estate and services are energy efficient and use low or zero-carbon energy sources where practicable. • To procure and operate military equipment that has the adaptive capability to be capable of meeting its performance objectives across the required range of foreseeable operating environments. • To have an estate that is resilient to the impacts of climate change and adapted to take advantage of opportunities as a consequence of climate change. **Targets:** As above.
National (Scotland)	
Scottish Executive (2006) Changing our ways: Scotland's Climate Change Programme	**Objectives:** The guiding principles for sustainable development and climate change from the UK strategy are reflected in Scotland's program: • Living within environmental limits; • Ensuring a strong, healthy and just society; • Achieving a sustainable economy; • Promoting good governance; and • Using sound science responsibly. **Target:** The Scottish target is to exceed the Scottish share of CO2 reductions by one million tonnes of

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	carbon in 2010.
Scottish Government (2010) Scottish Planning Policy	**Objectives**: Scottish Planning Policy (SPP) sets out the Scottish Government's policy on land use planning. **It** includes the following principles to make positive provision for renewable energy developments by: • supporting a diverse range of renewable energy technologies including encouraging the development of emerging and new technologies; • recognising the importance of fully engaging with local communities and other stakeholders at all stages of the planning process; • guiding development to appropriate locations and providing clarity on the issues that will be taken into account when assessing specific proposals; and • maximising environmental, economic and social benefits; While at the same time: • meeting international and national statutory obligations to protect designated areas, species and habitats and protecting the historic environment from inappropriate forms of development; and • ensuring impacts on local communities and other interests are satisfactorily addressed. Such interests will vary from technology to technology. Further guidance is given in the following paragraphs **Targets:** 50% of Scotland's electricity to be generated from renewable sources by 2020 and 11% of heat demand to be met from renewable sources.
Determining and Delivering Scotland's Energy Future – Committee Inquiry	**Objectives:** Inquiry to determine, within the devolved context and the Parliament's competences the following key questions: • What type of future is needed in Scotland in terms of the production, distribution and more efficient use of energy, given the issues of price, security of supply and sustainable development? • How can this future be delivered in Scotland and how will we meet all the various targets and obligations? • What decisions need to be taken, by when and by whom to deliver on Scotland's energy future? **Targets:** No formal targets
Scottish Executive (2008) A Strategy for Scotland; Energy Efficiency and Microgeneration: Achieving a Low Carbon Future: A Strategy for Scotland: The Scottish Government Response	The strategy sets out the Executive's aims for improving energy efficiency and encouraging a greater uptake of microgeneration. This strategy outlines a package of policies and measures to drive an increase in energy efficiency and encourage the uptake of microgeneration. The ambitious carbon savings target outlined in Changing Our Ways, Scotland's Climate Change Programme provides a backdrop for this strategy. All of the existing and new targets and commitments in the final Strategy will be compiled into a single Action Plan to be published during 2007. The Executive will use the action planning process to set energy efficiency and microgeneration targets. Progress being made against delivering these targets will be monitored through the Action Plan, which will be reviewed and reported on, on an annual basis. The Action Plan will include a summary of the carbon savings associated with the various actions, thus providing an overall picture of the contribution that energy efficiency and microgeneration will make to Scotland's Climate Change Programme targets The strategy does not contain any specific objectives/targets.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales sets out the land use planning policies of the Welsh Assembly Government. Regarding climate change and energy use, PPW sets out the following objectives: • Promote resource-efficient and climate change resilient settlement patterns that minimise land-take (and especially extensions to the area of impermeable surfaces) and urban sprawl, especially through preference for the re-use of suitable previously developed land and buildings, wherever possible avoiding development on greenfield sites • Locate developments so as to minimise the demand for travel, especially by private car

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• Support the need to tackle the causes of climate change by moving towards a low carbon economy. This includes facilitating development that reduces emissions of greenhouse gases in a sustainable manner, provides for renewable and low carbon energy sources at all scales and facilitates low and zero carbon developments • Minimise the risks posed by, or to, development on, or adjacent to, unstable or contaminated land and land liable to flooding. This includes managing and seeking to mitigate the consequences of climate change • Play an appropriate role to facilitate sustainable building standards (including zero carbon) that seek to minimise the sustainability and environmental impacts of buildings • Play an appropriate role in securing the provision of infrastructure to form the physical basis for sustainable communities (including water supplies, sewerage and associated waste water treatment facilities, waste management facilities, energy supplies and distribution networks and telecommunications), while ensuring proper assessment of their sustainability impacts • Maximise the use of renewable resources, including sustainable materials (recycled and renewable materials and those with a lower embodied energy). Where it is judged necessary to use non-renewable resources they should be used as efficiently as possible. The use of renewable resources and of sustainably produced materials from local sources should be encouraged and recycling and re-use levels arising from demolition and construction maximised and waste minimised • Promote a greener economy **Targets:** To achieve annual carbon reduction-equivalent emissions reductions of 3% per year by 2011 in areas of devolved competence.
Welsh Assembly Government (2005) Technical Advice Note 8: Planning and Renewable Energy	**Objectives:** TAN 8 provides advice on renewable energy and planning including in relation to offshore wind and other onshore renewable energy technologies. **Targets:** Reiterates the Assembly Government's target of 4TWh of electricity per annum to be produced by renewable energy by 2010 and 7TWh by 2020. In order to meet these targets the Assembly Government has concluded that 800MW of additional installed (nameplate) capacity is required from onshore wind sources and a further 200MW of installed capacity is required from off shore wind and other renewable technologies.
Welsh Assembly Government (2009) Technical Advice Note 12: Design	**Objectives:** TAN 12 sets out the Assembly Government's policies and objectives in respect of the design of new development. In relation to climate change and energy, these objectives include: • Achieving efficient use and protection of natural resources • Designing for change **Targets:** No formal targets.
Welsh Assembly Government (2010) Technical Advice Note 22: Planning for Sustainable Buildings	**Objectives:** Technical Advice Note 22 (TAN22) provides technical guidance on the implementation of the national planning policy on planning for sustainable buildings through the planning application process. It sets out that developers should provide clear evidence with their application (such as through the Design and Access Statement) to demonstrate compliance with national and local planning policies, and how they have a taken a realistic, considered and achievable approach in designing to meet the policy. **Targets:** No targets set.
Welsh Assembly Government (2010) A Low Carbon Revolution: The Welsh Assembly Government Energy Policy Statement	**Objectives and Targets:** This policy statement sets out the Assembly Government's ambitions for low carbon energy in Wales. It comprises the following aims/targets: • a step-change in the energy efficiency performance of all housing stock in Wales • a significant proportion of our energy to be generated locally or domestically • to promote the optimum use of offshore wind around the coast of Wales in order to deliver a further 15 kWh/d/p of capacity by 2015/16 • to test the appropriateness and cost effectiveness of steps to exploit the tidal range of the Severn estuary

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• to capture at least 10% (8 kWh/d/p) of the potential tidal stream and wave energy off the Welsh coastline by 2025 • to have 4.5 kWh/d/p of installed onshore wind generation capacity by 2015/2017 • to support small scale hydro and geothermal schemes where they are environmentally acceptable in order to generate at least 1 kWh/d/p • to deliver by 2020 up to 6 kWh/d/p in Wales of electricity from biomass – 50% indigenous/50% imported – and a heat potential of 2-2.5 kWh/d/p in Wales • that any new fossil fuel plants should be carbon capture ready with fully developed plans for carbon capture and storage; and that these plants maximise efficiency through use of waste heat and cofiring where appropriate • to maximise the short and long-term benefits for Wales' economy and society of the move to a low carbon energy system
Welsh Assembly Government (2009) One Wales: One Planet, A New Sustainable Development Scheme for Wales	**Objectives:** The Sustainable Development Scheme sets out the Assembly Government's vision of a sustainable Wales and describes specific outcomes that WAG will seek to achieve through its main policies and programmes and processes that it will put in place to ensure its work coherently reflects the goals of sustainable development. The Scheme's vision is for Wales to be a nation that: • lives within its environmental limits, using only its fair share of the earth's resources so that our ecological footprint is reduced to the global average availability of resources, and we are resilient to the impacts of climate change; • has healthy, biologically diverse and productive ecosystems that are managed sustainably; • has a resilient and sustainable economy that is able to develop whilst stabilising, then reducing, its use of natural resources and reducing its contribution to climate change; • has communities which are safe, sustainable, and attractive places for people to live and work, where people have access to services, and enjoy good health; and • is a fair, just and bilingual nation, in which citizens of all ages and backgrounds are empowered to determine their own lives, shape their communities and achieve their full potential. The Scheme is underpinned by 2 core principles and 6 supporting principles all of which are pertinent to waste management. These are as follows: • Core principle 1: Involvement - to involve stakeholders in the development of policies and programmes, and the identification of solutions that meet their needs, promoting innovation in the way the Assembly Government deliver services • Core principle 2: Integration - making connections between, and effectively integrating economic, social and environmental challenges • Supporting principle 1: Reducing Wales' Ecological Footprint • Supporting principle 2: Full costs and benefits - identifying and taking account of the full range of costs and benefits, including those over the long-term, those not measured in monetary terms (such as environmental costs and benefits), and those costs that are global as well as local in our policy making • Supporting principle 3: Precautionary principle - using an evidence-based approach to decision-making • Supporting principle 4: Polluter pays principle - ensuring that social and environmental costs of development fall on those who impose them • Supporting principle 5: Proximity principle - solving problems, especially in managing waste and pollution locally, rather than passing them onto other places or to future generations • Supporting principle 6: Reflecting distinctiveness - reflecting and responding to the particular needs and issues of communities, and the differing economic, social and environmental circumstances in different parts of Wales

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: To reduce by at least two thirds the total resources Wales currently uses by, amongst other elements: • radically reducing by 80-90% use of carbon-based energy; and • moving towards becoming a zero waste nation with 70% recycling across all sectors, and diverting waste from landfill by 2025.
Material assets (Transport)	
International / European (e.g. Directives)	
Directive 85/337/EEC on the Assessment of the Effects of Certain Public and Private Projects on the Environment - as amended by Directive 97/11/EC	**Objectives:** The European Union requires an environmental impact assessment to be carried out before approval can be granted for certain public and private projects. The Directive lists the projects concerned, the information to be provided and the third parties to be consulted in connection with approving such a project. **Targets**: An assessment is obligatory for transport infrastructure such as railways, airports, motorways, inland waterways and ports when the infrastructure exceeds certain specific thresholds.
Fuel Quality Directive (FQD) (to be published 2009) – coupled with renewable energy directive	**Objectives:** The FQD will require member states to ensure a 6% GHG reduction from Transport Sector by 2020. **Targets:** The UK target is 15% renewable energy overall for all sectors including transport, electricity heat, there is also a separate 10% target for renewable energy in transport which will include biofuels, electric cars, hydrogen etc.
WHO (2000) Transport, Environment and Health	**Objectives:** This report primarily focuses on increasing road transport, noting that road users generate excessive costs to themselves, other individuals and society - through noise, pollution and accidents - in the form of illness, injuries, deaths and damage to mental health and social relationships. The challenge is to promote healthy and sustainable transport alternatives to prevent the negative effects of transport systems on human health. Meeting this challenge requires commitment and action from governments. It summarises the latest scientific evidence on the impact of transport-generated air pollution, noise and accidents on behaviour and physical and mental health. The report also highlights the potential health benefits from non-motorised forms of transport, such as cycling and walking. **Targets:** The report highlights the need for policy-makers to address the following issues: • transport-related noise pollution • transport-related air pollution • the effects of transport of mental health and wellbeing • identifying key groups affected by transport health risks • improving provisions for cycling and walking.
European Transport Policy for 2010: A Time to Decide (EC, 2001)	**Objectives:** The policy outlines the need to improve the quality and effectiveness of transport in Europe. A strategy has been proposed which is designed to gradually break the link between transport growth and economic growth to reduce environmental impacts and congestion. The policy advocates measures that promote an environmentally friendly mix of transport services. **Targets:** No specific targets.
National (UK)	
The Planning Act 2008	**Objectives:** The legislation builds on the proposals set out in the Planning White Paper, published on 21st May 2007, and introduces a new system for nationally significant infrastructure planning, alongside further reforms to the Town and Country Planning system. A major component of this legislation is the introduction of an independent Infrastructure Planning Commission (IPC), to take decisions on major infrastructure projects (transport, energy, water and waste). To support decision-making, the IPC will refer to the Government's National Policy Statements (NPSs), which will provide a

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	clear long-term strategic direction for nationally significant infrastructure development. **Targets:** No specific targets.
DfT (2008) Carbon Pathways: Informing Development of a Carbon Reduction Strategy for Transport	**Objectives:** This paper takes forward the analysis originally promised in TaSTS. It updates projections of transport CO2 emissions, clarifying the scale of the challenge facing transport. It considers the drivers of transport demand which should help in the identification of options for CO2 reduction. **Targets:** No formal targets.
PPS 1: Planning and Climate Change – Supplement to PPS 1 (ODPM, 2007)	**Objectives:** This PPS sets out how spatial planning (in providing for the new homes, jobs and infrastructure needed by communities) should contribute to reducing emissions and stabilising climate change (mitigation) and take into account the unavoidable consequences (adaptation). Includes he key planning objective: Deliver patterns of urban growth and sustainable rural developments that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, which overall, reduce the need to travel, especially by car. **Targets:** No formal targets.
Towards a Sustainable Transport System (TaSTS): Supporting Economic Growth in a Low Carbon World (DfT, 2007)	**Objectives:** Document has three aims. • It describes how the Government is responding to the recommendations made in the Eddington study to improve transport's contribution to economic growth and productivity, and how it is ensuring that transport will play its part in delivering the overall level of reductions in carbon emissions recommended by the Stern Review of the Economics of Climate Change. • It sets out the Department for Transport's ambitious policy and investment plans for the period to 2013-14. • It proposes a new approach to longer term transport strategy, building on the model recommended by Sir Rod Eddington, and explains how we will engage with passengers, users, the transport industry and other stakeholders as we develop and implement that process. **Targets:** The report identifies "five very broadly defined goals, which capture the full range of Government objectives that could be furthered by transport": 1. Maximising the overall competitiveness and productivity of the national economy, so as to achieve a sustained high level of GDP growth. 2. Reducing transport's emissions of CO2 and other greenhouse gases, with the desired outcome of avoiding dangerous climate change. 3. Contributing to better health and longer life expectancy through reducing the risk of death, injury or illness arising from transport, and promoting travel modes that are beneficial to health. 4. Improving quality of life for transport users and non-transport users, including through a healthy natural environment, with the desired outcome of improved well-being for all. 5. Promoting greater equality of transport opportunity for all citizens, with the desired outcome of achieving a fairer society.
The Eddington Transport Study (2006)	**Objectives:** • The UK's congested and growing urban areas and their catchments. • The UK's international gateways and supporting surface infrastructure: in particular, the major international passenger routes and principal international freight routes, where delays, including on surface access routes, and current and future capacity constraints, look likely to damage the competitiveness of the UK's imports and exports, and its leading role in the global airfreight logistics sector; • A limited number of inter-urban corridors connecting urban areas and international gateways:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	where the unreliability of the transport network is adding costs to business, threatening productivity and innovation in the freight and logistics industries and both interregional and international trade. From a passenger perspective these corridors connect urban areas with each other and with international airports, and from a freight perspective they connect ports with distribution hubs and distribution hubs with their eventual markets. **Targets:** Decision-making principles: 1. Start with a clear articulation of the policy objectives, and the transport outcomes required to deliver these objectives, focusing where relevant on the whole journey, rather than particular stages or modes in a journey 2. Consider the full range of policy options for meeting the policy objectives 3. Prioritise limited public resources on those policies that most cost-effectively deliver Government's objectives 4. Ensure the evidence base can support this process Strategic Indicators: • Impact on GDP • Impact on productivity • Contribution to economic welfare • Reliability of the transport system
HM Government (2007) PSA Delivery Agreement 5: Deliver Reliable and Efficient Transport Networks that Support Economic Growth	**Objectives:** This PSA will focus government investment in transport on supporting sustainable economic growth, and will set a clear strategic framework to facilitate private sector investment. **Targets:** PSA sets out following indicators: • Journey time on main roads into urban areas • Journey time reliability on the strategic road network, as measured by the average delay experienced in the worst 10 per cent of journeys for each monitored route • Level of capacity and crowding on the rail network • Average benefit cost ratio of investments approved over the CSR07 period
Young People and Transport: Understanding their Needs and Requirements (DfT, 2006)	**Objectives:** This document highlights some important findings in relation to young people and their transport needs and requirements. The study explores the importance of travel in young people's lives, patterns of travel behaviour, experiences of travel and barriers to travel by different modes of transport. Key findings included that cost and accessibility issues can act as a barrier for young people attempting to access further education, jobs and key services. **Targets:** No formal targets
Local Transport Bill (2008)	**Objectives:** The Government is committed to ensuring that we are well equipped to meet not only today's transport challenges, but also those of ten or twenty years' time. The Local Transport Bill is a key part of the Government's strategy for sustainable development. This Bill empowers local authorities to take appropriate steps to meet local transport needs in the light of local circumstances. **Targets:** The Bill includes provisions on the frequency and timing of services as well as maximum fares. This is not directly relevant to this study.
Railways Act (2005)	**Objectives:** The main purpose of this Act is to tackle the longstanding structural problems of the railways. The Act gives effect to the proposals that require primary legislation in the White Paper The Future of Rail (2004). **Targets:** No formal targets.
Delivering a Sustainable Transport System (DaSTS) (DfT, 2008)	**Objectives:** • To support national economic competitiveness and growth, by delivering reliable and efficient transport networks • To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	outcome of tackling climate change • To contribute to better safety and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health • To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society; • To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment. **Targets:** No formal targets.
Road Safety Act 2006	**Objectives:** "An Act to make provision about road traffic, registration plates, vehicle and driver information, hackney carriages and private hire vehicles, and trunk road picnic areas." **Targets:** No formal targets.
The Future of Transport White Paper – A Network for 2030 (DfT, 2004)	**Objectives:** This White Paper builds on the implementation of the 10 Year Plan for transport, and sets out the vision for transport for the following 30 years. It is a long-term strategy for a modern, efficient and sustainable transport system backed up by sustained high levels of investment. The aim is for a transport network that can meet the challenges of a growing economy and the increasing demand for travel, but that can also achieve environmental objectives. **Targets:** • By 2010, increase the use of public transport (bus and light rail) by more than 12 per cent in England compared with 2000 levels, with growth in every region. • Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40 per cent and the number of children killed or seriously injured by 50 per cent, by 2010 compared with the average for 1994-98, tackling the significantly higher incidence in disadvantaged communities. • Improve air quality by meeting the Air Quality Strategy targets. • Reduce greenhouse gas emissions to 12.5 per cent below 1990 levels in line with our Kyoto commitment.
PPG13 Transport (DfT, 2001)	**Objectives:** • Promote more sustainable transport choices for both people and for moving freight • Promote accessibility to jobs, shopping and leisure facilities, by public transport, walking and cycling. • Reduce the need to travel, especially by car. **Targets:** No formal targets.
National (MOD)	
MOD Sustainable Development Strategy, 2008 MOD Climate Change Strategy, 2009 MOD JSP 418, leaflet 16 – Travel and Transport	**Objectives** • To reduce the use of marine, land and aviation fuels as much as is reasonably practicable without impacting on operational capability, whilst at the same time assessing the viability of alternatives to those fuels. • To achieve a continued reduction in air, road and rail business administration travel by MOD personnel. • The development of a Defence Travel Emissions Strategy in 2009 will bring with it targets and actions for modes of business transport other than road transport. • Develop a Defence Travel Emissions Strategy with targets and actions for all modes of transport. • Manage the social impacts of defence activities on UK Civilian and Armed Forces communities **Targets** • Reduce emissions from road vehicles by 15% by 2010 against a 2005/06 baseline. • By 2010 Average new car emission level of 130g/km

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
National (Scotland)	
Scotland's National Transport Strategy (2006)	**Objectives:** • Improved journey times and connections - making it quicker, easier and more reliable for passengers to travel between our towns and cities and across our global markets. • Reduced emissions - making sure that Scotland takes a lead in the future of sustainable transport. • Improved quality, accessibility and affordability – ensuring everyone across Scotland has high quality public transport choices. **Targets:** Indicators used in the strategy include: • The average distance travelled by Scottish residents. • The key elements of the strategic transport infrastructure. • Transport activity figures for Scotland. • Greenhouse gas emissions from transport in Scotland. • Greenhouse gas emissions by transport sector.
Scottish Government (2010) Scottish Planning Policy	**Objectives:** • To meet European and UK commitments and targets on greenhouse gases and local air quality. • To maintain and enhance the natural and built environment, through avoiding or mitigating adverse environmental impacts. • Minimising environmental intrusion and retaining, improving and enhancing areas for biodiversity. • To maintain and enhance the quality of urban life, particularly the vitality and viability of urban centres. • To reinforce the rural economy and way of life. • To ensure that the impact of development proposals on transport networks does not compromise their safety or efficiency. **Targets:** No formal targets.
Scottish Executive (2005) Planning Advice Note 75: Planning for Transport	**Objective:** Create an accessible Scotland which has a safe, reliable and sustainable transport system. **Targets:** No formal targets.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Assembly Government. Regarding transport, PPW sets out that the Assembly Government's wider transport objectives be achieved through: • reducing the need to travel, especially by private car, by locating development where there is good access by public transport, walking and cycling; • locating development near other related uses to encourage multi-purpose trips and reduce the length of journeys; • improving accessibility by walking, cycling and public transport; • ensuring that transport is accessible to all, taking into account the needs of disabled and other less mobile people; • promoting walking and cycling; • supporting the provision of high quality public transport; • supporting traffic management measures; • promoting sustainable transport options for freight and commerce; • supporting sustainable travel options in rural areas;

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• supporting necessary infrastructure improvements; and • ensuring that, as far as possible, transport infrastructure does not contribute to land take, urban sprawl or neighbourhood severance. **Targets:** No formal targets.
Welsh Assembly Government (2008) People, Places, Futures: The Wales Spatial Plan 2008 Update	**Objectives:** The Wales Spatial Plan contains the following key theme which relates to transport and accessibility: *Achieving Sustainable Accessibility* We will develop access in ways that protect the environment, encourage economic activity, widen employment opportunities, ensure quality services and integrate the social, environmental and economic benefits that travel can have. **Targets:** No formal targets.
Welsh Assembly Government (2007) Technical Advice Note 18: Transport	**Objectives:** TAN 18 seeks to achieve integration of land use planning and the development of transport infrastructure by: • promoting resource and travel efficient settlement patterns; • ensuring new development is located where there is, or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion; • managing parking provision; • ensuring that new development and major alterations to existing developments include appropriate provision for pedestrians (including those with special access and mobility requirements), cycling, public transport, and traffic management and parking/servicing; • encouraging the location of development near other related uses to encourage multi-purpose trips; • promoting cycling and walking; • supporting the provision of high quality, inclusive public transport; • supporting provision of a reliable and efficient freight network; • promoting the location of warehousing and manufacturing developments to facilitate the use of rail and sea transport for freight; • encouraging good quality design of streets that provide a safe public realm and a distinct sense of place; and • ensuring that transport infrastructure or service improvements necessary to serve new development allow existing transport networks to continue to perform their identified functions. **Targets:** No formal targets.
Welsh Assembly Government (2009) Technical Advice Note 12: Design	**Objectives:** TAN 12 sets out the Assembly Government's policies and objectives in respect of the design of new development. In relation to transport , these objectives include: • Promoting sustainable means of travel **Targets:** No formal targets.
Welsh Assembly Government (2008) The Wales Transport Strategy	**Objectives:** The Wales Transport Strategy comprises the following key outcomes: • Improve access to healthcare • Improve access to education, training and lifelong learning • Improve access to shopping and leisure facilities • Encourage healthy lifestyles • Improve the actual and perceived safety of travel • Improve access to employment opportunities • Improve connectivity within Wales and internationally

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• Improve the efficient, reliable and sustainable movement of people • Improve the efficient, reliable and sustainable movement of freight • Improve sustainable access to key visitor attractions • Increase the use of more sustainable materials in our country's transport assets and infrastructure • Reduce the impact of transport on greenhouse gas emissions • Adapt to the impacts of climate change • Reduce the contribution of transport to air pollution and other harmful emissions • Improve the positive impact of transport on the local environment • Improve the effect of transport on our heritage • Improve the impact of transport on biodiversity **Targets:** The Transport Strategy identifies a number of key indicators related to the outcomes highlighted above.
Welsh Assembly Government (2010) National Transport Plan	**Objectives:** There are five strategic priorities for the next 5 years: • Reducing greenhouse gas emissions and other environmental impacts • Integrating local transport • Improving access between key settlements and sites • Enhancing international connectivity • Increasing safety and security **Targets:** None identified.
Material Assets (Waste Management)	
International / European (e.g. Directives)	
European Commission (2008) Waste Framework Directive (Directive 2008/98/EC)	**Objectives:** Overarching EU directive on waste and lays down basic guidance on the management of waste. It includes basic concepts and definitions related to waste management and lays down waste management principles such as the "polluter pays principle" or the "waste hierarchy". **Targets:** Does not contain any targets.
European Commission (1999) The Landfill Directive	**Objectives:** This Directive is aimed at controlling the environmental impacts of waste disposal associated with landfills. The objective of note relates to the imposing of reduced limits on municipal waste allowed to be sent to landfill. **Targets**: By 2010 the amount of biodegradable waste going to landfill must be 75% of the total produced in 1995; by 2013 the amount must be reduced to 50% and by 2020 to 35%.
EU Directive on Waste 75/442/EEC (as replaced by Directive 2006/12/EC)	**Objectives:** The essential objective of all provisions relating to waste management should be the protection of human health and the environment against harmful effects caused by the collection, transport, treatment, storage and tipping of waste. Some key objectives include: • The recovery of waste and the use of recovered materials as raw materials should be encouraged; • Member States should, in addition to taking responsible action to ensure the disposal and recovery of waste, take measures to restrict the production of waste; • It is important for the Community as a whole to become self sufficient in waste disposal and desirable for Member States individually to aim at such self sufficiency. • Waste management plans should be drawn up in the Member States. • Movements of waste should be reduced;

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• Ensure a high level of protection and effective control • Subject to certain conditions, and provided that they comply with environmental protection requirements, some establishments which process their waste themselves or carry out waste recovery may be exempted from permit requirements; • That proportion of the costs not covered by the proceeds of treating the waste must be defrayed in accordance with the "polluter pays" principle. **Targets**: Document includes legislation rather than targets.
EU Thematic Strategy on the Prevention and Recycling of Waste (2002-2012) (to be reviewed in 2010)	**Objective:** This long-term strategy aims to help Europe become a recycling society that seeks to avoid waste and uses waste as a resource. It will draw on the knowledge that the thematic strategy on resources, also adopted on 21 December 2005, will generate. Forms part of the Environment Action Programme of the European Community 2002-2012. **Targets:** No formal targets
The Euratom Treaty 1957.	**Objective:** Initially created to coordinate the Member States' research programmes for the peaceful use of nuclear energy, the Euratom Treaty today helps to pool knowledge, infrastructure and funding of nuclear energy. It ensures the security of atomic energy supply within the framework of a centralised monitoring system. **Targets:** No formal targets
Convention on Nuclear Safety Commission Decision 1999/819/Euratom	**Objective:** to achieve and maintain a high level of nuclear safety through the enhancement of national measures and technical cooperation; to establish and maintain effective defences against radiological hazards in nuclear installations in order to protect people and the environment, etc.; to prevent nuclear accidents and limit their consequences. **Targets:** No formal targets
Council Directive establishing a Community framework for the nuclear safety of nuclear installations [23/06/2009]	**Objective:** To establish a Community framework in order to maintain and promote the continuous improvement of nuclear safety and its regulation; To ensure that Member States shall provide for appropriate national arrangements for a high level of nuclear safety to protect workers and the general public against the dangers arising from ionizing radiations from nuclear installations. **Targets:** No formal targets
Shipments of radioactive waste (Directive 92/3/Euratom)	**Objective:** To establish a system of control and prior authorisation for shipments of radioactive waste, to protect the health of workers and the general public and to avoid illicit traffic of such materials. **Targets:** No formal targets
National (UK)	
DEFRA (2007) Waste Strategy for England 2007	**Objective:** Sets out Defra's vision for sustainable waste management. Specific objectives include: • decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use; • meet and exceed the Landfill Directive diversion targets for biodegradable municipal waste in 2010, 2013 and 2020; • increase diversion from landfill of non-municipal waste and secure better integration of treatment

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	for municipal and non-municipal waste; • secure the investment in infrastructure needed to divert waste from landfill and for the management of hazardous waste; and • get the most environmental benefit from that investment, through increased recycling of resources and recovery of energy from residual waste using a mix of technologies. **Targets:** • to reduce the amount of household waste not re-used, recycled or composted from over 22.2 million tonnes in 2000 by 29% to 15.8 million tonnes in 2010 with an aspiration to reduce it to 12.2 million tonnes in 2020 – a reduction of 45%. • recycling and composting of household waste – at least 40% by 2010, 45% by 2015 and 50% by 2020; and • recovery of municipal waste – 53% by 2010, 67% by 2015 and 75% by 2020.
High Activity Sealed Radioactive Sources and Orphan Sources Regulations 2005 SI 2686	**Objectives:** Specifies how high-activity sealed radioactive sources should be registered, kept, used or disposed of. Also covers detecting, recovering and dealing with radioactive sources that are not currently regulated ('orphan sources').
Ionising Radiations Regulations 1999 SI 3232.	**Objectives:** Requires employers to protect employees and other people against ionising radiation arising from work with radioactive substances and other sources of ionising radiation. Also imposes certain duties on employees **Targets:** No formal targets
Radioactive Material (Road Transport) (Amendment) Regulations 2003 SI 1867	**Objectives:** Sets out measures to regulate the transportation of radioactive material by road, including prohibition and enforcement notices, powers of entry and offences. **Targets:** No formal targets
Radioactive Substances Act 1993	**Objectives:** Sets out measures to regulate the use and disposal of radioactive substances including registration, authorisation, enforcement and offences. **Targets:** No formal targets
Trans-frontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008 SI 3087	**Objectives:** Establishes a system of authorisation and approval for shipping radioactive waste and spent nuclear fuel between member states and into and out of the EU **Targets:** No formal targets
ODPM (2005) PPS10 Planning for Sustainable Waste Management	**Objectives:** The statement sets out a number of key planning objectives that aim to • Drive waste management up the waste hierarchy; • Provide sufficient and timely provision of waste management facilities that meet the needs of their communities; • Implement the national waste strategy and support European legislation; • Secure the recovery and disposal of waste and ensure it does not harm human health or the environment; • Ensure waste is disposed of as near as possible to the place of production; • Reflects the concerns and interests of local communities, needs of waste collection/disposal authorities and business and encourages competition; and • Ensure the layout and design of new development should support sustainable waste management. **Targets:** Does not contain any specific targets.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
Sustainable Development Commission (2010) Sustainable Development in Government Framework Targets	**Objectives:** The Sustainable Development in Government (SDiG) framework was announced in March 2010, this will replace the SOGE targets when they expire in 2010/11. This framework is intended to reduce its greenhouse gas emissions and ensure that the Government's estate is resilient to the impacts of changing climate. The framework also includes challenging targets on waste reduction and recovery, more efficient use of water, and it promotes the protection and enhancement of biodiversity, and positive engagement with the community. **Targets:** Targets related to waste management include: • Increase waste recovery (recycling, external re-use, composting and energy from waste) to 80% of waste arisings by 2016/17 (60% of which would need to be achieved by recycling, external re-use, and composting.) • In support of the joint industry and Government Sustainable Construction Strategy's ambition of reducing construction, demolition and excavation waste (CDEW) to landfill, set procurement requirements on each project over £300k to include targets for waste reduction, reuse and recovery in the Site Waste Management Plan from an early design stage, and report annually on the percentage of waste from these projects diverted from landfill.
National (MOD)	
MOD Sustainable Development Strategy, December 2008 & MOD Sustainable Development Report and Action Plan 2008	**Objectives:** • To recover and recycle more waste than is sent to landfill by 2012. • Become a zero waste to landfill organisation by 2020. **Targets:** • Reduce total waste arisings by 5% by 2010 and 25% by 2020, relative to the 2004/05 baseline • Increase recycling levels to 40% of total waste by 2010 and 75% by 2020 • By 2012, work with WRAP to stop half of MOD construction waste going to landfill.
MOD JSP 418, Leaflet 18 – Waste Management MOD Sustainable Waste Management Strategy (2007)	**Objectives:** • To actively support the Government's Waste Management Strategy and manage wastes in accordance with the waste management hierarchy. • Reduce and minimise the production of all waste streams (both hazardous and non-hazardous waste) from all units and/or establishments. • Depending on the waste management infrastructure available, consign all residual waste to energy recovery operations by Dec 2012. **Targets:** As above.
MOD JSP 418, Leaflet 14 – Radiation MOD JSP 392, Radiation Safety Handbook (2008)	**Objectives:** • To reduce exposure of the workforce, members of the public and the environment to levels which are as low as reasonably practicable (ALARP). **Targets:** No formal targets.
National (Scotland)	
Scottish Government (2010) Scottish Planning Policy	**Objective:** Sets out a sustainable approach to waste management planning relies on a number of objectives including those reflected in the waste hierarchy, reduced reliance on landfill and a set of policy and spatial principles including the polluter pays; the precautionary and proximity principles (which address waste management, waste transport, environmental and health issues and cumulative impact). **Target**: Scottish Government has adopted Zero Waste as a goal.
Scotland's National Waste Strategy SEPA (1999)	**Objectives:** The main objectives of this strategy are set out in Schedule 12 of the Environment Act 1995 as follows: 1. Ensuring that waste is recovered or disposed of without using processes or methods which could

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	harm the environment and, in particular, without – (a) risk to water, air, soil, plants or animals (b) causing nuisance through noise or odours; or (c) adversely affecting the countryside or places of special interest. 2. Establishing an integrated and adequate network of waste disposal installations, taking account of the best available technology not involving excessive costs. 3. Ensuring that the network referred to in paragraph 2 above enables – (a) the European Community as a whole to become self sufficient in waste disposal, and the Member States individually to move towards that aim, taking into account geographical circumstances or the need for specialised installations for certain types of waste; and (b) waste to be disposed of in one of the nearest appropriate installations, by means of the most appropriate methods and technologies in order to ensure a high level of protection for the environment and public health. 4. Encouraging the prevention or reduction of waste production and its harmfulness, in particular by – (a) the development of clean technologies more sparing in their use of natural resources; (b) the technical development and marketing of products designed so as to make no contribution or to make the smallest possible contribution, by the nature of their manufacture, use or final disposal, to increasing the amount or harmfulness of waste and pollution hazards; (c) the development of appropriate techniques for the final disposal of dangerous substances contained in waste destined for recovery. 5. Encouraging – (a) the recovery of waste by means of recycling, re-use or reclamation or any other process with a view to extracting secondary raw materials; and (b) the use of waste as a source of energy.
Scotland's National Waste Plan (2003)	**Objectives:** The Plan aims to minimise the impact of waste on the environment, both locally and globally, to improve resource use efficiency in Scotland, and to remedy the environmental injustices suffered by those who have to live with the consequences of a wasteful society. In Building a Better Scotland the Executive set an overall objective of ensuring progress towards sustainable management of Scotland's waste and achievement of European Union landfill reduction targets by 2010, 2013 and 2020. Building a Better Scotland also established two interim targets, which reflect the short-term need to focus on municipal waste: • to increase the amount of waste collected by local authorities that is recycled or composted to 25% by 2006; and • to reduce landfilling of biodegradable waste collected by local authorities to 1.5 million tonnes per year by 2006. The focus on municipal waste (i.e. waste collected by local authorities), and particularly biodegradable municipal waste, reflects the importance of the latter in relation to climate change. However, the Plan also addresses the work that needs to be done to improve our management of other wastes. **Targets:** Implementing this national plan will: • provide widespread segregated kerbside waste collections across Scotland (to over 90% of households by 2020); • aim to stop growth in the amount of municipal waste produced by 2010; • achieve 25% recycling and composting of municipal waste by 2006, and 55% by 2020 (35% recycling and 20% composting); • recover energy from 14% of municipal waste; • reduce landfilling of municipal waste from around 90% to 30%;

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• provide widespread waste minimisation advice to businesses; and • develop markets for recycled material to help recycling become viable and reduce costs.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales sets out the land use planning policies of the Welsh Assembly Government. It sets out that decisions on planning applications should have regard to the waste management objectives in the national waste strategy. The environmental impact of proposals for waste management facilities must be adequately assessed, supported by independent surveys where appropriate, to determine whether a planning application is acceptable and, if the adverse impacts on amenity cannot be mitigated, planning permission should be refused. Adequate facilities for the collection, composting and recycling of waste materials should be incorporated into the design of any major development. **Targets:** No formal targets.
Welsh Assembly Government (2001) Technical Advice Note 21: Waste	**Objectives:** TAN21 sets out the following key principles in relate to the management of waste: • Proximity - waste should be treated and or disposed of as near to the source of origin as possible and s far as practically possible. • Self-Sufficiency - waste should be treated or disposed of within a sensibly defined region. • The Waste Hierarchy – to manage waste in accordance with the following hierarchy: reduce; re-use; recover; disposal. **Targets:** Sets out targets for waste to landfill in accordance with the Landfill Directive.
Welsh Assembly Government (2009) Towards Zero Waste – Consultation draft	Objectives: Once adopted, Towards Zero Waste will replace Wise About Waste, The National Waste Strategy for Wales 2002. The Strategy is underpinned by the key principles of protecting the environment and human health, proximity principle and self sufficiency, polluter pays, source separation and the waste hierarchy. Its aim is to produce no waste in the long term by: • Strongly promoting waste reduction, using targets to set goals and encourage action, with support provided where appropriate and needed, and with a strong focus on eco-design. • Encouraging everyone to reduce, reuse and recycle, and use waste management treatment and disposal facilities that contribute to tackling climate change and reducing Wales' ecological footprint. To achieve a high level of recycling, we need to make sure that all our recyclates are separated at source so that they are clean and of high value. In particular, we aim to develop an efficient and effective collection system to separate mixed commercial and industrial waste. • Prioritising what waste materials we deal with first - these waste materials will be those which, if managed in the best way, will give us the greatest environmental benefits. • Seeking to make producers more responsible for the waste that they produce, or cause others to produce. • Generating renewable energy from biowastes. • Phasing out landfill sites and developing high efficiency energy from waste plants for residual waste. **Targets:** The strategy sets out a long-term aim of zero waste by 2050 and a medium term aim of achieving a high recycling society by 2025. This is supported by a range of recycling and other waste management targets including in relation to commercial and industrial waste.
Material Assets (Land Use and Materials)	
International / European (e.g. Directives)	
European Commission (1999) European Spatial Development Perspective	**Objectives:** The European Spatial Development Perspective (ESDP) is a framework for policy guidance to improve cooperation among Community sectoral policies which have a significant impact in spatial terms. The policy objectives and options of the ESDP are as follows:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• The establishment of a polycentric and balanced urban system; • The production of integrated transport and communications concepts offering parity of access to infrastructure and knowledge throughout the Union; and • The development and conservation of the natural and cultural heritage. **Targets:** No formal quantitative targets.
European Sustainable Development Strategy (2006)	**Objectives:** • Environmental protection - Among others, preventing and reducing environmental pollution and promoting sustainable consumption and production • Social equity and cohesion- Promoting a democratic, socially inclusive, healthy, safe and just society • Economic prosperity • Meeting the EU international responsibilities. **Targets:** The following key challenge areas include a number of targets in achieving their respective objectives: • Climate Change and clean energy • Sustainable Transport • Sustainable consumption and production • Conservation and management of natural resources • Public Health • Social inclusion, demography and migration • Global poverty and sustainable development challenges.
United Nations World Summit on Sustainable Development, Johannesburg (2002) Commitments arising from Johannesburg Summit	**Objectives:** The World Summit on Sustainable Development proposed broad-scale principles which should underlie sustainable development and growth. It included objectives such as: • Greater resource efficiency (including decoupling economic growth from environmental degradation); • Support for business innovation and take-up of best practice in technology and management; • Work on waste and producer responsibility; • Removal of market barriers and creation of a level playing field for renewable energy and energy efficiency; • New technology development; • Technology demonstration and risk limitation; • Push on energy efficiency; • Integration of water management plans; • Distribution and decentralisation of energy; and • Minimisation of significant adverse effects on human health and the environment from chemicals by 2020. **Targets**: There are a number of follow-up processes e.g. "significantly" reduce rate of loss of biodiversity by 2010, but no specific targets.
National (UK)	
ODPM (2005) Planning Policy Statement (PPS) 1: Delivering Sustainable Development	**Objectives:** PPS1 supports the reform programme and, in particular, the Government's objectives for planning cultural change, by setting out the Government's vision for planning, and the key policies and principles that should underpin the planning system. These are built around three themes:

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	1. Sustainable development – the purpose of the planning system; 2. The spatial planning approach; and 3. Community involvement in planning. The key policy messages are: • The need for planning authorities to take an approach based on integrating the four aims of sustainable development: economic development; social inclusion; environmental protection; and prudent use of resources; • The need for positive planning to achieve sustainable development objectives and proactive management of development, rather than simply regulation and control; • The need for plans to set clear visions for communities and help to integrate the wide range of activities relating to development and regeneration; and • The need for the planning system to be transparent, accessible and accountable, and to actively promote participation and involvement. **Targets:** Does not contain any targets.
HM Treasury and ODPM (2004) Government's Barker Review of Housing Supply Delivering Stability: Securing our Future Housing	**Objective:** The barker review sets out the principle housing challenges facing the UK and recommendations for improving housing availability and affordability and set out the following objectives: • to achieve improvements in housing affordability in the market sector; • a more stable housing market; • location of housing supply which supports patterns of economic development; and • an adequate supply of publicly-funded housing for those who need it. **Targets:** No formal targets
Planning for a Sustainable Future: White Paper (2007)	**Objectives:** Five core principles underpin the Paper's proposals: • planning must be responsive, particularly to longer term challenges such as increasing globalisation and climate change, and properly integrate our economic, social and environmental objectives to deliver sustainable development; • the planning system should be streamlined, efficient and predictable; • there must be full and fair opportunities for public consultation and community engagement; • the planning system should be transparent and accountable; and • planning should be undertaken at the right level of government – national, regional and local. **Targets:** No formal targets but a number of objectives regarding numerous topics within Paper.
UK Government Sustainable Development Strategy: Securing the Future (2005) and the UK's Shared Framework for Sustainable Development, One Future – Different Paths (2005)	**Objectives:** The Strategy sets out five guiding principles: • Living within Environmental Limits to improve our environment and ensure that natural resources are unimpaired and remain so for future generations. • Ensuring a Strong, Healthy and Just Society: Meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity for all. • Achieving a Sustainable Economy: Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays), and efficient resource use is incentives. • Using Sound Science Responsibly: Ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle) as well as public attitudes and values. • Promoting Good Governance: Actively promoting effective, participative systems of governance in all levels of society – engaging people's creativity, energy, and diversity.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	It also sets out four priorities shared across the UK, namely: • Sustainable Consumption and Production; • Climate Change and Energy; • Natural resources protection and environmental enhancement; • Sustainable Communities. **Targets:** Securing the Future committed all government departments to produce action plans setting out what they planned to do to deliver the above objectives. These are quantified within the Framework for Sustainable Development on the Government Estate.
Securing the Regions' Futures – Strengthening the Delivery of Sustainable Development in the English Regions (2006)	**Objectives:** • Using the sustainable development principles and priorities to underpin the refreshed or updated high-level regional strategies. • Creating a strengthened role for regional sustainable development roundtables as 'champion bodies'. • Embedding sustainable development within the work of Government Offices and across their organisations so as to become exemplars in the regions. • Supporting the role of Regional Assemblies in delivering sustainable development through all their functions. • Working with Regional Development Agencies to help them deliver economic productivity, which delivers sustainable development at the same time - and to ensure that this contribution is fully reflected in Regional Development Agency assessments. • Maximising the contribution which city-regions, sub-regions and inter-regional strategies can make to delivering sustainable development through innovative ways of working at these levels. **Targets:** No formal targets.
HM Government (2005) Securing the Future: the UK Government Sustainable Development Strategy.	**Objectives**: The strategy sets out five key principles: • Living within environmental limits: respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure the natural resources needed for life are unimpaired and remain so for future generations; • Ensuring a strong, healthy and just society: meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity for all; • Achieving a sustainable economy: building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them, and efficient resource use is incentivised; • Promoting good governance: actively promoting effective, participative systems of governance in all levels of society – engaging people's creativity, energy, and diversity; and • Using sound science responsibly: ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty as well as public attitudes and values. It also sets out four priorities shared across the UK, namely: • Sustainable consumption and production; • Climate change and energy; • Natural resource protection and environmental enhancement; and • Sustainable communities. **Targets:** Securing the Future committed all government departments to produce action plans setting out what they planned to do to deliver the above objectives. These are quantified within the Framework for Sustainable Development on the Government Estate.
ODPM (2005) PPS6: Planning for Town Centres	**Objectives:** The Government is committed to developing and supporting successful, thriving, safer and inclusive communities, both urban and rural. Its key objective for town centres is to promote their

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	vitality and viability by: • Planning for the growth and development of existing centres; and • Promoting and enhancing existing centres, by focusing development in such centres and encouraging a wide range of services in a good environment, accessible to all. **Targets:** This PPS does not contain any targets.
DCLG (2007) Homes for the future: more affordable, more sustainable	**Objectives:** • More homes to meet growing demand; • Well-designed and greener homes, linked to good schools, transport and healthcare; • More affordable homes to buy or rent. **Target:** Deliver 2 million homes by 2016 and 3 million homes by 2020.
ODPM (2004) PPS7: Sustainable Development in Rural Areas	**Objectives:** The Government's objectives for rural areas relevant to this PPS are: • To raise the quality of life and the environment in rural areas; • To promote more sustainable patterns of development; • Promoting the development of the English regions by improving their economic performance; and • To promote sustainable, diverse and adaptable agriculture sectors. **Targets:** There are no specific targets in the PPS.
UK Government Sustainable Procurement Action Plan (2007)	**Objectives:** • A sustainably built and managed central government estate that minimises carbon emissions, waste and water consumption and increases energy efficiency (in line with Departmental sustainable operations targets); • Sustainably built and managed properties and roads throughout the public sector; • Government supply-chains and public services that are increasingly low carbon, low waste and water efficient, which respect biodiversity and deliver wider sustainable development goals. **Targets:** • by 2020, the Government office estate would have reduced its emissions by around 180,000 tonnes of carbon dioxide; • save around 75,000 tonnes of carbon dioxide by 2010/11 from road vehicles; • achieving a carbon neutral office estate by 2012 through offsetting between 475,000 and 550,000 tonnes of carbon dioxide per annum; • in addition, by 2009, around 100,000 tonnes of carbon dioxide per year will be offset through the air travel offsetting scheme (to which all Departments have signed up); • by 2020, the Government would increase its energy efficiency by around 100kWh per square metre and save around £1 million (based on net present value). • by 2020, the Government estate would reduce its total waste arising by 30,000 tonnes and recycle around 65,000 tonnes of waste. • a total of 220 Sites of Special Scientific Interest (SSSI) on the Government estate would be in target condition by 2010. • by 2020, the Government estate would have reduced its office water consumption by around 65,000 cubic metres.
Sustainable Development Commission (2010) Sustainable Development in Government Framework Targets	**Objectives:** The Sustainable Development in Government (SDiG) framework was announced in March 2010, this will replace the SOGE targets when they expire in 2010/11. This framework is intended to to reduce its greenhouse gas emissions and ensure that the public sector is resilient to the impacts of changing climate. The framework also includes challenging targets on waste reduction and recovery, more efficient use of water, and it promotes the protection and enhancement of biodiversity, and positive engagement with the community.

Targets: Targets relating to procurement include:

	Targets: Targets relating to procurement include: • Central Government Departments and executive agencies to reach an average of Level 3 (mode) of the Flexible Framework that includes at least a Level 3 for measurement and results by end of 2012 and at Level 5 for all areas by end of March 2015 • Executive NDPBs all to reach Level 1 or above (across all areas: People, Policy) by 2011/12 and thereafter Level 5 by end of March 2015. This includes Non-Ministerial Departments who don't currently report against the SOGE targets.
National (MOD)	
MOD JSP 434 – Defence Construction in the Built Environment	**Objectives:** • Ensure development satisfies the defence business need, whilst also satisfying the Government's commitment to sustainable development. • Procurement decisions to take full account of whole life value, and include justification for any decision to procure new facilities as opposed to the re-use of existing facilities. Decisions should also take account of all likely economic, environmental and social costs and benefits. • Apply Office of Government Commerce (OGC) minimum procurement standards, including "Quick Win" specifications wherever practicable, and meeting agreed BREEAM (Building Research Establishment Environmental Assessment Methodology), DREAM (Defence-Related Environmental Assessment Methodology) or equivalent standards, • Suppliers are required to operate their own EMS, or equivalent systems for their own processes for which they are responsible, in a way that supports MOD EMSs. • **Targets:** No formal targets.
MOD Sustainable Development Strategy, December 2008, MOD Sustainable Development Report and Action Plan 2008, MOD JSP 418, Chapter 17 – Sustainable Procurement; and MOD Sustainable Procurement Strategy 2009	**Objectives:** • Become a national leader in sustainable procurement by 2009 • Deliver sustainable defence buildings. **Targets:** • Achieve Level 3 of the Sustainable Procurement Task Force National Action Plan's Flexible Framework in all themes (and Level 5 in Engaging Suppliers). • Use Project Oriented Environmental Management Systems (POEMS) on all new equipment projects and implement lessons learned by sharing best practice. • Embed sustainable procurement principles into all commercial standards, guidance, processes and procurement strategy and policy. • Ensure that all new contracts comply with appropriate sustainability standards, such as OGC's 'Buy Sustainable' (previously Quick Wins) minimum requirements and BREEAM/ DREAM standards. • Ongoing target to participate in OGC's Property Benchmarking Scheme – aimed at improving the efficiency and effectiveness of corporate estate management.
National (Scotland)	
Scottish Executive (2005) Choosing our Future: Scotland's Sustainable Development Strategy	**Objectives:** The guiding principles for sustainable development and climate change reflect the five UK principles. **Targets:** No direct targets but a range of suggestions for improving sustainability.
Scottish Executive (2009) National Planning Framework for Scotland 2	**Objectives:** The National Planning Framework sets out the spatial strategy for Scotland to 2030. This strategy is underpinned by the following aims: • to contribute to a wealthier and fairer Scotland by supporting sustainable economic growth and improved competitiveness and connectivity; • to promote a greener Scotland by contributing to the achievement of climate change targets and protecting and enhancing the quality of the natural and built environments; • to help build safer, stronger and healthier communities, by promoting improved opportunities and a better quality of life; and • to contribute to a smarter Scotland by supporting the development of the knowledge economy.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	The main elements of the spatial strategy to 2030 are to: • support strong, sustainable growth for the benefit of all parts of Scotland; • promote development which helps to reduce Scotland's carbon footprint and facilitates adaptation to climate change; • support the development of Scotland's cities as key drivers of the economy; • support sustainable growth in the rural economy; • conserve and enhance Scotland's distinctive natural and cultural heritage, and continue to safeguard internationally protected sites, habitats and species; • expand opportunities for communities and businesses by promoting environmental quality and good connectivity; • promote development which helps to improve health, regenerate communities and enable disadvantaged communities to access opportunities; • strengthen links with the rest of the world; • promote more sustainable patterns of travel, transport and land use; • realise the potential of Scotland's renewable energy resources and facilitate the generation of power and heat from all clean, low carbon sources; • encourage a sufficient supply of homes which are affordable in places where people want to live; and • facilitate the implementation of the National Waste Management Plan including waste management targets. **Targets:** No formal targets.
The Town and Country Planning (Scotland) Act 1997	**Objectives:** Principle piece of planning legislation governing the use and development of land within Scotland. Covers topics such as development plans, development control, compensation and enforcement. **Targets:** No formal targets.
Scotland Rural Development Programme 2007-2013 – The Strategic Plan	**Objectives:** Rural Scotland should: • be integral to Scotland's success, dynamic in harnessing its traditional strengths, and with an appetite for change; • provide opportunity for young people – so that they do not have to leave rural areas to progress; • offer a high quality of life to all its citizens, with access to quality services; and • sustain and make the most of its natural and cultural heritage. The following cross-cutting principles are to guide the approach to the strategy and the Programme itself: • an integrated approach to policy delivery that combines economic, social and environmental actions; • flexibility to meet diversity and local distinctiveness across rural Scotland; and • promotion of sustainability, resilience and vigour in the rural economy, communities and natural heritage.
National (Wales)	
Welsh Assembly Government (2008) People, Places, Futures: The Wales Spatial Plan 2008 Update	**Objectives:** The Wales Spatial Plan provides the context and direction of travel for local development plans and the work of local service boards. The 2008 update brings the Wales Spatial Plan into line with One Wales, and gives status to the area work which has developed since 2006. The key themes of the update (and the Wales Spatial Plan before it) are set out below: **Building Sustainable Communities**

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	Our future depends on the vitality of our communities as attractive places to live and work. We need to reduce inequalities between communities whilst retaining their character and distinctiveness. **Promoting a Sustainable Economy** We need an innovative, high value-added economy for Wales which utilises and develops the skills and knowledge of our people; an economy which both creates wealth and promotes the spreading of that prosperity throughout Wales; an economy which adds to the quality of life as well as the standard of living and the working environment. **Valuing our Environment** The quality of our natural environment has an intrinsic value as a life support system, but also promotes wellbeing for living and working and contributes to our economic objectives. Safeguarding and protecting our natural and historic assets, and enhancing resilience to address the challenges of climate change, will enable us to attract people to our communities and provide the wellbeing and quality of life to encourage them to stay and preserve the foundations for the future. **Achieving Sustainable Accessibility** We will develop access in ways that protect the environment, encourage economic activity, widen employment opportunities, ensure quality services and integrate the social, environmental and economic benefits that travel can have. **Respecting Distinctiveness** A cohesive identity which sustains and celebrates what is distinctive about Wales, in an open and outward-looking way, is central to promoting Wales to the World, as well as to our future economic competitiveness and social and environmental wellbeing. **Targets:** No formal targets.
Cultural Heritage	
International / European (e.g. Directives)	
European Convention on the Protection of the Archaeological Heritage 1992	**Objectives:** Convention made agreements under the following topics: • Definition of the archaeological heritage • Identification of the heritage and measures for protection • Integrated conservation of the archaeological heritage • Financing of archaeological research and conservation • Collection and dissemination of scientific information • Promotion of public awareness • Prevention of the illicit circulation of elements of the archaeological heritage • Mutual technical and scientific assistance. **Targets:** No formal targets.
UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972)	**Objectives:** Convention defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List. The Convention sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: No formal targets.
The World Heritage Committee's 'Operational Guidelines for the Implementation of the World Heritage Convention' (2008)	**Objectives:** Guidelines set the procedure for: setting forth the procedure for: a) the inscription of properties on the World Heritage List and the List of World Heritage in Danger; b) the protection and conservation of World Heritage properties; c) the granting of International Assistance under the World Heritage Fund; and d) the mobilization of national and international support in favor of the Convention. **Targets:** No formal targets
National (UK)	
Ancient Monuments and Archaeological Areas Act (1979).	**Objectives:** This is the Act which provides for the scheduling of ancient monuments and protection of archaeological sites in U.K. law. **Targets:** No formal targets
The Planning (Listed Buildings and Conservation Areas) Act (1990)	**Objectives:** This legislation outlines the level of protection received by listed buildings, scheduled monuments and buildings within conservation areas. **Targets:** No formal targets
ODPM (1994) PPG15: Planning and the Historic Environment	**Objectives**: PPG15 does not contain a specific set of objectives, but states that: • The planning process should reconcile the need for economic growth with the need to protect the natural and historic environment; • Local Authorities should maintain and strengthen their commitment to stewardship of the historic environment, and to reflect it in their policies and their allocation of resources; and • The protection of the historic environment, whether individual listed buildings, conservation areas, parks and gardens, battlefields should be taken fully into account both in the formulation of authorities' planning policies and in development control. **Targets:** Does not contain any specific targets.
ODPM (1990) PPG16: Archaeology and Planning	**Objectives:** Objectives outlined in PPG16 relevant to the ASG proposals include: • To promote positive planning and management to bring about sensible solutions to the treatment of sites with archaeological remains and to reduce the areas of potential conflict between development and preservation; and • To adopt a presumption in favour of the physical preservation of nationally important archaeological remains, whether scheduled or not, and their settings when they are affected by proposed developments. **Targets:** Does not contain any specific targets.
Protection of Wrecks Act 1973	**Objectives:** Act sets out that on account of the historical, archaeological or artistic importance of a vessel, or of any objects contained or formerly contained in it which may be lying on the sea bed in or near the wreck, sites ought to be protected from unauthorised interference. **Targets:** No formal targets
Protection of Military Remains Act 1986	**Objectives:** The Act protects a number of named military vessel remains. **Targets:** No formal targets.
DCMS (2007) Heritage Protection for the 21st Century - White Paper	**Objectives:** This is a White Paper for England & Wales with some UK-wide elements. It has three core principles: • Developing a unified approach to the historic environment; • Maximising opportunities for inclusion and involvement; and • Supporting sustainable communities by putting the historic environment at the heart of an effective

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	planning system. **Targets:** No formal targets, but a number of measures/recommendations.
Treasure Act 1996	**Objective:** Act designed to deal with finds of treasure, its ownership & rewards. **Targets:** No formal targets.
English Heritage: Wind Energy and the Historic Environment (guidance paper 2005)	**Objectives:** English Heritage provide the following best practice objectives: • Implications for the historic environment of wind energy developments should be reflected in Regional Spatial Strategies, Local Development Frameworks and Supplementary Planning Documents; • Effects of wind energy programmes and projects on the historic environment should be evaluated in all levels of environmental impact assessment; • Consideration of the historic environment should include World Heritage Sites; marine, coastal and terrestrial archaeology; historic buildings and areas; designed landscapes ;and the historic character of the wider landscape; • Significance of internationally and nationally designated sites should be safeguarded, and physical damage to historic sites should be avoided. • Impact of wind energy developments on the setting and visual amenity of historic places should also be considered; • Where wind energy developments affect historic sites, national planning policies on the historic environment should be taken into account; • Consideration should always be given to the reversibility of wind energy projects. **Targets:** No formal targets.
English Heritage: Biomass Energy and the Historic Environment (guidance paper)	**Objectives:** English Heritage provide the following best practice objectives: • Implications for the historic environment of biomass energy developments should be reflected in Regional Spatial Strategies, Local Development Frameworks and Supplementary Planning Documents; • Effects of biomass energy programmes and projects on the historic environment should be evaluated in all levels of environmental impact assessment; • Consideration of the historic environment should include World Heritage Sites; marine, coastal and terrestrial archaeology; historic buildings and areas; designed landscapes; and the historic character of the wider landscape • Significance of internationally and nationally designated sites should be safeguarded and physical damage to other historic sites should be avoided • Impact of biomass energy projects on the setting and visual amenity of historic places and landscapes should also be considered • Where biomass energy developments affect historic sites, national planning policies on the historic environment should be taken into account • Local Authority Historic Environment Records should be consulted at an early stage in project planning. **Targets:** No formal targets.
English Heritage: Climate Change and the Historic Environment (guidance paper)	**Objectives:** Sets out English Heritage's current thinking on the implications of climate change for the historic environment. The paper is intended both for the heritage sector and also for those involved in the wider scientific and technical aspects of climate change; in the development of strategies and plans relating to climate change impacts; or in projects relating to risk assessment, adaptation and mitigation. **Targets:** No formal targets.
English Heritage: Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment (2008)	**Objectives:** English Heritage sets out in this document a logical approach to making decisions and offering guidance about all aspects of England's historic environment. This will help to ensure consistency in English Heritage carrying out their role as the Government's statutory advisor on the historic environment.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Targets: No formal targets.
Department for Culture, Media and Sport - Historic Environment: A Force For the Future (2001)	**Objectives:** • public interest in the historic environment is matched by firm leadership, effective partnerships, and the development of a sound knowledge base from which to develop policies; • the full potential of the historic environment as a learning resource is realised; • the historic environment is accessible to everybody and is seen as something with which the whole of society can identify and engage; • the historic environment is protected and sustained for the benefit of our own and future generations; • the historic environment's importance as an economic asset is skilfully harnessed. **Targets:** No formal targets.
1983 National Heritage Act (amended 2002)	**Objectives:** Act makes further provision in relation to the functions of the Historic Buildings and Monuments Commission for England. **Targets:** No formal targets.
National (MOD)	
MOD Sustainable Development Strategy, December 2008, MOD Sustainable Development Report and Action Plan 2008, and MOD Heritage Report 2005-7	**Objectives:** • Conserve and enhance the historic environment for the benefit of future generations and to reflect the ethos and heritage of the MOD. • Appropriately monitor, maintain and manage MOD listed buildings, scheduled monuments and other historic environment features. • Ensure that the MOD's historic environment is reflected within any contractual framework with partners • Ensure that the MOD's own ethos and heritage are reflected within its' estate management. • Where possible, promote public access to the historic estate. **Targets:** • Remove MOD Buildings at Risk against baseline reported in the previous DCMS/ English Heritage Biennial Conservation Report.
MOD SOGE Strategic Statement on Heritage	**Objectives:** • Promote the sustainable use of the MOD historic environment, in recognition of its importance as an integral part of cultural heritage and the role it plays in supporting defence capability. • Have a historic environment that is protected and well maintained or the benefit of current and future generations. • Ensure the historic environment is managed to reflect the ethos and heritage of MOD and to promote a "sense of place" for those who work on, live on and visit the MOD estate. • Ensure the MOD historic environment is valued and promoted wherever practically possible. • Have in place arrangements for protecting, maintaining and enhancing other heritage sites including, for example, archaeological sites, historic parks and gardens for which the MOD is responsible. **Targets:** • Adopt the Department for Culture Media and Sport's Protocol for the Care of the Historic Government Estate. Where responsibility for management of historic property is transferred to the private sector, for example through PPP/PFI arrangements, the Protocol standards will be incorporated into contractual arrangements.
National (Scotland)	
Planning (Listed Buildings and	**Objectives**: This legislation outlines the level of protection received by listed buildings, scheduled

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Conservation Areas) (Scotland) Act 1997	monuments and buildings within conservation areas. **Targets**: No formal targets
Scottish Executive (2006) Scotland's Culture	**Objectives:** The policy aims to: • Provide support nationally for talent and excellence in culture, and enable more people to enjoy culture; • To encourage more people to enjoy cultural activities locally by asking local authorities to develop cultural 'entitlements' for their area, to undertake cultural planning. **Targets:** No specific targets identified, but next steps set out.
Scottish Executive. (1998) National Planning Policy Guidance 5: Archaeology and Planning	**Objectives:** The NPPG 5 sets out the following objectives: • Looking after properties in Government care; • Promoting enjoyment and understanding of the heritage; • Encouraging private sector efforts, and making financial assistance available to help meet the extra costs of maintaining and restoring heritage property; • Identifying and recording our heritage; and • Ensuring that the legislative system properly protects and preserves it. **Targets:** No formal targets
Scottish Government (2010) Scottish Planning Policy	**Objectives:** Policies in Scottish Planning Policy (SPP) reflect the importance of the historic environment, as a key part of Scotland's cultural heritage, to the Scottish Government's central purpose. With the careful application of policy and sensitive decision making, the historic environment can often be adapted to accommodate new uses, offering opportunities for new and creative design, whilst retaining its special character. In principle, therefore, the aim should be to identify the best viable use that is compatible with the fabric, setting and character of the historic environment. **Targets:** No formal targets
National Planning and Policy Guidance 18 (NPPG18): Planning and the Historic Environment (1999)	**Objectives:** Key objectives of the guideline are • To protect, conserve and enhance the historic environment and its setting, including listed buildings, unlisted buildings in conservation areas, conservation areas, scheduled monuments, gardens and designed landscapes. • To identify priorities for enhancement programmes, and opportunities for regeneration or revitalisation. Guidance to be superseded by SPP 23. **Targets:** No formal targets
Planning Advice Note 42 (PAN42): Archaeology in the Planning Process and Scheduled Monument Procedures (1994) - Guidance to be superseded by SPP 23.	**Objectives:** Provides advice on the handling of archaeological matters within the planning process and on the separate controls over scheduled monuments under the Ancient Monuments and Archaeological Areas Act 1979. **Targets:** No formal targets
Historic Scotland: Environmental Impact Assessment (Scoping). Scoping of Wind Farm Proposals. Assessment of Impact on the setting of the Historic Environment Resource. Some General Considerations (paper 2007)	**Objective:** Provides guidance on how impacts are to be assessed on setting and effectively mitigated. **Targets:** No formal targets
Scottish Historic Environment Policy 1 Scotland's Historic Environment	**Objectives:** SHEP 1 is the overarching policy statement for the historic environment – it provides a framework for more detailed strategic policies and operational policies that inform the day-to-day working of a range

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	of organisations that have a role and interest in managing the historic environment. The three key outcomes that the policy aims to deliver are as follows: a) the historic environment is cared for, protected and enhanced for the benefit of our own and future generations; b) there is increased public appreciation and enjoyment of the historic environment amongst all the people of Scotland and visitors to the country; and c) the historic environment's importance as a key asset in Scotland's economic, social and cultural success is recognised and skilfully harnessed.
Scottish Historic Environment Policy 2. Scheduling: protecting Scotland's nationally important monuments	**Objective:** Policy sets out Scottish Ministers' policy for the identification and designation of nationally important ancient monuments. The remains are often very fragile and vulnerable to damage or destruction, the Policy sets out therefore that care must be taken to ensure that they are not needlessly damaged or destroyed. **Target:** No formal targets
Natural Heritage (Scotland) Act 1991	**Objectives:** Act established a body to be known as "Scottish Natural Heritage" (in this Part of this Act referred to as "SNH") whose general aims and purposes were to be: • to secure the conservation and enhancement of; and • to foster understanding and facilitate the enjoyment of, the natural heritage of Scotland; and SNH shall have regard to the desirability of securing that anything done, whether by SNH or any other person, in relation to the natural heritage of Scotland is undertaken in a manner which is sustainable. **Targets:** No formal targets
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales sets out the land use planning policies of the Welsh Assembly Government. Regarding the historic environment, the Assembly Government's objectives are to: • preserve or enhance the historic environment, recognising its contribution to economic vitality and culture, civic pride and the quality of life, and its importance as a resource for future generations; and specifically to • protect archaeological remains, which are a finite and non-renewable resource, part of the historical and cultural identity of Wales, and valuable both for their own sake and for their role in education, leisure and the economy, particularly tourism; • ensure that the character of historic buildings is safeguarded from alterations, extensions or demolition that would compromise a building's special architectural and historic interest; and to • ensure that conservation areas are protected or enhanced, while at the same time remaining alive and prosperous, avoiding unnecessarily detailed controls over businesses and householders. **Targets:** No formal targets.
Welsh Assembly Government (2009) Technical Advice Note 12: Design	**Objectives:** TAN 12 sets out the Assembly Government's policies and objectives in respect of the design of new development. In relation to cultural heritage, these objectives include: • Sustaining or enhancing local character • Promoting legible development • Promoting a successful relationship between public and private space • Promoting quality, choice and variety • Promoting innovative design **Targets:** No formal targets.
Welsh Assembly Government (2003) Review of the Historic Environment of Wales: A Consultation Document	This document is a review and does not contain objectives or targets as such. It can be assumed however that that the protection and enhancement of the historic environment is a key objective.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
Landscape	
International / European (e.g. Directives)	
European Landscape Convention of 2000	**Objectives:** Convention aims to encourage public authorities to adopt policies and measures at local, regional, national and international level for protecting, managing and planning landscapes throughout Europe. The European Landscape Convention introduced the concept of "landscape quality objectives" into the protection, management and planning of geographical areas. **Targets:** No formal targets.
National (UK)	
Countryside and Rights of Way Act (2000)	**Objectives:** This Act increased the duty for provision of public access to the countryside and strengthened legislation relating to SSSIs. In particular, it requires public bodies to further the conservation and enhancement of SSSIs both in carrying out their operations, and in exercising their decision making functions. **Targets:** No formal targets, though close monitoring of indicators is to be undertaken.
ODPM (2002) PPG17: Planning for Open Space, Sport and Recreation	**Objectives:** PPG17 does not contain a specific set of objectives. However, it does state that well-designed and implemented planning policies for open space, sport and recreation are fundamental to delivering broader Government objectives. • Open space and sports and recreational facilities that are of high quality should be recognised and given protection by Local Authorities; and • Subject to designated areas, Local Authorities should encourage the creation of sports and recreational facilities in countryside around towns and the development of areas of managed countryside, such as countryside parks, community forests, and agricultural show-grounds. **Targets:** Does not contain any specific targets.
The National Parks and Access to the Countryside Act 1949	**Objectives:** An Act to: • make provision for National Parks and the establishment of a National Parks Commission; • to confer on the Nature Conservancy and local authorities powers for the establishment and maintenance of nature reserves; • to make further provision for the recording, creation, maintenance and improvement of public paths and for securing access to open country, and to amend the law relating to rights of way; • to confer further powers for preserving and enhancing natural beauty; • and for matters connected with the purposes aforesaid. **Targets:** Ultimately seeks to conserve and protect countryside and National Parks through legislation.
The Natural Environment and Rural Communities (NERC) Act 2006	**Objectives:** The Act • makes provision about bodies concerned with the natural environment and rural communities; • makes provision in connection with wildlife, sites of special scientific interest, National Parks and the Broads; • amends the law relating to rights of way; • makes provision as to the Inland Waterways Amenity Advisory Council; • provides for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes. **Targets:** Legislation rather than targets in Act.
1967 Forestry Act (as amended 1999)	**Objectives:** Act restricts and regulates the felling of trees using legislation, under the Forestry

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	Commission. **Targets:** No formal targets.
1968 Countryside Act	**Objectives:** An Act to enlarge the functions of the Agency established under the National Parks and Access to the Countryside Act 1949, to confer new powers on local authorities and other bodies for the conservation and enhancement of natural beauty and for the benefit of those resorting to the countryside and to make other provision for the matters dealt with in the Act of 1949 and generally as respects the countryside, and to amend the law about trees and woodlands, and footpaths and bridleways, and other public paths. **Targets:** No formal targets.
1986 Agriculture Act (with numerous revisions)	**Objectives:** An Act covering the provision of agricultural services & goods, agricultural marketing, compensation to tenants for milk quotas, conservation and farm grants.
Commons Act 2006	**Objectives:** Act to protect common land and promote sustainable farming, public access to the countryside and the interests of wildlife. The Acts implementation is based around four themes; registration, management, works and town and village greens. **Targets:** No formal targets
PPG 2: Green Belts (ODPM, 1995, Amended 2001)	**Objectives:** • Provide opportunities for access to the open countryside for the urban population • Provide opportunities for outdoor sport and outdoor recreation near urban areas • Retain attractive landscapes, and enhance landscapes near to where people live • Improve damaged and derelict land around towns • Secure nature conservation interest • Retain land in agricultural forestry and related uses **Targets:** No relevant targets or indicators
Communities and Local Government (2010) Consultation Paper a new Planning Policy Statement: Planning for a Natural and Health Environment	**Objectives:** Once approved, this PPS will replace PPS9, PPG17, PPG20 and PPS7 in so far as it relates to landscape protection, soil and agricultural land quality, forestry, coastal access, heritage coast and the undeveloped coast. With regard to landscape, it states that planning permissions granted for major developments in nationally designated areas should be carried out to high environmental standards through the use of conditions where necessary. **Targets:** No formal targets.
National (MOD)	
MOD JSP 362 - Defence Lands Handbook, Chapter 5 (Natural Environment – Conservation).	**Objectives:** • Promote the objectives of statutory designated areas (NPs and AONBs) wherever possible. • In respect of landscape designations, reasonable measures should be undertaken to mitigate the impacts of any development proposals on landscape character. • Management of sites should seek to maintain the character of the landscape by safeguarding and, where practicable, enhancing or developing significant landscape features, such as woodland, dry stone walls or hedges. **Targets:** No relevant targets or indicators.
National (Scotland)	
Scottish Government (2010) Scottish Planning Policy	**Objectives:** Scottish Planning Policy (SPP) sets out the following broad principles with regard to landscape: • Planning authorities should take a broader approach to landscape and natural heritage than just conserving designated or protected sites and species, taking into account the ecosystems and natural processes in their area.

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	• The natural and cultural components of the landscape should be considered together, and opportunities for enhancement or restoration of degraded landscapes, particularly those affecting communities, should be promoted • The most sensitive landscapes may have little or no capacity to accept new development. Areas of wild land character in some of Scotland's remoter upland, mountain and coastal areas are very sensitive to any form of development or intrusive human activity and planning authorities should safeguard the character of these areas. • Landscapes and the natural heritage are sensitive to inappropriate development and planning authorities should ensure that potential effects, including the cumulative effect of incremental changes, are considered when deciding planning applications. • While the protection of the landscape and natural heritage may sometimes impose constraints on development, with careful planning and design the potential for conflict can be minimised and the potential for enhancement maximised. • Planning authorities should apply the precautionary principle where the impacts of a proposed development on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence for believing that significant irreversible damage could occur. Where the precautionary principle is justified, modifications to the proposal which would eliminate the risk of irreversible damage should be considered. The precautionary principle should not be used to impede development unnecessarily. Where development is constrained on the grounds of uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered. **Targets:** No formal targets
National Trust for Scotland Landscape Policy (2005)	**Objectives:** The overall aim of this policy is to promote and conserve landscapes that: • Encompass Scotland's distinctive, local and diverse natural landforms, habitats and biodiversity • Celebrate Scotland's rich and varied cultural heritage • Reflect the achievements of its people and the aesthetic appreciation of its scenery • Include places of tranquillity, wildness, drama and beauty • Improve our quality of life and sense of well-being. **Targets:** No formal targets
SPP11 Open Space and Physical Activity (2007)	**Objectives:** • To protect and enhance open space; • To ensure a strategic approach to open space and other opportunities for sport and recreation by requiring local authorities to undertake an open space audit and prepare an open space strategy for their area; • To protect and support opportunities for sport and recreation; • To provide guidance on the quality and accessibility of open space in new developments and on providing for its long-term maintenance and management; and • To provide guidance on planning for development of new indoor and outdoor facilities for sport and recreation. **Targets:** No formal targets.
The Countryside (Scotland) Act 1967	**Objectives:** access to open country and public paths & long-distance routes. **Targets:** No formal targets.
National Parks (Scotland) Act 2000	Scottish National Parks deliver more integrated management of areas of outstanding natural and cultural heritage. They have the following four aims: • to conserve and enhance the natural and cultural heritage; • to promote the sustainable use of the natural resources of the area; • to promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and • to promote sustainable social and economic development of the communities of the area

Relevant Plan, Programme, Strategy	Objectives and Targets Identified in the Document
	The National Park Authority for each National Park has responsibility for drawing up a National Park Plan and ensuring its implementation. **Targets:** No formal targets.
Forestry Commission Scotland (2006) Scottish Forestry Strategy	**Objectives:** Seven key themes will help achieve the Strategy's vision: • Using forestry, and adapting forestry practices, to help reduce the impact of climate change and help Scotland adapt to its changing climate. • Getting the most from Scotland's increasing and sustainable timber resource. • Strengthening forestry through business development to underpin sustainable forest management and support economic growth and employment across Scotland. • Improving the quality of life and well-being of people by supporting community development across Scotland. • Making access to, and enjoyment of, woodlands easier for everyone - to help improve physical and mental health in Scotland. • Protecting the environmental quality of our natural resources (water, soil and air), contributing to and improving our scenery, and helping to make the most of our unique historic environment. • Helping to restore, maintain and enhance Scotland's biodiversity, and increasing awareness and enjoyment of it. **Targets:** • See Scotland's woodlands increase from 17.1% of our land area to about 25%. The Scottish Executive has two wider commitments relevant to forestry: • Bringing 80% of the special features on Scotland's nationally important nature sites into favourable condition by March 2008 • The forestry sector delivering annual carbon savings of 0.6 million tonnes of carbon (MtC) by 2010, 0.8 MtC by 2015 and 1.0 MtC by 2020.
National (Wales)	
Welsh Assembly Government (2010) Planning Policy Wales (Edition 2)	**Objectives:** Planning Policy Wales sets out the land use planning policies of the Welsh Assembly Government. Regarding landscape, the Assembly Government's objectives are to: • promote the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats; • ensure that action in Wales contributes to meeting international responsibilities and obligations for the natural environment; and • ensure that statutorily designated sites are properly protected and managed; **Targets:** No formal targets.

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Annex C – Abbreviations and Glossary

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ALARP	As Low As Reasonably Practicable
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
BPEO	Best Practicable Environmental Option
CADMID	Concept, Assessment, Development, Manufacture, In-service Disposal
CAMS	Catchment Abstraction Management Strategies
CCL	Climate Change Levy
CIOP	Consultation on ISOLUS Outline Proposals
CLG	Department for Communities and Local Government
CoRWM	Committee on Radioactive Waste Management
DBERR	Department of Business, Enterprise and Regulatory Reform (formerly DTI)
DCLG	Department for Communities and Local Government (formerly ODPM)
DDLP	De-Equip, De-fuel and Lay-Up Preparations
DE	Defence Estates
DECC	Department of Energy and Climate Change
DE&S	Defence Equipment and Support
Defra	Department for Environment, Farming and Rural Affairs
ISM	In-Service Submarines
DfT	Department for Transport
DISM	Director In-Service Submarines
DNEB	Defence Nuclear Executive Board
DNSR	Defence Nuclear Safety Regulator
DoENI	Department of Environment Northern Ireland
DWS	Drinking Water Standards
DWSP	Drinking Water Safety Plans
EA	Environment Agency
EIA	Environmental Impact Assessment
ETS	Emission Trading Scheme
EU	European Union
FEC	ISOLUS Front End Consultation
GHG	Greenhouse Gas
HRA	Habitats Regulation Assessment

HSE	Health and Safety Executive
HLW	Higher-Level Waste
IAB	Investment Approval Board
IAG	ISOLUS Advisory Group (now the SDP Advisory Group)
IEEM	Institute of Ecology and Environmental Management
ILW	Intermediate Level Waste
IPT	Integrated Project Team
ISOLUS	Interim Storage of Laid-Up Submarines
KUR	Key User requirement
LDD	Local Development Document
LLW	Low Level Waste
LNR	Local Nature Reserve
LUSM	Laid-Up Submarine
MGBC	Main Gate Business Case
MISG	MOD ISOLUS Steering Group (now the SDP Steering Group)
MNR	Marine Nature Reserves
NBC	Naval Base Commander
NDA	Nuclear Decommissioning Authority
NGO	Non-Governmental Organisations
NII	Nuclear Installations Inspectorate of the Health and Safety Executive
NNR	National Nature Reserves
NPS	National Policy Statement
NVZ	Nitrate Vulnerable Zone
ODPM	Office of the Deputy Prime Minister (now CLG)
OGC	Office of Government Commerce
OGD	Other Government Departments
OJEU	Official Journal of European Union
ONS	Office of National Statistics
OSPAR	Oslo-Paris Agreement on the Protection of the North-East Atlantic
PMP	Project Management Plan
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
RN	Royal Navy

RSS	Regional Spatial Strategy
SAC	Special Area of Conservation
SAM	Scheduled Ancient Monument
SDP	Submarine Dismantling Project
SE	Scottish Executive
SEA	Strategic Environmental Assessment
SEPA	Scottish Environmental Protection Agency
SOGE	Sustainable Operations on the Government Estate (govt-wide sustainable devt. targets)
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
ToR	Terms of Reference
UK	United Kingdom
UKCIP	UK Climate Impacts Programme
UNFCCC	United Nations Framework Convention on Climate Change
WCA	Wildlife and Countryside Act
WFD	Water Framework Directive

Glossary of Relevant Terms

Term	Description
Authorisation	Authorisations allow specific defence-related nuclear activity to take place at a specific site. Such 'Authorised' sites are not subject to the Nuclear Installations Act (unlike civil nuclear sites) and so activities are not formally 'Licensed.' Instead, Authorisations are granted by the Defence Nuclear Safety Regulator.
Cut out	This term is used to refer to the option of cutting out the complete Reactor Compartment, thus separating it from the rest of the submarine. The RC is then stored intact. .
Cut up	This term is used to refer to the option of cutting up the Reactor Compartment and the items within it to reduce their size, so that the radioactive waste can be packaged in appropriate containers for storage and transport. .
DDLP	De-fuel, de-equip and lay-up preparation – this is the process for preparing redundant submarines for storage. The high-level radioactive waste fuel is removed; security and re-usable equipment is then removed, and the submarine prepared for safe afloat storage.
ILW	Intermediate level waste Intermediate Level Waste is radioactive waste with a radiological activity above 4 Giga Becquerels (GBq) per tonne of alpha or 12 GBq/tonne of beta-gamma decay, but which does not generate sufficient levels of heat to require it to be

	cooled.
License	A nuclear License allows specific nuclear activities to take place at a specific site. Such 'Licensed' sites are subject to the Nuclear Installations Act (1965), with Authorisations being granted by the Nuclear Installations Inspectorate. Nuclear power stations and other civil activities are Licensed in this way.
LLW	Low level waste – Low Level Waste is defined as radioactive waste that has below 4 Gbq/ tonne of alpha activity and below 12 GBq/ tonne of beta-gamma activity. It covers a variety of materials which arise principally as lightly contaminated miscellaneous scrap and redundant equipment.
Ramsar Sites	The Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention), adopted in 1971, entered into force in 1975. The Convention provides a framework for international cooperation for the conservation and wise use of wetlands. Parties are to designate suitable wetlands for inclusion in the List of Wetlands of International Importance, to formulate and implement their planning so as to promote the conservation of wetlands included in the List and the wise use of all wetlands in their territory.
RC	Reactor Compartment - the central 'slice' of the submarine which contains the nuclear reactor and associated pipe-work.
Repository	A permanent disposal facility for radioactive wastes.
RPV	Reactor Pressure Vessel - this contains the nuclear reactor and is located within the Reactor Compartment.
VLLW	Very low level waste - this is radioactive waste with very low levels of radioactivity, which can be disposed of to an ordinary landfill site.

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Annex D – Quality Assurance

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The Government's Guidance on SEA[2] contains a quality assurance checklist to help ensure that the requirements of the SEA Directive are met. Those relevant to this stage have been highlighted below.

Quality Assurance Checklist	
Objectives and Context	
The plan's purpose and objectives are made clear.	**Section 2.1**.
Sustainability issues, including international and EC objectives, are considered in developing objectives and targets.	**Section 4** includes international and European objectives and targets and how these are linked to the emerging SEA objectives. These are also identified in **Annex B**.
SEA objectives are clearly set out and linked to indicators and targets where appropriate.	**Section 6.1** presents the SEA objectives and guide questions.
Links to other related plans, programmes and policies are identified and explained.	**Section 4** and **Annex B** identifies relevant plans and programmes
Scoping	
The environmental consultation bodies are consulted in appropriate ways and at appropriate times on the content and scope of the Scoping Report.	This is the consultation on the scope of the SEA. It is anticipated that a workshop will be held during the scoping stage, where all the consultation bodies will be invited.
The SEA focuses on significant issues.	Significant issues have been identified in this Scoping Report (see S**ection 3.3, Section 5** and **Annex A**).
Technical, procedural and other difficulties encountered are discussed; assumptions and uncertainties are made explicit.	These are stated throughout the report where appropriate.
Reasons are given for eliminating issues from further consideration.	These are stated in **Section 5**, as appropriate.
Baseline Information	
Relevant aspects of the current state of the environment and their likely evolution without the plan are described.	Refer to Section 3 and **Annex A**.
Characteristics of areas likely to be significantly affected are described, including areas wider than the physical boundary of the plan area where it is likely to be affected by the plan (where practical to do so).	Refer to **Annex A**.
Difficulties such as deficiencies in information or methods are explained.	These are stated throughout the report where appropriate.

[2] ODPM, Scottish Executive, Welsh Assembly Government, DoENI (2005) *A Practical Guide to the Strategic Environmental Assessment Directive*, ODPM, London.