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APPROPRIATE ASSESSMENT OF PLANS

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1 INTRODUCTION

1.1 The Habitats Directive

1.1.1 Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora – the ‘Habitats Directive’ - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as *Natura 2000*. *Natura 2000* sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC). Box 1 provides an introduction to the Habitats Directive.

1.1.2 Articles 6(3) and 6(4) of the Habitats Directive sets out the decision-making tests for plans or projects affecting *Natura 2000* sites. Article 6(3) establishes the requirement for Appropriate Assessment:

Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Article 6(3)

Article 6(4) goes on to discuss alternative solutions, the test of “imperative reasons of overriding public interest” (IROPI) and compensatory measures:

*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of *Natura 2000* is protected. It shall inform the Commission of the compensatory measures adopted.*

Article 6(4)

Box 1: Background to the Habitats Directive

The continuing deterioration of natural habitats and the threats posed to certain species are one of the main concerns of EU environment policy. To tackle these threats the European Community, in 1992, adopted Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive').

The Habitats Directive has the main aim to promote the maintenance of biodiversity by defining a common framework for the conservation of wild plants and animals and habitats of community interest. Member States are obliged to take measures to maintain or restore natural habitats and wild species at a favourable conservation status, introducing robust protection for those habitats and species of European importance.

The Directive establishes a European ecological network known as "Natura 2000". The network comprises special areas of conservation (SAC) designated by Member States in accordance with the provisions of the Directive, and special protection areas (SPA) classified pursuant to Directive 79/409/EEC on the conservation of wild birds (the 'Birds Directive').

Included in Annexes I (Natural habitat types of Community interest) and II (Animal and plant species of Community interest) of the Directive are the lists of habitats and species whose conservation requires the designation of SACs. Some of them are defined as "priority" habitats or species (in danger of disappearing). Annex IV lists animal and plant species in need of particularly strict protection. There are 189 habitats in Annex I of the Directive and 788 species in Annex II.

Member States must take all necessary measures to guarantee the conservation of habitats in SACs, and to avoid their deterioration. Member states must therefore:

- encourage the management of features of the landscape which are essential for the migration, dispersal and genetic exchange of wild species;
- establish systems of strict protection for those animal and plant species which are particularly threatened (Annex IV) and study the desirability of reintroducing those species in their territory; and
- prohibit the use of non-selective methods of taking, capturing or killing certain animal and plant species (Annex V).

The application of the Habitats Directive involves the precautionary principle; that is that plans and projects can only be permitted having ascertained no adverse effect on the integrity of the site. Plans and projects may still, however, be permitted if there are no alternatives, and there are imperative reasons of overriding public interest as to why they should go ahead. In such cases compensatory measures will be necessary to ensure the overall integrity of network of sites.

1.2 European Court of Justice ruling

- 1.2.1 In October 2005, the European Court of Justice ruled that the UK had failed to correctly transpose the provisions of Articles 6(3) and (4) of the Habitats Directive into national law. *Inter alia*, the UK had failed to ensure that land use plans are subject to Appropriate Assessment where they might have a significant effect on a Natura 2000 site.
- 1.2.2 Following the ruling, the Department for Environment, Food and Rural Affairs (DEFRA) published draft amendments to the Habitats Regulations on 8 May 2006¹. The Habitats Regulations – formally known as the Conservation (Natural Habitats, & c.) Regulations 1994 – aim to transpose the requirements of the Habitats Directive into domestic legislation. These amendments to the Regulations will apply in England and Wales; separate amendments are being made that will apply to Scotland and Northern Ireland development plans. For further information on the consultation, see <http://www.defra.gov.uk/corporate/consult/nat-habitats-2006/index.htm>.
- 1.2.3 DEFRA aim to publish the amended Regulations so that they enter into force on 1 September 2006. The amended regulations will require Appropriate Assessment of Regional Spatial Strategies, Local Development Documents, and alterations or replacements of 'old style' land use plans (e.g. Unitary Development Plans).

1.3 Aims and structure of this paper

- 1.3.1 This paper aims to provide advice for English authorities on the application of Appropriate Assessment to plans (including land use plans). It is aimed primarily at local and regional authorities, but may also be of use to national agencies, other competent authorities, developers and consultants.
- 1.3.2 The paper is structured as follows:

Section 2 explains the process of Appropriate Assessment

Sections 3 - 6 provide advice on carrying out the main requirements of Sections 6(3) and 6(4) of the Habitats Directive

Section 7 lists relevant legislation and guidance

A **glossary** provides definitions of key terms

¹ DEFRA has also recently undertaken consultation on draft Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2006. These make provision for the Appropriate Assessment of certain plans and projects in the offshore marine area (and offshore marine installations).

1.4 Acknowledgements

- 1.4.1 This paper draws on existing guidance and information published by the European Commission, the former ODPM (now the Department for Communities and Local Government, DCLG) and English Nature. It has also been informed by existing case law in relation to the Habitats Directive as well as advice from experts in the fields of ecology, ecological impact assessment, strategic environmental assessment and sustainability appraisal.
- 1.4.2 It has been prepared in partnership by Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants. We have consulted widely on it, and are very grateful to the following people for their contributions: Clive Briffett, Alison Brown, Emer Costello, Neil Davidson, Andrew Dodd, Mike Hare, Paul Harrison, Ian Hepburn, Wyn Jones, Richard Knightsbridge, Owain Lewis, Fiona Mahon, Chris Mills, Jake Piper, Jonathan Price, Clare Wansbury, Ros Ward, and John Willmott-French.
- 1.4.3 We have prepared this guidance in the absence of any official guidance to assist planning bodies in complying with the requirements of the Habitats Directive. The views expressed in the guidance are those of the consultants and have no official status. We do not accept any liability for the use of this document or any decisions based upon it.

2 THE APPROPRIATE ASSESSMENT PROCESS

2.1 Introduction

2.1.1 This section summarises the requirements of Appropriate Assessment (AA), and discusses who should undertake AA.

2.2 What is Appropriate Assessment?

2.2.1 AA is an assessment of the potential effects of a proposed plan - 'in combination' with other plans and projects - on one or more European sites². The 'assessment' proper is a **statement** which says whether the plan does, or does not, affect the integrity of a European site. However the **process** of determining whether or not the plan will affect the site(s) is also commonly referred to as 'appropriate assessment'. The process will usually be documented in a **report**, entitled something like 'information in support of an appropriate assessment'.

2.2.2 Figure 1 shows the key stages of the AA process and Article 6(4) as set out in European Commission guidance (European Commission, 2001³). Stages 1 and 2 relate to Article 6(3) of the Habitats Directive, and Stages 3 and 4 relate to Article 6(4).

2.2.3 The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures – see Figure 2. First, the plan should aim to **avoid** any negative impacts on European sites by identifying possible impacts early in plan-making, and writing the plan in order to avoid such impacts. Second, **mitigation measures** should be applied during the AA process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected (i.e. not taken forward in its current form). Under such a worst-case scenario, the plan may have to undergo a Stage 3 assessment of alternative solutions. Under Stage 4, **compensatory measures** are required for any remaining adverse effects, but they are permitted only if (a) there are no alternative solutions and (b) the plan is required for imperative reasons of overriding public interest (the 'IROPI test'). These are very onerous tests which plans are generally considered unlikely to pass.

2.2.4 **This document focuses primarily on Stages 1 and 2 (screening and AA)**, with the aim of avoiding the need for the more detailed, complex and expensive alternatives and IROPI stages. It suggests undertaking repeated rounds of mitigation and assessment of impacts as the plan emerges until any adverse effects on European sites are completely avoided. Such an approach is consistent with the aims of the Habitats Directive, and is likely to minimise time delays and risks to the adoption of the plan.

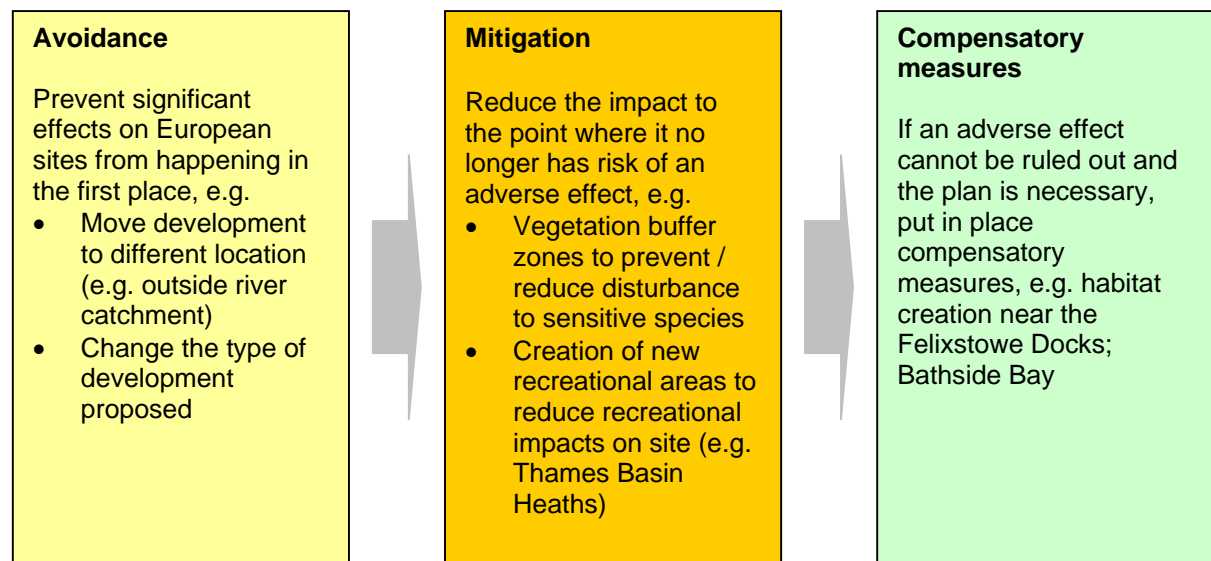
² Broadly Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)

³ Recent guidance from the Scottish Executive – *Assessing Development Plans in Terms of the Need for Appropriate Assessment* - advises that planning authorities should not use the European Commission guidance since the latter needs updating following a ruling by the ECJ in relation to the Waddenzee, the Netherlands (C-127/02).

Figure 1: Stages in the Habitats Directive decision-making process (based on European Commission, 2001)



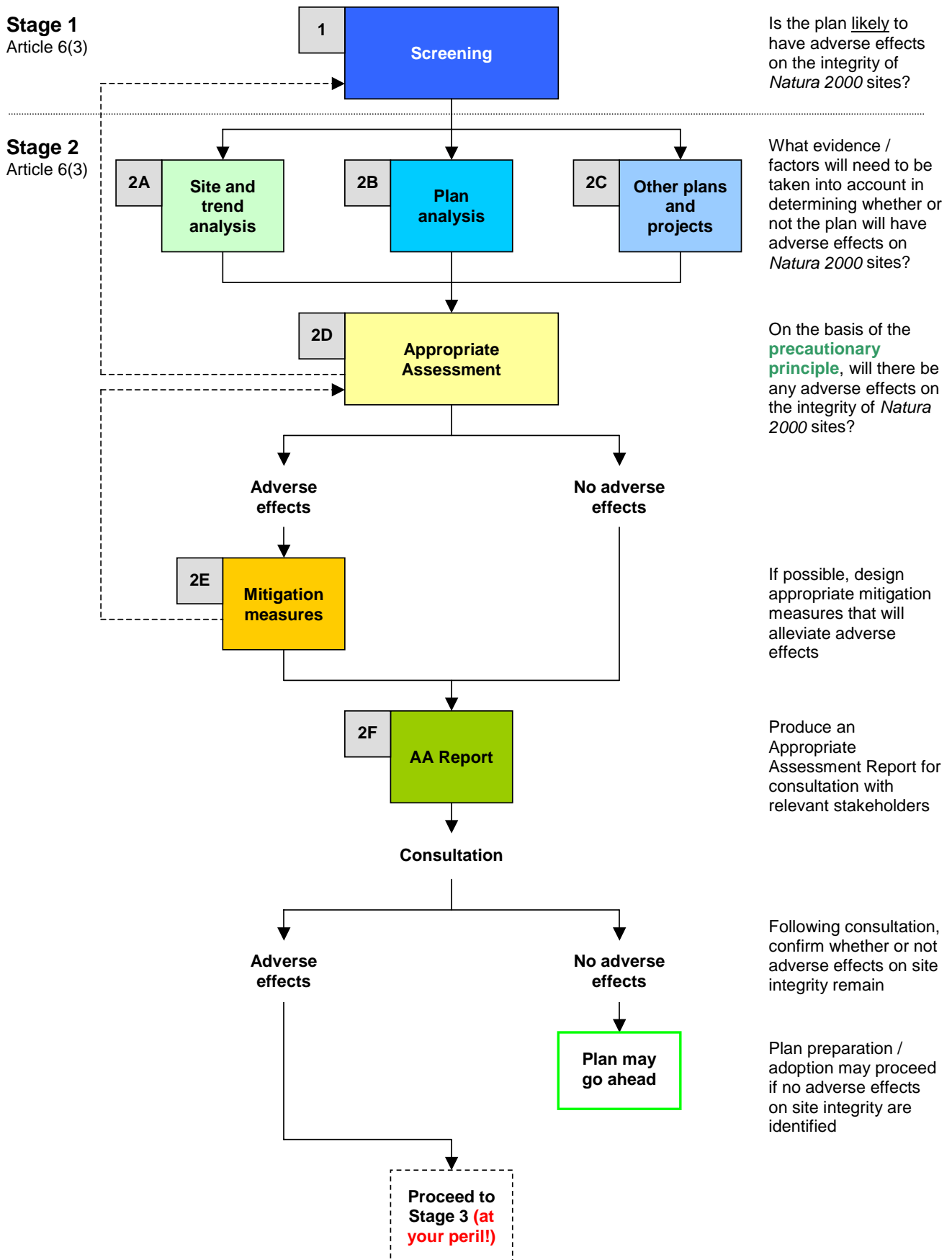
Figure 2: Hierarchy of avoidance, mitigation, compensatory measures

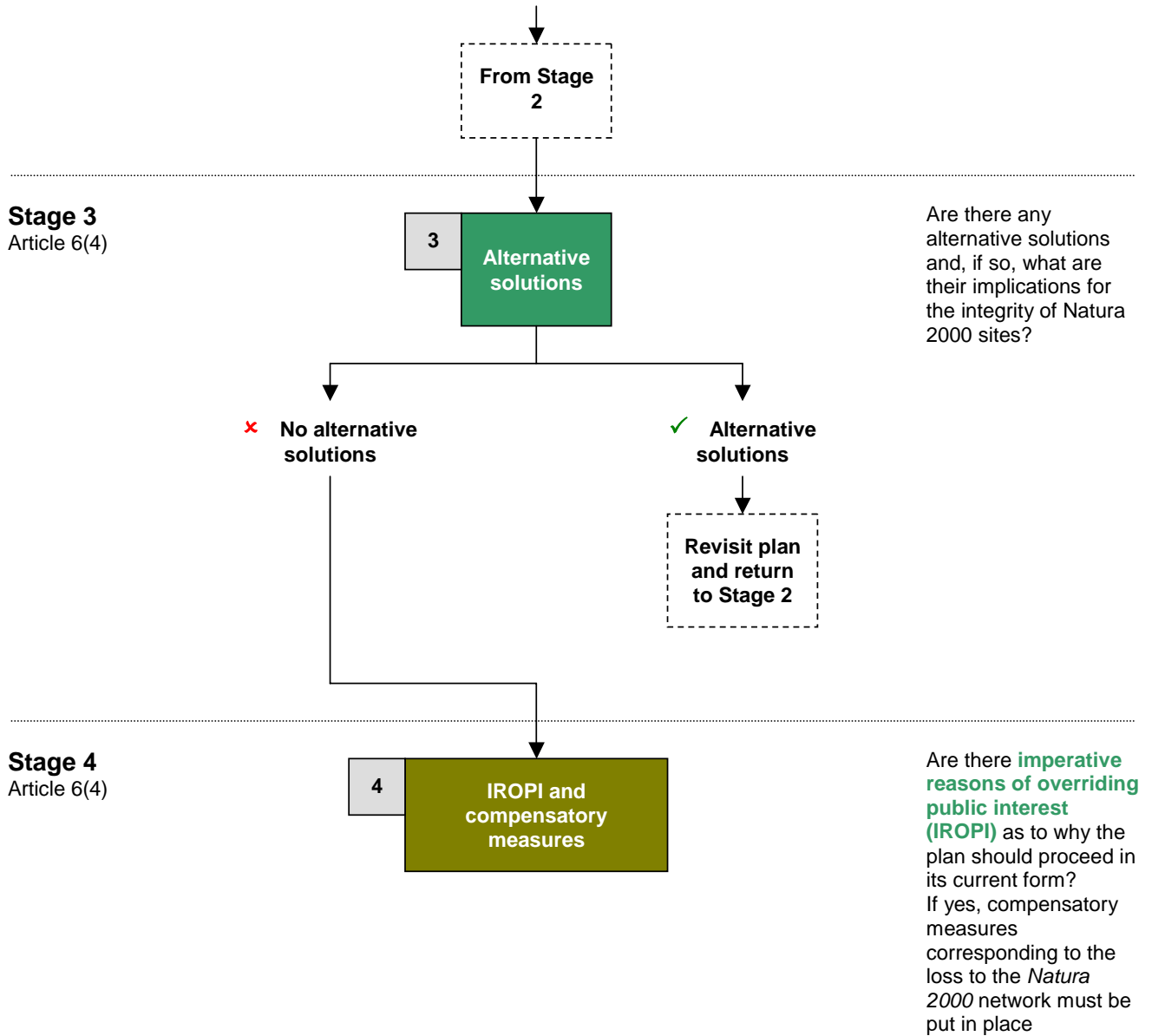


2.2.5 In the case of plans where a Stage 2 AA determines an adverse effect on the integrity of the site(s), **there will almost always be an 'alternative'** (Stage 3), given the sizeable geographical areas to which they apply and the consequent scope for alternatives. Therefore **we recommend that the 'imperative reasons of overriding public interest' (IROPI) test of Stage 4 should be reached only in the most limited and extreme cases.** For these reasons, this guidance note addresses Stages 3 and 4 only briefly.

2.2.6 Figure 3 summarises the approach to AA set out in this guidance, linked to the four stages set out in European Commission (2001) guidance and the articles of the Habitats Directive.

Figure 3: Summary of AA stages





2.3 Who carries out Appropriate Assessment?

- 2.3.1 To the best of our knowledge, the competent authority (in the case of RSSs and LDDs, the Regional Planning Body and the Local Planning Authority, respectively) is responsible for assessing the requirement for, and carrying out, the AA⁴. The draft amendments to the Habitats Regulations would also make them responsible for the 'IROPI' test, although they must notify the Secretary of State of any decision to adopt a plan in an IROPI case (so, critically, the Secretary of State has reserve powers on this issue). Furthermore, we understand that where a plan goes through an Examination in Public, then the Secretary of State (for RSSs) or Planning Inspector (for Development Plan Documents, DPDs) becomes the competent authority with respect to the AA decision.
- 2.3.2 AA requires ecological expertise in order that sound judgements on impacts on site integrity can be made. The county or district ecologist may provide this in consultation with English Nature, but external ecological expertise may also be needed; organisations such as the Royal Society for the Protection of Birds (RSPB) and the Wildlife Trusts may be able to help in this respect. Local Planning Authorities may need to bolster their ecological expertise or, alternatively, share resources across several authorities.
- 2.3.3 In England, English Nature (to become Natural England in October 2006⁵) is the nature conservation body under the Habitats Regulations and a key point of contact. English Nature has 22 area teams (www.english-nature.org.uk/contact/local_office.asp), each of which covers a specified geographical area. Within one area team, different individuals may be responsible for different European sites. English Nature may also refer to other organisations that hold data and expertise relating to sites, for example, the Environment Agency, the RSPB or the Wildlife Trusts.

Tip: Identify and contact your English Nature area team early in the AA process, and keep them involved throughout the process. English Nature doesn't make the ultimate AA decision, but if they are satisfied with your AA, then others are likely to be too.

- 2.3.4 AA is required for plans which, alone or *in combination* with other plans or projects, would be likely to have a significant effect on a European site. A given European site may be affected by the plans of multiple authorities or devolved administrations. Inter-authority communication and information sharing is therefore of utmost importance in the process. Clearly there are political and practical problems in relation to this, not least different timescales for plan production and the status attached to draft plans. However for the AA to comply fully with the spirit as well as the letter of the Habitats Directive, authorities may need to seek mitigation measures which transcend administrative boundaries, and this will mean that difficult decisions will need to be made in collaboration. This approach may lead to a more 'strategic' approach to spatial planning in England than at present, although it will not be without difficulty.

⁴ Planning Policy Statement 11 Regional Spatial Strategies and Planning Policy Statement 12 Local Development Frameworks

⁵ From the beginning of October 2006 English Nature, the environment activities of the Rural Development Service and the Countryside Agency's Landscape, Access and Recreation division will be united in a single body called Natural England. This will have all the powers of the founding bodies.

Tip: Inter-authority working could be fostered during the AA process, through workshops involving a range of stakeholders including English Nature and local authorities. Involve the JNCC for cross-border and marine issues.

2.4 Links to Strategic Environmental Assessment and Sustainability Appraisal

- 2.4.1 Strategic Environmental Assessment (SEA) involves the systematic identification and evaluation of the impacts of a strategic initiative (e.g. a plan or programme) on the environment. Sustainability Appraisal (SA) broadens SEA to also address economic and social impacts – therefore encompassing the three dimensions of sustainable development. SEA is required for a range of plans and programmes under the SEA Directive and these include RSSs and LDDs⁶. These also require SA under the Planning and Compulsory Purchase Act 2004.
- 2.4.2 There are clear parallels between AA, SEA and SA since all three are processes for assessing and minimising the environmental and sustainability impacts of plans.
- 2.4.3 Furthermore, the SEA Directive and the corresponding English Regulations – the Environmental Assessment of Plans and Programmes Regulations 2004 - make explicit links between SEA and AA. According to the Regulations, SEA must be carried out for “any plan or programme which, in view of the likely effect on sites, has been determined to require an assessment pursuant to Article 6 or 7 of the Habitats Directive” (regulation 5(3)); in other words, a requirement for AA of a plan also triggers the application of SEA to the plan in question.
- 2.4.4 In addition, the Environmental Report prepared for any assessment under the SEA Directive must discuss “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 [the ‘Birds Directive’] and the Habitats Directive” (Schedule 2.4).
- 2.4.5 European sites are critically important biodiversity assets. As such, their protection (and enhancement) is a key component of sustainable development. Consequently, there should be no inherent conflict between the overarching aims of AA, SEA and SA. However, there are significant differences between AA and SA, with SEA lying roughly in between, in terms of emphasis, level of detail, and skills required – see Table 2.
- 2.4.6 In particular, the Habitats Directive applies the precautionary principle⁷ to protected areas; plans and projects can **only** be permitted having ascertained that there will be **no adverse effect** on the integrity of the site(s) in question. This is in stark contrast to the SEA Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; it simply says that the assessment findings (as documented in the ‘environmental report’) should be ‘taken into account’ during the preparation of the plan or programme.

⁶ Comprising Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).

⁷ The precautionary principle means that authorities should act prudently to avoid the possibility of irreversible environmental damage in situations where the scientific evidence is inconclusive but the potential damage could be significant.

Table 2: Comparison of AA, SEA and SA (based on Therivel, 2006)

	AA	SEA	SA
Aim of process is to...	Maintain the integrity of the Natura 2000 network and its features	Provide for a high level of protection of the environment	Promote sustainable development
Emphasis of the process is on...	Preventing activities that could harm Natura 2000 sites	Providing information on environmental impacts, consultation, documenting decisions	Consideration (and where necessary balancing) of social, economic and environmental impacts
	'Protection led'	'Baseline led'	'Objectives led'
Legal 'bite': court cases hinge on...	Whether damage to Natura 2000 sites has been avoided and offset	Whether the right reports have been written and the right people consulted	The 'soundness' of the plan
Level of detail, quantification			
Skills needed	Ecological expertise; understanding of potentially affected sites and impacts on them	Data collection, developing alternatives and assumptions, impact prediction and mitigation	Knowledge of planning system, local area, political factors, broad sustainability considerations

2.4.7 The Government's forthcoming guidance on applying AA to plans will recommend undertaking AA and SEA / SA processes in **parallel**, with the aim of encouraging 'joined up thinking' and avoiding the duplication of effort. Certainly, synergies between the processes should be sought. For example, information on European sites can be collated at the same time as baseline information for the SEA / SA process and consultation on this information – as set out in a scoping report - can be undertaken jointly. This guidance points to links between the processes where relevant.

2.4.8 However, although the processes share much in common, the points made in Table 2 and para. 2.4.6 must be borne in mind throughout the assessment process. In particular, whereas SEA can be tiered – information from a higher-level SEA can be carried over into a lower-level SEA and vice-versa – AA requires a clear, separate statement for each plan.

Tip: Because of the legal weight the Habitats Directive carries, and because of the difficulty and expense of its Article 6(4) requirements, we recommend that AA should begin early in the plan-making process and influence the development of your plan as it emerges. The aim should be to influence the development and appraisal of plan options, to help choose options that do not have an adverse effect on site integrity. Only undertaking AA on a fully drafted plan will mean you have limited room for manoeuvre and this is not advised.

3 STAGE 1: SCREENING

STAGE 1: SCREENING

3.1 Introduction

3.1.1 The screening stage identifies whether a plan - either alone or in combination with other plans or projects - is likely to have a significant impact on a European site. European Commission (2001) guidance recommends that this stage should comprise:

1. determining whether the plan is directly connected with or necessary to the management of the site – if it is, then no further assessment is necessary;
2. describing the plan and other plans and projects that, ‘in combination’, have the potential to have significant effects on a European site;
3. identifying the potential effects on the European site; and
4. assessing the significance of any effects on the European site.

3.1.2 The **precautionary principle** should be used in making these determinations. If significant effects are likely to occur, then Stage 2 AA is required.

3.1.3 Given the uncertainties inherent in plan making (i.e. whether or not a plan will ultimately impact on a site) and the need for a precautionary approach, this paper recommends a two-stage screening process:

- **Stage 1 – Screening** (*this section*): a first round analysis which determines whether a plan can be clearly said not to require AA (if not, then the assumption is that it will). This stage also involves compiling a ‘long list’ of European sites for later analysis which may or may not ultimately be impacted upon by the plan.
- **Stage 2 – Appropriate Assessment** (*next section*): armed with the information above, a second, more iterative analysis based on a more detailed baseline which involves screening out sites from the long list as the plan becomes progressively more detailed and its impacts become clearer.

In practice, it may be difficult to distinguish between these two stages; Stages 2A – 2D in the AA process could be considered as part of either Stage 1 or Stage 2.

3.2 What plans require Appropriate Assessment?

3.2.1 The Habitats Directive refers to “*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon*” (Article 6(3)).

- 3.2.2 DEFRA's draft amendments to the Habitats Regulations require AA for Regional Spatial Strategies (RSSs), Local Development Documents (LDDs), and alterations or replacement of 'old style' plans. Waste and minerals development frameworks are included in this list. The Environment Agency and DEFRA are making Shoreline Management Plans and Catchment Flood Management Plans subject to AA, and the Environment Agency has already carried out 'shadow AAs' on several of its plans.
- 3.2.3 We suspect that this list of plans that are assumed to require AA may grow in time, in part because the Habitats Directive refers to 'plans', not just land use plans. Case law (see below) suggests that the ECJ has taken a broad approach to the definition of plans and projects. This paper focuses on land use plans, but its principles are equally applicable to the assessment of other plans.

Case law – broad definition of plans and projects

In a case concerning licensing of cockle fishing, the ECJ stated that although 'plan' and 'project' are not defined in the Habitats Directive, 'project' had been defined in the 1986 Directive on Environmental Impact Assessment as 'the execution of construction works or of other installations or schemes; other interventions in the natural surrounding and landscape including those involving the extraction of mineral resources' and that this was 'relevant in defining the concept of plan or project as provided for in the Habitats Directive'. In this case, the licensing of cockle fishing was held to constitute such a project. This ruling confirms the line taken by the High court in the earlier 'ghost ships' case. This case concerned the waste management licence modification granted by the Environment Agency for the dismantling of former US naval ships in Hartlepool. Mr Justice Sullivan stated that the terms 'plan or project' were not defined and should be given a wide interpretation. In the context of this case, this meant that both the granting and subsequent modification of a waste management licence could be a plan or project.

Landelijke Vereniging tot Behoud van de Waddenzee v Secretary of State for Agriculture, Nature Conservation and Fisheries (Case C-127/02) Conservation and Fisheries (Case C-127/02)

3.2.4 **Plans that do not require AA are:**

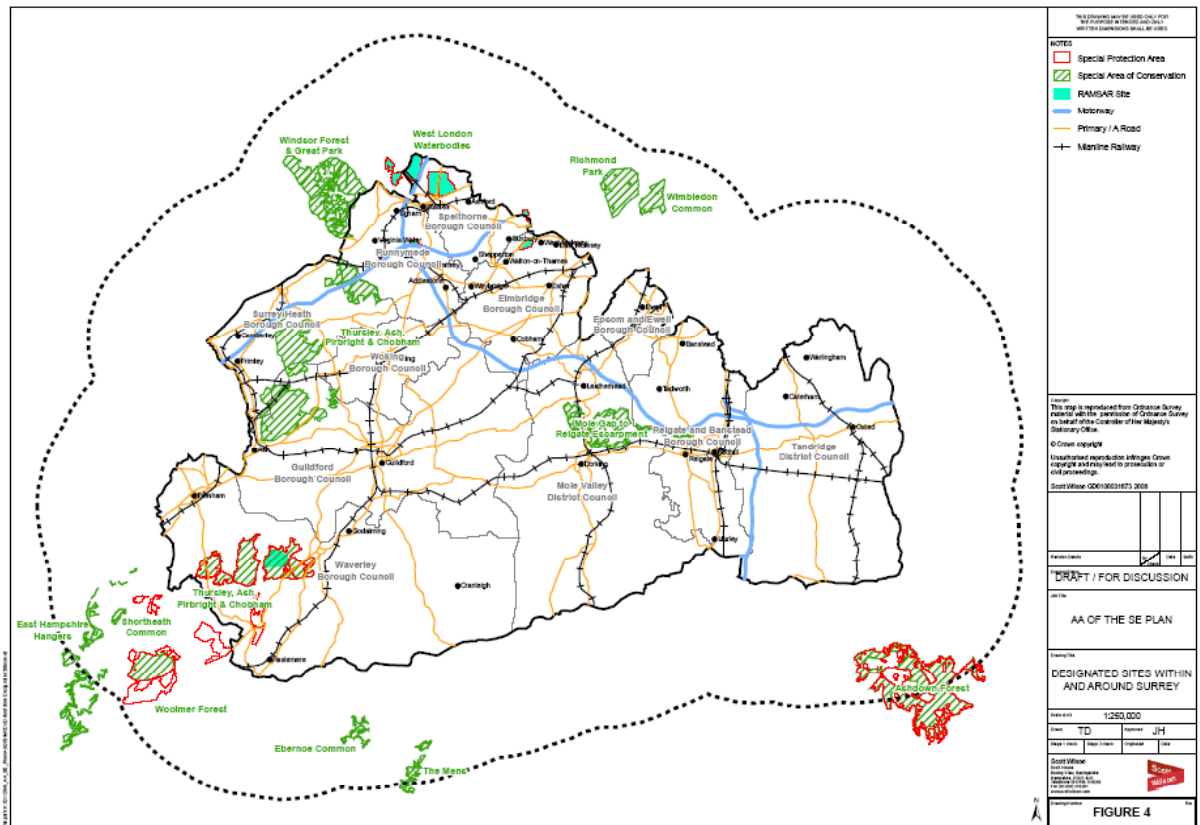
- Plans for the management of European sites;
- Plans that have only significant *positive* effects on European sites;
- Plans that clearly would not have a significant effect on European sites. Examples of such plans are:
 - Plans for areas (districts, regions, sites for development) that do not have European sites in or near their boundaries, and that do not affect more distant European sites: see Section 3.3;
 - Plans for activities that clearly have no effect on biodiversity, e.g. design statements, plans for disabled access etc.

- 3.2.5 Clear documentation should be provided as to why plans have been screened out. This should be agreed with authority lawyers and / or English Nature. A 'screening out' template can be found in the European Commission (2001) guidance – Figure 2.

3.3 What European sites should be considered in the AA?

- 3.3.1 European sites are Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). Planning Policy Statement 9 *Biodiversity and Geological Conservation* (PPS9) (ODPM, 2005) advises that proposed sites awaiting approval – potential SPAs (pSPAs) and candidate SACs (cSACs) - should be treated in the same way as those already classified and approved. Very few cSACs still await decisions regarding their designation as SACs. The location of all of these sites can be found at http://www.natureonthemap.org.uk/map.aspx?map=int_sites.
- 3.3.2 PPS9 also recommends that Ramsar sites should be afforded the same level of consideration as SPAs and SACs, in policy if not in law. To avoid potential challenge, Ramsar sites should thus also be subject to AA where relevant. Most Ramsar sites are also SPAs or SACs: for instance, in the South East region, out of more than 70 European sites, only one is a stand-alone Ramsar site.
- 3.3.3 All SPAs, (non-marine) SACs and Ramsar sites overlap to some degree with Sites of Special Scientific Interest (SSSIs). AA relates specifically and exclusively to the qualifying interests of European sites and not to the broader conservation interests or requirements under other SSSIs. However, the latter should be factored into plan-making as part of the SEA / SA process and the planning authority's duty under section 28G of the Wildlife and Countryside Act 1981 to conserve and enhance SSSIs in carrying out their functions.
- 3.3.4 Stage 2 AA will involve analysing the likely effects of the plan on European sites. At Stage 1, a 'long list' of sites that have the potential to be affected by the plan should be compiled. This can be done by following three broad rules of thumb:
- If the site falls within the boundary of the authority, then include it.
 - If the site is in another (adjacent or more distant) authority, then English Nature, the Environment Agency and / or the neighbouring authority should be consulted to determine whether the site should be included. Some authorities have used buffer zones to help identify sites outside the authority: they include all sites within 10 or 15km of their authority boundary (see Figure 4 for an example of this idea). However a plan could affect European sites well outside an authority's boundaries. For instance the water supply for a local authority could be provided by a distant reservoir that is also designated as a European site. If the demand for water were to increase – say as a result of new housing development – the European site could be subject to adverse impacts as pressures on the reservoir increased. As such, a review should be carried out to identify all sites that could possibly be affected, and consultation with other organisations can help to confirm whether all relevant sites have been included.
 - In case of doubt, the European Commission's (2001) guidance should be consulted and / or a formal screening opinion should be requested from English Nature.
- 3.3.5 In Stage 2 AA, some (or all) sites in this 'long list' of sites may be removed from the list, as more information on the plan's potential effects on the site(s) becomes available and it is possible to demonstrate that no adverse impact would occur.

Figure 4: GIS site screening map with buffer zone



4 STAGE 2: APPROPRIATE ASSESSMENT

4.1 Introduction

4.1.1 The AA stage considers the impact on the integrity of the European site(s) of the plan, alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Where there are adverse impacts, this stage also involves proposing and assessing potential mitigation measures to alleviate the impacts. This stage consists of six sub-stages or tasks (see Figure 3):

1. **Stage 2A** – analyse the site(s) and the reasons for its designation, and the underlying trends affecting it.
2. **Stage 2B** – analyse the plan, including its key components and how it would be implemented in practice.
3. **Stage 2C** - analyse other plans and projects that could contribute to 'in combination' effects.
4. **Stage 2D** - analyse how the plan – in combination with other plans and projects - and the site will 'interact' come plan implementation, i.e. Appropriate Assessment.
5. **Stage 2E** – where applicable, propose and assess mitigation measures for addressing adverse effects.
6. **Stage 2F** – prepare an Appropriate Assessment Report for consultation with key stakeholders including English Nature.

Note: Stage 2D can be seen as a further iteration of Stage 1 – screening – only this time armed with more baseline information about the sites in question, the nature of the plan and the plan's potential impacts.

4.1.2 This section sets out a methodology for carrying out these Stages. As noted in Section 2, ***we strongly recommend that plan authors aim to write their plan so that impacts on European sites are avoided.***

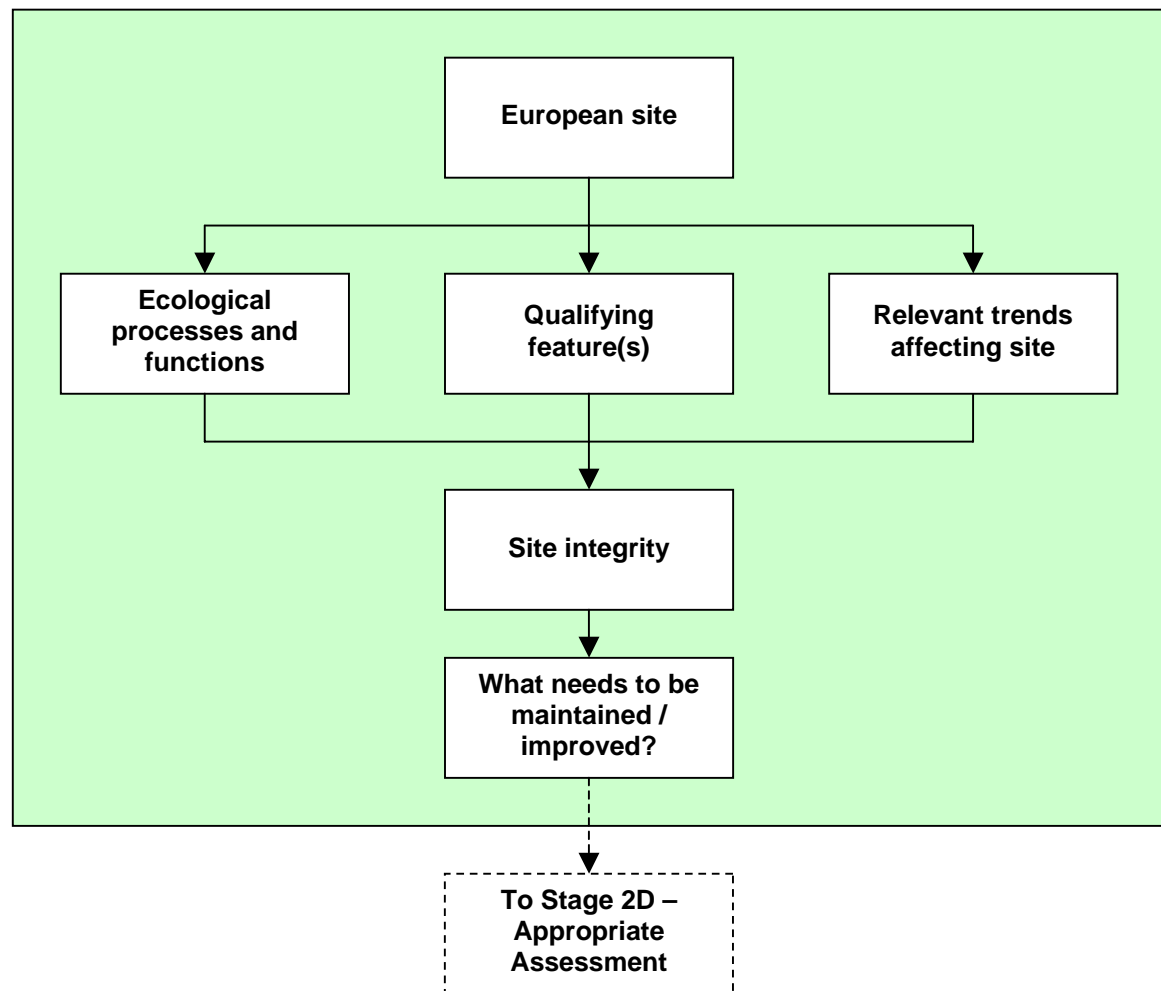
Tip: We recommend a site-based, bottom up approach to AA. Focusing first on features of interest and the integrity of European sites, rather than elements of the plan, helps to fulfil the spirit of the Habitats Directive (and its particularly its focus on site conservation objectives and individual sites' integrity), as well as making the AA process easier to understand.

Tip: Like the SEA / SA scoping process, much of the background AA information only needs to be collected once, and can serve as a basis for later plan, or indeed project, AA, provided it is updated as circumstances change.

4.2 STAGE 2A: SITE AND TREND ANALYSIS

4.2.1 This stage involves determining why the site(s) identified in Stage 1 ('the long list') were designated, what factors support their 'integrity', and what trends affect them – see Figure 5. In a parallel SA / AA, this information gathering would form part of Stage A2 (baseline data) of the SA.

Figure 5: Stage 2A 'site and trend analysis'



Determining reasons for designation

4.2.2 The significance of a plan's effects on a European site depends on whether the site's "integrity" is affected. Article 6(3) of the Habitats Directive requires that: *"the competent national authorities shall agree to the plan... only after having ascertained that it will not adversely affect the **integrity of the site** concerned..."*

4.2.3 'Integrity' is, in turn, defined by the European Commission (2000) as relating to the reasons for the site's designation:

*“The integrity of a site is the coherence of the site’s ecological structure and function, across its whole area, or the habitats, complex of habitats and / or populations of species **for which the site is or will be classified**” (Sec. 4.6.3).*

4.2.4 As such, a key stage in the AA process is identifying why a European site was designated. The following information should thus be collated, where possible, for each relevant European site:

- **Qualifying interest features:** These are the reasons why the European site has been designated, for instance the endangered species that occupy the SAC; rare habitats that occur there; or threatened birds that breed or over-winter in the SPA. The AA focuses on the qualifying interest features that were the primary reasons for the site’s designation.
- **The site’s conservation objectives:** These help to focus the assessment. Conservation objectives are a statement of the overall nature conservation requirements for a site, expressed in terms of the favourable condition required for the habitats and / or species for which the site was selected. English Nature does not yet have agreed conservation objectives for all SPAs or Ramsar sites; it has agreed conservation objectives for many SACs, although none of these are yet available on the Internet.
- **The Favourable Condition Table for the site:** Although these tables are designed primarily for monitoring the state of a site, they give information on the trends and environmental conditions required to sustain or promote qualifying interest features and site integrity. However, they should be treated with caution, as favourable conditions as assessed for SSSIs may have little bearing on the conservation status of the features for which a site has been designated.

4.2.5 English Nature is the key source for most of this information. A considerable amount can be extracted from the Internet: as a starting point, www.jncc.gov.uk provides information on European sites and their interest features; and www.natureonthemap.org.uk shows the boundaries of the site and links from this website provide additional information on why sites have been designated and proposals for site management. Other useful sources of data include the RSPB, Wildlife Trusts, Herpetological Conservation Trust, Bat Conservation Trust, Plantlife, site conservators (e.g. for Ashdown and Epping Forests) and local biological records centres. However scientific experience and consultation with the relevant English Nature (and other devolved administrations agencies) area team(s) remain key to defining these conditions.

Determining factors that support integrity

4.2.6 The information in para. 4.2.4 will help to determine what factors are key to the integrity of a site. The EC (2000) guidance states, “a site can be described as having a high degree of integrity where the inherent potential for meeting site conservation objectives is realised, the capacity for self repair and self renewal under dynamic conditions is maintained, and a minimum of external management support is required”. Some habitats already require heavy management to maintain their site integrity, e.g. through drainage or periodic burning.

4.2.7 The integrity of a site relies on the maintenance of an environment which will sustain its qualifying features and ensure their continuing viability. Legally the focus of AA is on the site’s qualifying features and associated conservation objectives, but these

rely fundamentally on ecological processes and functions⁸ for their maintenance in a favourable condition, and cannot be appraised in isolation from them. Essential to the maintenance of interest features and the integrity of the site are those environmental conditions which enable key ecological processes and functions to persist. These might include the quantity of water reaching a site, the quality of air, the stability of the climate, or a low level of disturbance.

What needs to be maintained / improved?

4.2.8 The conclusion of Stage 2A should be a list of environmental features that are considered essential to maintain (and possibly restore) the integrity of the site(s) in question. Table 3 suggests a way of documenting these. The conservation objectives for each site (and any associated Favourable Condition Tables) are also part of the key documentation that should be included in the final report (but are best placed in an Appendix).

4.2.9 If a plan affects many European sites, it may be worthwhile identifying the cross-cutting issues that affect multiple sites. This may help to facilitate assessment (Stage 2D) and mitigation (Stage 2E). Table 4 shows how cross-cutting issues could be documented.

Table 3: Documenting the site analysis

Site	Qualifying features	Comments on nature conservation importance	Key environmental conditions to support site integrity
SAC1	Asperulo-Fagetum beech forests	A distinctive feature in the woodland flora is the occurrence of populations of the rare coralroot and the presence of lichens	<ul style="list-style-type: none"> - Minimal atmospheric pollution - Managed recreational pressure on forest and nearby dry calcareous grasslands - Steady climate, lack of drought
SAC2	Wet heathland	Important site for invertebrates	<ul style="list-style-type: none"> - Traditional management, including grazing, bracken control and scrub clearance - Water levels / table - Managed recreational pressure, particularly trampling but also fires, fly tipping etc. - Minimal atmospheric pollution
SPA1	Nationally important wintering populations of gadwall and northern shoveler		<ul style="list-style-type: none"> - Lack of disturbance during winter months (October to March)

⁸ EC guidance (2000) on Article 6 of the Directive, indicates that the ecological functions / requirements of a site “involve all the ecological needs of abiotic and biotic factors necessary to ensure the favourable conservation status of the habitat types and species, including their relations with the environment (air, water, soil, vegetation, etc.)”

Table 4: Documenting cross-cutting issues

Site	Cross-cutting issues			
	Atmospheric pollution	Water levels	Recreational pressure	...
SAC1	X		X	
SAC2	X	X	X	
SPA1			X	
...				

Analysis of trends

- 4.2.10 Even where a plan on its own may not have a significant impact on a European site, it may have a significant ‘in combination’ impact with other trends, plans and projects. A plan may have only a small additional impact, but this could be the ‘straw that breaks the camel’s back’. Other plans and projects are discussed at later as part of Stage 2C. However, trends should be considered at this stage: if the plan plus existing trends alone are unlikely to significantly affect a site, then the effects of other plans and projects do not need to be considered.
- 4.2.11 Trends – direct and indirect – that could affect a European site include, for instance, increasing NO_x emissions from vehicles, declining water levels due to climate change and over-abstraction, increasing urbanisation of an area leading to increased NO_x emissions and water consumption. They also include those factors that have led to the current state of the site and which may or may not be continuing e.g. scrub encroachment on a heathland site. Trends relating to climate change may be a particularly important consideration – see Box 2.
- 4.2.12 The SEA Directive requires a discussion of “the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan” (Annex I(b)). As such, it already requires a form of trend analysis. In a parallel SA and AA, this stage would form part of Stage A2 (future conditions without the plan)⁹.

⁹ Although the Habitats Directive does not make reference to the consideration of underlying trends, the Joint Nature Conservation Committee has indicated that AA should address these (Wyn Jones, JNCC, personal communication, 14/06/2006).

Box 2: Consideration of climate change

There is now a strong consensus within the scientific community that climate change caused through human activities is having an impact on the weather, water resources and global sea levels. Future changes may include an increase in average annual temperature, higher maximum temperatures, sea level rise, alterations in summer and winter precipitation, more heat waves, fewer frost days, and increased flood events.

As a consequence of climatic change and associated effects, habitats across the globe are expected to experience impacts such as coastal squeeze (whereby rising sea levels and existing infrastructure prohibit the natural landward migration of habitats such as saltmarsh); shifting habitats as temperature and humidity levels change; and the invasion of non-native species. Plan authors should therefore consider impacts on European sites in the context of current conditions and also anticipated conditions resulting from future climate change.

Climate research is being carried out at global, European and national levels, and although uncertainties exist, predictions for future climate change scenarios are available and information is likely to become more abundant, reliable and detailed over the coming years. *“Whilst uncertainties remain, there is sufficient evidence to suggest that action needs to be taken to protect and maintain biodiversity from climate change impacts by enabling species to move to new habitats or by increasing the resilience of habitats and networks of habitats”* (English Nature, 2006).

In order to secure the long-term presence and stability of the Natura 2000 sites and network, climate change should be a key consideration in the application of AA. The AA may achieve this through:

- consideration of current and expected trends under climate change;
- identification of potentially direct, indirect and induced impacts of plans on biodiversity taking into account future climate change;
- consideration of whether the proposed plan will hinder the potential of the habitats / species in question to adapt to climate change;
- consideration of the maintenance of green corridors / patches / matrices / buffer zones to enable the movement of species and habitats as a result of climate change; and
- consultation with statutory agencies to identify and consider future plans for site management to adapt to climate change.

During the AA process consideration should be given to whether the plan does in any way inhibit the potential of species and habitats to adapt to climate change.

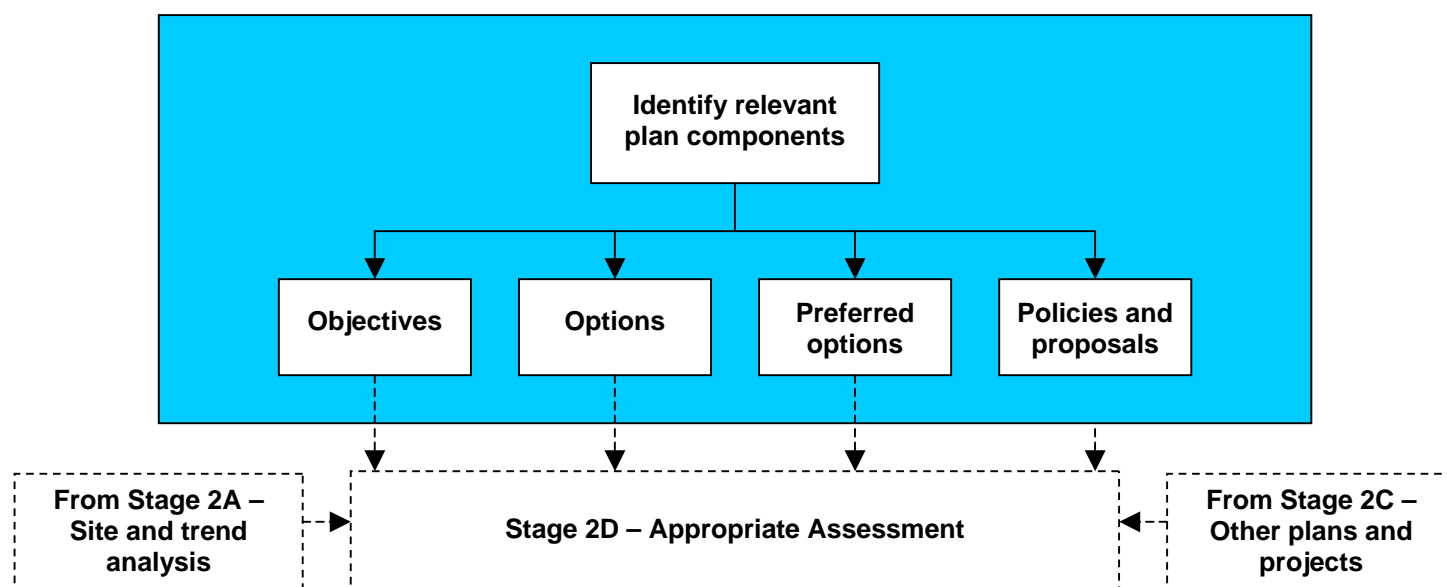
For further information see:

- English Nature (2006) *English Nature Research Report 677: Spatial planning for biodiversity in our changing climate*. English Nature (report by Oxford Institute for Sustainable Development)
- ODPM (2004) *The Planning Response to Climate Change: Advice on Better Practice*
- The UK climate impacts programme (UKCIP) (www.ukcip.org.uk)
- Levett-Therivel Sustainability Consultants, UKCIP, Environment Agency, Environmental Change Institute, CAG Consultants, Countryside Council for Wales & English Nature (2004) *Strategic Environmental Assessment and Climate Change: Guidance for Practitioners*.
- Levett-Therivel Sustainability Consultants, Oxford Brookes University, RSPB, Countryside Council for Wales, English Nature and Environment Agency (2004) *Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners*

4.3 STAGE 2B: PLAN ANALYSIS

- 4.3.1 The aim of Stage 2B is to determine the components of the plan in question that may affect the key environmental conditions that need to be maintained or improved in order to preserve the integrity of European sites. A plan's components may include:
- **Objectives** – the plan's aspirations
 - **Options** – the choices open to the plan authors for achieving the plan objectives
 - **Preferred options** – the chosen options which provide the plan's foundations
 - **Detailed policies and proposals** – the preferred options expressed in detail through plan policies and proposals
- 4.3.2 These components should, at least in theory, be developed on a sequential basis. Objectives should be developed first, followed by options for achieving these. Preferred options should then be selected and detailed policies and proposals developed. AA should therefore also be undertaken on a sequential (iterative) basis; the plan's objectives, options, preferred options and policies and proposals should be assessed to determine their impact on the integrity of relevant European sites. If the assessment undertaken late in the plan-making process (e.g. once the preferred options have been selected), there is a risk that the plan will be deemed to have an adverse effect on the integrity of a European site(s) and this could lead to plan authors having to revisit or reconfigure options thus delaying plan adoption.
- 4.3.3 At this point in the process, the plan components (objectives, options etc.) can either be assessed in relation to the integrity of European sites in *isolation* or *in combination* with other plans and projects once the latter have been identified and analysed. In practice it is probably most efficient to first appraise the plan components in isolation and, if potential adverse impacts are identified, follow this up with an 'in combination' assessment.

Figure 6: Stage 2B 'Plan analysis'



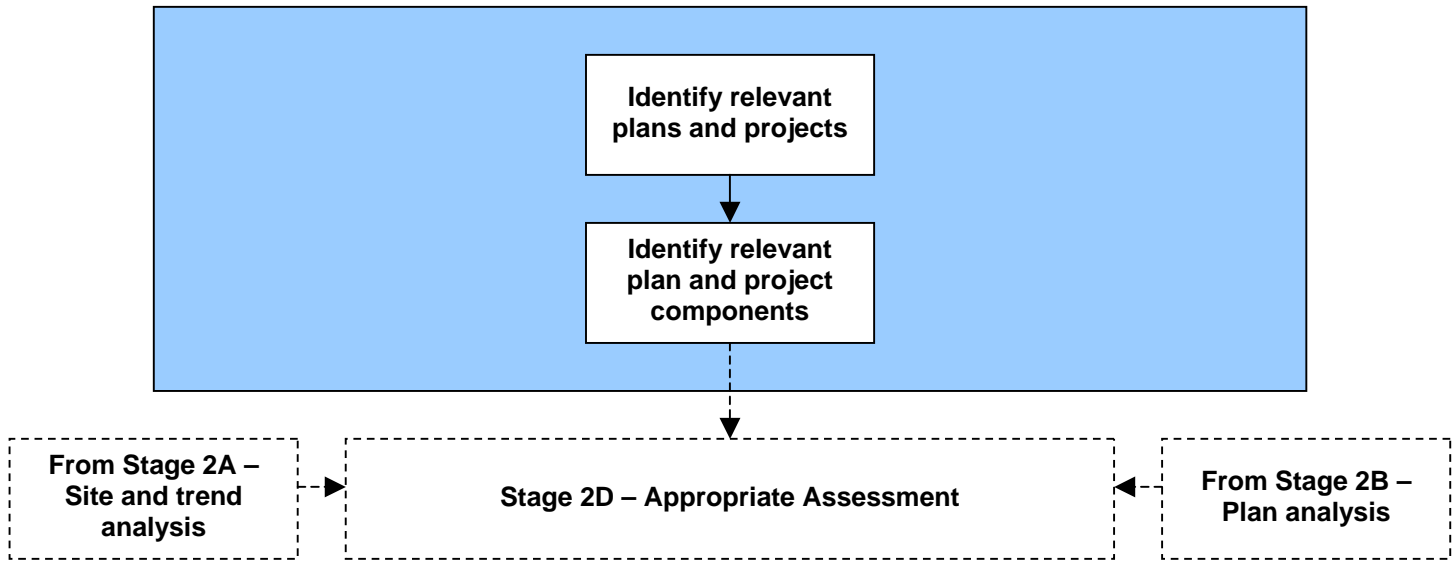
4.4 STAGE 2C: OTHER PLANS AND PROJECTS

- 4.4.1 Article 6(3) of the Habitats Directive requires that “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or **in combination with other plans or projects**, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives”.
- 4.4.2 Unless the plan and existing trends have only a ‘de minimis’ impact on site integrity, the ‘in combination’ test will need to be undertaken. This involves assessing the impacts arising from the combination of the relevant plan components, existing trends, and other plans and projects on the integrity of the relevant European sites.
- 4.4.3 Stage 2C involves identifying and analysing other relevant plans and projects. Relevant plans might include, for example, Minerals and Waste Development Framework and Local Transport Plans as well as less obvious initiatives such as the Government’s White Paper on air transport. Plans that are incomplete or in draft at the time of the assessment may also need to be considered. Projects could include projects that have been given consent but which are not yet completed; projects that are subject to applications for consent; and ongoing projects subject to regulatory review, such as discharge consents or waste management licenses (Countryside Council for Wales, 2006). Projects include ‘the execution of construction work’. They may also involve the intensification of use even if this does not involve new development (e.g. the increased use of an airport runway). Development control officers should be consulted over what planning applications / permissions to include under the ‘project’ umbrella.
- 4.4.4 Relevant plans and projects will need to be analysed in order to identify their relevant components. For example, a Local Transport Plan may include one major scheme of relevance while a Waste Development Framework may include one or

two site allocations considered relevant. If other plans are in preparation at the time of the assessment, the relevant plan components could include options.

4.4.5 Under the SEA Directive, plan and programme proponents must identify and review other relevant plans and programmes (A1 in the SEA / SA process) and this provides an opportunity to also identify plans and projects relevant for the in combination test.

Figure 7: Stage 2C 'Other plans and projects'



4.5 STAGE 2D: APPROPRIATE ASSESSMENT

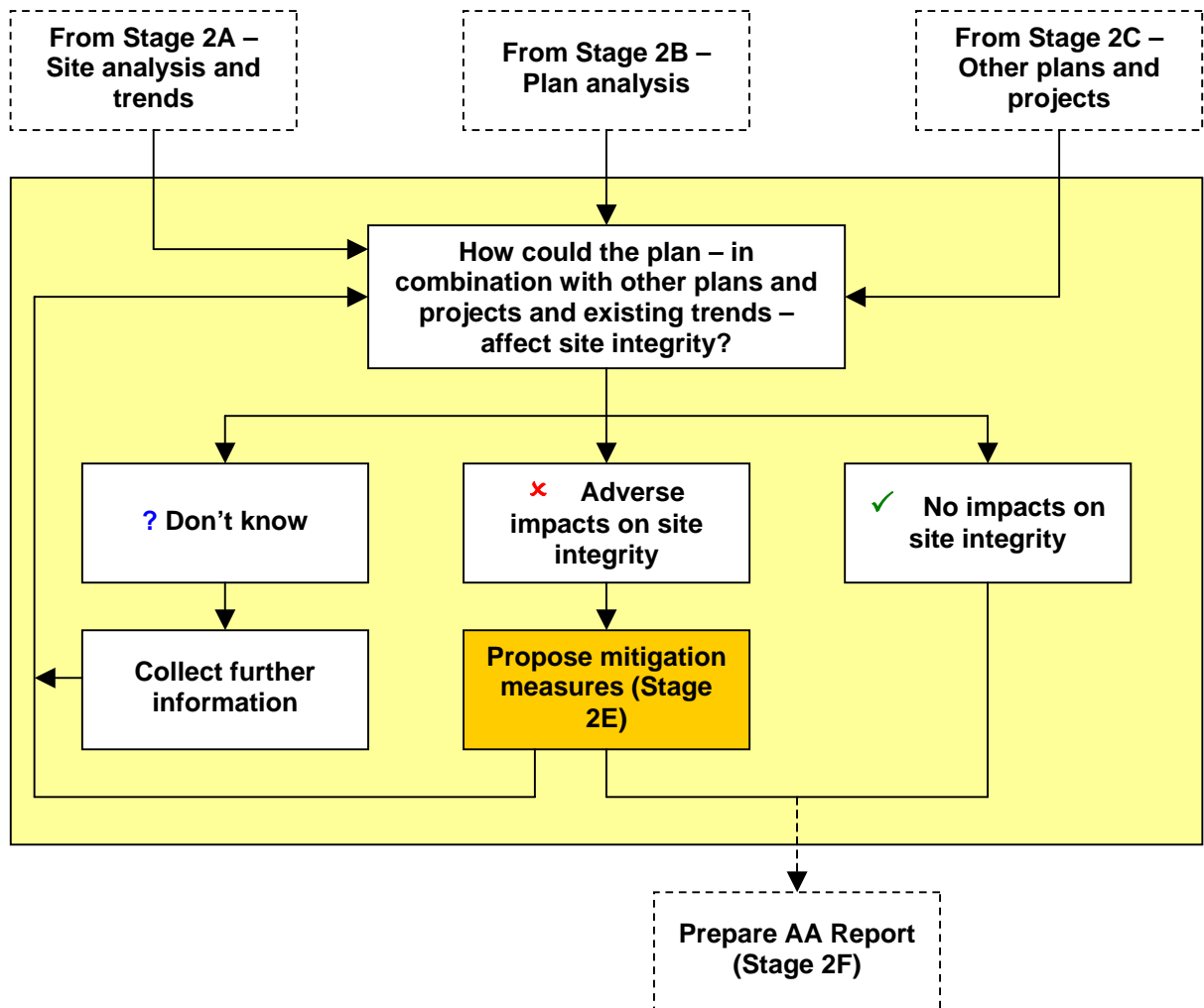
Introduction

4.5.1 At this point in the process, those responsible for undertaking AA should have a good understanding of:

- the site(s) in question including the factors necessary to ensure its integrity as well as the underlying trends affecting it (**Stage 2A**);
- the plan and its relevant components (**Stage 2B**); and
- the other plans and projects that could affect site integrity (in combination with the plan) (**Stage 2C**).

4.5.2 Stage 2D involves assessing the impacts of the plan – in combination with other plans and projects and taking into account existing trends – on the integrity of relevant European sites. The result of this stage should be a statement, for each European site, of whether the plan – 'in combination' with other plans and projects – is likely to have an impact on site integrity or not – see Figure 8.

Figure 8: Stage 2D 'Appropriate Assessment'



Sources, pathways and receivers

4.5.3 Undertaking Stage 2D typically involves considering whether there is a **pathway** between the plan (the impact **source**) and the European site's interest features (the **receiver**). This could involve the collection of further evidence. Table 5 shows some examples of source, pathway and receiver as well as the evidence that may be needed to show links (or not) between source and receiver.

Table 5: Examples of sources, pathways and receivers

AA assessment question	Source	Pathway	Possible impact on receiver	Evidence that could be collected to help determine the plan's 'in combination' effects
Whether Rutherford District Council's Core Strategy is likely to have an 'in combination' air pollution effect on lichens which are an interest feature at SAC1	The Core Strategy Preferred Options proposes 1000 new homes at location X. X and Y are connected by route A99 which bisects SAC1. X is a commuter suburb of Y.	New residents of X travel to and from Y on the A99, increasing roadside air pollution	Increased air pollution negatively affects the beech trees within 200m of the road	<ul style="list-style-type: none"> Existing traffic levels on the A99 Existing air quality at SAC1 Current travel patterns of residents of X and Y Main mode of travel of residents at X and Y Sensitivity of beech trees at SAC1 to air pollution Distance over which air pollution from roads disperses
Whether the South Central region's RSS is likely to have an 'in combination' recreational / trampling effect on wet heathland, which is an interest feature at SAC2	The draft RSS proposes 12,000 new homes within 15km of SAC2, plus a major employment site 2km from the SAC	The new residents visit SAC1 to walk their dogs etc. People from the new employment site may also visit the SAC for recreation	Heathland gets trampled, particularly near the parking lots and on routes to the major viewpoints	<ul style="list-style-type: none"> Current levels of trampling at the SAC Surveys of current visitor numbers at the SAC including where they come from, how they get there, and what they do when they are at the site Location of other recreation areas within 15km of SAC2

Source: the plan

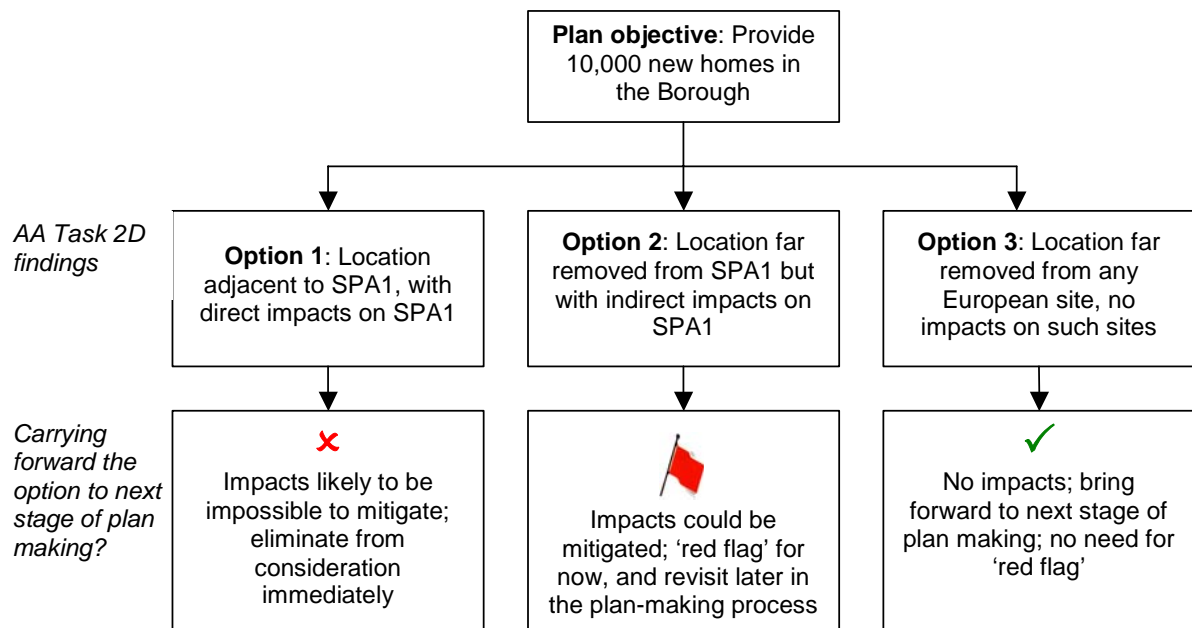
4.5.4 AA should ideally be undertaken on an iterative basis as the various plan components emerge (objectives → options → preferred options → detailed policies and proposals). As the plan develops and becomes progressively more detailed, so the AA will be able to assess impacts in greater depth and with a greater degree of certainty. For instance it may not be possible when assessing options to completely rule out impacts on European sites and a further assessment at the preferred options stage will be necessary.

4.5.5 In preparing a plan, the first consideration will be the plan's **objectives** – what is the plan aspiring to achieve? These objectives might include the accommodation of new housing or new waste facilities, the preservation of valuable landscapes, or the promotion of public transport etc. At the outset of plan preparation, plan authors should broadly consider the impacts of these objectives on the European sites within the plan's zone of influence. For example, if the plan aims to accommodate a significant level of new housing or industry in area already deemed water stressed, and Stage 2A has identified European sites that depend on a certain level of water availability, then this can be flagged up early on. Possible responses might include

the re-wording or re-configuration of objectives or a re-examination of the plan's underlying drivers.

4.5.6 Following the development of plan objectives, the next logical step in the plan preparation process is the consideration of different **options** for achieving those objectives. For example, in order to accommodate 10,000 new homes, the plan authors might consider several options relating to their location (e.g. concentration in one or two key urban areas vs. a wider dispersal). The findings of an options appraisal can help plan authors decide which options to take forward to the preferred options stage – see Figure 9 for an example.

Figure 9: Taking forward different options?



4.5.7 Following the choice of options, plan authors will generate a series of **preferred options** which may be expressed as detailed **policies** and **proposals**. For example, a decision to locate 10,000 new homes in an urban area may translate into a detailed Core Strategy DPD policy and a series of site allocations in the urban area contained in a site-specific allocations DPD. These preferred options / policies / proposals can also be subject to AA. At this point, the plan will be at its most detailed and the impacts on European sites should be easier to determine than at the objectives and options stages.

4.5.8 Where detailed assessments of the plan's impacts is difficult – for instance for regional level plans or broad core strategies – it may be simpler to identify the main **driving forces** in the plan and explore the likely impacts of these on site integrity. Examples of driving forces could include housing or industrial development which will give rise to increased traffic levels or demand for open space.

Pathways

4.5.9 Much of the work for Stage 2D involves determining whether there is a pathway from the source (the plan) to the receiver (the European site). The pathway may be very simple, leading to a direct impact, or it may be more complex and lead to an indirect and / or induced impact – see Box 3. In the context of AA, it does not matter whether an impact is ‘direct’, ‘indirect’ or ‘induced’; the emphasis should be in the identification of any effect of the plan that might affect site integrity, regardless of the complexity of the impact pathway.

Box 3: Different impact dimensions – direct, indirect and induced

Direct impacts represent a straight route between an action or event and a resultant effect on the ecological interest feature.

Examples of direct impacts include:

- Development that removes habitat for which the site was designated
- The noise disturbance associated with the building and operation of a new road affecting the relative tranquillity required by a qualifying species

Indirect impacts do not arise directly from the plan but instead ‘occur away from the original effect or as a result of a complex pathway’ (ODPM, 2005). Indirect impacts are also referred to as secondary impacts or included within the term cumulative effects. As there is not a straight-line route between cause and effect it is potentially more challenging to ensure that all the possible indirect impacts of the plan – in combination with other plans and projects - have been established.

Examples of indirect impacts include:

- Development which alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying features which rely on the maintenance of water levels
- A noise disturbance in an area which causes a population to relocate and consequently affects the existing population of the receiving habitat

Induced impacts are secondary actions which may result from the actions set out in the plan, e.g. those impacts arising from development which promotes further development or change which, in turn, affects the integrity of European sites. These are non-ecological impacts in the first instance but will result in ecological impacts later in the pathway of effects.

Examples of induced effects include:

- The growth of a town increasing demand on transport infrastructure and making it viable to build a new road which could affect site integrity
- The building of a ring road around a town which may encourage ‘in filling’ with new homes between the existing town and the road and increase the size of the town with consequent impacts on site integrity

- 4.5.10 Pathways can differ for different scales and types of plans: it may be possible to show a pathway for a local plan but not a regional one or vice-versa. For instance, a regional strategy's housing numbers may not be shown to affect the integrity of a bat foraging area because there is no real impact pathway from one to the other. On the other hand, a local plan, which specifies where the housing should go, may have an effect since an impact pathway can be identified. Similarly, it may be difficult to identify a pathway from a local plan's housing allocations to diffuse air pollution's impacts on a site's lichens; but a regional strategy's housing numbers may allow for broad region-wide traffic impacts to be identified and air quality impacts to be modelled.
- 4.5.11 Methods for identifying and describing pathways between source and receiver include network analysis, GIS and modelling. IEEM (2006) provides further information. However, the use of such tools should never hide clear, logical analysis, nor prevent a transparent record of all decisions made.

Impact on the receiver

- 4.5.12 Recent guidance by the Institute of Ecology and Environmental Management (IEEM, 2006) explains how ecological impacts can be identified and evaluated – see: <http://www.ieem.org.uk/ecia/impact-assess.html>. When describing changes / activities and impacts on ecosystem structure and function, reference should be made to the magnitude, extent, duration, reversibility, timing and frequency of the expected impacts associated with the plan. This makes it possible to determine whether or not mitigation or the reversal of an adverse trend is likely to be possible.
- 4.5.13 A table such as Table 6 can provide a useful summary of the findings of Stage 2D and a basis for discussions with English Nature and other relevant stakeholders. Table 6 can be made progressively more certain and comprehensive as the plan evolves, to the point where it is possible to state whether the plan is likely to adversely affect a site's integrity or not.
- 4.5.14 Such a table could be presented alongside, or integrated into, an SA framework. One way to assess the implications of different options / preferred options could be to develop a series of AA criteria to sit alongside wider SA criteria – see Table 7 for an example. These criteria could be based on the site or site's stated conservation objectives. Matrices like this could also be designed to include space to address the potential 'in combination' effects of other plans and projects.

Table 6: Documenting the assessment

Site	Qualifying features	Key environmental conditions to support site integrity	Possible impacts from trends, other plans and projects	Possible impacts from the plan	Risk of an adverse effect on site integrity?
SAC1	Asperulo-Fagetum beech forests	<ul style="list-style-type: none"> Minimal atmospheric pollution Steady climate, lack of drought 	<ul style="list-style-type: none"> Widening of M99 (2010) Traffic on A11 increasing 2% per year Climate change 	Increased traffic from 1,000 houses proposed for borough, at site X	Yes – both in combination and in isolation
SAC2	Wet heathland	<ul style="list-style-type: none"> Traditional management Water levels Managed recreation pressure, particularly trampling Minimal atmospheric pollution 	<ul style="list-style-type: none"> No other plans or projects expected to affect water levels, air quality or management of site 	SAC2 is outside authority boundary but recreation pressure could be increased by proposed new housing	Possible – plan only
SPA1	Nationally important wintering populations of gadwall and northern shoveler	<ul style="list-style-type: none"> Lack of disturbance during winter months (October to March). 	<ul style="list-style-type: none"> Recreational pressures currently low 	None	Not from plan plus trends

Table 7: Integrating AA with an SA framework: hypothetical example for Thurrock Council (AA maintenance / improvement criteria shaded in light green)

Objective	Does the plan?	Option 1 Wind turbine development to the West of the Borough	Option 2 Wind turbine development to the North of the Borough	Option 3 Wind turbine development to the East of the Borough (off shore)
6. To protect and enhance Thurrock's biodiversity and geodiversity, including all designated sites. (SA process only)	6.1 Protect brownfield biodiversity?			
	6.2 Maintain and enhance BAP Habitats and species in line with Borough and National targets?			
	6.3 Restore the full range of characteristic habitats and species to viable levels?			
6(a). Ensure no significant negative effects on the Natura 2000 site(s) in the Borough. (SA and AA process)	6.4 Ensure migratory flyways for the Avocet remain clear?	Neutral	Neutral	- Offshore provision of renewables utilising windfarm technology may interfere with the flyways used for migration by avocets (a designated qualifying feature of the Borough's SPA)
	6.5 Ensure recreation pressure do not negatively impact on roosting activities of ground nesting birds?	-- Western part of borough already has considerable housing and under-provision of public open space. More housing is planned for the area. Significant recreational pressures likely.	- Northern part of borough consists of scattered villages with considerable proportion of open space (though not public). Limited additional housing is planned. Limited recreational pressures likely.	Neutral

4.5.15 To support summary tables such as Table 6, a further presentation of evidence will generally be needed. Box 4 provides an example based on Tables 3 – 5 and Box 5 provides an example adapted from a recent AA.

Box 4: Example of evidence to support impact summary table: air quality effects on lichens at SAC1

Nutrient enrichment of SAC1 could be caused by emissions of NO_x and ammonia. The Air Pollution Information System (www.apis.ac.uk) was used to identify SAC1's existing air pollution levels.

Pollutant	Critical load	Deposition	Is critical load already exceeded?
Ammonia	8	0.9	No
N deposition, kg N/ha/yr	10 – 15	32	Yes – significantly
NO _x , µg NO ₂ /m ³ annual mean	30	15	No

This suggests that N deposition is already significant, although NO_x (primarily from cars) is not; the difference could be due to nitrogen deposition arising from agricultural activities near to SAC1.

No information exists on how lichens at SAC1 respond to air pollution, but research from elsewhere suggests that lichens are highly sensitive to subtle changes in environmental conditions, especially air pollution.

Traffic monitoring on the A99 junction with X access road shows that 75% of traffic from X heads south towards Y and that roughly two car journeys per household are made each weekday. Buses run once an hour between X and Y, but carry relatively few passengers. Roughly 600 vehicles per hour travel past SAC1 on the A99.

Adding 1000 houses at X could lead to roughly 1500 additional journeys on the A99 on a typical weekday, increasing traffic levels by roughly 10%. In combination with high existing N deposition at SAC1, this is likely to have a significant adverse impact on the lichen.

Box 5: Example of evidence to support impact summary table: impact of Rutherford District Council Core Strategy on barbastelle bats at Greenwood SAC

Greenwood SAC is designated in part because of its barbastelle bat population. Rutherford District Council's boundaries are 2.5km from the SAC.

Barbastelle bats require minimal disturbance within 2km of their roosts. They can forage up to 20km from their roosts, but more typically venture around 6 - 8km. As such, the DPD is unlikely to affect the bats' roosting sites (because the boundary is too far away) but it could affect their foraging grounds.

Barbastelle bats' foraging routes radiate out from their roosting sites using a limited number of main routes, which split into major limbs and then into small branches (rather like a tree seen from above), each branch ending in a discrete individual foraging area. The main routes and limbs are typically shaded woodland tracks and overgrown hedges strung in a linear fashion. Often they follow watercourses.

"Woodland and hedgerow structure along flightlines is of more importance to barbastelles than the particular plant species. It is the degree of shade cast and the directness of the route that matters.... unbroken dense strips of mature woodland connecting down to water with continued wooded features is an ideal pattern of vegetation... Tree species producing a low spreading twiggy structure over a thick understorey will increase shade, but the bats do require a clear central trackway" (Greenaway, 2004).

As such, protection of the woodlands and hedges along the flightlines is essential to maintaining the bats' foraging routes. Unless the Core Strategy (or other parts of the LDF) clearly protects the bats' flightlines, it could have a significant impact.

References

- Greenaway, F. (2004) *Advice for the management of flightlines and foraging habitats of the barbastelle Bat *Barbastella barbastellus**, English Nature Research Report 657.
- Greenaway, F. and D. Hill (2004) *Woodland management advice for Bechstein's bat and barbastelle bat*, English Nature Research Report 658.
- Telephone conversation with...

The precautionary principle

4.5.16 The precautionary principle applies in all cases when judging the significance of adverse impacts. If information or evidence is lacking, then adverse effects should always be assumed. In other words, if the answer in Figure 8 continues to be 'don't know' after reasonable attempts have been made to find that information, then adverse impacts must be assumed and appropriate mitigation measures put in place.

Case law – precautionary approach

The onus is on the proponent to demonstrate that no significant adverse effects will occur. Assessment is required if there is a 'mere probability that such an effect' may be associated with the plan or project¹. Doubts as to whether a plan or project will have a significant effect on the site concerned do not preclude the requirement for an appropriate assessment².

An appeal made by Brunswick Homes Ltd against the decision of Hart District Council to refuse planning permission for two semi-detached dwellings was dismissed due to the cumulative effect of the development on a local SPA. The Inspectorate stated that, alone, the dwellings might not have a significant effect, but it could not be demonstrated, beyond doubt, that they would not have an adverse impact. The increased population from the development would place some additional burden on the nearby SPA. The Inspectorate followed the line of the deputy Judge in *Dibben Construction Ltd v Secretary of State for the Environment and the Borough of Test Valley* regarding cumulative effects and stated 'If permission is granted in breach of policy [regarding protection of wildlife] then other applications equally devoid of justification will follow and will be difficult to resist'.

The Planning Inspectorate dismissed the appeal of a developer against the Royal Borough of Windsor and Maidenhead Council for failure to give notice within the prescribed period of a decision on an application to grant outline planning permission. Outline planning permission had been sought for the demolition of a cottage and the development of 14 apartments. It was held that it could not be certain that 'the proposed development would not have a significant adverse effect on the SPA'. In this case, increased dog walking in the area was a particular concern due to the potential disturbance and adverse effect on the nightjar, woodlark and Dartford warbler. The Inspector stated that a restriction on dog walking on the SPA by residents would not in itself be sufficient to ensure no adverse effect, 'particularly as advice in paragraph 13 of Circular 06-2005 emphasises the need for a precautionary approach'.

Appeal Ref. APP/N1730/A/05/1188083, Appeal made by Brunswick Homes Ltd against Hart District Council, decision issued 8 December 2005

Appeal Ref. APP/TO355/A/05/1180162, Appeal made by Cala Homes (South) Ltd against The Royal Borough of Windsor and Maidenhead Council, decision issued 16 January 2006.

¹ *Landelijke Vereniging tot Behoud van de Waddenzee v Secretary of State for Agriculture, Nature Conservation and Fisheries* (Case C-127/02)

² *Commission v United Kingdom* (Case C-6/04)

Tiering and cross-cutting issues

- 4.5.17 The SEA Directive advocates the principle of 'tiering', whereby the SEA of a regional-level strategy should influence and inform the SEA of a local-level plan, which, in turn, should influence and inform the EIA of a related project:

"The environmental report... shall include the information that may reasonably be required taking into account... the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment"

(Article 5(2))

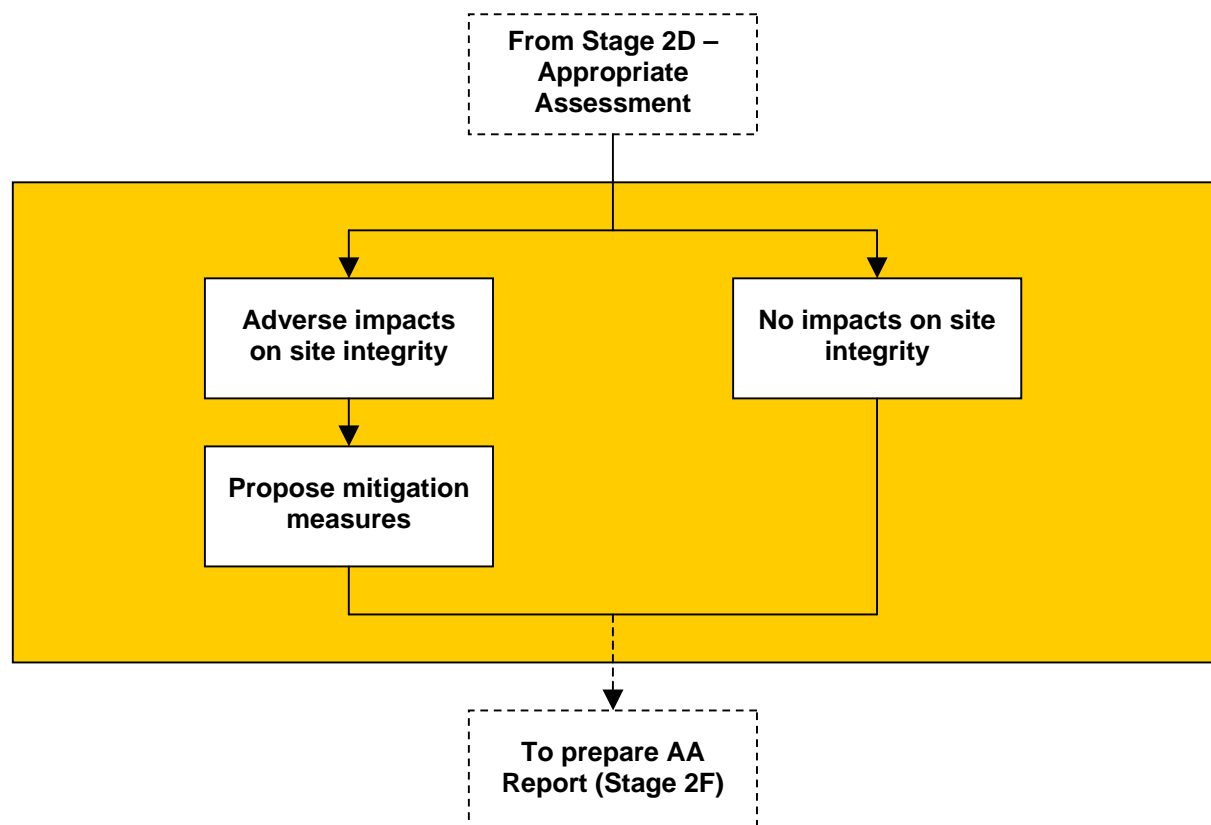
- 4.5.18 In theory, aspects of plan making and SEA undertaken at one level in the decision-making hierarchy do not necessarily need to be revisited at lower levels (thus potentially saving time and resources).

- 4.5.19 In contrast, the Habitats Directive does not explicitly advocate ‘tiering’. The wording of Article 6(3) - *“In the light of the conclusions of the [appropriate] assessment... the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned...”* - suggests that the assessment must be definitive in its conclusions regardless of the level in the decision-making hierarchy at which it is undertaken. This implies that aspects of the assessment cannot therefore be *deferred* to the project level. For example, if the AA of a regional plan indicates that potential impacts will arise, it is not sufficient to recommend that these be further investigated at the project level. For this reason, this guidance has been careful to advocate that any assessment undertaken at plan level should be definitive in terms of its conclusions and if it cannot be, then the precautionary principle must apply. It may be that, in consultation with English Nature and other wildlife bodies, a future consensus will emerge that the principal of tiering should apply to AA as well as SEA.
- 4.5.20 The issue of tiering raises the question of whether or not AA at the regional level – where impact identification will often be beset with uncertainty – necessitates a different approach. This guidance advocates a ‘bottom up’ approach to AA for plans which begins with an analysis of site characteristics and then asks how the components of the plan in question will impact on site integrity. An alternative approach might involve a more ‘top down’ emphasis beginning with an identification of the plan’s drivers and objectives and asking more generic questions as to how the plan might impact on European sites and conservation issues more generally. However, we feel that a site-based approach better reflects the requirements of the Habitats Directive and that developing a detailed evidence base of site characteristics will facilitate the identification of appropriate mitigation measures. In addition, the analysis of sites across a region will almost inevitably facilitate the identification of the wider issues and trends affecting sites – e.g. cross-cutting issues of air pollution, water stress and increased urbanisation.

4.6 STAGE 2E: MITIGATION MEASURES

4.6.1 Avoidance of impacts arising from the plan is best. Avoidance would typically be achieved through not proposing damaging activities / developments at all or moving proposed developments away from locations that could affect a European site to locations where they would not. If all adverse effects are clearly avoided, then this can be documented and consulted on – see Stage 2F. If adverse effects cannot be avoided with certainty, then mitigation measures will need to be developed – see Figure 10.

Figure 10: Stage 2E 'Mitigation measures'



4.6.2 Where avoidance is not possible, **mitigation measures** need to be considered. Mitigation will take a range of forms, depending on the European interest feature affected. It could include, for example:

- preventing certain activities within a given distance of a site or interest feature (e.g. towers that could pose a hazard to flying birds);
- allowing only certain activities (e.g. agriculture and forestry) within a given distance of a site or interest feature;
- requiring the preservation or management of environmental features (e.g. hedges and woodlands) within a given distance of a site or interest feature;
- requiring measures in new and / or existing developments to reduce water consumption etc.

- providing new recreational facilities to reduce recreational pressures on European sites (see Box 6); and
 - requiring project-level mitigation measures, such as those for the Pool Bridge Regeneration Initiative¹⁰.
- 4.6.3 It may be possible to devise generic mitigation measures that address cross-cutting issues that affect multiple sites. For instance, one RSS policy on water neutrality in new developments (i.e. water use post-development should not exceed water use pre-development) could deal with water abstraction impacts at various European sites in that region arising from housing provision.
- 4.6.4 ***Mitigation measures should, preferably, not simply shift responsibility for ameliorating the problem down to the project level***, as this could lead to a multiplicity of inconsistent measures, a more limited range of possible measures (i.e. project level rather than strategic level), and a more reactive approach to the problem. It is also not necessarily legal, as deferring mitigation to the project level would not allow a competent authority to necessarily conclude that the plan has no adverse effects. It also raises doubts as to whether the project would get consent as it may fail the Habitats Directive tests at the application stage. Mitigation measures should be agreed in discussion with English Nature.

Tip: The Habitats Directive says nothing about avoidance or mitigation being only within the boundaries of the competent authority; where avoidance / mitigation is not possible within the competent authority's area, solutions outside of that area should also be considered.

- 4.6.5 Mitigation measures should also be developed in line with the precautionary principle. European Commission guidance (2001) suggests that authorities should:
- List each of the measures to be introduced
 - Explain how the measures will avoid the adverse impacts on the site
 - Explain how the measures will reduce the adverse impacts on the site
 - Then, for each of the listed mitigation measures:
 - provide evidence of how they will be secured and implemented and by whom;
 - provide evidence of the degree of confidence in their likely success;
 - provide a timescale, relative to the project or plan, when they will be implemented;
 - provide evidence of how the measures will be monitored, and;
 - should mitigation failure be identified, how that failure will be rectified.

¹⁰ See: <http://www.boroughofpoole.com/filemanager/appropriateassessment1.pdf> and <http://www.boroughofpoole.com/servicetitles.asp?id=A02687E0704E4C&title=Appropriate+Assesment+Report>

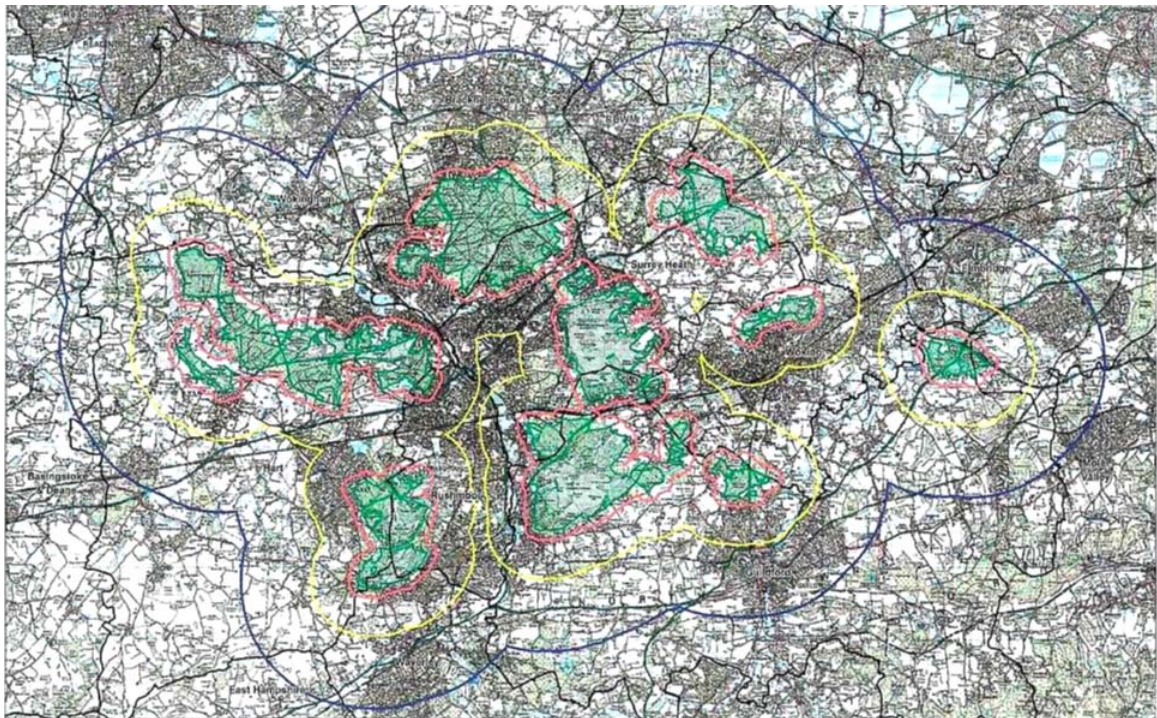
4.6.6 Table 8 provides an example of an analysis of the post-mitigation risks associated with a Core Strategy DPD.

Tip: Avoid going beyond this stage! Beyond this stage, you are getting into difficult, expensive, legal territory.

Box 6: Examples of mitigation measures: Thames Basin Heaths SPA

- Designated because of their heathland birds, which are very vulnerable to disturbance by recreational users, particularly dog walkers.
- English Nature has proposed the following avoidance measures for the Thames Basin Heaths SPA. If agreed, they would be incorporated into the SPDs of all eleven local authorities around the heaths (NB the latest draft adds four further authorities affected by the 5km buffer):
 - On site habitat management
 - On site access management
 - Planning restrictions combined with off site avoidance measures:
 - No housing within 400m of the Thames Basin Heaths SPA
 - For housing 400m-2km of the Thames Basin Heaths SPA, provision of new or improved open space at a minimum of 16 hectares per 1000 population
 - For housing 2-5 km from the Thames Basin Heaths SPA, provision of new or improved open space at a minimum of 8 hectares per 1000 population.
 - The new open space would aim to provide alternative recreational facilities to reduce recreational impacts on the Thames Basin Heaths. New sites would need to be easily accessible, local, allow dogs off leads, and provide a qualitatively similar experience to the Thames Basin Heaths.

Thames Basin Heaths buffer zones:



Sources:

- English Nature (2005) Thames Basin Heaths Special Protection Area: Mitigation standards for residential developments, draft.
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- The Independent (2nd May 2006) The birds that blocked 20,000 homes, The Independent accessible via: <http://news.independent.co.uk/environment/article361324.ece>
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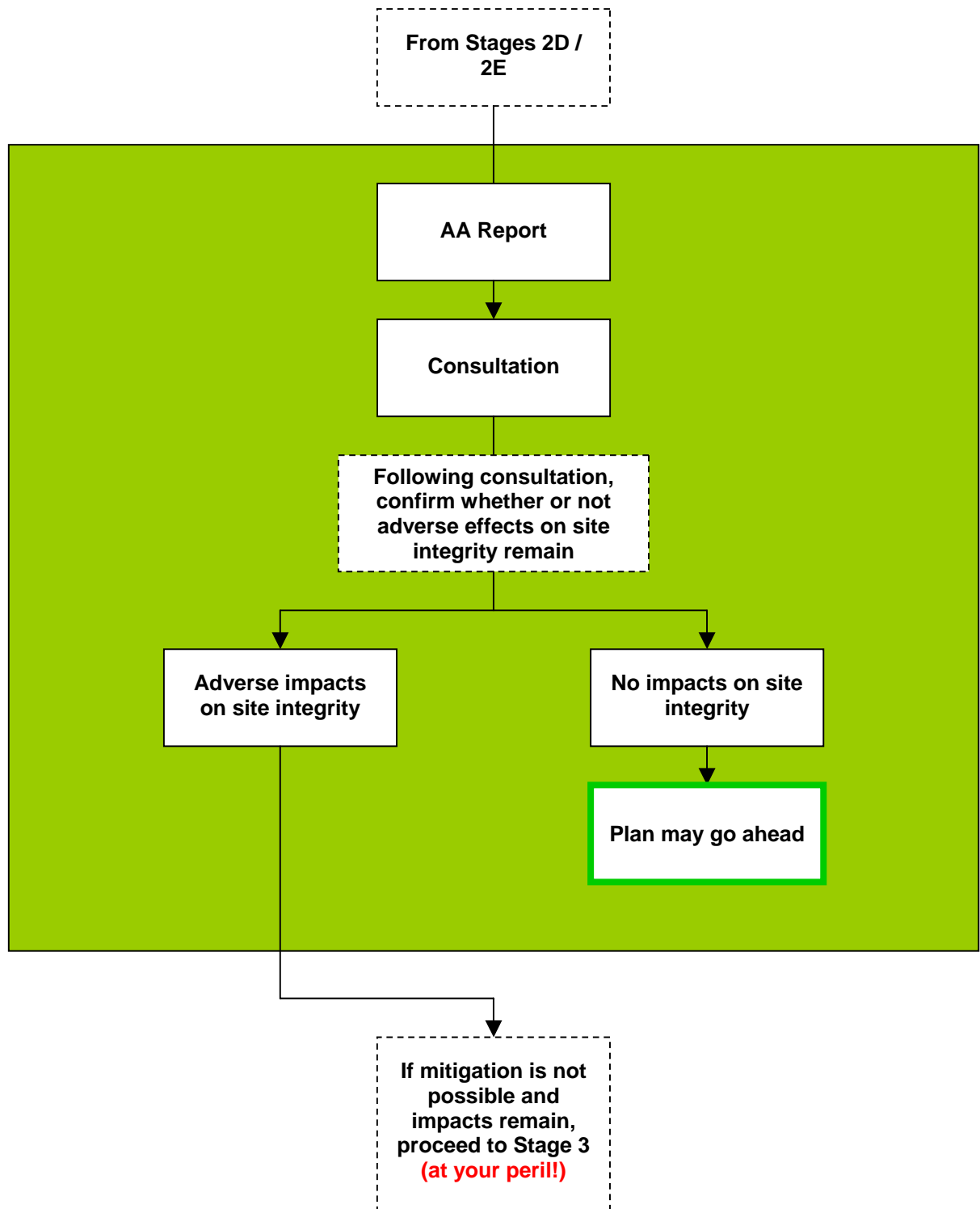
Table 8: Documenting post-mitigation risks to European sites

Site	Qualifying features	Key environmental conditions to support site integrity	Possible impacts arising from Core Strategy	Proposed mitigation	Remaining risk of a significant effect
Ravendale SPA	<ul style="list-style-type: none"> Used regularly by more than 1% of Great Britain's population of Annex I species Scott's swan Supports nationally important wintering population of 10,000+ waterfowl including Wilson swans The neutral wet grassland ditches support rich aquatic flora and invertebrate fauna 	<ol style="list-style-type: none"> Sympathetic management of lowland wet grassland / grazing marsh Management of the hydrology of the area, ensuring that winter flooding can continue Maintenance of good water quality 	<ol style="list-style-type: none"> – Development of 8,000 new dwellings in District X plus others in Districts Z and Y may result in increased water demand and lower water levels Increased Population Equivalent for sewage treatment works 	<ol style="list-style-type: none"> – Require new developments of any size to be 'water neutral': for every new development, total water use in the District after development must be less than or equal to total water use in the region before the development. For very small developments require BREEAM 'excellent' standards in relation to water Require pre-treatment of wastewater from new (and / or existing) developments that ultimately discharge into the River M, unless the Environment Agency agree that this is not necessary 	<ol style="list-style-type: none"> None Minimal Minimal
Haver SAC	<ul style="list-style-type: none"> Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer Barbastelle bats 	<ol style="list-style-type: none"> Minimal atmospheric pollution – may increase the susceptibility of beech trees to disease Barbastelle bats require protected roosts and foraging routes 	<ol style="list-style-type: none"> – Potential severance of flightlines between bat roosting and foraging sites 	<ol style="list-style-type: none"> – Any trees, hedges or water bodies shown on Map A should not be affected by development 	<ol style="list-style-type: none"> ? Minimal

4.7 STAGE 2F: AA REPORT

- 4.7.1 The 'appropriate assessment' proper is a **statement** which says whether the plan does, or does not, affect the integrity of a European site(s). It forms part of an AA report which sets out the reasons why the plan is undergoing AA (Stage 1 – Screening); the evidence base used to undertake the AA (Stages 2A – 2C); the AA findings (Stage 2D); and any mitigation measures proposed (Stage 2E).
- 4.7.2 The report is subject to consultation with English Nature and other relevant stakeholders. Remembering that AA is an iterative process, consultation could be undertaken at various points in the plan preparation process (e.g. at the issues and options and preferred options stages). Consultation on the AA could usefully be tied in with consultation on the SEA / SA process to minimise confusion among stakeholders and promote an integrated timetable for the different assessments.
- 4.7.3 A key aim of consultation will be to confirm whether or not those undertaking the AA are correct in their diagnosis that there will or will not be adverse effects on site integrity – see Figure 11. If, following consultation, adverse effects remain, the plan authors will need to proceed to Stage 3 - Article 6(4) of the Habitats Directive – and consider alternative solutions and their impacts on site integrity. If consultation confirms that there will be no adverse effects, the plan can proceed towards adoption (although any subsequent significant changes in plan content may necessitate undertaking further AA).

Figure 11: Stage 2F 'AA Report'



5 STAGE 3: ALTERNATIVE SOLUTIONS

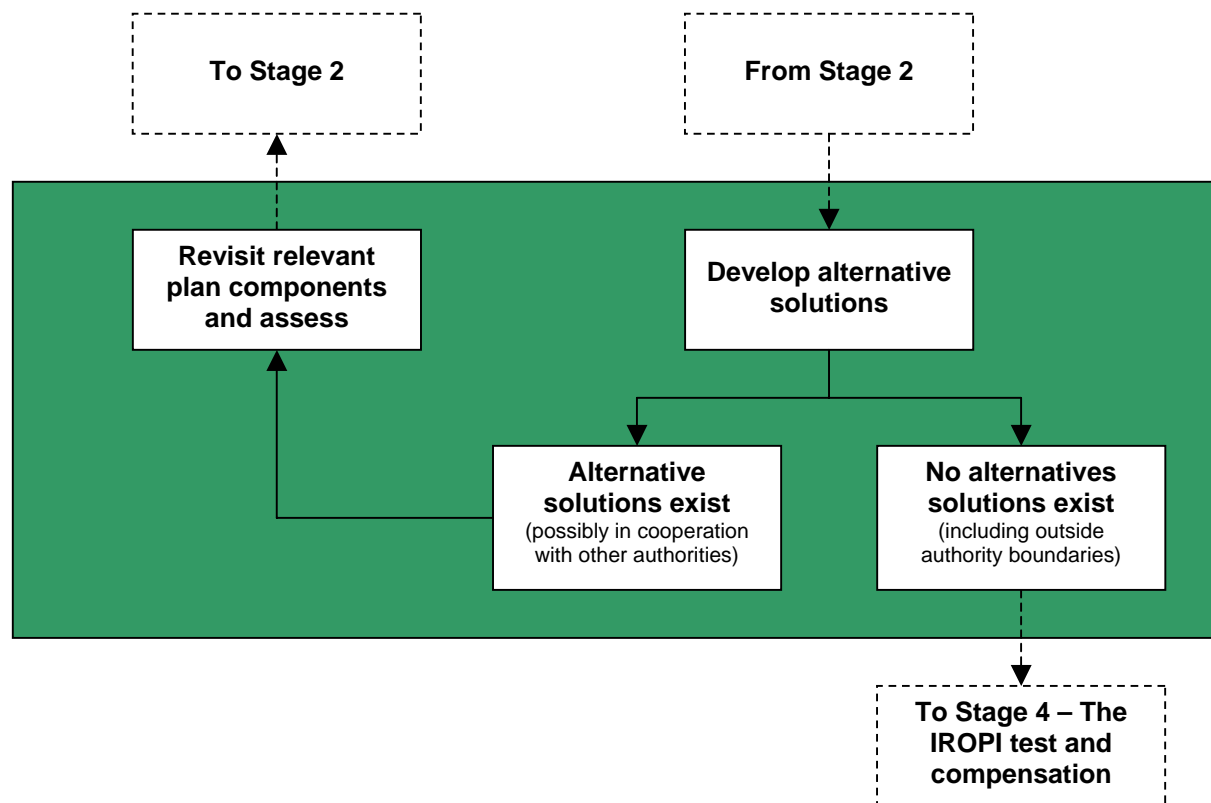
5.1 Introduction

- 5.1.1 This section considers the issue of alternative solutions if an adverse effect on a European site cannot be ruled out. The 'IROPI' test (which should be only a measure of last resort) is discussed in Section 6.
- 5.1.2 The consideration of alternatives should not be restricted to this stage. As part of the AA process, the various alternatives (options) developed by the plan authors should be assessed to determine their impact on the integrity of European sites – see Stage 2D. If, once an alternative (preferred option) has been selected and effective mitigation proves impossible, the authority will need to return to the question of alternatives and develop / select a different alternative that does not harm site integrity. If no such alternative solutions exist, then the IROPI test and compensatory measures will need to be addressed.

5.2 STAGE 3: ALTERNATIVE SOLUTIONS

- 5.2.1 European Commission (2000) guidance suggests that alternative solutions to proposed plans and projects can refer to alternative locations, different scales or designs of development, alternative processes, and the alternative of doing nothing. At this stage, the comparison of such alternative solutions should only deal with aspects concerning the conservation and maintenance of site integrity. Other assessment criteria, such as those relating to economic issues, should not overrule ecological criteria.
- 5.2.2 If there are no alternative solutions, this may be because the plan's objectives are so narrowly configured that they cannot be met, or that higher-level plans are 'over-constraining'. In such a case, it may be necessary to reconsider the plan objectives, or to challenge higher-level plans. Figure 12 summarises this stage.

Figure 12: Stage 3 'Alternatives'



5.2.3 Where several alternative solutions are being assessed, those that risk having a significant effect on site integrity could either be eliminated immediately, or else labelled with a 'red flag' which reminds planners that, should the option be chosen, further AA work will be required (including possibly elimination of that option later in the plan-making process).

Tip: The Habitats Directive says nothing about alternatives being only within the boundaries of the competent authority; if there are no alternatives within the competent authority's area, solutions outside of that area must also be considered. These may be in other authorities, regions or even countries.

Case law – Alternative solutions

Germany referred a decision regarding the development of an industrial and commercial area which would impact on a Natura 2000 site. The Commission decided that the adverse effects that would impact on the protected site were not outweighed by imperative reasons of overriding public interest. The opinion mainly resulted from the fact that there had not been a full consideration of alternative sites and no compensation measures had been proposed by the competent authority. In delivering its opinion the Commission stated that alternative sites may be situated outside of the municipality and inter-communal sites could have provided additional space for industrial use and should have been given consideration.

Case law – Alternative solutions

In the case where Associated British Ports sought permission for a deep-water container port at Dibden Bay, Southampton Water, permission was refused by the Secretary of State for Transport. When deciding the case, the Secretary of State took into consideration the advice provided by the Planning Inspector. The Inspector accepted that unless substantial new port development took place in the South East of England, the UK would have insufficient container handling capacity to handle its foreign trade. The Inspector also accepted that no alternatives currently existed in the locality of Southampton and looked to see if there were imperative reasons of overriding public interest (IROPI) that permission be given for the development.

The key question for the Inspector was whether, without the proposed terminal, there was a reasonable prospect of sufficient capacity being provided at UK ports to handle the expected growth in the UK's container trade in the foreseeable future. Issues considered included that a project satisfying a test of public interest might reasonably be expected to attract a substantial degree of support from bodies representing the public interest. However it was noted that, with the exception of Southampton City Council, no public body had expressed support for the Dibden Terminal project at the Public Inquiries; the weight of public opinion, as expressed at the Inquiries and in the written representations, was heavily against the proposed development; and neither Government policy nor Regional Planning Guidance, nor local policies indicated that nature conservation protection policies would be overridden by the need for development specifically at the port of Southampton.

The Inspector considered that, if the foreseeable national need could be met without the Dibden Terminal, there would be no imperative reasons of public interest that should override the protection of the European sites. It was noted that there were potentially three other schemes being developed in the South East for expanded deep-water container handling capacity which might or might not go ahead.

The Inspector, citing in support of his views European Commission guidance contained in "*Managing Natura 2000*", was not convinced that a temporary lack of handling capacity should be regarded as an imperative reason of public interest that should override the protection of European sites.

However, the key point behind the Secretary of State's refusal of permission was not the IROPI test, but whether any credible and feasible alternatives existed. The Secretary of State overruled the Inspector on his approach to alternative solutions and permission was refused on the basis that alternative solutions did exist and that the search for alternatives should go beyond alternative local sites and may extend to solutions located in other regions or other countries.

Source: Dibden Bay Container Terminal, Secretary of State for Transport decision made on 20 April 2004

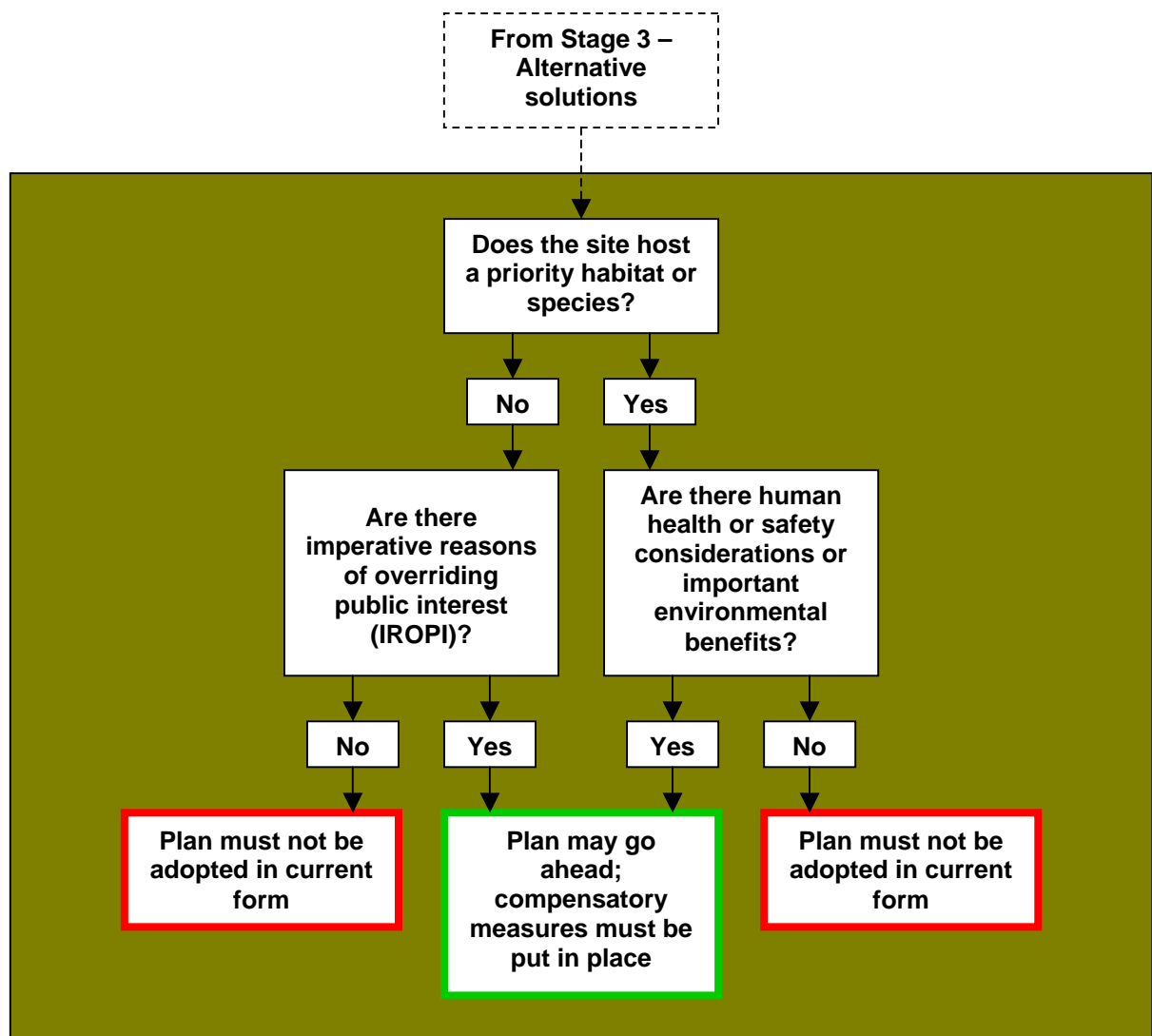
- 5.2.4 A record should be made of the results of the assessment of alternatives, including those consulted and who carried out the assessment. Figures 5 - 7 in the European Commission (2001) guidance provide possible templates for this. If alternative solutions are identified that will either avoid or result in less severe impacts on the site, their potential impacts will need to be properly assessed by recommencing Stage 2D. Only where no alternatives genuinely exist will Stage 4 (IROPI) be required.

6 STAGE 4: IROPI AND COMPENSATORY MEASURES

6.1 STAGE 4: IROPI AND COMPENSATORY MEASURES

- 6.1.1 If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest (IROPI), including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 network is protected. The Member State shall inform the European Commission of the compensatory measures adopted.
- 6.1.2 If a protected site hosts a priority natural habitat and / or a priority species, a plan or project which may have an adverse effect will only be permitted on the grounds of human health, public safety or primary beneficial consequences for the environment. In cases where these three circumstances cannot be proven, the member state refers the case to European Commission to confirm whether its imperative reasons of overriding public interest are appropriate. Figure 13 summarises this stage.

Figure 14: Stage 4 'IROPI and compensatory measures'



2.4.9 European Commission (2000) guidance on the IROPI test states that the interest must be long-term in nature and that it must not only be of benefit to companies or individuals. To date, the decisions referred to the European Commission (on the basis of opinions requested) have concerned only permissions for individual projects. With the exception of a decision concerning the development of an industrial area, the decisions have been positive with regards the IROPI test and all have required adequate compensatory measures to protect the overall coherence of the Natura 2000 network of sites. Most of these sites involved major development schemes, rather than run-of-the-mill development.

2.4.10 However, decisions on the IROPI test for plans may well necessitate a wider consideration of sustainability issues and the broader policy context than those for individual projects. For this reason, it may be very difficult to prove that IROPI exists for plans, particularly given the sizeable geographical areas to which they apply and the consequent scope for less damaging alternatives.

Case law - IROPI

Germany requested an opinion in the case of the extension of the masterplan for a colliery. The Commission stated that IROPI did exist. The opinion mainly resulted from the fact that no viable alternatives existed, that accelerated closure of the colliery would have short-term adverse social and economic impacts locally and regionally and the proposed compensatory measures were appropriate for the protection of the Natura 2000 network. The German authorities submitted that no other mine in Germany had such favourable geological infrastructure conditions and therefore considered that there were no suitable alternatives. The imperative reasons of overriding public interest that the German authorities proposed, and the Commission accepted, were: job losses would result from not extending the masterplan (4,400 direct and 6,000 in upstream industries and downstream services) and that the colliery and the masterplan would make a significant contribution to Germany's long-term energy policy. Compensation measures included the creation of new non-priority habitats and improvement of remaining priority habitats.

The Netherlands referred a decision regarding the expansion of the Rotterdam Harbour. The Commission gave a positive opinion on the grounds that: no feasible alternatives existed to the expansion of the Rotterdam harbour; that the project was of strategic importance for the further development of the Dutch economy; and that the proposed compensatory measures were appropriate to protect the overall coherence of the Natura 2000 network.

A case referred by the German authorities concerned airport expansion. The Commission gave the opinion that airport expansion could go ahead for reasons of IROPI. The Commission noted that, of the seven alternatives considered by the developer, five included expansion measures and of these five, the alternative chosen was said to have the least impact on the Natura 2000 site in question. The IROPI given by the German government included expanding passenger numbers and the fact that current facilities could not handle increased traffic. Compensation measure to be taken would ensure no reduction in the area occupied by the protected habitat.

[EC (2000) *Managing Natura 2000 sites - the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.*]

- 6.1.3 Authorities must notify the Secretary of State of any decision to adopt a plan in an IROPI case so, critically, she / he has reserve powers on this issue. This is particularly important for local-level plans where it is unlikely that local authorities have the expertise to take an IROPI decision.

Tip: IROPI always involves the Secretary of State and difficult decisions. If the IROPI test is passed, then potentially expensive compensatory measures are required. This is likely to delay plan adoption. IROPI should thus not be seen as an easy default position if authorities feel that their plan is too far along etc. It is the very last resort. Avoid it!

- 6.1.4 Compensatory measures are a last resort when it has not been possible to find a less ecologically damaging alternative and the need for the scheme is judged to outweigh the need to protect the European site. Before a plan or project that will have an adverse impact on a European site can be permitted to proceed, it is necessary to justify the compensatory measures being offered to offset the negative impacts.

- 6.1.5 The maintenance and enhancement of the overall coherence of the Natura 2000 network will be the key test on which compensatory measures will be assessed. This will normally be done by replacing those interests and functions of the

European site that have been damaged. To be acceptable, compensatory measures should:

- address, in comparable proportions, the habitats and species negatively affected;
- provide functions comparable to those which will be affected and which are critical to support the qualifying habitats and species interests affected;
- relate to the same biogeographical region in the same Member State and be in close proximity to the site that has been adversely affected by the plan; and
- have clearly defined implementation and management objectives so that the compensatory measures can achieve the maintenance of Natura 2000 coherence (European Commission, 2001).

6.1.6 Compensatory measures may need to be considered beyond the boundary of the local authority, the region or even the UK. In addition, a European site should not be irreversibly affected before the compensatory measures are in place: in other words, effective compensatory measures will probably need to be in place *before* the plan is implemented. A considerable period of time may be needed to ensure that the compensatory measures are properly in place, adequate, and functioning, before the other elements of the plan that will adversely affect the existing European site can proceed.

6.1.7 Box 7 provides an example of compensatory measures provided as part of a 'shadow' AA.

Box 7: Example of compensatory measures: Humber Estuary Flood Risk Management Plan

- 'Shadow Appropriate Assessment based on individual AAs for projects in a 5 year programme of construction projects;
- In-combination assessment of 5 year programme;
- Habitat losses and disturbance identified from a knowledge of the impacts from each scheme;
- Habitat losses as a result of coastal squeeze due to sea level rise identified from a state of the art model 50 year balance sheet; and
- 3:1 compensation for coastal / tidal habitat lost through construction and maintenance of flood management schemes; 1:1 compensation for loss through sea level rise.

Source: Martin Slater, Environment Agency, personal communication, 09.03.06

6.1.8 The assessment of the ability of compensatory measures to be successful in maintaining the overall coherence of the Natura 2000 network should be carried out and recorded. In implementing the plan, legally binding agreements will be required to ensure that the long-term conservation interests of the Natura 2000 network are maintained, including management plans, monitoring and remedial actions should the compensation not prove successful. Mechanisms for compensation are unclear for plans – even if individual developers are made to contribute, it will require co-ordination, and the timing of compensatory measures vis-à-vis development will be complex.

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English Nature Habitats Regulations Guidance Notes (not provided on www; telephone EN helpdesk on 01733 455102 for pdf versions):

- HRGN 1, The Appropriate Assessment (Regulation 48). The Conservation (Natural Habitats &c) Regulations, 1994. May 1997.
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GLOSSARY

Appropriate Assessment (AA)	An assessment of the affect of a plan or project on the Natura 2000 network. The network comprises Special Protection Areas under the Birds Directive and Special Areas of Conservation under the Habitats Directive (collectively referred to as European sites)
Avoidance	Prevents impacts on European sites from happening in the first place.
Compensation	Offsite offsetting put in place where a significant impact will occur, where there is no alternative, and where the plan is deemed necessary.
Competent authority	The plan-making / decision-making authority. In relation to land use plans this are the Regional Assemblies, County Councils and Local Authorities.
Conservation Objectives	A statement of the nature conservation aspirations for a site, expressed in terms of the favourable condition required for the habitats and / or species for which the site was selected.
Department for Communities and Local Government (DCLG)	UK Central Government Department with a remit to promote community cohesion and equality, as well as responsibility for housing, urban regeneration, planning and local government. Formerly the Office of the Deputy Prime Minister (ODPM).
Department for Environment, Food and Rural Affairs (DEFRA)	UK Central Government Department with a remit covering 'protecting the countryside and natural resource protection' as one of its five strategic objectives.
Environmental Impact Assessment (EIA)	A procedure that must be followed for certain types of project before they can be given 'development consent'.
European Commission (EC)	The executive body of the European Union. It acts as the guardian of the EU treaties to ensure that EU legislation is applied correctly, prepares policy initiatives and presents legislation suggestions, and serves as an authority in certain fields.
European Court of Justice (ECJ)	The supreme court of the European Union, adjudicating on matters of interpretation of European law.
European sites	Special Protection Areas (SPAs), Special Areas of Conservation (SACs)
Favourable condition	Designated land is adequately conserved and is meeting its 'conservation objectives', however, there is scope for enhancement.
Habitats and species of	Habitats highlighted under Annex 1 of the Habitats

interest to the EU	Directive. Seventy-six Annex I habitat types are known to occur in mainland UK, 23 of which are defined as priority habitat types.
Habitats Directive	Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna.
Habitats Regulations	Formally known as the Conservation (Natural Habitats, & c.) Regulations 1994. These transpose the requirements of the Habitats Directive into domestic legislation.
Imperative reasons of overriding public interest (IROPI)	The Habitats Regulations require competent authorities to establish that there are no alternative solutions before a plan or project can be considered for imperative reasons of overriding public interest. Judgements will involve an assessment of the importance of the proposal and whether it is sufficient to override the nature conservation importance of that site.
In-combination	The cumulative effects caused by the project or plan that is currently under consideration together with the effects of any existing or proposed projects or plans.
Institute of Ecology and Environmental Management (IEEM)	A not-for-profit organisation established to promote best practice standards in environmental management, auditing and assessment. Its origins lie in the merger in 1999 of the Institute of Environmental Management, the Institute of Environmental Assessment, and the Environmental Auditors Registration Association.
Integrity	The integrity of a site is the coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and / or the levels of populations of the species for which it was classified.
Local Development Document (LDD)	These include Development Plan Documents (which form part of the statutory development plan) and Supplementary Planning Documents (which do not form part of the statutory development plan). LDDs collectively deliver the spatial planning strategy for a local planning authority's area.
Member State	Nation state member of the EU
Mitigation	Reduces the impact on site integrity to the point where it no longer has adverse effects.
National agencies	Government agencies that have an interest in biodiversity and conservation.
Natura 2000	A Europe-wide network of sites of international importance for nature conservation established as under the European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC);

	<p>'Habitats Directive'). This has been transposed into UK law as the Conservation (Natural Habitats &c.) Regulations (1994; 'Habitats Regulations').</p>
Natural England	<p>Pending formal establishment in October 2006, Natural England comprising all of English Nature, the landscape, access and recreation elements of the Countryside Agency, and the environmental land management functions of the Rural Development Service, to establishment of a new integrated agency, championing integrated resource management, nature conservation, biodiversity, landscape, access and recreation.</p>
Plan-making authority	<p>The authority that writes the plan or project. In relation to land use plans these include Regional Assemblies, County Councils and Local Authorities.</p>
Precautionary principle	<p>Prudent action which avoids the possibility of irreversible environmental damage in situations where the scientific evidence is inconclusive but the potential damage could be significant.</p>
Priority Habitat / Species	<p>Habitats and species identified by the Habitats Directive as being of priority importance. Twenty-three of the UK's 76 habitats are highlighted as important under the Habitats Directive priority habitats.</p>
Project	<p>The Habitats Directive does not define, but encourages a broad interpretation of the term 'project'. 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) operates in a similar context, by setting rules for the assessment of environmentally significant projects. This Directive defines a project as: 'The execution of construction works or of other installations or schemes — other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources'.</p>
Qualifying Interest Feature	<p>The reasons why the European site has been recommended for designation (e.g. the endangered species that occupy the SAC; rare habitats that occur there; or threatened birds that breed or over-winter in the SPA).</p>
Ramsar sites	<p>Sites designated as internationally important wetland habitats under the International Convention on Wetlands of International Importance (1976) (Ramsar Convention).</p>
Regional Spatial Strategy (RSS)	<p>A statutory strategy for how a region should look in 15 to 20 years time and possibly longer. The RSS identifies the scale and distribution of new housing in the region, indicates areas for regeneration, expansion or sub-regional planning and specifies priorities for the environment, transport, infrastructure, economic</p>

	development, agriculture, minerals and waste treatment and disposal.
Screening	The process of deciding whether or not a plan or project requires an Appropriate Assessment
Site of Special Scientific Interest (SSSI)	UK national designation identified under the Wildlife and Countryside Act (1981) as being important for wildlife and/or geology. Over half of these sites, by area, are internationally important for their wildlife, underpinning the network of Natura 2000 sites, designated as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites.
Special Area of Conservation (SAC)	Site of European importance for nature conservation designated under the Conservation of Natural Habitats and Wild Flora and Fauna Directive (92/43/EEC).
Special Protection Area (SPA)	Site of European importance for nature conservation designated under the Conservation of Wild Birds Directive (70/409/EEC).
Strategic Environmental Assessment (SEA)	The systematic identification and evaluation of the impacts of a strategic initiative (e.g. a plan or programme) on the environment as required by the European Directive 2001/42/EC known as the strategic environmental assessment or SEA directive.
Sustainability Appraisal (SA)	An appraisal of the economic, environmental and social effects of a plan from the outset of the preparation process to allow decisions to be made that accord with sustainable development as required by Section 39(2) of the Planning and Compulsory Purchase Act 2004.