Natural England Commissioned Report NECR205

Small-scale effects: How the scale of effects has been considered in respect of plans and projects affecting European sites - a review of authoritative decisions

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NATURAL ENGLAND

Foreword

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

Background

The implementation of a wide range of plans or projects can affect the wildlife or habitats on sites which have been designated for their nature conservation importance as European Protected Areas.

It is uncommon for European Protected Areas to be threatened by a project that would have major adverse effects on nature conservation. However, small-scale effects are more common and Natural England advisers need to judge whether the small-scale effects on a site may adversely affect its integrity and whether the effects are significant in light of the conservation objectives for the site.

Advisers also need to consider the significance of the effects of projects and developments, which on their own may be small but which, in combination with other projects, could be significant.

This report aims to provide an analysis of authoritative decisions that have considered the scale of effects (either the proportion of the area of a site or qualifying habitat feature, or the proportion of a population of a species) where these were judged to have been relatively small in the context of the case.

It updates and builds upon a previous Research Report **ENRR704** from 2006 entitled 'How the scale of effects on internationally designated nature conservation sites in Britain has been considered in decision making – A review of authoritative decisions' and will be used as a referencing tool for Natural England and other decision makers, in particular Natural England advisers involved in casework.

This report should be cited as:

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Further information
This report can be downloaded from the Natural England website: **www.gov.uk/government/organisations/natural-england**. For information on Natural England publications contact the Natural England Enquiry Service on 0845 600 3078 or e-mail **enquiries@naturalengland.org.uk**.

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Summary

Introduction

This report updates and builds upon a previous Natural England (then English Nature) Research Report from 2006 entitled *"How the scale of effects on internationally designated nature conservation sites in Britain has been considered in decision making – A review of authoritative decisions".* The report aims to provide an analysis of authoritative decisions which considered the scale of the effects (either the proportion of the area of a site or qualifying habitat feature, or the proportion of a population of a species) that may be considered to have been relatively small in the context of the case, which can serve as a referencing tool for Natural England and other decision makers.

An 'authoritative decision' is a decision which has been subject to sufficient scrutiny, at an appropriate level, to impart a degree of *authority*. In the context of this report, 'authoritative decisions' are limited to those of the European and domestic (UK wide) court judgments and rulings, Secretary of State, Welsh or Scottish Ministers, and certain Planning Inspector or Reporter decisions in respect of a proposed plan or project, and certain legally enforceable management measures such as a bye-law or statutory order. Also included are Article 6(4) 'opinions' from the European Commission.

It may be necessary to consider the date of a decision or the extent to which a particular case is consistent with previous judgments or practice before relying upon it in a decision-making process. It is the responsibility of the reader to interpret and apply the findings in this report appropriately. The findings and conclusions of the report should be considered fairly, as a whole, and not quoted, used or applied selectively, in order to support a pre-determined or preferred conclusion.

The scale of an effect is an important consideration in decision making under the Habitats Regulations. This is because it is closely related to the specific legal tests against which a proposed plan or project needs to be assessed especially in stage 1, the 'screening' test and stage 2 the 'appropriate assessment' and 'integrity test'.

Methodology

The researchers compiled a list of potentially relevant cases drawn from:

i. their own library of decisions, and their empirical knowledge of case work;
ii. a further web-based search of European Court judgments and opinions;
iii. a web-based search for decisions relating to nationally significant infrastructure projects and projects consented under the Electricity and Pipeline Acts in England and Wales and their territorial and UK offshore waters; and
iv. suggestions made by officers in Natural England following an e-mail enquiry of case officers by the research project manager.

Cases were sorted into date order and presented in tables by type of decision-maker and type of effect, namely: habitat loss, habitat deterioration and effects on species. Over 180 cases were originally identified as being relevant to the assessment of plans and projects

affecting European sites. Following an initial screening exercise, fifty two of these decisions were subject to detailed examination in this review as being relevant to small scale effects. Two were omitted because the decisions had not been published at the time of submission of the report. One was considered not to contribute meaningfully to the study. Details of the remaining 49 decisions are provided in the Appendix. Four cases have been omitted from the analysis, because they could not reasonably be regarded as 'small scale effects', although they are retained in section E so as to provide a complete record of all of the EC Article 6(4) opinions. Three further cases were written up in detail because readers may find them helpful, but they have not been included in the detailed analysis for other reasons. Thus, 42 decisions were included in the detailed analysis of small scale effects.

Discussion and conclusions

Habitat loss and deterioration

Loss of habitat was relevant to 27 of the 42 cases. Deterioration was relevant in 11 of the cases. There is no evidence that any particular decision-maker has consistently applied a more or less rigorous judgement, at the screening or integrity test stages, in terms of small scale effects of habitat loss or deterioration (or combinations thereof). Nor is there any evidence that any particular type of decision maker has regarded any specific range of smaller scale effects as either more significant or insignificant when compared to other decision makers.

No decision maker in this research systematically applied any formula or 'rule-of-thumb' that either a certain level (expressed in say square metres or hectares) or a certain proportion (expressed as a percentage) of loss or deterioration of habitat is to be regarded as a significant or an insignificant effect, or is or is not to be considered as an adverse effect on site integrity.

Authoritative decision makers invariably consider a wide range of factors when determining the significance of effects of loss or deterioration, including the characteristics of the qualifying feature (for example, rarity, location, distribution, vulnerability to potential change), how the ecological structure and function of the site might be affected, what ecological function the affected area is performing, or could perform, in terms of the ecological requirements of the qualifying features, the location of the affected area both in terms of its geographic position in the designated site and in terms of its position relative to the project.

Scale is a factor when considering habitat loss or deterioration, and can be an important factor, helping to determine the question of significance but, in light of these cases, never the only factor determining the question of significance.

The range of deterioration effects considered include fragmentation / severance, increased air pollution, increased salinity, increased wave energy, acidification and drying out, shading, rain interception and disturbance (in the sense that the qualifying feature would use the habitat less, rather than not at all – which would be habitat loss).

Species effects

Population effects upon species were relevant to 10 of the 42 cases. In all but one case, effects on species involved consideration of levels of mortality of the population of qualifying species of birds that may be caused by collision with or displacement from habitat by wind turbines. One case considered the effects of entrainment.

Estimates of collision risk for birds in respect of onshore and offshore wind turbines, in the UK, has an established methodology, using the Band and / or Folkerts models. The calculation of potential biological removal (PBR) or population viability allowance (PVA) was used extensively in the Habitats Regulations Assessments undertaken on behalf of the Secretary of State. However, almost all cases involved disagreements between applicants and statutory nature conservation bodies as to the parameters to be used in such models.

Where PBR or PVA methodologies informed the decisions, the key issue was whether the calculated collision mortality or displacement mortality was simply or comfortably below the threshold calculated by these analyses, thus indicating that the SPA population would not be expected to reduce or decline below a specified sustainable level. The thresholds themselves varied widely in a range from 94 to 512 and collision mortality figures for a species found not to be an adverse effect on integrity varied from 7 to 472.

There is a danger of over-scrutinising and analysing these cases. In all the decisions on the nationally significant infrastructure projects the basis of the assessment on the SPA(s) population is clearly set out and rationally argued (whether or not the decision may be agreed by the statutory nature conservation body).

In all the wind farm / SPA cases decisions were not judgements made on a sliding scale of effects. They were decisions based on accepted mathematical models, using whatever parameters, such as avoidance rate, the decision-maker preferred and using accepted scientific analysis as to population viability, sustainability and dynamics.

Consideration of priority habitats and species

The brief specifically requested an analysis of the consideration of priority habitats and species. No bird species are identified as a priority species in the Birds Directive, so this point is relevant only to the 25 cases which involved small scale effects on a SAC. Seventeen of these cases explicitly involved consideration of priority habitats or species. However, by definition, the 15 European Commission opinion cases involved the consideration of priority habitats or species because it was the potential effects on them that triggered the opinion procedure. Consequently, nothing can be drawn from these cases, as to the weight attached to the priority status, *a per pro* non-priority features. Thus, only limited conclusions as to the influence of priority habitats or species may be drawn from just two cases.

Even taking account of the EC opinion cases, whilst the presence of the priority habitat or species is recognised in all cases, there is no clear evidence that such status actually makes a difference to whether a competent authority decides whether an effect is likely to be significant or not, or whether it can be ascertained that the proposal would not have an

adverse effect on site integrity. At most, there is perhaps an implied additional weight, but it cannot be quantified or objectively analysed any further.

Consideration of conservation status or site condition

The brief specifically requested an analysis of how decision makers took account of the conservation status of the qualifying features or the condition of the site. The circumstances of the site and the characteristics of the qualifying features were regularly taken into account where relevant. One case decision appears to have been particularly influenced by the 'unfavourable declining' status of the qualifying feature. The Secretary of State determined that negative effects on the breeding population of lesser black-backed gulls in an SPA had to be eliminated (100% mitigation of potential mortality) in order to conclude that there could be no adverse effect on the integrity of the site. In contrast the Secretary of State considered that in another case the 'favourable condition' of the Liverpool Bay SPA at classification was a relevant factor in deciding that the predicted mortality of 84 red-throated divers, from a wind farm project, would not have an adverse effect on the integrity of the SPA.

Overall Conclusions

The cases reviewed show that in practice, authoritative decision-makers invariably consider a wide range of factors when determining the significance of small scale effects, including:

- the characteristics of the qualifying feature (for example, rarity, location, distribution, vulnerability to potential change);
- how the ecological structure and function of the site might be affected;
- what ecological function the affected area is performing, or could perform, in terms of the ecological requirements of the qualifying features;
- the location of the affected area both in terms of its geographic position in the designated site and in terms of its position relative to the project;
- where a qualifying species is affected, when the activities would occur, the rarity of individuals of the species, its conservation status and future prospects in the location in question.

Small scale effects are relevant to:

a) qualifying Annex 1 habitat types (for which SACs have been designated);
b) 'supporting' habitat for protected species (whether Annex II species for which SACs had been designated or bird species for which SPAs had been classified; and
c) individuals of a designated or classified species population.

There was a difference in influence exerted by each of the above factors, depending on whether the effect related to a qualifying habitat in its own right, a supporting habitat for a protected species, or individuals of the population of a designated or classified species.

In the case of small scale effects on a *qualifying* Annex 1 habitat type for which a SAC had been designated, the decisions reviewed suggest that it is the relative importance of the area affected in terms of the rarity, location, distribution, vulnerability to change and ecological structure which is most influential. The contribution the affected area made to the overall integrity of the site (and hence that site's contribution to the conservation status of that habitat type at a member state level) exerted a stronger influence over decision makers than the spatial extent of the effect.

In the case of small scale effects on a *supporting* habitat for a species (whether a designated SAC species or a classified SPA species), the decisions reviewed suggest it is the ecological functioning of that supporting habitat which is most influential: that is, what ecological function the affected area was performing, or could perform, and it's importance to the population of the species for which the site had been designated / classified. The contribution made by the area affected to the ability of the site to support the populations for which it had been designated or classified exerted a stronger influence over decision makers than the spatial extent of the effect.

In the case of small scale effects on *individuals* which make up the population of a species for which a site has been designated / classified, the decisions reviewed suggest that it is the timing of the activities, the rarity of individuals of the species and its conservation status and future prospects in the location in question which are most influential. The relative importance of the individuals affected to the sustainability of the population for which the site has been designated / classified exerted a stronger influence over decision makers than the number of individuals affected.

No two cases are the same. The circumstances of each case must be taken into account in interpreting the decisions. For example, it cannot be assumed that, on the basis of the Sweetman ruling alone, any loss of habitat, no matter how small, whether it be priority habitat or not, should be regarded as an adverse effect on site integrity, simply because in the circumstances of the Sweetman case, the loss of 1.47ha of the 270ha of limestone pavement in the SAC was ruled to be an adverse effect on the integrity of the SAC. It should be borne in mind that the Advocate General in that case explained that *"The requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."*

A Background to this report

A.1 Status of this report

This report updates and builds upon a previous Natural England (then English Nature) Research Report from 2006 entitled *"How the scale of effects on internationally designated nature conservation sites in Britain has been considered in decision making – A review of authoritative decisions"*[1]. The original report has been widely quoted and is frequently referred to by decision makers and statutory consultees. But it is now 8 years old, important cases have emerged since and there are interesting cases from a wider range of sources, including the European court and the European Commission. This report incorporates key background information and the case summaries from the original 2006 review but also includes details of additional cases. Importantly, it is extended in scope to cover the scale of effects on populations of qualifying features as well as the scale of habitat loss or deterioration. It therefore replaces the 2006 report and can be read as a stand-alone document.

This report sits within a series reviewing the findings of "authoritative decisions". It is concerned with how the small scale of effects, in respect of either spatial extent or population affected, has been considered in decision making. At the time of writing, two other reports are available regarding the 'longevity of effects' and 'functional linkages'.

A.2 Who is the report for?

The research was commissioned by Natural England "*for the production of a report which can act as a referencing tool for use by Natural England to inform a review of its approach to casework in light of recent interpretations of the Habitats Directive and Regulations"*. Whilst the report has primarily been drafted for Natural England, it will be of interest to all practitioners and advisers working in the assessment of plans and projects under the 'Habitats Regulations'[2].

A.3 Aims of this report

Natural England advisers in casework frequently issue advice on the potential effects that proposed plans or projects might have on European sites. For the purpose of this report the term 'European site' includes:

- Special Protection Areas (SPAs) classified under the EU Birds Directive[3];
- Special Areas of Conservation (SACs) designated under the EU Habitats Directive[4];
- Ramsar Sites listed under the Ramsar Convention[5].

[1] Hoskin, R. and Tyldesley, D. (2006) *How the scale of effects on internationally designated nature conservation sites in Britain has been considered in decision making: A review of authoritative decisions*. English Nature Research Report number 704. http://publications.naturalengland.org.uk/publication/79053

[2] The Conservation of Habitats and Species Regulations 2010 SI 490.

[3] Council Directive of 30th November 2009 on the conservation of wild birds (2009/147/EC).

[4] Council Directive of 21/5/92 on the conservation of natural habitats and of wild fauna and flora (92/43/EEC).

Cases involving proposed SPAs or SACs could also be relevant, because of European Court rulings as to how member states should secure the protection of such sites before they are fully designated or classified. Later in this report there are references to 'Sites of Community Importance' or 'SCI', because this is a term widely used in respect of European sites by the European Court and the European Commission.

Advice is given by Natural England based on the best available information in light of the characteristics and specific environmental conditions at the site concerned[6]. However, it can be difficult to ascertain what is acceptable under the specific tests set out in the assessment provisions of the Habitats Regulations (regulation 61), commonly referred to as a 'Habitats Regulations Assessment' or 'HRA'.

This report aims to provide an analysis of authoritative decisions which considered the scale of the effects (either the proportion of the area of a site or habitat, or the proportion of a population of species) that may be considered to have been relatively small in the context of the case, which can serve as a source of reference for advisers and decision makers.

A.4 The importance of case law to the decision making process

Case law is a vital source of information regarding how legislation should be correctly interpreted and applied. The Habitats Regulations transpose the requirements of the EU Wild Birds Directive and the EU Habitats Directive into domestic legislation. They set out a suite of legal obligations and responsibilities for a broad range of statutory agencies and decision making bodies (known as 'competent authorities'). As with all statutory instruments of this nature, there is scope for inconsistency in how the statutory provisions are interpreted and applied.

Too strict an interpretation might lead to plans or projects being delayed, subject to unnecessary restrictions, or ultimately refused under circumstances which were not intended to be incompatible with the underlying Directives. This can result in increased costs to, and frustration for, project proposers, which might have been avoidable, or unnecessary impediments to economic growth and development.

Too lenient an interpretation carries different risks. Plans or projects might go ahead without sufficient consideration of the potential harm to the sensitive habitats and species for which the sites have been designated. This in turn might lead to the deterioration of protected habitats and species, or a legal challenge through either the domestic or the European Courts regarding a failure to comply with the Regulations or the Directives.

Case law is therefore important in establishing a common understanding of how the tests involved in the assessment of plans and projects under the Habitats Regulations should be applied. There are credibility risks for decision makers, and those advising them, if a decision taken in respect of one proposed plan or project is not taken on the same basis as another plan or project, whether by the same or different competent authorities. Decision

[5] Convention on wetlands of international importance especially as waterfowl habitat, Ramsar, Iran 2/2/71 as amended by the Paris protocol 3/12/92 and the Regina amendments 3/6/87.
[6] Refer paragraph 48 Case C-127/02 *Waddenzee*

makers should strive to be consistent to ensure that the effects on the habitats and species protected under the Habitats Regulations are weighed appropriately and consistently in comparison with the benefits of proposals for change.

A.5 The meaning of 'authoritative decision'

Applying a 'plain English' interpretation, an 'authoritative decision' is a decision which has been subject to sufficient scrutiny, at an appropriate level, to impart a degree of *authority*.

In the context of this report, 'authoritative decisions' are limited to those of the European and domestic (UK wide) court judgments and rulings (see A.6 and A.7 below), Secretary of State, or the Scottish or Welsh Ministers and certain Planning Inspector (in Scotland Reporter) decisions in respect of a proposed plan or project (see A.8 and A.9 below), and certain legally enforceable management measures such as a bye-law or statutory order (included in Secretary of State decisions in A.8). Also included are Article 6(4) 'opinions' from the European Commission (see A.10).

These types of decisions are explained in the following sub sections so that they can be better understood in respect of:

a) how they should be read in relation to each other (some authoritative decisions carry greater weight than, or may supersede, other decisions); and
b) how they should be read in relation to a case which might currently be under consideration (where the reader is seeking guidance from this report as to a decision to be made).

A.6 Decisions of the European Courts

The relevant European court was the European Court of Justice until 1st December 2009, when the provisions of the Lisbon Treaty came into force and the court became known as the Court of Justice of the European Union. For the purpose of this report, all cases are referred to simply as those of the 'European Court'.

The European Court has two principal functions. Firstly, deciding cases of dispute between, on the one hand, the European Commission (EC), seeking to enforce the terms of the Directives; and, on the other hand, member states, who may be accused by the EC of failure to comply with the Directives. In these cases the European Court issues 'judgments' following consideration of written material and oral hearings. A judgment issued in the case of such a dispute is referred to in the documentation in terms of an 'action' of the court, because the decision reached by the court carries direct consequences for the parties involved.

The European Court also provides 'preliminary rulings'. These are not intended to resolve a dispute in the European court itself, but to answer questions submitted to the European Court by a court of a member state. Questions will almost invariably relate to how the domestic court of the member state should properly interpret the Directives when making a judgment in their own court. These decisions are also included in the term 'judgments'. The documentation relates to the 'reference' or 'request' made to the court rather than an 'action' related judgment in the case of a dispute.

This report uses the generic term ‘judgment’ in respect of European Court decisions, unless it is important to distinguish that a particular case was a ‘ruling’. All judgments of the European Court carry the greatest weight because they are binding on member states in terms of both decision making and domestic court proceedings.

Importantly, all judgments of the European Court are accompanied by an ‘opinion’ from an Advocate General of the Court. The Advocate General’s opinion is published in order to inform the Court’s judgment. The relevant opinion exerts considerable influence over the respective judgment. Opinions are also helpful because they often include more information concerning the details of the case concerned. The Advocate General’s opinion carries less weight than the final judgment and the opinions are not binding on member states. However, they are so influential and carry such weight in European Court judgments and rulings that they are regarded as ‘authoritative decisions’ in the context of this research.

European Court decisions are binding on member states. They must therefore be given due weight by competent authorities and the courts of member states. They provide the definitive interpretation of how the Directives should be interpreted. However, not all areas of potential uncertainty have been the subject of a case in the European Court. In the absence of a judgment from the European Courts, the UK Courts may need to make decisions based upon their own interpretation.

A.7 Judgments of the UK Courts

Decisions taken in the UK Courts, which are of relevance to the application of the Habitats Regulations arise from judgments in the ‘High Court’, the ‘Court of Appeal’, and the ‘Supreme Court’.

Relevant legal proceedings will start in the High Court, and if the High Court judgment is not referred to the Court of Appeal it will stand. However, if a High Court judgment is referred to the Court of Appeal the latter judgment will prevail and the legal principles established are binding on subsequent High Court judgments. Similarly, if a Court of Appeal judgment is referred to the Supreme Court the latter judgment will prevail and the legal principles established are binding on all lower courts including the Court of Appeal.

In Scotland, the Outer House of the Court of Session is equivalent to the High Court and the Inner House of the Court of Session is equivalent to the Court of Appeal.

A.8 Decisions of the Secretary of State / Scottish / Welsh Ministers

A decision taken by a Secretary of State, or an equivalent decision made by the Scottish or Welsh Ministers (the Ministers) is regarded as authoritative because it has been considered by a Government Department and signed off at a Ministerial level. It will usually (for example in the case of orders for development consent) be accompanied by or contain a detailed record of the related Habitats Regulations Assessment. Relevant decisions made by a Secretary of State or the Ministers relate to one of the following:

- an application for an ‘Order for Development Consent’ under the provisions of *The Planning Ac*t 2008 for a ‘Nationally Significant Infrastructure Project’; or

- a consent required by a Secretary of State under primary legislation, for example, under the Electricity or Pipeline Acts; or
- in respect of a 'call-in' application, or a 'recovered' appeal under the provisions of the *Town and Country Planning Act* 1990 and related legislation (see further below), or
- the confirmation of a bye-law or other kind of statutory Order.

A decision made by a Secretary of State or the Ministers stands unless revoked or modified by them, or it is quashed by a Court because it has been challenged and found by the Court to be unlawful. The grounds for such a challenge are limited and do not relate simply to the planning merits of the decision.

The Secretary of State and the Ministers also have powers to require a local planning authority to refer an application to them for their own determination, referred to as a 'call in' of a planning application. An Inspector (in Scotland a Reporter) will be appointed to conduct a local public inquiry and to report and make recommendations to the Secretary of State or the Ministers as the case may be. The Secretary of State and the Ministers follow established policies as to when they consider it to be appropriate to 'call-in' a planning application, but they are likely to do so if, for example, a local planning authority was minded to grant a planning permission that could have a significant adverse effect on a European site, against the advice of the statutory nature conservation body and in the face of national policy.

Where an applicant is aggrieved by a decision of a local planning authority to refuse permission for a development, or to grant it only subject to conditions that the applicant finds unacceptable, they have the right to appeal against the decision. The appeals are normally determined by a Planning Inspector or Reporter, (see A.9 below) but certain types of appeal can be 'recovered' for decision by the Secretary of State or the Ministers. Again the Inspector or Reporter will normally proceed to conduct a local public inquiry and report with recommendations to the Secretary of State or the Ministers. In both 'call-in' and 'recovered' cases the Secretary of State and the Ministers are not bound to accept the Inspector's or Reporter's recommendations.

A.9 Decisions of Planning Inspectors and Reporters

Planning Inspectors (and in Scotland planning Reporters) are the decision maker (the competent authority in the terms of the Habitats Regulations) in their own right in respect of all delegated appeals against the decisions of local planning authorities, which are not 'recovered'. Appeals are considered by way of an exchange of written representations (the majority of cases); or by way of an exchange of written material followed by a public 'hearing', or in a small proportion of cases, considered by a prior exchange of written material followed by the calling and examination of evidence at a local public inquiry, conducted by the Inspector making the decision. In the context of this report, the most authoritative decisions of Planning Inspectors / Reporters are regarded to be those which have followed a public inquiry, because in these cases the evidence has been subject to particularly intense scrutiny and the parties will have had the opportunity to make legal and other submissions to the Inspector or reporter, however 'hearing' cases may also be regarded as sufficiently authoritative where evidence has been subject to particular scrutiny.

Planning Inspectors also conduct the ‘examination’ of local development plan documents submitted to the Secretary of State, in order to test them for ‘soundness’ before they can be adopted. The Inspector’s report to the local planning authority is binding, but it is the authority who adopts the plan, having made any changes required by the Inspector’s report.

A.10 Article 6(4) Opinions of the European Commission

Under the provisions of Article 6(4) of the Habitats Directive, it is open to a member state to seek an opinion from the European Commission (EC) as to whether the justification for authorising a particular plan or project would amount to ‘imperative reasons of overriding public interest’. These are cases where the competent national authority cannot ascertain that there would not be an adverse effect on a European site, because a priority habitat or species may be adversely affected. This would normally rule out the consideration of economic or social reasons to authorise the project, but the option is available to seek an opinion as to the merits of the case from the EC. If the EC agree that the plan or project can proceed, they will examine compensatory measures and advise the member state accordingly. These are regarded as ‘authoritative decisions’ in the context of this research, because they have been scrutinised by the EC and the Commission’s opinion is published. These opinions are also helpful because in making the case as fully as possible, the member state must set out the details of the effects of the project on the qualifying features and must explain in detail its proposed compensatory measures.

A.11 A note of caution

Given the large number of cases investigated, and the large volume of documents in relation to each case that had to be read, it was beyond the capacity of the researchers to undertake any investigations as to the accuracy of data, or to test the outputs of predictive models, or to undertake any other corroborative or verification work, as part of this research. All figures and factual information in this report are drawn directly from the documents which were read during the research. They are taken at face value. No assurance can therefore be given as to the accuracy or otherwise of information that was presented in the reports and decisions in the cases examined. For the purposes of this research it was sufficient to assume that all data recorded in the case reports and decisions were accurate and correct.

Having set out the basis on which this research considers a decision to be sufficiently ‘authoritative’ to be given weight in considering other decisions, it is worth bearing in mind that judgments stand unless superseded by a judgment in a higher court. Decisions made by the Secretary of State stand unless quashed by a Court, after having been challenged and found to be unlawful. Some decisions, and indeed, occasionally some domestic judgments, may not appear to be entirely consistent with established legal principles (for example those set by the European Court), or established approaches to decision making in terms of policy or scientific practice, but they nevertheless stand unless challenged or superseded. A judgment or a decision can only be made on the facts of the case as known at the time. If the evidence or arguments presented are incomplete or misleading the outcome may be affected. The application of case law evolves over time. Some judgments (or decisions taken in light of judgments at the time) may have been made before an important legal principle was established by a subsequent judgment.

For example, the Briels ruling in 2014 required a modification to the approach previously taken in respect of distinguishing mitigation and compensatory measures. Decisions made prior to this ruling did not have the benefit of that interpretation by the European court but were lawful and compliant at the time they were made.

Furthermore, no two cases are the same. What may initially appear to be inconsistency might, on closer examination, be a proper response to differences between the particulars of two cases which otherwise appear, at face value, to be equivalent. The discussion later in this report in section D.5 about how the Sweetman case may be interpreted in practice is a case in point.

It may be necessary, therefore, to consider the date of a decision or the extent to which a particular case is consistent with previous judgments or practice before relying upon it in a decision-making process. In the context of this report, this is not a serious problem, because the way in which a decision maker weighs the scale of effects of a proposal is usually a matter of planning judgement, rather than the application of a legal principle.

It is the responsibility of the reader therefore to interpret and apply the findings in this report appropriately. The findings and conclusions of the report should be considered fairly, as a whole, and not quoted, used or applied selectively, in order to support a pre-determined or preferred conclusion.

B Why the 'Scale of Effect' is important to decision making

B.1 What is meant by 'scale of effect'

This report concentrates on the consideration of the scale of effects in terms of either the proportion of the area of the European site (or proportion of qualifying habitat) affected by a proposal (spatial scale) or the proportion of the population of a species that would be affected (population scale).

The temporal scale of an effect (the duration) is considered in a separate report[7] published alongside this report, where this effect is referred to by the term 'longevity of effect'.

Whilst the spatial extent of an effect can generally be clearly defined in quantitative, usually numerical terms (through units such as metres^2 or hectares) the scale of an effect is often considered in terms of the percentage of the overall site or habitat feature which is affected.

Where a species is affected the 'scale of effect' refers to the number of individuals affected. As in the case of sites or qualifying habitat features, this may also be expressed in terms of the percentage of the total, or site-related, or meta-population affected.

B.2 How the scale of effect relates to the Habitats Regulations Assessment process

The scale of an effect is an important consideration in decision making under the Habitats Regulations. This is because it is closely related to the specific legal tests against which a proposed plan or project needs to be assessed.

Figure B.1 on the next page provides an outline of the four stage process of Habitats Regulations Assessment. Few plans or projects will progress to stages 3 and 4 so the majority of the authoritative decisions referred to in this report concern the stage 1 'screening' test and the stage 2 'appropriate assessment' and 'integrity test'. These initial stages are briefly introduced below.

Stage 1: the 'screening' test

If it is not directly connected with or necessary to site management the decision-maker must determine whether a proposed plan or project is likely to have a significant effect[8] on the site. The decision on whether an appropriate assessment is necessary should be made on a precautionary basis. This is in line with the European Court's ruling in Case C-127/02 hereafter referred to as the Waddenzee judgment[9], which states that "*any plan or project not directly connected with or necessary to the management of the site is to be subject to an*

[7] CHAPMAN, C. & TYLDESLEY, D. 2016. Temporary effects: how the longevity of effects has been considered in respect of plans and projects affecting European sites – a review of authoritative decisions. Natural England Commissioned Reports, Number206.
[8] Regulation 61(1)(a)
[9] *Landelijke Verenigning tot Behoud Van de Waddenzee, Nederlandse v Vereniging tot Bescherming von Vogels v Straatssecretaris Van Landbouw, Natuurbeheer en Visserij* (C-127/02: [2005] Env. LR14 [ECJ])

appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects".

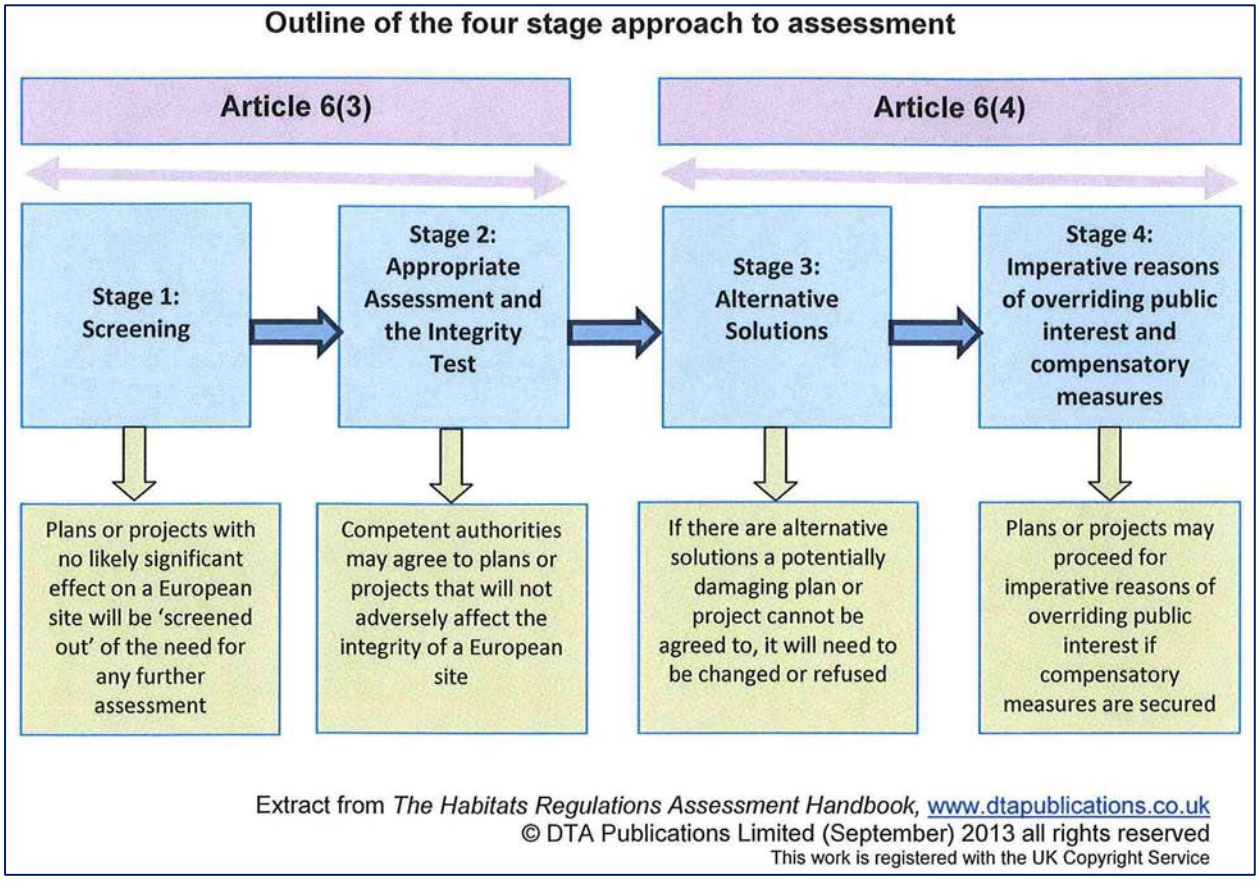

Figure B.1: Outline of the four stage approach to a Habitats Regulations Assessment

Taking account of advice from the statutory nature conservation body, they should consider whether the effect of the proposal on the site, either individually or in combination with other proposals[10], is likely to be significant in terms of the ecological objectives for which the site was designated, classified or listed. The statutory nature conservation body in England and its territorial waters out to 12 nautical miles (nm) is Natural England. Beyond that, in offshore waters, it is usually the Joint Nature Conservation Committee (JNCC), but arrangements have been made in some cases for Natural England to be the single consultee for both jurisdictions for projects, such as offshore wind farms, which may straddle the 12nm limit.

If a plan or project would not be likely to have a significant effect on the site alone, it should nevertheless be considered in combination with other plans and projects to establish whether there would be likely to be a significant effect arising from their combined impacts.

Stage 2: The 'appropriate assessment' and 'integrity test'

If the decision-maker concludes that a proposed plan or project not directly connected with or necessary for site management is likely to significantly affect a European site, they must

[10] Regulation 61(1)(a)

make an 'appropriate assessment' of the implications of the proposal for the site in view of the site's conservation objectives[11]. These relate to each of the qualifying features for which the site was designated, classified or listed and will be provided by the statutory nature conservation body. The scope and content of an appropriate assessment will depend on the nature, location, duration, frequency, timing and scale of the proposed project and its effects, and the qualifying features of the relevant site. It is important that an appropriate assessment is made in respect of each qualifying feature for which a likely significant effect has been identified, and for each designation where a site is designated, classified or listed under more than one international obligation.

In the Waddenzee judgment, the European Court ruled that an appropriate assessment implies that all the aspects of a plan or project which can, by themselves or in combination with other plans or projects, affect the site's conservation objectives must be identified in the light of the best scientific knowledge in the field.

In the light of the conclusions of the appropriate assessment, the decision-maker must determine whether it can ascertain that the proposal will not adversely affect the integrity of the site(s)[12]. This test incorporates the precautionary principle. It is not for the decision-maker to show that the proposal would harm the site, in order to refuse the proposal. It is for the decision-maker to consider the likely and reasonably foreseeable effects and to ascertain that the proposal will not have an adverse effect on the integrity of the site before it may grant permission. If the proposal would adversely affect integrity, or the effects on integrity are uncertain but could be significant[13], the decision-maker should not grant permission, subject to the provisions of regulations 62 and 66, which relate to alternative solutions, imperative reasons of overriding public interest and compensatory measures. These are not discussed further in this report because they are not relevant to the research.

In the Waddenzee judgment, the European Court also ruled that a plan or project may be authorised only if a decision maker has made "*certain*" that the plan or project will not adversely affect the integrity of the site. "*That is the case where no reasonable scientific doubt remains as to the absence of such effects*." Decision-makers must be "*convinced*" that there will not be an adverse effect and where doubt remains as to the absence of adverse effects, the plan or project must not be authorised, subject to the procedure outlined in Article 6(4) of the Habitats Directive[14].

The integrity of a site is the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified, designated or listed[15].

[11] Regulation 61(1)
[12] Regulation 61(5)
[13] See *ADT Auctions Ltd v Secretary of State Environment, Transport and the Regions and Hart District Council* (2000) JPL 1155 at p. 1171 where it was held to be implicit in the wording of reg 61(5) that the adverse effect on the integrity of the site had to be a significant adverse effect.
[14] Regulation 62
[15] *Habitats Regulations Assessment* draft guidance from Defra July 2013, and formerly in Government Circular: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. ODPM Circular 06/2005

In determining the effect on site integrity, the advice of the statutory nature conservation body, the conservation objectives and any additional representations will need to be carefully considered. The UK courts have held that considerable weight should be given to the representations of the statutory nature conservation body and their advice should be adopted unless there are cogent and compelling reasons not to do so[16].

As part of the judgement on integrity, the decision-maker must consider the way in which it is proposed to carry out the project and whether conditions or other restrictions would enable it to ascertain that site integrity will not be adversely affected[17]. The decision-maker should consider whether a consent could be issued in accordance with regulation 61 subject to conditions. In practice, this means that it should identify the potential risks so far as they may be reasonably foreseeable in light of such information as can reasonably be obtained, and put in place a legally enforceable framework with a view to preventing the risks from materialising[18].

B.3 How the scale of an effect might influence the stage 1 and 2 conclusions

The scale of an effect, whether upon a habitat or a species is relevant to both the stage 1 screening decision and the stage 2 integrity test. In terms of the screening decision the extent to which an effect might 'undermine the conservation objectives' will be influenced by its scale. Where a qualifying habitat is concerned, an effect over a very small area might not undermine the conservation objectives, whilst the same type of effect over a much larger area could. Where species are affected the loss of a small number of individuals might not undermine the conservation objectives if the population nevertheless remains self-sustaining. However, a point will be reached where the predicted mortality could be considered to undermine the conservation objectives, so a decline in population could not be ruled out.

Turning to the stage 2 integrity test, in light of the accepted definition of integrity quoted in B.2 above, a site's integrity is inextricably linked to the concept of the scale of an effect. For both habitats and species the scale of an effect will clearly be a key factor in whether it is possible for a competent authority to ascertain that the proposed plan or project will have no adverse effect on the integrity of the site concerned.

[16] *R (Akester and Anor) v DEFRA and Wightlink Ferries* [2010] EWHC 232 (Admin)
[17] Regulation 61(6)
[18] See *WWF-UK Ltd and RSPB – v – Secretary of State for Scotland et al* [1999]1 C.M.L.R. 1021 [1999] Env. L.R. 632 opinion of Lord Nimmo-Smith

C The Case Studies

C.1 Selection

The researchers compiled a list of potentially relevant cases drawn from:

i. their own library of decisions, and their empirical knowledge of case work;
ii. a further web-based search of European Court judgments and opinions;
iii. a web-based search for decisions relating to nationally significant infrastructure projects and projects consented under the Electricity and Pipeline Acts in England and Wales and their territorial and UK offshore waters; and
iv. suggestions made by officers in Natural England following an e-mail enquiry of case officers by the research project manager.

During January and February 2015, over 180 cases were identified as being relevant to the assessment of plans and projects affecting European sites. Following an initial screening exercise, forty nine decisions were subject to detailed examination in this review as being relevant to the consideration of small scale effects. Details of these decisions are provided in the Appendix (Part E). Four cases have been omitted from the analysis, although they are retained in section E so as to provide a complete record of all of the EC opinions. However, these four cases cannot reasonably be regarded as 'small scale effects', they are:

- E.46 The Siegerland Industrial Estate because loss would be 100% of the 85ha SCI;
- E.47 Rotterdam port extension affecting a total of 3,175ha of designated habitat;
- E.48 Prosper Haniel colliery which affected 852ha or 13% of the SCI; and
- E.49 Daimler Chrysler Aerospace because the 171ha loss was 21% of the SCI.

Three cases have been written up in detail because readers may find them helpful but they have not been included in the detailed analysis of this section for the following reasons:

- E.8: RSPB v Secretary of State and BAE Systems (the Ribble) because at the time of writing it is understood that the judgment has been referred to the Court of Appeal, so the case cannot be regarded as settled (see section A.7 of this report);
- E.25: Mawcarse, Loch Leven, because although the output of potential pollutant was identified accurately there is no way of assessing its scale relative to the issue of pollution in Loch Leven and therefore the effect it might have had;
- E.36 the European Commission's opinion in the B252/B62 Bypass case because no quantitative assessment can be made.

Thus, 42 decisions were included in the detailed analysis of small scale effects in part D of this report.

C.2 The summary tables

Tables C.1 to C.5 below list the cases which were identified as relevant to this report in that the scale of the effect was material to the decision taken. They are initially sorted by type of decision maker as follows:

- Table C.1 judgments of the European Court;
- Table C.2 judgments of the UK courts;
- Table C.3 decisions of the Secretary of State, Scottish or Welsh Ministers;
- Table C.4 decisions of Planning Inspectors / Reporters;
- Table C.5 opinions of the European Commission.

All the cases can be divided into three ‘categories’ of effect. These categories are helpful in drawing conclusions from the review and in considering how the decisions relate both to each other, and to new casework. The categories are considered further in the discussion of the cases later in this report, but they are:

- Habitat loss: where the scale of the effect refers to the direct loss of a qualifying habitat;
- Habitat deterioration: where the scale of effects refers to a deterioration in ecological function of a qualifying habitat;
- Species: where the scale of the effect refers to reduction in the population of a qualifying species.

These cases are then subsequently considered in more detail in the Appendix (Part E) and discussed in the next section D.

Tables C.1 to C.5:

a) identify the case by reference, title or familiar short title;
b) provide the date of the decision (or principal decision);
c) indicate whether the cited scale of effect was considered by the decision maker, or the Court, to be a ‘likely significant effect’ (LSE) at stage 1 of the process; and, where relevant;
d) indicate whether it was concluded that the proposal would or could have an adverse effect on the integrity of the relevant European site (AEOI) at stage 2 of the process (in some cases ‘N/A’ (not applicable) is listed in this column where, for various reasons, the case did not consider the integrity test decision, for example, a case in the European court that did not need to go beyond stage 1 in order to consider the matter before the court or, in other cases, where the documentation was unclear as to the integrity test decision);
e) state the ‘category’ of effect and summarise the key quantities and proportions relevant to the scale of effects in the decision.

These conclusions were either explicitly stated in the decision or judgment, or they may be drawn by obvious implication from the text of the decision, or the procedure adopted. For example, if the decision maker undertook an appropriate assessment they must have concluded that the proposal would have been likely to have a significant effect on the site, or at least that such an effect could not be ruled out.

Table C.1 Summary table of the decisions of the European Courts reviewed in this report				
Decision of European Court	**Date**	**LSE**	**AEOI**	**Category and key figures relating to the scale of effect**
European Court Judgments				
1. EC vs Spain C-404/09 (Alto Sil)	24/11/11	Yes	N/A	**Habitat loss:** Site overall is 43,706 ha. Precise figures not clear from documentation, either: a) Loss of 89ha (0.2% of site), or b) Loss of 19ha (0.04% of site) Specifically rejected an argument that loss of 17.92ha (0.04%) of supporting SPA habitat was insignificant.
2. EC vs Italy C-304/05 (World ski championship)	20/09/07	Yes	N/A	**Habitat loss:** SPA of 59,809 ha. 2500 trees felled in corridor of 2.5ha (0.004% of site) a LSE for at least the habitat of the black grouse.
3. EC vs Portugal C-239/04 (Castro verde)	26/10/06	Yes	Yes	**Habitat deterioration:** 2.1% of SPA (1,700 ha of 79,066 ha) effectively separated from rest of the site was an adverse effect on integrity. Habitat loss due to the motorway construction not known.
4. EC vs Austria C-209/02 (Woorschacher Moos)	29/01/04	Yes	Yes	**Habitat loss:** SPA was 400ha. Area of SPA affected by extension was no more than 25ha (6.25% of the site).
5. EC v Spain C-355/90 (Santona Marshes)	02/08/93	Yes	Yes	**Habitat loss:** SPA 6,765ha. Direct habitat loss of 185ha (prior to classification) represented 2.7% of SPA which was later classified and possibly some 0.5% of the entire wetland of 30,000ha. By implication a LSE and an AEOI.
European Court Rulings				
6. Briels v Minister C-521/12	15/05/14	Yes	Yes	**Habitat deterioration:** SAC was 897 ha. 11.5ha of *Molinia* meadow affected (1.28% of site).
7. Sweetman vs An Bord Pleanala C-258/11	11/04/13	Yes	Yes	**Habitat loss:** Site was 25,247ha. Loss of 1.47ha of limestone pavement from 270ha within the site. Loss of 0.54% of the feature and 0.006% of the site.

Table C.2 Summary table of the decisions of the UK Courts reviewed in this report				
Decision of UK Court	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
8. RSPB v SoS and BAE Systems (Ribble)	14/05/14 High Court	No	No	**Species:** reduction to 75% of population at classification would not undermine the conservation objectives and would not be an AEOI [judgment subject to challenge].
9. RSPB v SoS CLG (Lydd Airport)	16/05/14 High Court	No	N/A	**Habitat loss:** SAC is 3,224ha. Overall 1.82 ha of SAC affected (0.056%) identified as suitable great crested newt habitat only but would not be an adverse effect due to the "insignificant loss" of habitat and proposed mitigation measures and in any event, area affected was not an Annex 1 habitat qualifying feature.
10. Bagmoor Wind v Scottish Ministers	07/12/12 Inner House (Scotland)	Yes	Yes	**Species:** 19 pairs of eagles within SPA (over 4% of total Great Britain breeding population and 5.2% of the breeding population of 19 pairs in the SPA). It was accepted that loss of one breeding pair (ie: loss of one eagle) would be AEOI.

Table C.2 Summary table of the decisions of the UK Courts reviewed in this report				
Decision of UK Court	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
11. Akester v DEFRA (Wightlink)	16/02/10 High Court	Yes	Yes	**Habitat loss & Habitat deterioration:** Sites affected were Solent Maritime SAC (11,325 ha) and Solent and Southampton Water SPA (5,505 ha).Predicted loss of 0.4ha of inter-tidal habitat per decade and detrimental habitat change of 1.3ha per decade which would continue for decades. Overall scale of effect from project is 1.7ha/decade (0.015% of SAC and 0.03% of SPA per decade) of which habitat loss is 0.003% of SAC (0.007% of SPA) per decade and degradation is 0.012% of SAC (0.027% of SPA) per decade.
12. Skye Windfarm Action Group v Highland Council	01/02/08 Outer House (Scotland)	Yes	No	**Species:** Adverse impacts on the Cuillins golden eagle SPA were not predicted if the mortality of sub-adult eagles was below one per year.

Table C.3 Summary table of the decisions of the Secretary of State (SoS) reviewed in this report				
Decision of SoS	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
13. Hornsea Project One offshore wind farm	10/12/14	Yes	No	**Species:** PBR threshold values 362 gannets was used to determine effects applying a 'building blocks' approach to in combination effects. So annual mortality of 127 gannets (0.6% of the SPA population) no AEOI, but did not apply Natural England's preferred methods of calculation
14. Walney Extension offshore wind farm	07/11/14	Yes	No	**Habitat loss:** SPA extends to 37,404ha, SAC is 61,506. Definitive figures are not clear from documentation. Loss of 0.033% of total saltmarsh feature area ("a very small amount") was no LSE but note also low level risk. However LSE for intertidal mudflats and sand flats due to cable installation and rock armour. 0.41% of overall 600ha of feature affected, appropriate assessment concluded no AEOI due to "small area affected and rapid recovery time" (no change in habitat features expected to occur).
15. Burbo Bank Extension offshore wind farm	26/09/14	Yes	No	**Species:** SPA is 170,293ha. Windfarm would cover 7.81% of the SPA. Risks to red throated divers from displacement only (fly below turbines). With 3km buffer suggested that 11.88% of the SPA affected. Estimated that 9.15% of the SPA population would suffer from density dependent mortality. SoS concluded that the mortality levels would not prevent the site from achieving favourable conservation status because risk would not take population below the level at classification. So no AEOI.
16. North Killingholme Power Station	11/09/14	No	N/A	**Habitat loss:** cooling water intake structures required up to 4 piles within the SAC. Construction footprint of 3.2m^2 (0.0000019%) of total sub tidal habitat and even less of total SAC. SoS considered impacts to be "negligible".
17. Rampion offshore wind farm	16/07/14	Yes	No	**Species:** SPA is 212ha. Potential Biological Removal (PBR) threshold values (between 286 and 381 birds per year for gannet; between 250 and 350 birds per year for kittiwake) were used. Other relevant projects were estimated to result in a gannet mortality rate of 137 birds per year and a kittiwake mortality rate of 195 birds per year from the SPA. The proposal was calculated to add 7 gannets making a total of 144 and 22 kittiwakes making a total of 217 birds, well below PBR thresholds for species.

Table C.3 Summary table of the decisions of the Secretary of State (SoS) reviewed in this report				
Decision of SoS	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
18. East Anglia One offshore wind farm	17/06/14	No	N/A	**Species:** SPA is 2,417ha. Predicted mortality of lesser black-backed gulls to arise from other wind farms considered in-combination with the proposal would be 246, but the proposal's contribution to the in-combination mortality total in respect of breeding birds from the Alde-Ore Estuary SPA (3-7) would be so small as to not materially alter the overall in-combination mortality figure, or the likelihood of an adverse effect on integrity of the SPA.
19. Able Marine Energy Park	18/12/13	Yes	Yes	**Habitat loss: Humber Estuary SPA** is 36,630ha. Permanent direct loss of 31.5ha of intertidal mudflat (with functional loss of a further 11.6 ha) was an AEOI alone for SPA due to importance of the areas affected for black-tailed godwits. Losses equate to 0.12% of the whole SPA and 0.46% of the inter-tidal mudflat feature. Note also the loss of important roost site outside the SPA, but close to the feeding grounds which were in the SPA.
		No	N/A	**Habitat Loss: Humber Estuary SAC** is 36,557ha. Permanent direct loss of 13.5ha sub-tidal habitat and 31.5ha of intertidal mudflat equated to 0.12% of the total SAC estuary feature, including 0.33% of mudflat feature and 0.1% of the sub-tidal resource. All deemed to have a "very minor effect". NE and applicant had agreed that this was a LSE.
20. Triton Knoll offshore wind farm	11/07/13	No	N/A	**Species:** Population Viability Allowance (PVA) threshold of 94 used (NE proposed 75). Impact of project alone was 8 mortalities (0.12% of population at classification). All agreed no LSE alone.
21. Galloper offshore wind farm	24/05/13	Yes	No	**Species:** SPA is 2,417ha predicted annual mortality of 119 LBBG which is 3.3% of SPA 2012 population and 0.4% of conservation objective target. LBBG in unfavourable declining status with management measures required to address the decline. Unable to conclude no AEOI without 100% mitigation, which was achieved by measures included and imposed by conditions.
22. Hinkley Point C nuclear power station	19/03/13	No	N/A	**Habitat deterioration:** Thermal regime: Environment Agency concluded no LSE. In combination assessment stated that the mixing zone from Hinkley Point B combined with that from construction discharge would impact on less than 0.2% of the estuaries feature and hence was insignificant. Entrainment: assuming 100% entrainment mortality, the predicted worst case loss of *Sabellaria* larvae was calculated as 0.33% per day which was considered insignificant given that the natural mortality is estimated at 9% per day.
		No	N/A	**Habitat loss:** During construction there should be no physical damage to the *Sabellaria* reef, although it is noted that a small area of potential *Sabellaria* reef did fall within the rock armour barge berthing and unloading area. This area equated to less than 0.05% of the SAC reef feature and was not considered significant.

Table C.3 Summary table of the decisions of the Secretary of State (SoS) reviewed in this report				
Decision of SoS	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
23. Kentish Flats Extension offshore wind farm	19/02/13	Yes	No	**Species:** Outer Thames Estuary site is 379,268ha. 0.5% of SPA population displaced by project "alone" which SoS accepted as "so small as to be negligible". In combination with *existing* windfarms displacement was 9.3% of SPA population which was concluded as no AEOI. However, in combination with *proposed* London Array 2 (not yet determined) affects might be adverse.
		No	N/A	**Habitat loss:** Application area covered 0.4% of SPA, worst case infrastructure footprint affects 0.003% of SPA; SoS and NE agreed this loss to be negligible.
24. London Gateway port	2/5/08	Yes	Yes	**Habitat loss:** 5ha of SPA habitat lost (0.1% of SPA) AEOI with effects on habitat deterioration.
		Yes	Yes	**Habitat deterioration:** functional change over 60ha (1.24%) Overall effects of habitat loss and deterioration represent 1.34% of the SPA. AEOI with effects on habitat loss.
25. Mawcarse Loch Leven	23/12/05	Yes	No	**Habitat deterioration:** Without mitigation, an increased loading of phosphorous to the site of 8,100mg/day. Mitigation measures enabled a conclusion of no AEOI.
26. Port of Hull Quay 2005	21/12/05	Yes	Yes	**Habitat loss:** SAC is 39,493ha and SPA is 15,203ha. Loss of 4ha from site (0.01% of SAC, 0.03% of SPA).
27. Immingham Outer Harbour	07/07/04	Yes	Yes	**Habitat loss:** SPA was 15,203ha at time of decision. Loss of 22ha from pSPA and 5ha from outside SPA. 22ha represents 0.14% of the SPA.
28. Gilwerne Pipeline	03/07/02	Yes	Yes	**Habitat loss:** Site is 1,686ha, with 350ha of dry heath. 2.5ha of heath affected (1ha to be turfed and 1.5ha to double topsoil stripping) representing 0.7% of feature and 0.09% of site. DTI was not of the view that this should be construed as de minimis.
29. White Horse Millennium Landmark	27/03/02	Yes	No	**Habitat loss:** Inspector's calculations were on basis of cSAC being 120ha but designated SAC is 182ha. Based on Inspector's calculations, loss of between 0.02 – 0.0665ha of habitat, represented 0.017% to 0.056% of the site (based on 182ha it would be 0.011% – 0.036% of the site).
30. Linshaws Quarry	20/03/02	No	N/A	**Habitat loss:** Secretary of State decided that, due to the scale of effect being so small (0.00153% of site), on balance, any potential conflict with national planning policy was not sufficient to justify his intervention by a 'call-in'.
31. Barksore Marshes revocation	09/11/98	Yes	Yes	**Habitat loss:** Loss of 16.5% of grazing marsh from within SPA is AEOI, Inspector stated that even smaller losses (of, say 5% or 1%) of a habitat might also be unacceptable.
32. Mostyn Docks	19/08/96	No	N/A	**Habitat loss:** Assuming SPA is 13,055 ha, of which 9,000 ha is mudflat, on the basis of a loss of 5.67 ha of mudflat from the designated site, the loss would be 0.04% of the SPA and 0.063% of the mudflat resource within the SPA.

Table C.4: Summary table of decisions of Planning Inspectors / Reporters reviewed in this report				
Inspector	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
33. Thameside Terminal	14/06/10	Yes	Yes	**Habitat deterioration:** Reserve adjacent represented 5% of SPA area but hosted 27% of total SPA population. Concluded that appeal should be refused on HRA grounds alone.
34. The Wash Eider Duck	19/09/06	Yes	Yes	**Habitat deterioration:** Total area of SPA is 62,212ha. Mussel cultures occupy 263ha or 1.4% of intertidal flats. Disturbance over 50% of area considered a risk of AEOI due to loss of potential feeding area. Area affected was 0.21% of SPA.

Table C.5: Summary table of the Article 6(4) Opinions of the EC reviewed in this report				
Article 6(4) Opinion	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
35. River Main channel deepening	04/2013	Yes	Yes	**Habitat loss:** 0.946ha of priority habitat lost and 0.644 ha of another habitat. Overall size of both sites is 1,706ha (individual sizes not given) so overall habitat loss across both sites represents 1.59ha or 0.09% of sites.
36. B252/B62 Bypass	05/2012	Yes	Yes	**Habitat loss:** Road crosses the Obere Lahn und Wetschaft mit Nebengewässern SCI at three locations. The site is riverine and so the scale of the effect, although not quoted, will be very small.
37. Elbe River Dredge Channel	11/2012	Yes	Yes	**Habitat deterioration:** The four sites affected cover 491.2ha in total. Whilst there was no direct loss of the features, changes due to salinity and wave energy were anticipated to lead to "virtual losses" of an area of the priority species equivalent to 59.15ha and to an area evaluated as 320.7 ha of the habitat 'estuaries'. ie: 12% of site for priority species and 65% of site for estuaries.
38. Schiersteiner Brucke	09/2011	Yes	Yes	**Habitat deterioration:** SCI affected covers an area of 71.6ha. The direct use of land is avoided but the site will be affected functionally over an area of 0.19ha (0.2%).
39. Goyr Town Development Plan	01/2011	Yes	Yes	**Habitat loss:** Overall loss of 155ha (5.5% of site). As regards the species of Community interest the allocations would lead to a loss of approx. 500 plants of *Iris humilis ssp. arenaria* (no more than 5% of the population on the site) and will also have negative impact on several thousand individuals of Carabus hungaricus.
40. A49 Motorway Extension	12/2010	Yes	Yes	**Habitat loss:** The SCI affected covers 2,688ha. The total loss of the habitat types 9110 and 91EO* would be limited to approximately 0.96 ha. The priority habitat type 91EO* will be affected on 0.09 ha by the placement of bridge abutments and the construction of the motorway. **Habitat deterioration:** Increased nitrogen depositions from road traffic would affect the habitat type 91EO* and its characteristic plant species over an area of 5.50 ha. A possible deterioration of the conservation status of this priority habitat type was therefore expected. Habitat loss is 0.035% of total SCI with increased N deposition affecting 0.2% of site.
41. A20 Motorway	06/2010	Yes	Yes	**Habitat loss:** SCI affected covers an area of 1,280ha. A surface of 1,027m² is completely covered by a bridge abutment on the Eastern slope of the valley (Hangwald). **Habitat deterioration:** Also the fragmentation of the forest complex by one break of 90 m width, additional air pollution and nitrogen depositions caused by the traffic as well as traffic-related disturbances, which will affect the priority habitat types. Overall loss of 0.1ha (0.008% of SCI).

Table C.5: Summary table of the Article 6(4) Opinions of the EC reviewed in this report				
Article 6(4) Opinion	**Date**	**LSE**	**AEOI**	**Key issue relating to scale of effect**
42. Lubeck Airport	05/2009	Yes	Yes	**Habitat deterioration:** SCI affected covers 345ha and surrounds the airport. All construction works would be carried out outside the perimeter of the SCI but the operation of the enlarged airport will impact 12ha of a priority habitat type due to increased air pollution. Scale of effect is 3.4%.
43. Baden Airport	06/2005	Yes	Yes	**Habitat loss:** SCI affected is 225ha. Habitat type 2330 (area covered 3.99ha, predicted loss of 1.5ha and temporary use of 0.47ha). Habitat type 4030 (area covered 0.05ha, temporary use of 0.02ha). Habitat type 6230 (area covered 25.47ha, loss of 3.32ha and temporary use of 2.88ha). Habitat type 6510 (area covered 60.6ha against loss of 3.28ha and temporary use of 10.17ha) If aggregated, 8.1ha (9%) of the total 90.11ha of the sites affected would be lost and 13.54ha (15.02%) would be used temporarily.
44. TGV East	11/2004	Yes	Yes	**Habitat loss:** Project will lead to destruction of 3.75ha of salt meadow and sub halophytic meadow representing 0.55% of the habitat type in France, 18.6% of the feature within the site and 0.5% of the whole site.
45. La Brena Dam	05/2004	Yes	Yes	**Habitat loss:** Proposed reservoir would flood an existing reservoir within an SCI and occupy 626ha of the SCI which is 1.04% of the total area.
46. Siegerland Industrial Area	04/2003	Yes	Yes	**Habitat loss:** Project consists of creation of industrial and commercial area of 140ha of which 85ha has been designated SCI. Project affects entire SCI and would lead to "*large scale destruction*". Derogation case not accepted by EC.
47, Rotterdam Port Expansion	04/2003	Yes	Yes	**Habitat loss:** Project would lead to effects over 19.5ha of grey dunes (*), 23ha of White Dunes and 3,125ha of sandbanks slightly covered by seawater at all times.
48. Prosper Haniel Colliery	04/2003	Yes	Yes	**Habitat loss:** 96ha of SCI habitat affected, of which 16ha is two priority habitats (91D0 and 91E0) which cover 17ha of one site and 21ha of the other, so 42% of priority habitats lost following anticipated subsidence and creation of new lakes. Two sites affected of 709ha and 143ha (combined size of 852ha) so overall 13% of sites would be affected.
49. Daimler Chrysler Aerospace	19/04/00	Yes	Yes	**Habitat loss:** Project located on 171ha of a river basin designated as SCI. Overall SCI is 795ha so loss of 21% of site.

D Discussion and conclusions

D.1 Introduction

This section discusses the findings of the research for the 42 cases included in the detailed analysis as explained in section C.1. It explores their implications for decision-makers.

The 42 decisions can be divided into three main categories (as shown in the right hand column of Tables C.1 to C.5) relating to the nature of the 'scale of effect' (although some cases are relevant to two categories):

- Habitat loss – where the scale of effect refers to the loss of designated habitat, including effective loss caused by displacement of species from habitat that would otherwise be available to them, through such effects as disturbance;
- Habitat deterioration – where the scale of effect refers to deterioration of designated habitat;
- Species – where the scale of effect refers to population decline of designated or classified species.

Each is considered in turn.

D.2 Habitat loss

Habitat loss is relevant to 27 of the 42 cases.

Table D1 below lists the decisions for which the scale of the effects considered related to habitat loss.

Table D.1: decisions listed by decision maker where the scale of effects related to habitat loss

PART A
Decisions where habitat loss was considered LSE and in all but one case AEOI

Case	Area lost	%age Feature	%age Site	Assessment
European Court				
1. EC vs Spain C-404/09 (Alto Sil)	17.92ha		0.04%	Significant. Uncertainty about other values.
2. EC vs Italy C-304/05 (ski chmpnsh)	2.5ha		0.004%	AEOI at least for habitat of black grouse.
4. EC vs Austria C-209/02 (Woor' Moos)	25ha		6.25%	AEOI.
5. EC v Spain C-355/90 (Santona M)	185ha		2.7%	By implication must have been equivalent to an AEOI.
7. Sweetman C-258/11	1.47ha	0.5%	0.006%	AEOI.
UK Courts				
11. Akester v DEFRA (Wightlink)	0.4ha/ Decade		0.003% 0.007%	0.003% SAC, 0.007% SPA with habitat deterioration implied AEOI.
Secretary of State				
14. Walney Extension offshore wind farm		0.033% 0.41%		0.033% saltmarsh 0.41% mudflat (rapid recovery time) LSE no AEOI.

Table D.1: decisions listed by decision maker where the scale of effects related to habitat loss				
19. Able Marine Energy Park		0.46%	0.12%	SPA: NB loss of important roost site outside the SPA, AEOI of SPA.
24. London Gateway	5ha		1.0%	NB: Habitat deterioration effects AEOI.
26. Port of Hull Quay 2005	4ha		0.01% 0.03%	0.01% of SAC, 0.03% AEOI of SPA.
27. Immingham Outer Harbour	22ha		0.14%	AEOI of SPA.
28. Gilwerne Pipeline	2.5ha	0.7%	0.09%	AEOI of SAC.
31. Barksore Marshes	84ha	16.5%	1.79%	AEOI of SPA.
EC opinions				
35. River Main channel deepening	1.59ha		0.09%	AEOI.
39. Goyr Town Development Plan	155.5ha		5.5%	AEOI.
40. A49 motorway extension	0.96ha		0.035%	NB: Habitat deterioration effects AEOI.
41. A20 motorway	0.1ha		0.008%	NB: Habitat deterioration effects AEOI.
43. Baden Airport	8.1ha		3.6%	AEOI.
44. TGV East	3.75ha	18.6%		AEOI.
45. La Brena Dam	626ha		1.06%	AEOI.
PART B ***Decisions where habitat losses were considered not to be significant***				
Case	**Area lost**	**%age Feature**	**%age Site**	**Assessment**
Secretary of State				
9. RSPB v SoS CLG (Lydd Airport)	1.82ha		0.056%	But no qualifying habitat feature affected, only great crested newt supporting habitat.
16. North Killingholme Power Project	$3.2m^2$	0.0000019%		Sub tidal habitat 16,800ha.
19. Able Marine Energy Park	45ha 31.5ha 13.5ha	0.12% 0.33% 0.1%		SAC: 0.12% of the total SAC estuary feature, including 0.33% mudflat feature and 0.1% sub-tidal.
22. Hinkley Point C	unknown	0.05%		0.05% of *potential* SAC reef feature.
23. Kentish Flats offshore wind farm	11ha		0.003%	Site is 379,268ha, loss considered "*negligible*".
29. White horse millennium landmark	0.02ha – 0.065ha		0.017% - 0.056%	Inspector's calculations used but if based on actual designated area loss would be 0.011% – 0.036% of the site.
30. Linshaws Quarry	0.99ha		0.00153%	
32. Mostyn Docks	5.67ha	0.063%	0.04%	0.063% of mudflat

With the exception of Barksore Marshes, which was the revocation of a damaging planning permission granted many years before the site was classified as an SPA, and therefore a retrospective decision differing from the others, the largest spatial losses appear to be those decided by the European court or the European Commission, compared to those of the Secretary of State. That may or may not reflect the likelihood that the Court and Commission will become involved in only the more serious cases, whereas the Secretary of State must apply the screening test to all cases that come before him for decision.

There is no evidence that any particular decision-maker has consistently applied a more or less rigorous judgement, at the screening or integrity test stages, in terms of small scale effects of habitat loss. Nor is there any evidence that any particular type of decision maker has regarded any specific range of smaller scale effects as either more significant or insignificant when compared to other decision makers.

Table D.2: comparison of ranges of scales of effect by decision maker

Decision maker	**Range of site %age losses considered to be significant**	**Range of site %age losses considered to be insignificant**
European court	0.004% - 6.25%	
UK Court	0.003% - 0.007%*	0.056%*
Secretary of State	0.01% - 1.79%	0.00153% - 0.056%
European Commission	0.008% - 5.5%	

* NB these values each refer to only a single case

However, it should be borne in mind that cases only reach the European Court because the Commission considers that there has been a breach of the Directive (a site has been or could be significantly damaged), and a decision only reaches the Commission for an opinion because the member state has already decided there would be an adverse effect on site integrity.

The effects on the conservation objectives are explicitly assessed in almost all (and all recent) decisions made by the Secretary of State, and are frequently referred to by the European court, but are less frequently explicitly referred to in other cases (see the case summaries in section E).

There is no evidence that any decision maker systematically applies any formula or 'rule-of-thumb' that either a certain level (expressed in say square metres or hectares) or a certain proportion (expressed as a percentage) is to be regarded as a significant or an insignificant effect, or is or is not to be considered as an adverse effect on site integrity.

On the contrary, the research clearly shows that these decision-makers take each case on its own merits and examine the actual or predicted effects on the qualifying features and assess the ecological functions that would be changed or otherwise affected or how the habitat loss would or could change the ecological structure or function of the site as a whole. In preparing the tables for this report the researchers have often had to calculate the percentage changes involved in habitat loss because they have not been cited or even

calculated in the case documentation and appear to have played no part, or only a limited part, in decision making.

There is no doubt that the Waddenzee ruling has been influential on decision makers at the screening stage, in terms of examining the "*characteristics and specific environmental conditions of the site*". Paragraph 49:

"49 ….pursuant to the first sentence of Article 6(3) of the Habitats Directive, where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site. The assessment of that risk must be made in the light inter alia of the characteristics and specific environmental conditions of the site concerned by such a plan or project."

The low weight that is given to relying simply on calculations of habitat loss as a percentage of the total area of a site, or spatial extent of a qualifying feature, can be appreciated from a range of quotations from the decision-makers themselves, for example from cases E.9, E.19, E.30 and E.31 as follows.

The judge in case E.9, Lydd Airport said in looking at the way in which the Inspector had approached his task:
"He is right not to treat any effect as an effect on integrity; but he does not commit the error of thinking that it is merely because the affected area is small, that there can be no effect on integrity. In reality, whether an adverse effect on a small proportion of a site would amount to an adverse effect on its integrity depends on the particular circumstances. The Inspector made no judgment that an adverse effect required a significant proportion of the site to be affected adversely"

The Secretary of State's letter in case E.19 the Able Marine Energy Park (AMEP) and its effects on the Humber Estuary SPA:
"*The Secretary of State agrees with the Panel that the AMEP development is likely to have a significant adverse effect on the Humber Estuary SPA and Ramsar site, having regard to the core purpose of their designations, namely the protection of habitats of importance for migratory birds. He notes that construction of the new quay will lead to a reduction in the extent and distribution of estuarine and inter-tidal habitat, including the loss of food supply from 31.5 hectares of inter-tidal mudflat; and that an additional 11.6 hectares of mudflats is likely to have reduced functionality as a result of disturbance*.

No reference is made here to the percentage of the SPA that would be affected. The screening decision is concentrating on the ecological implications of the habitat loss and the ecological importance of the function performed by the affected habitats. And similarly in the same letter, in respect of the insignificant effect on the SAC, it is not merely the scale but the type of habitat affected and how its ecological function may be changed:

"*In relation to the Humber Estuary SAC as a whole, the Secretary of State agrees with the Panel's assessment that, having regard to the size of the SAC, the loss of ecological function as a result of the AMEP development will be small, and that the habitats are types that are found over a wide area. He agrees, therefore, that the loss of inter-tidal and*

estuarine habitat at North Killingholme (which cannot be mitigated) in itself will have a very minor effect on the SAC overall."

The Inspector in case E.31 Barksore Marshes at paragraphs 6.7 – 6.8 found as follows, placing weight on the functional value of the habitat rather than its percentage reduction, which he dismisses because he does not find it a helpful guide to effects:
"*I note that the development of the Order land could result in the loss of 16.5% of the grazing marsh in the SPA. That does not seem to me to be an insignificant proportion; I am aware of no policy guidance to suggest that even smaller losses (of, say, 5% or 1%) of a valued habitat type within an SPA should be regarded as being acceptable. Habitats can be as much affected by a number of small losses as by one major reduction*"

The Secretaries of State decision letter in case E.32, Mostyn Dock reiterates the approach where they disagreed with the Assessor's indication that the small scale of the effect on its own rendered it insignificant (paragraph 13 of the decision letter). "*The Secretaries of State do not accept that the small scale of the proposal is, on its own, sufficient to justify the conclusion that the development is insignificant and therefore acceptable. The significance of effects of a development are not necessarily related to its scale*". However, after considering all the evidence, in addition to scale, they concluded that there would be no likely significant effect on the SPA.

Examination of these cases involving habitat loss demonstrates that authoritative decision makers have never determined significance of effect on the basis of spatial scale or percentage of area of site or proportion of qualifying feature alone. Even in the case of the smallest loss (case E.16 North Killingholme), the very small size of the habitat loss was determined to be an insignificant effect as much on the basis of its location in the estuary and proximity to habitats regularly disturbed, as on the spatial scale ($3m^2$) or the proportion of the habitat (0.0000019% of the sub-tidal habitat).

These cases show that in practice, authoritative decision makers invariably consider a wide range of factors when determining the significance of effects, including the characteristics of the qualifying feature (for example, rarity, location, distribution, vulnerability to potential change), how the ecological structure and function of the site might be affected, what ecological function the affected area is performing, or could perform, in terms of the ecological requirements of the qualifying features, the location of the affected area both in terms of its geographic position in the designated site and in terms of its position relative to the project.

Scale is a factor, and can be an important factor, helping to determine the question of significance but, in light of these cases, never the only factor determining the question of significance.

It is likely to be because this is the approach adopted, that the cases demonstrate a wide variation in areas and percentages considered to be significant or insignificant as the case may be.

D.3 Habitat deterioration

Habitat deterioration was relevant to 11 of the 42 cases. Table D.3 below lists the decisions for which the scale of the effects considered concerned habitat deterioration.

Table D.3: decisions where the scale of effects related to habitat function				
PART A ***Decisions where the effects were considered LSE and in all cases AEOI***				
Case	**Area affected**	**% feature**	**% site**	**Effects**
European court				
3. EC vs Portugal C-239/04 (Castro verde)	1,700ha		2.1%	Fragmentation / severance AEOI
6. Briels v Minister C-521/12	11.5ha		1.3%	Acidification / drying out AEOI
UK court				
11. Akester v DEFRA (Wightlink)	1.3ha /decade		0.012% 0.027%	0.027% of SPA + habitat loss AEOI by implication
Secretary of State				
24. London Gateway	60ha		1.24%	NB: also habitat loss AEOI
Inspector decision				
33. Thameside Terminal	237ha		5%	Disturbance AEOI
34. Wash Eider Duck case	131.5ha		0.21%	Disturbance AEOI
EC opinion				
37. Elbe River Channel Dredge	59.15ha 320.7ha	12% 65%		Salinity / wave energy AEOI Salinity / wave energy AEOI
38. Schiersteiner Brucke	0.19ha	1.9%	0.27%	Shading & rain interception AEOI
40. A49 motorway extension	5.5ha		0.2%	Air pollution also habitat loss AEOI
42. Lubeck airport	12ha		3.4%	Air pollution AEOI
PART B ***Decisions where the effects were considered not to be significant***				
Secretary of State				
22. Hinkley Point C			0.2%	Thermal change

There is no evidence that any of the authoritative decision makers in this study take a different approach to the inclusion of habitat deterioration (as opposed to habitat loss) in assessing the significance of effects of projects on European sites. All types of decision-makers considered here have determined at least one case to have significant effects on the grounds of habitat deterioration (or a combination of habitat deterioration and loss).

The range of effects considered include fragmentation / severance, increased air pollution, increased salinity, increased wave energy, acidification and drying out, shading, rain interception and disturbance (in the sense that the qualifying feature would use the habitat less, rather than not at all – which would be habitat loss).

As in the case of habitat loss, there is no evidence that any particular decision-maker has consistently applied a more or less rigorous judgement, at the screening or integrity test stages, in terms of small scale effects of habitat deterioration. Nor is there any evidence that any particular type of decision maker has regarded any specific range of smaller scale effects as either more significant or insignificant when compared to other decision makers.

There is no evidence that any decision maker systematically applies any formula or 'rule-of-thumb' that either a certain level (expressed in say square metres or hectares) or a certain proportion (expressed as a percentage) is to be regarded as a significant or an insignificant effect, or is or is not to be considered as an adverse effect on site integrity.

Examination of these cases, involving habitat deterioration, show that authoritative decision makers have never determined significance of effect on the basis of spatial scale or percentage of area of site or proportion of qualifying feature alone.

Even in the case of the smallest loss considered to be significant (and an adverse effect on integrity) by the German authorities, (case E.38 Schiersteiner Brucke) the effects on the ecological structure and function of a priority habitat were studied in addition to the scale of the area that would be expected to deteriorate, noting in particular that in this case habitat loss had been avoided by design.

As in the cases involving habitat loss, authoritative decision makers invariably consider a wide range of factors when determining the significance of effects. Scale is a factor, and can be an important factor, helping to determine the question of significance of habitat deterioration but, in light of these cases, never the only factor determining the question of significance.

D.4 Effects on species

Population effects upon species are relevant to 10 of the 42 cases as shown in Table D.4 below, but case E.8 is not considered further because it is understood to be the subject of a Court of Appeal case. All other cases are those determined by the Secretary of State or Scottish Ministers.

Table D.4: decisions where the scale of effects related to species population decline

PART A
Decisions where the effects were considered to be LSE

Decision	Scale of Species Population Effect
UK Court	
10. Bagmoor Wind v Scottish Ministers	Loss of one individual eagle AEOI because of loss of one pair of breeding birds (5.2% of SPA breeding population)
12. Skye Windfarm Action Group v Highland Council	Predicted mortality less than the threshold of one sub-adult eagle mortality per year in combination
Secretary of State	
13. Hornsea Project One offshore wind farm	28 gannets project alone, 115-127 project in combination, PBR threshold 362 357-472 kittiwake with project in combination, PBR threshold 512
15. Burbo Bank extension offshore wind farm	Calculated collision risk 84 red-throated divers project alone, due to collision and density dependent mortality (9.15% of SPA population) but would not reduce population below that at classification of 922, so no AEOI
17. Rampion offshore wind farm	7 gannet mortalities project alone,144 in combination, below PBR range of 286 - 361 22 kittiwake mortalities project alone, 217 in combination, below PBR threshold range of 250 - 350

Table D.4: decisions where the scale of effects related to species population decline	
PART A ***Decisions where the effects were considered to be LSE***	
21. Galloper offshore wind farm	119 lesser black backed gulls 3.3% of 2012 population, 0.4% of conservation objective target, 100% mitigation required to enable consent to be given and avoid AEOI because of unfavourable status
23. Kentish Flats offshore wind farm	Displacement of 33 red throated divers 'alone' (0.5% of population) with possible density dependent mortality of 10 – 20 birds. Made little difference to the total in-combination effects (excluding London Array 2) of 580 birds (9.8% of population) no AEOI.
PART B ***Decisions where the effects were considered not to be significant***	
UK Court	
8. RSPB v SoS and BAE Systems (Ribble)	Case may be subject to further consideration by the courts Population reduction to 75% of that at classification no LSE
Secretary of State	
18. East Anglia One offshore wind farm	3-7 lesser black backed gull breeding season mortalities project alone, up to 286 in combination from other projects, addition of 7 to 286 so small as to not amount to a significant in combination effect
20. Triton Knoll offshore wind farm	Capacity within PVA threshold of 94 for 8 additional sandwich tern mortalities (0.12% of population)
22. Hinkley Point C nuclear power station	Entrainment: 0.33% of *Sabellaria* larvae per day and 0.55% in combination

Effects on species involved consideration of levels of mortality of the population of qualifying species – birds in all but one case (E.22) and in that case the species which creates the qualifying SAC habitat. Mortality would be caused by collision with wind turbines (all cases except E.22); or displacement by the construction and operation of wind turbines (E.23); or entrainment (E.22).

Estimates of collision risk for birds in respect of onshore and offshore wind turbines (9 of the 10 cases), in the UK, has become an established methodology, using the Band and / or Folkerts models. However, almost all cases involved disagreements between applicants and statutory nature conservation bodies as to the parameters, such as avoidance rate, or baseline population, to be used in such models. The calculation of potential biological removal (PBR) or population viability allowance (PVA) was used extensively in the Habitats Regulations Assessments undertaken on behalf of the Secretary of State in these cases. But again the figures derived from the analyses were subject to disagreement, often leaving the decision maker to adopt the role of adjudicator; sometimes favouring the statutory adviser's position, but at other times presenting cogent reasons for preferring and adopting the approach of an applicant or examining authority.

More of the population figures in Table D.4 could be expressed as percentages or proportions of populations, but little meaningful evidence could be drawn from such an exercise. Where PBR or PVA methodologies informed the decisions, the key issue was whether the calculated collision mortality or displacement mortality was simply or comfortably below the threshold calculated by these analyses indicating that the SPA population would not be expected to reduce or decline below a specified sustainable level. Whatever the proportion of the PBR or PVA thresholds that the predicted mortality rate may have been, adds nothing to the assessment. The thresholds themselves varied widely in a

range from 94 to 512 and collision mortality figures for a species found not to be significant varied from 7 to 472.

For example, a mortality rate of 22 kittiwakes, from the Flamborough Head and Bempton Cliffs SPA, caused by the Rampion project alone, or 217 in combination with other projects, in a breeding population of 83,370 pairs at classification, may appear to be a low percentage, 0.013% and 0.13% respectively, of the total population. However, in that case the in-combination mortality was only 33 below the lower end of the PBR range of 250 at which point predicted mortality could affect the population sustainability.

There is a danger of over-scrutinising and analysing these cases. In all the decisions on the nationally significant infrastructure projects the basis of the assessment on the SPA(s) population is clearly set out and rationally argued (whether or not the decision may be agreed by the statutory nature conservation body).

Cases 10 and 12 hinged entirely on biological (breeding) status of the eagles that may be affected. If it may be a member of a breeding pair in a specific SPA it would be an adverse effect on site integrity. If it was a non-breeding sub-adult bird in a 'floating' population not tied to a particular SPA, it may not be such an effect if the collision mortality was below the relevant threshold.

In all the wind farm / SPA cases decisions were not judgements made on a sliding scale of effects. They were decisions based on accepted mathematical models, using whatever parameters, such as avoidance rate, the decision-maker preferred and using accepted scientific analysis as to population viability, sustainability and dynamics. Where relevant there was a clear understanding of the position of parties who disagreed. Generally, these approaches had what the decision maker considered to be sufficient levels of precaution without adding further precautionary layers to a decision. However, in one case (E.21, see further D.6 below) where an SPA breeding population appeared to be at a particularly vulnerable status, this approach was supplemented by a precautionary decision to ensure that all potential mortality arising from the project would be offset by guaranteed mitigation measures.

D.5 Overall conclusions on effects of habitat loss, deterioration and on species

These cases show that in practice, authoritative decision-makers invariably consider a wide range of factors when determining the significance of small scale effects, including:

- the characteristics of the qualifying feature (for example, rarity, location, distribution, vulnerability to potential change);
- how the ecological structure and function of the site might be affected;
- what ecological function the affected area is performing, or could perform, in terms of the ecological requirements of the qualifying features;
- the location of the affected area both in terms of its geographic position in the designated site and in terms of its position relative to the project;

- where a qualifying species is affected, when the activities would occur, the rarity of individuals of the species, its conservation status and future prospects in the location in question.

Small scale effects are relevant to:

a) qualifying Annex 1 habitat types (for which SACs have been designated);
b) 'supporting' habitat for protected species (whether Annex II species for which SACs had been designated or bird species for which SPAs had been classified); and
c) individuals of a designated or classified species population.

There was a difference in influence exerted by each of the above factors, depending on whether the effect related to a qualifying habitat in its own right, a supporting habitat for a protected species, or individuals of the population of a designated or classified species.

In the case of small scale effects on a *qualifying* Annex 1 habitat type for which a SAC had been designated, the decisions reviewed suggest that it is the relative importance of the area affected in terms of the rarity, location, distribution, vulnerability to change and ecological structure which is most influential. The contribution the affected area made to the overall integrity of the site (and hence that site's contribution to the conservation status of that habitat type at a member state level) exerted a stronger influence over decision makers than the spatial extent of the effect.

In the case of small scale effects on a *supporting* habitat for a species (whether a designated SAC species or a classified SPA species), the decisions reviewed suggest it is the ecological functioning of that supporting habitat which is most influential: that is, what ecological function the affected area was performing, or could perform, and it's importance to the population of the species for which the site had been designated / classified. The contribution made by the area affected to the ability of the site to support the populations for which it had been designated or classified exerted a stronger influence over decision makers than the spatial extent of the effect.

In the case of small scale effects on *individuals* which make up the population of a species for which a site has been designated / classified, the decisions reviewed suggest that it is the timing of the activities, the rarity of individuals of the species and its conservation status and future prospects in the location in question which are most influential. The relative importance of the individuals affected to the sustainability of the population for which the site has been designated / classified exerted a stronger influence over decision makers than the number of individuals affected.

No two cases are the same. As already set out in section A.11 of this report, the circumstances of each case must be taken into account in interpreting the decisions. Moreover, it is not appropriate to apply the findings of one court decision as if it was a blanket rule to be applied regardless of the circumstances and in every case. Thus, for example, it cannot be assumed that, on the basis of the Sweetman ruling alone (case C – 258/11), any loss of habitat, no matter how small, whether it be priority habitat or not, should be regarded as an adverse effect on site integrity, simply because in the circumstances of

the Sweetman case, the loss of 1.47ha of the 270ha of limestone pavement in the SAC was ruled to be an adverse effect on the integrity of the SAC.

Even noting that the Advocate General said this in her Opinion on this case (paragraph 60 with emphasis added):

"….*measures which involve the permanent destruction of a part of the habitat in relation to whose existence the site was designated are, in my view, destined by definition to be categorised as adverse. The conservation objectives of the site are, by virtue of that destruction, liable to be fundamentally – and irreversibly – compromised*." (The Sweetman case fell into this category and the loss was an adverse effect on integrity).

It should equally be borne in mind that the same Advocate General had said in paragraph 48 of the same Opinion (emphasis added):

"The requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."

It is reasonable to suppose that a very small amount of loss, say one or two square metres, might not be regarded as an adverse effect on integrity. Indeed, in light of the Advocate General's advice, had the loss in the Lough Corrib SAC in the Sweetman case actually been only $2m^2$, the competent authority may have been justified in concluding that such a small scale loss had no appreciable effect and was not likely to be significant and no appropriate assessment was necessary.

D.6 Consideration of priority habitats and species

The brief specifically requested an analysis of the consideration of priority habitats and species and the extent, if any, that they may have influenced decisions.

It is important to bear in mind that 25 of the 49 cases in Tables C.1 to C.5 relate to effects on SPAs. No bird species are identified as a priority species in the Birds Directive, so this point is relevant only to the 25 cases which involved small scale effects on a SAC (one case involved small scale effects on both an SPA and a SAC).

Of the 25 involving effects on a SAC, 17 cases explicitly involved consideration of priority habitats or species. These were cases E.7 (Sweetman), E.29 the white horse millennium landmark and cases E.35 – E.49. However, by definition, all of the European Commission opinion cases (E.35 – E.49) involved the consideration of priority habitats or species because it is the potential effects on them that triggered the opinion procedure. Consequently, nothing can be drawn from these cases, as to the weight attached to the priority status, *a per pro* non-priority cases, because the Commission would not otherwise have been asked for an opinion.

Thus, only limited conclusions as to the influence of priority habitats or species may be drawn from just two cases.

Even taking account of the EC opinion cases, no document explicitly says that effects had been determined as significant because the feature affected was a priority habitat or species, and had it not been for that consideration the effects would not have been considered significant. Equally, no document indicated that effects had been determined as insignificant (or not an adverse effect on site integrity) because the feature affected was not a priority habitat or species, but had it been a priority feature the effects would have been considered to be significant (or adverse to integrity).

None of the cases had a document that explicitly stated that greater weight had actually been given to a priority habitat or species because of this factor, or as a corollary, that less weight had been given to effects on a feature because it was not a priority habitat or species.

At most, there is perhaps an implied additional weight, but it cannot, therefore, be quantified or objectively analysed any further. In Sweetman, for example, the Court appeared to give weight to the fact that the reduction in limestone pavement was the permanent loss of a priority habitat. Paragraph 42 of the judgment stated (emphasis added):

"Such an appraisal applies all the more in the main proceedings, since the natural habitat affected by the proposed road scheme is among the priority natural habitat types, which Article 1(d) of the Habitats Directive defines as "natural habitat types in danger of disappearance" for whose conservation the European Union has "particular responsibility".

And at paragraph 46 the Court ruled (emphasis added):

"Consequently, if, after an appropriate assessment of a plan or project's implications for a site, carried out on the basis of the first sentence of Article 6(3) of the Habitats Directive, the competent national authority concludes that that plan or project will lead to the lasting and irreparable loss of the whole or part of a priority natural habitat type whose conservation was the objective that justified the designation of the site concerned as an SCI, the view should be taken that such a plan or project will adversely affect the integrity of that site".

But in the subsequent Briels ruling, where the qualifying feature affected was not a priority habitat, and the effects were not necessarily permanent and resulted in deterioration of the habitat rather than loss, the court, arguably, seemed to apply as much weight to the feature as in Sweetman and determined that that habitat change would also be an adverse effect on site integrity.

In the case of the White Horse Millennium Landmark (E.29) the fact that the habitat affected was a priority habitat was noted by the Inspector / Secretary of State but appears to have made no difference to the decision as to the effects on site integrity, or the weight given to the value of the site in the ordinary planning judgement. This is in contrast to the researchers' empirical knowledge of cases where the Secretary of State, Scottish Ministers or Inspectors have given considerable weight to impacts on habitats identified as being priority habitats in Annex I of the Habitats Directive, where they occur outside a designated SAC and therefore the Habitats Regulations Assessment process does not apply.

D.7 Consideration of conservation status or site condition

The brief specifically requested an analysis of how decision makers took account of the conservation status of the qualifying features or the condition of the site.

As indicated in sections D.2 and D.3, the circumstances of the site and the characteristics of the qualifying features were regularly taken into account where relevant. One case decision appears to have been particularly influenced by the 'unfavourable declining' status of the qualifying feature, the lesser black-backed gull in case E.21, Galloper offshore wind farm. The Secretary of State determined that negative effects on the breeding population of gulls in the SPA (estimated to have reduced to 1,811 breeding pairs in 2012 from a peak of 25,000 pairs in 2000) had to be eliminated (100% mitigation of a potential annual mortality of 119 birds) in order to conclude that there could be no adverse effect on the integrity of the site.

In contrast the Secretary of State considered that in case E.15 that the 'favourable condition' of the Liverpool Bay SPA at classification was a relevant factor in deciding that the predicted mortality of 84 red-throated divers, caused by the Burbo Bank Extension offshore wind farm, in combination with others, would not have an adverse effect on the integrity of the SPA. It had an over-wintering population of 1,188 red-throated divers but the effects of the project would not reduce the population to a level below that at classification, which was 922 birds.

E Appendix - Case Summaries

Decisions of the European Court

The supporting documentation for the cases reviewed below in respect of decisions taken by the European Courts (E.1 to E.7) can be found on the European Court's InfoCuria website:

http://curia.europa.eu/juris/recherche.jsf?language=en

E.1 EC v Spain C-404/09 (Alto Sil)

E.1.1 Description of case

The authorisation of various open cast mining projects without a prior assessment. The case considered the effects of noise, vibration and fragmentation of habitat leading to isolation of sub populations within the Alto Sil SPA and SAC. The case concerned a long list of alleged failures of the Spanish authorities which are not all summarised below. The complexity of the various grounds of challenge is due to the timescale involved and the differing obligations which arose a) after the SPA was classified, b) after the SAC was proposed as a Site of Community Importance (SCI), and c) after SCI was formally registered. The summary below concerns only those aspects of the case where the scale of effect was relevant.

E.1.2 Location

The Alto Sil site is located in the north-west of the region of Castile-León in Spain, close to the regions of Galicia and Asturias, situated at the upper reaches of the river Sil.

E.1.3 Date of decision

24th November 2011.

E.1.4 Decision maker

European Court – Judgment.

E.1.5 Area of designated site

The Alto Sil SPA and SAC site covered an area of 43,706 hectares.

E.1.6 Area of habitat or number of individuals of species affected

The implementation of the Fonfría open cast mining project led to the deterioration of the Alto Sil SPA because habitat type 9230 – Galicio-Portuguese oak woods with *Quercus robur* and *Quercus pyrenaica*, which could have been used by the capercaillie, was destroyed over an area of 17.92 hectares (0.7% of the feature).

Paragraph 145 of the Advocate General"s opinion went on to state:

"According to those documents, the 93.9-hectare surface area envisaged in the original application for authorisation included 77.77 hectares of protected habitat types. The unauthorised works affected 35.24 hectares. Even assuming that the unauthorised operation had encompassed all the land surfaces that do not host protected habitat types, it would still have led to the loss of over 19 hectares of protected habitat types".

The footnotes to the Opinion clarify that the 77.77ha of protected habitat comprised 45.64 hectares (0.2% of feature) of habitat type 4030 – European dry heaths, 6.52 hectares of habitat type 8220 – Siliceous rocky slopes with chasmophytic vegetation, and 19.09 hectares (0.7% of feature) of habitat type 9230 – Galicio-Portuguese oak woods with

Quercus robur and *Quercus pyrenaica.* It is noted that there are some discrepancies with these figures because they total 71.25ha so the origin of the 77.77ha is unclear. We have assumed that the losses relate to approximately 70ha of protected habitat types, of which we can be certain that 64.73ha were designated habitat types.

The loss of approximately 70ha of protected habitat types came from what the judgment referred to as the "*authorised works*" with at least 19ha of further loss from "*unauthorised works*". There is yet more confusion over the spatial extent of the effect which underpinned the decision taken by the Court. Whilst paragraph 186 of the Judgment refers specifically to paragraph 145 of the Opinion (implicitly accepting the Advocate General's figures) it then concluded by reference to the effects "*being apparent over an area of at least 19ha*". Whether the Court accepted the full predicted effects of approximately 70ha *plus* 19ha (89ha) or just the 19ha is unclear. Consequently, we consider both scenarios. If we assume the Court accepted the loss as being in the region of 89ha this would represent 0.2% of the overall site. If however the Court misinterpreted the Advocate General's figures and only regarded the loss to be *at least* 19ha this would represent only 0.04% of the site.

E.1.7 Type of habitat or species affected – its importance and sensitivity

Special Area of Conservation: The standard data form used to notify the site to the Commission lists 23 qualifying Annex 1 habitat types and numerous qualifying species. With particular regard to this case the form refers, amongst other things, to 10 to 15 individuals of the brown bear (a priority species) as well as the following non priority habitat types:

- 4030 – European dry heaths (50% of the site, i.e. over 21,000 hectares);
- 4090 – Endemic oro-Mediterranean heaths with gorse (6% of the site, i.e. approximately 2,600 hectares);
- 6160 – Oro-Iberian *Festuca indigesta* grasslands (1% of the site, i.e. approximately 430 hectares);
- 8230 – Siliceous rock with pioneer vegetation of the *Sedo-Scleranthion* or of the *Sedo albi-Veronicion dillenii* (13% of the site, i.e. over 5,500 hectares); and
- 9230 – Galicio-Portuguese oak woods with *Quercus robur* and *Quercus pyrenaica* (6% of the site, i.e. approximately 2,600 hectares).

Special Protection Area: The site hosts many qualifying bird species but with reference to this case, the standard data from notes 42 to 47 male Cantabrian subspecies of the capercaillie (*Tetrao urogallus cantabricus*). The population of the capercaillie species present on the site is of regional importance (50% of the males in Castile-León) and of national importance (2% of the males in Spain).

E.1.8 Judgment

This case concerned a failure of the Member state to comply with Articles 6(2) to (4) of the Directive and the case therefore concerns both the 6(2) obligation to avoid deterioration and significant disturbance as well as the 6(3) obligation to assess the effects of plans or projects. It is also of relevance that the classification of the SPA pre-dated the designation of the SAC, which had a bearing on the relevance of the Directive to certain mines and the differing dates upon which respective decisions had been taken.

The Court ruled that Spain had not complied with Article 6(3) of the Habitats Directive by failing to carry out an 'appropriate' assessment. The scale of the effect was not referred to in the judgment but the opinion of the Advocate General set out the rationale for there being a likely significant effect (and hence that an appropriate assessment was required in the first place). With reference to the SPA the opinion considered the 'Ladrones' mine (117ha within the SPA representing 0.27%) at paragraphs 44 and 48:

"44 The 'Ladrones' project is located within the protection area. The land surfaces directly affected can therefore no longer make any contribution to the conservation of the capercaillie, at least not until they are renaturalised.

"48. Both opencast mining projects are therefore likely to have a significant effect on the conservation of the Cantabrian capercaillie in the 'Alto Sil' bird protection area. This assessment is confirmed by the fact that, in the standard data form for the site, Spain itself stated that opencast mining projects represent a substantial threat to the site."

At paragraph 132 of the Judgment, with reference to the requirements of Article 6(2), the Kingdom of Spain argued that the loss of 17.92 ha of SPA supporting habitat is "*unimportant for the conservation of the capercaillie species, since the area concerned did not contain any breeding ground*". Paragraphs 133-134 gave the Courts response to that assertion:

"133 That argument cannot be accepted, because, even if that area were not usable as a breeding ground, it could conceivably be used by that species as a habitat for other purposes, such as a living or hibernating area.

"134 Moreover, if that operation had not taken place in that area, the possibility cannot be excluded that, following measures taken by the authorities for that purpose, that area could have become usable as a breeding ground."

The court considered the potential scale of effects upon the brown bear population after the site was registered as a Site of Community Importance. In particular with reference to the "*creating or aggravating a 'barrier effect' which risked preventing or severely impeding access to the Leitariegos corrider... a north south transit route of great importance for the western population"*. As the mines had been authorised prior to the site being formally recognised as a SAC, the court ruled that Articles 6(3) and (4) were not applicable (paragraph 175) but went on to consider the application of Article 6(2). Paragraph 191 states:

"...the noise and vibrations caused by the 'Feixolín', 'Fonfría' and 'Ampliación de Feixolín' open-cast mines, and the closure of the Leitariegos corridor by reason of those mines, constitute disturbances of the 'Alto Sil' SCI, which are significant having regard to the conservation of the brown bear".

With regard to the direct loss of habitat, paragraph 145 of the Advocate General's opinion confirms that the documentation before the Court supported the conclusion that the unauthorised works at the 'Feixolin' extension led to the loss of protected habitat after the SCI was registered. Paragraph 197 concluded:

"...from December 2004, by failing to adopt the necessary measures to prevent the deterioration of habitats, including the habitats of species, and the disturbances caused to species by the 'Feixolín', 'Fonfría' and 'Ampliación de Feixolín' operations, the Kingdom of Spain has failed, in relation to the 'Alto Sil' SCI to fulfil its obligations under Article 6(2) of the Habitats Directive."

The Court ruled that the Kingdom of Spain had failed, in relation to the Alto Sil SPA, to fulfil its obligations under Article 6(2) and (3) of the Habitats Directive and also, in relation to the Alto Sil SAC, under Article 6(2) of the Habitats Directive.

E.2 EC v Italy C-304/05 (World Ski Championship)

E.2.1 Description of case

The authorisation of an extension of ski areas to provide for the World Alpine Ski Championships, in particular the widening of the "Edelweiss" run. The EC argued that by:

- authorising measures likely to have a significant impact on that area without making them subject to an appropriate assessment of their implications for the site in the light of the site's conservation objectives;
- failing to adopt measures to avoid the deterioration of natural habitats and habitats of species and the disturbance of species for which that area was designated; and
- failing to endow that area with a protective legal status capable of ensuring, in particular, the survival and reproduction of the species of birds mentioned in Annex I of the Birds Directive and the breeding, moulting and migration of the regularly-occurring migratory species not covered by Annex I.

The Italian Republic had failed to fulfil its obligations under Articles 6(2) to (4) and 7 of the Habitats Directive and Article 4(1) and (2) of the Birds Directive.

E.2.2 Location

The Parco Nazionale dello Stelvio extends across the Italian provinces of Trento, Bolzano, Sondrio and Brescia in the Region of Lombardy.

E.2.3 Date of decision

20th September 2007.

E.2.4 Decision maker

European Court – Judgment.

E.2.5 Area of designated site

The Parco Nazionale dello Stelvio SPA covered 59,809 ha.

E.2.6 Area of habitat of SPA species affected

2,500 trees had been felled in a new ski corridor 500m x 50 m through a forest (2.5ha) within the SPA. The damaged area represents 0.004% of the site.

E.2.7 Type of habitat or species affected – its importance and sensitivity

The Judgment states:

"16 According to a data form completed by the Italian Republic in 1998 ... the park hosts a large number of species of birds protected pursuant to Annex I to Directive 79/409 – the golden eagle (Aquila chrysaetos), the peregrine (Falco peregrinus), the honey buzzard (Pernis apivorus), the hazel hen (Bonasa bonasia), the ptarmigan (Lagopus mutus helveticus), the black grouse (Tetrao tetrix), the capercaillie (Tetrao urogallus) and the black woodpecker (Dryocopus martius) – and three species of migratory birds – the sparrowhawk (Accipiter nisus), the common buzzard (Buteo buteo) and the wallcreeper (Tichodroma muraria).

"17 Another data form, of 14 May 2004, indicates the presence in that area of other species mentioned in Annex I to Directive 79/409, that is to say the bearded vulture (Gypaetus barbatus), the kite (Milvus mulvus), the dotterel (Charadrius morinellus), the boreal owl (Aegolius funereus), the Eurasian pygmy owl (Glaucidium passerinum), the eagle owl (Bubo bubo), the grey-headed woodpecker (Picus canus) and the rock partridge (Alectoris graeca saxatilis)."

E.2.8 Judgment

The case concerned a failure to comply both with Article 6(3) through the failure to undertake an appropriate assessment and also with Article 6(2) through a failure to avoid deterioration of habitats and disturbance.

The Court ruled at paragraph 73 that Italy had failed to fulfil obligations under Article 6(3) on the basis that the assessment undertaken was insufficient, but little reference was made to the scale of effect in reaching this conclusion. However, when considering whether the works resulted in an infringement of Article 6(2), the court concluded:

"95. With regard to the present case, it should be recalled that almost 2,500 trees were felled in an afforested part of the area concerned, which constitutes the habitat of protected species of birds, inter alia the goshawk, the ptarmigan, the black woodpecker and the black grouse. Consequently, the disputed works destroyed the breeding sites of those species."

"96. The inevitable conclusion is that the works and their repercussions on SPA IT 2040044 were incompatible with the protective legal status from which that area should have benefited pursuant to Article 6(2) of Directive 92/43"

Whilst the provisions of Article 6(2) differ from those of Article 6(3), it is established that the provisions are intended to achieve the same objectives and deterioration under Article 6(2) is equivalent to an adverse effect on integrity under Article 6(3)[19]. The Court regarded the felling of 2,500 trees (equating to the destruction of 2.5ha of breeding sites) within an SPA so it would have been expected that such a loss would prevent a conclusion of no adverse effect on the integrity of the site under Article 6(3).

The supporting Advocate General's opinion provides further information regarding the protection afforded to supporting habitat and the use of the forest in question by protected bird species:

"64. In the present case the Commission submits that around 2,500 trees were felled within the Stelvio National Park SPA, but it is unclear whether that measure has adversely affected the conservation objectives of the area. Forests cannot as such be the subject of a special protection area under Article 4 of the Birds Directive, but only in so far as they are of importance as a habitat for protected bird species."
"65. Evidence of possible use of the area of forest in question by protected bird species can be found in an atlas of European breeding birds, extracts from which are submitted by the Commission. According to that atlas, the area may be used in particular by the honey buzzard, the ptarmigan and the black woodpecker. Such information can give rise to an obligation, which is not disputed here, to conduct an impact assessment. However, it is not sufficient in itself to prove actual harm."

"66. The only document that contains specific information on the use of the areas in question by protected species is the study of 21 November 2005, which Italy submitted with the rejoinder. According to that document, most of the project's effects are negligible or insignificant. Since the Commission has not disputed those findings, which would have been possible in the event of an oral procedure, they are to be regarded as accurate."

"67. However, according to the same study, it is necessary to compensate for the loss of potential breeding grounds for the black grouse by improving habitats elsewhere. It is to be concluded from the recognition of the need to compensate for the harm to the black grouse

[19] Paragraph 32 of Case C 258/11 *Sweetman* and also see case C - 404/09 *Commission v Spain* [2011] paragraphs 136 - 145

caused by Italy that the conservation objectives of the Stelvio National Park SPA have been adversely affected as far as that species is concerned."

The Court ruled that Italy had failed to fulfil their obligations under Article 6(3) of the Habitats Directive, through the failure to undertake an appropriate assessment, and also under Article 6(2) through a failure to avoid deterioration of habitats and disturbance.

E.3 EC v Portugal C-239/04 (Castro Verde)

E.3.1 Description of case

The construction of the A2 motorway linking the city of Lisbon with the Algarve region. The route involved the crossing of the Castro Verde SPA. The EC claimed that by implementing the project, notwithstanding the negative environmental impact assessment and the existence of alternative solutions for the route concerned, the Portuguese Republic had failed to fulfil its obligations under Article 6(4) of the Habitats Directive.

E.3.2 Location

For the part of that motorway running between the settlements of Aljustrel and Castro Verde, the company drew up a planned route bypassing to the east the settlements of Messejana, Alcarias, Conceiçao, Aivados and Estação de Ourique and crossing the western side of the Castro Verde SPA.

E.3.3 Date of decision

26th October 2006.

E.3.4 Decision maker

European Court – Judgment.

E.3.5 Area of designated site

The Castro Verde SPA covered an area of 79,066 ha.

E.3.6 Area of habitat or number of individuals of species affected

The section of motorway at issue, between Aljustrel in the north and Castro Verde in the south, runs in a relatively straight line for a distance of approximately nine to ten kilometres through the western fringe of the Castro Verde SPA. By far the greater part of the SPA, approximately 77,000 hectares, lies to the east of the motorway, with a section approximately 1,700 hectares in area, essentially in the form of a strip of land one to two kilometres wide adjacent to the motorway, to the west of it. The severance applied to approximately 2.15% of the SPA.

E.3.7 Type of habitat or species affected – its importance and sensitivity

The judgment states (emphasis added):
"21 In the present case, the environmental impact study mentions the presence, in the Castro Verde SPA, of 17 species of bird listed in Annex I to Directive 79/409 and the high sensitivity of certain of them to the disturbance and/or the fragmentation of their habitat resulting from the planned route of the section of the A2 motorway between the settlements of Aljustrel and Castro Verde."

"22 It is also apparent from that study that the project in question has a 'significantly high' overall impact and a 'high negative impact' on the avifauna present in the Castro Verde SPA."

E.3.8 Judgment

Paragraph 23 states:

"23 The inevitable conclusion is that, when authorising the planned route of the A2 motorway, the Portuguese authorities were not entitled to take the view that it would have no adverse effects on the SPA's integrity".

The Court went on to consider whether the project might have been authorised on the basis of Article 6(4). Whilst the Court found that the Portuguese authorities had examined a number of alternative routes which all crossed the western side of the SPA, it was not apparent from the file that they had considered solutions which fell outside of the SPA. By failing to examine such alternatives the authorities had not demonstrated the absence of alternative solutions; the court concluded at paragraph 40:

"In those circumstances, it must be held that, by implementing a project for a motorway whose route crosses the Castro Verde SPA, notwithstanding the negative environmental impact assessment and without having demonstrated the absence of alternative solutions for the route concerned, the Portuguese Republic has failed to fulfil its obligations under Article 6(4) of the Habitats Directive."

E.4 EC v Austria C-209/02 (Wörschacher Moos)

E.4.1 Description of case

The authorised extension to a golf course within an SPA classified for corncrake. The EC claimed this to be in spite of a negative assessment of effects on the corncrake population and hence that the Republic of Austria had failed to fulfil their obligations under Article 6(3) and (4), in conjunction with Article 7 of the Habitats Directive.

E.4.2 Location

Extension of the golf course at Weißenbach in the district of Wörschach in the Province of Styria in Austria.

E.4.3 Date of decision

29th January 2004.

E.4.4 Decision maker

European Court - Judgment.

E.4.5 Area of designated site

The Wörschacher Moos SPA extended to 400ha .

E.4.6 Area of habitat or number of individuals of species affected

According to a footnote to paragraph 32 of the Advocate General's opinion, the area of the SPA affected by the golf course extension is 'no more than 25ha'. This represents 6.25% of the SPA.

E.4.7 Type of habitat or species affected – its importance and sensitivity

The area affected is supporting habitat for the corncrake population for which the SPA had been classified. Paragraph 24 of the judgment states, with reference to an expert's report:

"The report stated that a corncrake population was present in the SPA where the disputed extension to the golf course was to be created. The extension would entail in particular the loss of part of the feeding and resting areas of the species in question, the destruction of the functional links by the splitting up of the different zones used by the corncrake and the elimination of, and disturbance to, elements of habitat. The measures which might counter the disturbance liable to be caused by the disputed project would be only partially effective, difficult to implement and of doubtful long-term effectiveness. In short, the creation of the two

holes in question could well threaten the continued existence of the corncrake population in the 'Wörschacher Moos' SPA, the only population in the Central Alps likely to reproduce."

E.4.8 Judgment

The Court concluded at paragraph 26:

"Having regard to the content of those expert's reports and in the absence of evidence to the contrary, the inevitable conclusion is that at the time of the adoption of the decision of 14 May 1999, the Austrian authorities were not justified in considering that the planned extension of the golf course in question in the present case, coupled with the measures prescribed by that decision, was not such as significantly to disturb the corncrake population in the 'Wörschacher Moos' SPA and would not adversely affect the integrity of that SPA."

The Court declared that the Republic of Austria had failed to fulfil its obligations under Article 6(3) and (4), in conjunction with Article 7, of the Habitats Directive.

E.5 EC v Spain C-355/90 (Santoña Marshes)

E.5.1 Description of case

The EC alleged that the Spanish government had failed to fulfil obligations under the Birds Directive to classify the Santoña Marshes as an SPA and had failed to take steps to avoid pollution or deterioration of habitat or any disturbances affecting the birds. Specific development, including the construction of a road, the discharge of untreated waste water and the granting of permits for clam farming within the marshes were noted within the judgment as being damaging in that the extent of marshland available to the birds had been reduced as a result of such development or activities.

E.5.2 Location

Marismas de Santoña, within Cantabria, on the north coast of Spain.

E.5.3 Date of decision

2nd August 1993.

E.5.4 Decision maker

European Court- Judgment.

E.5.5 Area of designated site

At the time of the challenge there was no classified SPA but the site was later classified as the Marismas de Santoña, Victoria y Joyel y Rio de Ajo SPA which is 6,765ha. Sources suggest that the entire area of wetland concerned in the original case might have extended to approximately 35,000 ha[20].

E.5.6 Area of habitat or number of individuals of species affected

Of the many impacts listed, only the road construction is quantified in terms of the amount of wetland that had been lost. The road had removed 185 ha of the wetland, and that this equated to approximately 0.5% of the total area of 35,000ha of wetlands or 2.7% of the area subsequently classified.

[20] Institute for European Environmental Policy, 1993, *Preliminary non-technical summary of the Judgment of the European Court of Justice: The Santoña Wetlands and the implementation of the Birds Directive (Case C-355/90)*).

E.5.7 Type of habitat or species affected – its importance and sensitivity

Located at the confluence of several rivers, the Santoña marshes are an expanse of wetland that provided feeding and roosting habitat for 19 Annex 1 species, along with 14 listed migratory species.

E.5.8 Judgment

Throughout the judgment there is a clear message that disturbance is effectively habitat loss, because it results in the habitat being less effective in maintaining the bird populations. The judgment states the following:

"*The commission claims that the new route followed by the C-629 road between Argoños and Santoña results not only in a considerable reduction in the surface area of the Santoña marshes but also in disturbances affecting the peaceful nature of the area and consequently the wild birds protected by the provisions of the directive*" (paragraph 33).

"*Although Member States do have certain discretion with regard to the choice of territories which are most suitable for classification as special protection areas, they do not have the same discretion under Article 4(4) of the directive in modifying or reducing the extent of those areas*" (paragraph 35).

"*The installation of aquaculture facilities, which not only reduce the surface area of the marshland and cause variations in the natural sedimentation processes there, but also modify the structure of the existing marsh bed, has the effect of destroying the particular vegetation of those areas, which is an important source of food for the birds*" (paragraph 44).

"*The activity in question has caused a significant deterioration in the habitat and the quality of the living conditions of the birds in the middle of the Santoña marshes*" (paragraph 46).

The wording of the judgment with regard to the damaging construction work and permission of damaging activities suggests the equivalent of adverse effect on integrity, and the judgment includes a failure to take appropriate steps to avoid pollution or deterioration of habitats. The judgment notes:

"*...the construction of the new section of road C-629 between Argonos and Santoña involves a reduction in the surface area of the marshland, an effect that, moreover, is aggravated by the erection of a small number of buildings near this new section of road. These operations have resulted in the loss of refuge, rest and nesting areas for birds*" (paragraph 36).

"*harmful impact on the aquatic environment" with regard to the filling in of land adjoining the marshes*" (paragraph 41).

"*significant deterioration*" (paragraph 46) as a result of the clam farming.

"*detrimental effects*" (paragraph 50) of the discharge of untreated water.

The Court declared that the Kingdom of Spain had failed to fulfil its obligations under the Birds Directive.

E.6 Briels v Minister van infrastructure en milieu C-521/12

E.6.1 Description of case

This case concerned a request from the Raad Van State (Netherlands) for a preliminary ruling by the European Court. In summary, the Minister had adopted an order which involved the widening of the A2 motorway. The project affected the Vlijmens Ven, Moerputten & Bossche Broek SAC which hosts the non-priority habitat type *Molinia* meadows. An

assessment had concluded that the possibility of significant adverse effects due to nitrogen deposition could not be ruled out. The Minister had subsequently provided for a project aimed at mitigating the environmental effects which were referred to in paragraph 13:

"In that regard the A2 motorway project provides for improvements to the hydrological situation in Vlijmens Ven, which will allow the molinia meadows to expand on the site. The Minister states that this will allow for the development of a larger area of molinia meadows of higher quality, thereby ensuring that the conservation objectives for this habitat type are maintained through the creation of new molinia meadows."

Briels and Others brought legal action against the two ministerial orders before the court in the Netherlands, taking a view that the Minister could not lawfully have adopted the order for the A2 project, given the negative implications for the SAC. The grounds were that the proposed development of new molinia meadow cannot be regarded as a 'mitigation measure' and should be viewed as a compensatory measure.

E.6.2 Location
The Vlijmens Ven, Moerputten & Bossche Broek SAC is located in North Brabant in the Netherlands.

E.6.3 Date of decision
15th May 2014

E.6.4 Decision maker
European Court – Ruling. The European Court had not been asked to consider the merits of whether the effects from the project did or did not represent an adverse effect on the integrity of the site. The Netherlands had already concluded that the possibility of significant adverse effects due to nitrogen deposition could not be ruled out and hence that some form of mitigation was required. The question before the European Court was whether the measures proposed were mitigation or compensation. The decision regarding the scale of the effect, and whether it represented a risk to the integrity of the site, was for the Raad Van State.

E.6.5 Area of designated site
The Vlijmens Ven, Moerputten & Bossche Broek SAC extended to 897ha.

E.6.6 Area of habitat or number of individuals of species affected
Paragraph 12 of the ruling states that:

"In Moerputten, 6.7 hectares of molinia meadows would be affected due to drying out and acidification of the earth. That assessment also stated that in Bossche Broek adverse effects from increased nitrogen deposits could not be ruled out as a result of the widening of the motorway. The A2 motorway project would also lead to a temporary increase in nitrogen deposits in Vlijmens Ven, although it would not prevent an extension of the molinia meadows within that area."

Whilst the scale of effect in Moerputten was defined in the ruling itself the scale of the effects in Bossche Broeck and Vlijmens Ven was not given. However, with reference to the proposed mitigation plan, the Advocate General's opinion stated in paragraph 17 that:

"The new meadows in Vlijmens Ven would to a large extent offset the consequences of the increase in nitrogen deposits for the existing 11.5 hectares of molinia meadows in the Natura 2000 site as a result of traffic on the widened A2."

The scale of effect on the site cannot be definitively stated from the documentation, but it clearly involved 6.7ha of Molinia meadow (0.75% of the SAC) at Moerputten and it seems

likely that the overall effects related to 11.5ha of Molinia meadow affected. Accepting a degree of uncertainty therefore, 11.5ha represents 1.3% of the SAC.

E.6.7 Type of habitat or species affected – its importance and sensitivity

Molinia meadow is a non-priority habitat which is sensitive to drying out and acidification of the soil. Paragraph 16 of the ruling refers to the findings of the report which was used by the Raad Van State (emphasis added):

"A preliminary environmental impact assessment report found that serious adverse effects from nitrogen deposits could not be ruled out. A second report stated that, in Moerputten, a temporary increase in nitrogen deposits would lead to slight acceleration of the decrease in quality already occurring. In Bossche Broek, the quality of the molinia meadows was high but potentially in danger. Adverse effects from increased nitrogen deposits could not be ruled out. Furthermore, although the molinia meadows could spread out over several decades, there would still be an increase in nitrogen deposits in 2020, and the spread might be restricted. In Vlijmens Ven, molinia meadows could develop rapidly after the hydrological system was completed, and the temporary increase in nitrogen deposits would not cause adverse effects. The report concluded that mitigating measures should be adopted to remove the adverse effects of the road-widening".

E.6.8 Judgment

As explained above, the European Court had not been asked to consider the merits of whether the scale of the effects from the project did or did not represent an adverse effect on the integrity of the site. The Raad Van State had already concluded that the possibility of significant adverse effects due to nitrogen deposition could not be ruled out and the ruling neither affirms nor rejects this conclusion but simply accepts it as correct.

With regard to the scale of effect, the authority of the decision that the scale of the effect did represent a threat to site integrity in this case rests with the Raad Van State who accepted the recommendations of a report that "*mitigating measures should be adopted to remove the adverse effects of the road-widening"*. The European court found these to be compensatory, rather than mitigation, measures and so by implication there must have been an adverse effect on site integrity.

E.7 Sweetman v An Bord Pleanala C-258/11

E.7.1 Description of case

The Supreme Court in Ireland requested a preliminary ruling by the European Court in respect of proceedings between (i) Mr Sweetman, Ireland, the Attorney General and the Minister for the Environment, Heritage and Local Government and (ii) An Bord Pleanála (the Irish Planning Board), supported by Galway County Council and Galway City Council. It concerned An Bord Pleanála"s decision to grant development consent for the N6 Galway City Outer Bypass road scheme. The Supreme Court referred the following questions to the European Court for a preliminary ruling:

1. What are the criteria in law to be applied by a competent authority to an assessment of the likelihood of a plan or project the subject of Article 6(3) of the Habitats Directive, having "an adverse effect on the integrity of the site?
2. Does the application of the precautionary principle have as its consequence that such a plan or project cannot be authorised if it would result in the permanent non-renewable loss of the whole or any part of the habitat in question?
3. What is the relationship, if any, between Article 6(4) and the making of the decision under Article 6(3) that the plan or project will not adversely affect the integrity of the site?

E.7.2 Location
Galway Ireland. The proposed N6 Galway City Outer Bypass road scheme in question was to cross the Lough Corrib SCI.

E.7.3 Date of decision
11th April 2013.

E.7.4 Decision maker
European Court – Ruling.

E.7.5 Area of designated site
The standard data form submitted to the EC in respect of the Lough Carrib SCI gives the area of the site as 25,247ha.

E.7.6 Area of habitat or number of individuals of species affected
The case concerned the loss of 1.47 ha of limestone pavement which is a priority habitat extending to over 270 ha within the site (hence the loss represents of 0.5% of the qualifying feature and 0.006% of the site overall).

Paragraph 20 of the Advocate General's Opinion, with reference to the decision taken by the Inspector appointed by An Bord Pleanala clarifies that "*As regards the loss itself"...* the Inspector had concluded that *"this relatively small loss would not, in terms of quantity, amount to an adverse effect on the integrity of the area".* The Board went on to conclude that "*while having a localised severe impact on the Lough Corrib"* the proposal would not adversely affect the integrity of the site.

E.7.7 Type of habitat or species affected – its importance and sensitivity
Paragraph 26 of the ruling summarises the predicted effects from the proposal and states that "*the implementation of the N6 Galway City Outer Bypass road scheme would result in the permanent and irreparable loss of part of the Lough Corrib SCI's limestone pavement, which is a priority natural habitat type specially protected by the Habitats Directive*."

Paragraph 42 refers in particular to fact that the limestone pavement affected by the case in question is a "priority" habitat and stated:

"Such an appraisal applies all the more in the main proceedings, since the natural habitat affected by the proposed road scheme is among the priority natural habitat types, which Article 1(d) of the Habitats Directive defines as "natural habitat types in danger of disappearance" for whose conservation the European Union has "particular responsibility".

E.7.8 Judgment
The Court ruled at paragraph 46 (emphasis added):

"Consequently, if, after an appropriate assessment of a plan or project's implications for a site, carried out on the basis of the first sentence of Article 6(3) of the Habitats Directive, the competent national authority concludes that that plan or project will lead to the lasting and irreparable loss of the whole or part of a priority natural habitat type whose conservation was the objective that justified the designation of the site concerned as an SCI, the view should be taken that such a plan or project will adversely affect the integrity of that site".

The opinion of the Advocate General sheds some more light on the issue of the scale of the effect in question with reference to the question of whether an effect should be considered as "adverse". Paragraphs 58-61 are quoted in full below (emphasis added).

"58. What then is a negative or "adverse" effect? Here, it may be helpful to distinguish between three situations".

"59. A plan or project may involve some strictly temporary loss of amenity which is capable of being fully undone – in other words, the site can be restored to its proper conservation status within a short period of time. An example might be the digging of a trench through earth in order to run a subterranean pipeline across the corner of a site. Provided that any disturbance to the site could be made good, there would not (as I understand it) be an adverse effect on the integrity of the site".

"60. Conversely, however, measures which involve the permanent destruction of a part of the habitat in relation to whose existence the site was designated are, in my view, destined by definition to be categorised as adverse. The conservation objectives of the site are, by virtue of that destruction, liable to be fundamentally – and irreversibly – compromised. The facts underlying the present reference fall into this category".

"61. The third situation comprises plans or projects whose effect on the site will lie between those two extremes. The Court has not heard detailed argument as to whether such plans or projects should (or should not) be considered to generate an "adverse effect on the integrity of the site". I consider that it would be prudent to leave this point open to be decided in a later case".

It is therefore clear that the Advocate General regarded the scale of the loss of the habitat in the case in question to represent an adverse effect on the integrity of the site. This loss represented 0.5% of the feature affected and 0.006% of the site overall.

Decisions of the UK Courts

The decisions reviewed below in respect of decisions taken by the UK Courts (E.8 to E.12) can be found on the British and Irish Legal Information Institute (BAILII) website:

http://www.bailii.org/

E.8 RSPB v Secretary of State – 'the Ribble' case

E.8.1 Description of case

This case concerned the granting of consent, in the interests of air safety, to undertake a cull of birds for which the SPA had been classified. The key stages prior to the case being heard are set out below:

i. British Aerospace had originally sought consent for the culling of 1,700 pairs of lesser black-backed gull and 500 pairs of herring gull on the Ribble Estuary SPA and the taking of measures to keep the numbers at the level produced by the cull;
ii. Natural England consented to the culling of 200 pairs of lesser black-backed gull and 25 pairs of herring gull, but refused to consent to the balance of the cull;
iii. British Aerospace then appealed to the Secretary of State against that refusal;
iv. The Secretary of State directed Natural England to give consent to the culling of 475 pairs of herring gull (i.e. the balance left after the cull of 25 pairs permitted by Natural England);
v. The SoS later directed Natural England to also give consent for the further culling of 552 pairs of lesser black-backed gull (bringing the number of pairs culled to 752 of the original 1,700 applied for), and further operations to maintain the population at a reduced level, provided that it did not fall below 3,348 pairs.

By the time the case was heard in the High Court, consent had been issued for the culling of 752 pairs of lesser black-backed gull (948 pairs short of what had originally applied for) and 500 pairs of herring gull (the full amount originally applied for).

The case concerned a challenge brought by the RSPB against both of the decisions of the Secretary of State.

E.8.2 Location
The River Ribble rises in Yorkshire and flows into the Irish Sea between Lytham St Annes and Southport. The River Alt rises in Huyton and flows into the Irish Sea at the edge of the Mersey Estuary. Part of the Ribble Estuary was classified as an SPA in 1982. The Alt River Estuary was similarly classified in 1985. The two estuaries were combined into a single SPA in February 1995. It was re-classified and its area extended on 28 November 2002.

E.8.3 Date of decision
21st May 2014.

E.8.4 Decision maker
The High Court: RSPB v Secretary of State [2014] EWHC 1645 (Admin).

E.8.5 Area of designated site
The Ribble and Alt Estuaries SPA comprises 12,412 hectares.

E.8.6 Area of habitat or number of individuals of species affected
A reasonable working estimate of the number of breeding pairs of the gull species in the Ribble Estuary in previous years was given as 4,100 pairs of lesser black-backed gull and, until the cull, 500 pairs of herring gull.

E.8.7 Type of habitat or species affected – its importance and sensitivity
The lesser black-backed gull is a 'qualifying feature' of the site as the site hosts >1% of the breeding population. The standard data form submitted to the EC refers to 1,800 breeding pairs (representing 1.5% of the breeding population). The herring gull is not specifically referred to within the standard data form or listed as a 'qualifying feature' in the conservation objectives for the site, but it is nevertheless part of the 'breeding seabird assemblage'.

E.8.8 Judgment
The precise wording of the conservation objectives which were available at the time of the judgment was influential, paragraph 38 of the judgment referred to them in the following manner (emphasis added):

"...In a table headed 'Species Populations' it set out the following observations in the entry relating to 'Aggregation of breeding birds":

"Site specific target range and measures.

Maintain population within acceptable limits (in this context the population can be that of an individual species or the total population of an assemblage). Based on the known natural fluctuations of the population in the site maintain the population at or above the minimum for the site. Where the limits of natural fluctuations are not known, maintain the population subject to natural change within acceptable limits, above 75% of that at designation – loss of 25% or more unacceptable.

Individual species present in nationally/internationally important numbers at designation are:

...lesser black-backed gull (Larus fuscus) – breeds colonially. Breeding bird population size 4,100 (Seabird 2000) mainly confined to Banks and Hesketh Marshes. The baseline figure of lesser black-backed gulls was confirmed as 4,100 pairs in 2008.
- 20,000 breeding seabird assemblage: assemblage baseline figure is 32,624 individuals."

In a note appended to the table, Natural England explained that they had taken the population size of lesser black-backed gulls as 4,100 pairs, rather than the number at classification, because counts suggested that there were over 4,000 pairs in 1998 and that the population had remained stable at around 4,100 pairs subsequently. The figure of 32,624 for the breeding seabird assemblage, which included the lesser black-backed gull, was based on a five year assessment preceding the expansion and re-designation of the SPA in 2002.

The reference to a population being maintained at "*above 75% of that at designation"* was to exert a significant influence over the decision to be taken. Paragraph 40 of the judgment went on to draw two tentative conclusions from the supporting site documentation (emphasis added):

"The first tentative conclusion is that in 2011, Natural England contemplated that conservation objectives for the site would be met if 75% of the population of a species at designation of the site as a special protection area was maintained. The second, even more tentative conclusion, is that in its 2012 guidance, Natural England was not identifying, as a conservation objective, the maintenance of a minimum number of an individual species on the site: hence the use of the plural, 'populations' in the phrase 'the populations of the qualifying features'. If it had been intended to specify a minimum number for a species, it should have read 'the population of each qualifying feature'."
In light of the first tentative conclusion the Secretary of State had concluded (paragraph 41) that "*the conservation objectives for the species should be to maintain or restore that population above 75% of that at designation*". In essence, in view of the conservation objectives, the culling of 25% of a population for which an SPA has been classified should not be regarded as an adverse effect on the integrity of that site. The Court rejected an argument put forward by the claimant that the Secretary of State had fallen into error in doing so and had "*treated the margin for natural fluctuation in the guidance manual on common standards of monitoring issued by the Joint Nature Conservation Committee in February 2004 as the limit of a non-natural intervention, a cull.*" Paragraph 42 reads:

"It was obvious, and the Secretary of State was entitled to conclude, that the culling of 752 pairs (200 + 552) would not affect the ability of the species to maintain itself on a long-term basis on the site or lead to its decline... On any view, this was a careful and rational assessment of the numbers which could safely be culled before the long-term viability of the lesser black-backed gull on this site was impaired. Given that conclusion and the self-evident fact that the cull would not, except temporarily, affect the habitat of the gulls, the Secretary of State was plainly entitled to conclude that the integrity of the site would not be affected by it."

The same logic was applied to a consideration of how the cull might affect the 'seabird assemblage'. Paragraph 43 considered the uncertainty in establishing the number of individuals which should be considered as comprising the assemblage, as differing figures had been proposed to the Secretary of State, it goes on to state:

"The figure at which he eventually arrived was 25,123 breeding individuals, based on counts made in the years 2000 to 2004. His reason for doing so was that it omitted what he believed to be an unrepresentative – overlarge – count of the major component of the assemblage – Black-headed Gulls – in 1999. Having taken that as the starting point, the Secretary of State concluded that the cull of lesser black-backed gulls and herring gulls would not reduce the number below 75% of that figure – a mathematically unchallengeable conclusion".

And concludes in paragraph 44:

"Accordingly, however the Secretary of State arrived at his figures, given that he was entitled to conclude that the integrity of the site was unimpaired, this challenge, too, must fail."

The legal challenge was dismissed. At the time of writing this report the judgment is believed to be likely to be referred up to the Court of Appeal so, whilst included here and in Table C.2 for the record, it is not included in the discussion and conclusions arising from the research in section D.

E.9 RSPB v Secretary of State – 'Lydd Airport'

E.9.1 Description of case

Two separate applications under s288 of the *Town and Country Planning Act* 1990, each challenging the decision of 10 April 2013 by the Secretary of State for Communities and Local Government and the Secretary of State for Transport to grant permission for the extension of the north/south runway at London Ashford Airport, with a limit by condition on annual aeroplane movements of 40,000, and for a passenger terminal with a capacity limited by condition to handling 500,000 passengers per annum.

The RSPB challenge related primarily to disturbance effects on the adjacent Dungeness to Pett Level SPA. The Inspector had concluded that the proposed expansion would have no likely significant effect upon the SPA and RSPB asserted that the factual conclusions and state of knowledge of the effects of the project should have led to an "appropriate assessment".

E.9.2 Location

The London Ashford Airport is located near Lydd, in Kent, adjacent to the Dungeness site.

E.9.3 Date of decision

16th May 2014.

E.9.4 Decision maker

The High Court: RSPB v Secretary of State [2014] EWHC 1523 (Admin) – 'Lydd Airport'.

E.9.5 Area of designated site

The Dungeness SAC extends to 3,224ha. Dungeness to Pett Level SPA is 1,474ha.

E.9.6 Area of habitat or number of individuals of species affected

Dungeness SAC lies to the east of the existing runway; the paved area of the proposed runway extension would include 0.23ha (0.007%) of the existing SAC. The non-paved 'runway strip' would affect a further 1.59 ha within the SAC so overall 1.82 ha of SAC would be affected (0.056%).

The Dungeness to Pett Level SPA is located approximately 750m east and 500m south of the existing runway. The case considered the effects of the proposal within the site boundary and *also* with reference to "functionally linked land" beyond the boundary which is used by the SPA populations for feeding or roosting. This case review considers only the effects within the site boundary. Effects related to functionally linked land are considered in a separate report[21]. An extension to the SPA is proposed which would result in the boundary

[21] CHAPMAN, C. & TYLDESLEY, D. 2016. *Functional linkage: how areas that are functionally linked to European sites have been considered when they may be affected by projects – a review of authoritative decisions.* Natural England Commissioned Reports, Number207.

of the SPA being closer to the Airport but the proposals would not use any land within the SPA or the pSPA.

E.9.7 Type of habitat or species affected – its importance and sensitivity
The area affected was identified as suitable great crested newt habitat only, that is, not as an Annex 1 habitat feature. It was accepted that the great crested newt habitat lost from within the SAC would not represent an adverse effect due to the "insignificant loss" of habitat and proposed mitigation measures. Natural England agreed and did not object on SAC related grounds.

E.9.8 Judgment
With reference to the SAC. Paragraph 14.4.6 of the Inspector's Report stated:

"Design changes and mitigation measures have overcome NE's concerns about loss of ditches and CPREs concerns about detrimental impacts on water quality from activities such as de-icing. The new ditches would provide acceptable replacement habitat and agreed mitigation measures mean that the impacts on protected water vole, grass snake, common lizard, bats and medicinal leech, together with great crested newts, would be adequately addressed."

With regard to the SPA features and concerns over disturbance paragraph 14.6.20 states:

"The habitats of concern, and the species within them, were identified as those along the western boundary of the RSPB Reserve, the pSPA and SPA that contain habitats for birds throughout the year, including mute swan, shoveller, bittern, golden plover, marsh harrier and widgeon. Although the ES concluded that there could be noise disturbance to some species at peak noise levels exceeding 80dB, these species occur within the 88dB, 85dB, 82dB, and 79dB contours."

No figures are provided concerning the exact spatial extent of the SPA within the noise contours but paragraph 14.6.22 states *"only a relatively small area of the SPA/pSPA would lie within the 79dB contour"*.

Paragraph 14.6.24 concludes:
"The conservation objectives require there to be no significant decrease in extent of habitat or displacement of birds by disturbance and the maintenance of areas of open water and food. No habitat would be lost and the areas of habitats within the contours that could possibly be affected would be small... The proposals would not disturb and fragment the habitats of the SPA, pSPA and pRamsar birds such as to adversely impact on a species as a whole. Nor would they have any adverse effect on the integrity of the site as a whole, or that part of it in the vicinity of the Airport, as there are other areas in the vicinity that could be used."

With reference to the effects of bird scaring measures, the Inspector's report concludes at paragraph 14.6.56:

"Notwithstanding NE's view, there is little evidence that there would be likely to be a significant effect, such as a significant decline in the size, distribution, structure or function of the population that would require an AA. Even if an AA were required, the area of the SPA that would be affected would be small and there is no evidence that there would be an adverse effect on the integrity of the designated sites."

The judgment made specific reference to the scale of an effect in respect of the integrity of the site in paras 106 and 107 which read as follows (emphasis added):

"The final group of points concerned the Inspector's approach to the 'integrity' of the sites, although this was not an issue which arose directly at the stage of considering whether an appropriate assessment was necessary. Mr Mould was critical of the last sentence of IR 14.6.56, in which the Inspector concluded that an appropriate assessment would not lead to a finding of an adverse effect, since the area of SPA affected would be small and there would be no adverse effect on the integrity of the site. Mr Mould was also critical of the reference in paragraph 15.1.13 to the need to consider the effect of a project on the "integrity of the designated sites as a whole". It was wrong to ask whether the proportion of the site affected by the development was so great that the whole was affected; the right approach was to focus on the essential unity of the site, to avoid "death by a thousand cuts". Disturbance of a small proportion of the species or habitat could affect the integrity of a designated site, the objective for which it was designated or the species for which it was classified. The question was the effect on the species in the SPA, and not the effect on the species over its natural range; RSPB v Secretary of State for Scotland [2000] SLT 1272, First Division. The Directive was not concerned with protecting individual specimens of the species as such; whether activities amounted to disturbance of a species would depend on when the activities occurred, the rarity of specimens of the species, its conservation status and prospects in the location in question; R (Morge) v Hampshire County Council [2011] UKSC 2, [2011] 1 WLR 268.

I do not disagree with the way in which Mr Mould sets out the approach to 'integrity', although I emphasise that the statutory focus of 'adverse effects' is on the integrity of the site, not on an adverse effect in some lesser sense. But I do disagree with his contention that the Inspector erred in the way alleged, either in paragraph 14.6.56 in the reference to a small area only of the SPA being affected, or elsewhere. That contention is quite contrary to the overall tenor of the Inspector's conclusions, which is that there was no evidence of any adverse effect on the integrity of the site. He is right not to treat any effect as an effect on integrity; but he does not commit the error of thinking that it is merely because the affected area is small, that there can be no effect on integrity. In reality, whether an adverse effect on a small proportion of a site would amount to an adverse effect on its integrity depends on the particular circumstances. The Inspector made no judgment that an adverse effect required a significant proportion of the site to be affected adversely".

The legal challenge was dismissed.

E.10 Bagmoor Wind Ltd v Scottish Ministers

E.10.1 Description of case
An application challenging a decision to refuse planning permission for the construction of 14 wind turbines.

E.10.2 Location
The development site is located at Stacain, near Inveraray, Argyll within the Glen Etive and Glen Fyne SPA.

E.10.3 Date of decision
7th December 2012.

E.10.4 Decision maker
Scottish Court of Session, Inner House: Bagmoor Wind Ltd v Scottish Ministers [2012] CSIH 93.

E.10.5 Area of designated site
The Glen Etvive and Glen Fyne SPA extends to 81,372 ha, the qualifying feature at issue is the breeding population of golden eagles.

E.10.6 Area of habitat or number of individuals of species affected

The documents indicated that the turbines would be constructed over an area of 5.6ha but it is unclear whether this was the total area of the development site. The key area given was that if a buffer zone of 500m around the site were taken into account the site area increased to 460 ha (0.56% of the overall site).

The location of the development site within the SPA is also important; paragraph 3 of the judgment explains:

"the SPA consists of two zones, north and south, separated by a broad corridor running parallel to, and including, the A85 road from Dalmally to Crianlarich. The southern zone, with which the appeal is concerned, is irregular in shape. This is because it is designed to include only the eagles' foraging ground. It accordingly excludes afforested areas. It also avoids incorporating the Clachan Flats wind farm, which is located outside its southern border. The Stacain site is to the north west of the zone. It would separate, from the main part of the zone, a tongue of some 170 hectares within the SPA running towards Loch Awe."

The SPA had 19 pairs of golden eagles with active territories. The case centred on the potential effects of the project on one pair of breeding eagles.

E.10.7 Type of habitat or species affected – its importance and sensitivity

Paragraph 10 of the judgment states:

"The specific justification for the classification of the Glen Etive and Glen Fyne SPA is the presence of 19 pairs of eagles with active territories. A pair of eagles will have an active territory of some 5,000 hectares. The 19 active territories represent over 4% of the total in Great Britain. Although there are a significant number of additional single eagles frequenting the SPA, it is the presence of the pairs of eagles, and their potential to breed, which is of central importance for the SPA's conservation purposes."

E.10.8 Judgment

At paragraph 11, with specific reference to the scale of the effect upon such a population is clear about the importance of each breeding pair:

"The ultimate question for the reporter was whether a wind farm at Stacain would "adversely affect the integrity" of the SPA (1994 Regulations, reg 48(5)). It was accepted that the SPA would be so affected even if only one pair of eagles were eliminated, either through an eagle being killed and not replaced, or by a pair abandoning a territory."

The scale of displacement effects were also considered. Paragraph 23 quotes from the Reporter's findings which stated that displacement effects would be 9.2% of the territory of the GF1 pair, based on a territory of 5,000 hectares, and around 11% if the barrier effect on the additional area was added. The Reporter continued "*displacement from 9.2% of their territory would represent a significant disturbance to the GF1 pair of eagles... this would undermine the conservation objectives".* One pair would represent 5.2% of the breeding population of 19 pairs.

The overall conclusions reached by the Reporter stated:

"In these circumstances....although it may be unlikely, it cannot be ruled out that the disturbance and displacement effect on the Stacain wind farm on the GF1 pair of golden eagles may lead to abandonment of the territory. Based on these reasonable scientific doubts …. this conservation objective would be undermined, as it relates to avoiding

disturbance to the golden eagles. Consequently, with regard to this conservation objective …. adverse effects on the integrity of the special protection area cannot be ruled out.

The judgment accepted the Reporter's findings at paragraph 53 in stating: *"...All of this adequately supported the reporter's finding (Report para 8.64(7)) that disturbance and displacement could not be ruled out and that this could lead to abandonment of territory, thus producing an adverse effect on the integrity of the SPA in terms of the conservation objectives."*

The case was dismissed.

E.11 R (Akester) v DEFRA and Wightlink

E.11.1 Description of case
A challenge against the introduction of a new class of (more powerful) ferry vessels to operate between Lymington and Yarmouth.

E.11.2 Location
The sites affected by the ferry route were Solent Maritime SAC and Solent and Southampton Water SPA/Ramsar.

E.11.3 Date of decision
16th February 2010.

E.11.4 Decision maker
The High Court: R (Akester & Anor) v DEFRA and Wightlink [2010] EWHC 232 (Admin) – 'Wightlink'.

E.11.5 Area of designated site
The Solent Maritime SAC extends to 11,325ha whilst the Solent and Southampton Water SPA/Ramsar is 5,505ha.

E.11.6 Area of habitat or number of individuals of species affected
The introduction of new ferries would lead to the loss of 0.4ha of inter-tidal habitat per decade and detrimental habitat change of 1.3ha per decade which would continue for decades. This was in addition to rapid coastal squeeze habitat losses of 5-6 ha/year. The Court accepted that the predicted habitat loss was dominated by coastal squeeze rather than the effects from the ferries but noted that the ferries would have an additional anthropogenic detrimental effect. Therefore Natural England had advised that it was not possible to conclude no adverse effect on integrity. Overall, the scale of effect from the project would be 1.7ha/decade, which represents 0.015% of the SAC and 0.03% of the SPA per decade; of which: habitat loss would be 0.003% of the SAC (0.007% of the SPA) per decade and degradation would be 0.012% of the SAC (0.027% of the SPA) per decade.

E.11.7 Type of habitat or species affected – its importance and sensitivity
The salt marshes and mudflats at the Lymington estuary are both part of the Solent and Southampton Water SPA and part of the Solent Maritime SAC. The salt marshes and mudflats had also been included in the listed Ramsar site.

E.11.8 Judgment
The case did not consider in detail whether the advice from Natural England regarding the risk of an adverse effect was correct or not. Instead the case centred on, amongst other things, whether Wightlink (the competent authority) had had sufficient regard to the advice of

Natural England as the statutory nature conservation body, in particular with reference to the commercial interest they had in allowing the introduction of the new ferries.

Paragraph 115 states "*I cannot be satisfied that it gave the formal advice from Natural England the weight that it deserved, and in consequence that it could properly have come to the conclusion that no doubt remained as to whether the introduction of the new ferries would have adverse effects on the protected sites*."

In this regard the advice from Natural England concerning the scale of the effect was less material to the decision reached and the case should be interpreted appropriately.

Because Wightlink did not give appropriate weight to Natural England's advice, the court quashed the decision. Had Wightlink given appropriate weight to the advice it could not have concluded with certainty that the habitat loss from the introduction of the new ferries as then proposed would not have an adverse effect on the integrity of the site.

The legal challenge was dismissed.

E.12 Skye Windfarm Action Group v Highland Council

E.12.1 Description of case
Skye Windfarm Action Group Limited, challenged the decision of the Highland Council to grant planning permission to a wind farm at Edinbane, Skye. The proposed windfarm initially comprised 28 turbines but the developer reduced that number to 18. The principal relevant issue here was the effect of the wind farm on the golden eagle and other bird species.

E.12.2 Location
The proposed wind farm was approximately two kilometres south of Edinbane and eight kilometres to the east of Dunvegan, Skye. It was also close to another proposed windfarm development at Ben Aketil.

E.12.3 Date of decision
1st February 2008.

E.12.4 Decision maker
Scottish Court of Session, Outer House: Skye Windfarm Action Group v Highland Council [2008] CSOH 19.

E.12.5 Area of designated site
The Cuillins SPA was classified because it regularly supported a breeding population of golden eagle; the site supported eight breeding pairs and was regarded as one of the highest density populations in Great Britain.

E.12.6 Area of habitat or number of individuals of species affected
Early studies into potential sub-adult mortality showed a range of between 0.27-0.6 eagles per year. These figures were challenged by the petitioners who suggested that the collision risk from the combined Ben Aketil and Edibane windfarms of 0.9 per year would be the highest of any windfarm in Scotland. SNH advised that the expected increase in sub-adult mortality would not compromise the SPA population.

E.12.7 Type of habitat or species affected – its importance and sensitivity
SNH advised that whilst there were breeding pairs within the SPA, they would not be affected by the wind farms. It was the sub-adult birds which were known to fly in the vicinity of the proposed wind farm sites. They should be available to replenish the breeding bird

population within the SPA when adult birds ceased to breed or died. This separated this decision from that taken for Bagmoor Wind four years later (see E.10) which concerned a windfarm development within the territory of a breeding pair.

E.12.8 Judgment
Paragraph 129 refers to the conclusion of an expert's report which stated:

"The Cuillins golden eagle SPA is not a closed population and therefore adverse impacts are not anticipated if mortality of sub-adult eagles is below one per year. The future of the Skye population could be compromised if additional sub-adult mortality rises much above 1.0 per year. This agrees with the previous precautionary figure of 0.6 suggested by SNH (2004) for the Edinbane wind farm. It is important to note that this previous figure is still acceptable, even if productivity has declined".

SNH advised that the windfarm would not have any direct impact on the eight breeding pairs within the SPA and acknowledged that the integrity of the site might be adversely affected if there were insufficient numbers of young eagles to replace any breeding adults. The issue was therefore *"whether the numbers of sub-adult golden eagles in the Skye population would decline to the extent that recruitment into the SPA breeding population would be affected."* SNH confirmed that the risk from Ben Aketil was between 0.21 and 0.34 deaths per year and the risk from Edinbane was 0.57, giving a combined range of between 0.78 and 0.91 per year.' When challenged as to how SNH had been satisfied that "no reasonable scientific doubt" remained, SNH responded in a letter which was quoted in paragraph 135 of the judgment that stated:

"It is important to stress that the appraisal focuses on the numbers of young eagles as part of the 'floating' non-breeders in the Skye population. These are the birds that may eventually occupy breeding ranges in the SPA if and when a vacancy arises. A change in the number of such floaters on Skye does not directly affect the SPA but may influence the degree to which the breeding population in the SPA is buffered against change. We consider that there is no reasonable scientific doubt that the predicted loss of less than one eagle per year from this floating population, due to the combined effect of the Skye windfarms, would not adversely affect the integrity of the Cuillins SPA. We were and are confident that this predicted loss not only guarantees the integrity of the site in line with the obligations of Article 6(3) as clarified by the Waddenzee judgement, but also ensures adequate buffering against changes in the Skye eagle population due to other likely influences."

The Court accepted that the SNH threshold of less than one eagle from the floating 'young' or 'sub-adult' population was a rational and lawful approach. The legal challenge was dismissed.

Decisions of the Secretary of State / Scottish Ministers

All the documentation referred to in the Secretary of State decisions for the Nationally Significant Infrastructure Projects reviewed below (cases E.13 to E.23) can be found on the National Infrastructure Planning Portal webpage:

http://infrastructure.planningportal.gov.uk/projects/

E.13 Hornsea Project 1 offshore wind farm

E.13.1 Description of development
1,200MW offshore wind farm comprising either two generating stations of 600MW or three of 400MW, with up to 240 turbines.

E.13.2 Location
North Sea approximately 103km from the East Riding of Yorkshire coast entirely in UK offshore waters (except for cable connections).

E.13.3 Date of decision
10th December 2014.

E.13.4 Decision maker
Secretary of State DECC.

E.13.5 Area of designated site
The Secretary of State concluded that likely significant effects alone or in combination with other plans or projects, could not be excluded in respect of five European sites in England, in respect of a range of qualifying features including breeding sea birds, fish and habitats. The sites were Flamborough Head and Bempton Cliffs SPA, the Flamborough and Filey Coast pSPA, the Humber Estuary SPA, the Humber Estuary Ramsar site and the Humber Estuary SAC.

Relevant to this research is the approach to assessment of sea bird collision risk, specifically gannet and kittiwake, breeding in Flamborough and Filey Coast pSPA, which consisted of the existing Flamborough Head to Bempton Cliffs SPA with some landward and seaward extensions and additional qualifying features.

The breeding gannet population at the Flamborough and Filey Coast pSPA had grown rapidly since the 1980's when only a few hundred breeding pairs were present. Estimates of numbers in 2012 were 11,061 pairs or 22,122 breeding individuals. It is estimated that the UK population of gannets is 440,000 individuals, with a global population of 610,000. In the UK, the gannet population is concentrated in northern Scotland, and whilst they are widely distributed in English seas during winter, the only breeding colony in England is at Bempton Cliffs.

E.13.6 Area of habitat or number of individuals of species affected
The applicant's preference was to apply an avoidance rate of 98% to Band model option 4 to generate a collision risk mortality estimate of 9 gannets. Natural England had some concerns about the methodology preferring an avoidance rate of 98% and the use of Band model option 1 resulting in a mortality estimate of 28 gannets (0.13% of the SPA breeding population). However, both parties agreed that the predicted mortality levels were well within the estimated potential biological removal (PBR) thresholds at which the gannet population could suffer long-term decline, the applicant's estimate being 452 (f value = 0.5 and representing 2.0% of the SPA breeding population) and Natural England's estimate being 362 (f value = 0.4 and representing 1.6% of the SPA breeding population). Therefore Natural England agreed, and the Secretary of State concluded, that there would not be an adverse effect on the integrity of the Flamborough and Filey Coast pSPA when the project's impacts were considered alone.

In terms of the in-combination effects, Natural England advised that an adverse effect on integrity of the Flamborough and Filey Coast pSPA could not be excluded when a 98% avoidance rate was used with either of the in-combination approaches being considered, known as the 'building block' and the 'all projects' approaches respectively, because this

would breach the PBR threshold of 362 birds. However, Natural England recognised that if the collision risk mortality estimates were based on a 99% avoidance rate and the building block approach (115-127 birds), then an adverse effect on site integrity could be excluded as it would not exceed the PBR threshold (362 birds). 127 birds would be 0.6% of the SPA breeding population.

The Secretary of State adopted that approach and concluded that the in-combination impacts of the Hornsea project (using the building block approach for projects up to Hornsea and a 99% avoidance rate) would not have an adverse effect on the integrity of the pSPA. The Secretary of State further considered that it was not appropriate to consider future projects, which may be submitted after Hornsea Project 1, in the 'all projects' approach because of the significant levels of uncertainty associated with both the scale of future projects and their associated impacts. Future projects could not be lawfully consented should they be unable to demonstrate that they would not result in an adverse effect upon the integrity of a European site. The Secretary of State was therefore satisfied that the in combination impacts of future projects would be fully assessed at a later stage when they were being considered for consent.

A similar approach was used in respect of kittiwakes. Following their calculations, Natural England was satisfied that the predicted kittiwake mortality level using the building block approach (357-472 birds based on Band model option 1 and a 98% avoidance rate) would be below the PBR threshold of 512 birds (f value = 0.1). On this basis, Natural England advised that there would not be an adverse effect on the integrity of the Flamborough and Filey Coast pSPA for kittiwake.

However, Natural England could not provide the same advice when considering the in combination impacts using the 'all projects' approach, as the predicted level of mortality (759-874 kittiwakes based on Band model option 1 and a 98% avoidance rate) would be significantly higher than their predicted PBR threshold (512 birds). Again the Secretary of State considered a 98% avoidance rate for Band model option 1 to be over-precautionary and that there was too much uncertainty associated with the status (and impacts) of future projects and as such rejected the 'all projects' approach in favour of the 'building block' approach.

E.13.7 Type of habitat or species affected – its importance and sensitivity
See above.

E.13.8 Decision
The Secretary of State concluded that there would not be an adverse effect on the integrity of the Flamborough and Filey Coast pSPA for either gannet or kittiwake, either alone or in combination with other plans or projects. The Order for development consent was made.

E.14 Walney Extension offshore wind farm

E.14.1 Description of development
750MW, offshore wind farm extending to approximately 149 square kilometres with 207 turbines up to 222m to blade tip.

E.14.2 Location
The Irish Sea, north-west of the existing Walney I and II wind farms, 19km west of the Cumbrian coast and 31km south-east of the Isle of Man, mainly located in UK offshore waters. The proposal including ancillary development including a cable run to shore which would cross Middleton Sands, in Morecambe Bay.

E.14.3 Date of decision
7th November 2014.

E.14.4 Decision maker
Secretary of State DECC.

E.14.5 Area of designated site
Morecambe Bay SAC is 61,506 hectares. On the Standard Data Form saltmarsh habitat is recorded as 2.99% of the total SAC area which would be 1,839 hectares. Intertidal mudflats and sand flats are recorded on the form as extending to 34.2% which would be 21,305 hectares. However, the habitat calculations appear to have been made in respect of a smaller area of this habitat, approximately 600 hectares. The intertidal mudflats and sand flats are also a supporting habitat for the birds for which the Morecambe Bay SPA was classified. The SPA extends to some 37,404 hectares.

E.14.6 Area of habitat or number of individuals of species affected
The Secretary of State concluded (in line with the advice of the Examining Authority and Natural England) that the habitat loss of saltmarsh would not be likely to be a significant effect on the SAC, either alone or in combination with other plans or projects.

This was on the basis of the proposed use of Horizontal Directional Drilling technique for the installation of the export cabling. Natural England considered that the risk of breakout of drilling mud was 'highly' to 'extremely' unlikely. If it were to occur, the worst case impacted area would be an estimated 0.033% of the total SAC saltmarsh feature area described in the Secretary of State's assessment as "*a very small amount*." It was therefore a combination of low risk of effect as well as small scale of effect that enabled the screening out of the effects of this particular aspect of the proposal on the SAC. This would indicate a loss of 0.06ha [1839 x 0.033%] but it has not been possible to verify this figure from the documentation.

However, in respect of the loss of intertidal mudflats and sand flats, caused by cable laying and the associated placement of rock armour, a likely significant effect could not be ruled out for this proposal alone (and also in combination with other plans or projects, namely other offshore wind farms requiring cables to be laid across the SAC). Consequently, an appropriate assessment was carried out in respect of intertidal mudflats and sand flats for both the SAC and the SPA.

Natural England acknowledged that the extent of the potential impact area would be very small relative to the size of the SAC and the SPA. Also, given the programme for installation, it is likely that the whole area will not be impacted at the same time. The cable installation methods would also not completely remove invertebrates from the mudflat, although it is likely that mortality would occur.

Natural England believed that the impacted area would eventually recover, both in terms of the sediment habitat, and to a longer timescale, its associated invertebrate infauna. Recovery was likely to be in a time that allowed the mud and sand flats to recover between construction operations, both on this project and West of Duddon Sands.

Natural England advised that installation of the export cable through the mud and sand flats, which were a qualifying feature of the SAC and a supporting feature of the SPA, would not have an adverse effect on integrity of the SAC, because, beyond reasonable scientific doubt in respect of the SAC:

a. The area of impact would be small relative to the SAC;
b. The physical habitat will recover;

c. There will be no loss of habitat, allowing invertebrate infauna to recolonize and recover.

And in respect of the SPA:

a. The area of impact would be small relative to Middleton Sands and the wider SPA;
b. The physical habitat will recover;
c. The invertebrates will suffer some mortality, but will recover, (but to uncertain timescales).

Essentially this advice formed the basis of the Secretary of State's conclusions on the appropriate assessment and integrity test for the SAC and SPA. Documentation indicated that the affected area of the intertidal mudflats and sand flats would be 0.41% of the approximately 600 hectares of the qualifying feature in the SAC.

E.14.7 Type of habitat or species affected – its importance and sensitivity
In respect of the intertidal mudflats and sand flats feature, Natural England advised that the habitat type (littoral mud and sand) is typically of low sensitivity, and can recover more rapidly than more sensitive habitats such as saltmarsh or pure mud flats. However, the Marlin sensitivity analysis says that for physical disturbance and displacement the confidence in the evidence on sensitivity is moderate. Comparisons were made with the actual effects of works relating to the Burbo Bank wind farm, but that had less mud and fine sand, which may suggest recovery at Burbo Bank would be quicker than at Middleton Sands.

E.14.8 Decision
The Secretary of State concluded that there would be no adverse effect on the integrity of the European sites and the Order for development consent was made.

E.15 Burbo Bank (Extension) offshore wind farm

E.15.1 Description of development
259MW, offshore wind farm extending to approximately 40 square kilometres with 69 turbines up to 223m to blade tip.

E.15.2 Location
Liverpool Bay, some 12km offshore from Point of Ayr (Wales), 7 – 11km from the north coast of the Wirrall and 8.5km from Crosby (Merseyside).

E.15.3 Date of decision
26th September 2014.

E.15.4 Decision maker
Secretary of State DECC.

E.15.5 Area of designated site
The Liverpool Bay SPA is 170,293 hectares in area. The proposal, excluding any buffer zones, would cover approximately 7.81% of the SPA. The relevant population of red-throated divers in Liverpool Bay SPA is considered to be the second highest in the UK. At classification the latest population estimate based on five year peak mean (2001/02 – 2006/07) but with insufficient data for one of the years, was 922 individuals, or 5.4% of the Great Britain population. The most recent estimate of the population was 1,188 birds, but confidence limits ranged from 920 to 1,534 giving an indication of the variation associated with the estimate.

E.15.6 Area of habitat or number of individuals of species affected

At the end of the examination of this proposal there remained outstanding disagreements between the applicant and the statutory nature conservation bodies (and the RSPB) as to the effects on (amongst other issues) red-throated divers associated with the Liverpool Bay SPA. The Secretary of State therefore had to resolve the disagreements, taking advice from the examination panel, and undertaking his own Habitats Regulations Assessment. In respect of the divers, he concluded that there could be a likely significant effect in combination with other plans and projects as a result of displacement of birds. He undertook an appropriate assessment.

Natural England, NRW and RSPB felt that the displacement effects may result in density-dependent impacts and ultimately result in an increase in red-throated diver mortality levels, meaning that an adverse effect on site integrity could not be excluded. The applicant's survey and analysis preferred a 2km buffer zone but on advice from the nature conservation bodies the Secretary of State preferred a 3km buffer zone. He further concluded that "*The additional red-throated diver mortality (84 birds) due to density-dependent effects, from the displacement caused by the proposed Development, in combination with other plans and projects, would not reduce the current population (1188 birds) below the level at which the site was designated (922 birds). The Secretary of State notes that at the time of designation the Liverpool Bay SPA was considered to be in favourable condition. On that basis the Secretary of State is satisfied that the Liverpool Bay SPA will remain in favourable condition even with the additional mortality resulting from the development*." (Source the decision letter) "*It also leaves considerable precautionary head room above the figure for which the site is designated (922 birds)*." (Source, the Secretary of State's HRA). He concluded that the proposed development would not have an adverse effect on the integrity of the SPA, either alone or in combination with other plans or projects.

However, it is noted that the applicant's calculations indicated that density dependent mortality with a 3km buffer zone would be 9.15% of the red-throated divers in Liverpool Bay SPA. So using the number at classification (922 birds) 84 divers would be lost each year. But if the estimated population had been used instead, 9.15% of 1,188 would be 108 birds lost. Furthermore, if the actual population was at the lower end of the confidence range (920) and therefore closer to that at classification (922), the loss of 84 birds (actually calculated on an assumed population of 922) would reduce the population to below that for which the site was classified.

E.15.7 Type of habitat or species affected – its importance and sensitivity

See above.

E.15.8 Decision

The Secretary of State concluded that the proposed development would not have an adverse effect on the integrity of the SPA, either alone or in combination with other plans or projects and the Order for development consent was made.

E.16 North Killingholme Power Project

E.16.1 Description of development

470MW thermal (gas powered) electricity generating station.

E.16.2 Location

North Killingholme, North Lincolnshire.

E.16.3 Date of decision

11th September 2014.

E.16.4 Decision maker
Secretary of State DECC.

E.16.5 Area of designated site
The Humber Estuary SAC is 36,657ha, the Humber Estuary SPA is 37,630ha.

E.16.6 Area of habitat or number of individuals of species affected
The cooling water intake structures would require up to 4 piles within the estuary. The small construction footprint is approximately 3.2m^2. It would be located next to an existing jetty in the main 'channel' below the tidal range of the estuary. The Humber Estuary (SPA/SAC European Marine Site) has an intertidal area of approximately 9,382ha and a sub-tidal area of 16,800ha. The construction footprint would therefore be approximately 0.0000019% of the total sub-tidal habitat within the estuary or approximately 0.0000012% of the total estuarine habitat. The project would not involve construction within the Estuary SAC intertidal habitat. Natural England did not find this significant due to the sub-tidal location, small area affected and pre-existing dredging activities. The jetty that would be used by the applicant for the cooling water intake and outfall is already subject to regular disturbance from ship movements, ballasting operations and at least monthly dredging. Natural England took account of studies that found no impacts on inter-tidal or sub-tidal habitats from these activities. High levels of sedimentation in the estuary meant frequent dredging was needed to keep safe navigation of vessels.

The Secretary of State considered that the effects on the Humber Estuary SAC and Ramsar habitat features at this location next to an existing working jetty would be negligible, due to the very small size of the habitat loss (0.0000019% of the total sub-tidal habitat), its location within the sub-tidal part of the Estuary, and the fact that a condition on the proposed consent would limit the maximum pile diameter, thus ensuring the limited size of the piles.

E.16.7 Type of habitat or species affected – its importance and sensitivity
N/A

E.16.8 Decision
The Secretary of State concluded that in respect of the above effects no appropriate assessment was necessary. The order for development consent was made.

E.17 Rampion offshore wind farm

E.17.1 Description of development
700MW, offshore wind farm of up to 175 turbines up to 200m to blade tip.

E.17.2 Location
The English Channel 13km to 24km off the Sussex coast (the majority within UK territorial waters).

E.17.3 Date of decision
16th July 2014.

E.17.4 Decision maker
Secretary of State DECC.

E.17.5 Area of designated site
The Flamborough Head and Bempton Cliffs SPA is 212 hectares but the relevant population was that of breeding kittiwake and gannet.

Breeding kittiwakes are a qualifying feature of the SPA. At the time of citation, based on a 1987 count date, the site regularly supported 83,370 breeding pairs (2.6% of the breeding Eastern Atlantic population). However, more recent estimates of kittiwake numbers have shown a substantial decline to some 37,617 pairs or 75,234 breeding adults in 2008.

Breeding gannets are not formally listed as a qualifying feature in their own right on the SPA citation but are currently present in sufficient numbers to be classed as such, so it was treated as a full qualifying SPA species. The breeding population was cited as 2,501 pairs (JNCC, 2001) at the time of the SPA designation. However, the population has grown rapidly since the 1980's when only a few hundred breeding pairs were present; estimates of numbers in 2012 were 11,061 pairs or 22,122 breeding individuals (see also case E.13 above).

E.17.6 Area of habitat or number of individuals of species affected

The Secretary of State gave weight to the advice from Natural England and the examining authority's recommendation as to uncertainty of effects and was unable to exclude a likely significant effect when considered in combination with other plans or projects in respect of the Flamborough Head and Bempton Cliffs SPA, for the gannet and kittiwake qualifying features, as a result of increased collision mortality.

Guided by Natural England, the applicant undertook a potential biological removal (PBR) analysis to quantify the potential level of additional mortality which could occur on an annual basis without resulting in a long term population decline. The analysis produced an upper and a lower estimate; the assumption was that if mortality levels were below those thresholds, then the populations of the two species should not decline as a result.

When considered in combination with other offshore wind farms, the collision mortality risk for gannet as a result of the proposal was small relative to that for other projects. Using a 99% avoidance rate, preferred by the Secretary of State, projects included in the in-combination assessment as defined by the Secretary of State (referred to as tiers 1-3) were estimated to increase gannet mortality by 100 birds a year. Including East Anglia One (see case E.18 below) in these calculations increased gannet mortality to 137 birds. Adding the effects of Rampion resulted in a total of 144 gannets per year. This was considered to be well below the PBR range of 286 and 361 birds per year and therefore left sufficient precautionary headroom to allow for the various assumptions which were required to reach these figures.

In respect of kittiwake, the Secretary of State adopted an agreed 98% avoidance rate and the predicted collision mortality rate for the proposal was 22 birds per year from the SPA. As with the gannets, the applicant undertook PBR analysis for kittiwake which estimated the thresholds at which a level of mortality would not have a long term effect upon the population as being between 250 and 350 birds per year. In the context of the proposal alone, the impacts from collision risk were considered to be small. This was not disputed by any of the parties. When considered in combination with other projects, the effect of the proposal was still small relative to that of other offshore wind farms. Projects in tiers 1-3 were estimated to result in a kittiwake mortality rate of 91 birds a year from the SPA. The East Anglia One project would increase mortality by an additional 104 birds per year. Once the impacts of Rampion were included within the cumulative assessment the mortality rate was predicted to be 217 kittiwakes per year. This was considered to be well below the PBR thresholds of 250 and 350 birds per year and therefore left sufficient precautionary headroom to allow for the various assumptions which are required to reach these figures.

The Secretary of State concluded that the additional gannet and kittiwake mortality as a result of the Rampion proposal, alone and in combination with other plans or projects, would

not prevent the site from contributing toward favourable conservation status for both species in line with the site's published conservation objectives.

Although not specifically referred to in the Secretary of State's appropriate assessment, for kittiwake the project would result in cumulative effects being 1.9% above baseline mortality rather than 1.7% without the project and for gannet 9.1% increase in baseline mortality rather than 8.7% without the project.

E.17.7 Type of habitat or species affected – its importance and sensitivity
N/A

E.17.8 Decision
On the basis of the amount of headroom left in the PBR analysis when using a 99% avoidance rate in respect of Gannet and a 98% rate in respect of Kittiwakes, and considering all projects in tiers 1, 2 and 3 and the East Anglia One offshore wind farm, the Secretary of State concluded that the Rampion proposal either alone or in combination with other plans and projects, would not have an adverse effect on the integrity of the gannet or kittiwake qualifying features of the Flamborough Head and Bempton Cliffs SPA. An Order for development consent was made.

E.18 East Anglia One offshore wind farm

E.18.1 Description of development
1,200MW, offshore wind farm extending to approximately 300 square kilometres with 325 turbines up to 200m to blade tip.

E.18.2 Location
The North Sea, 43.4km from the Suffolk coast predominantly in UK offshore waters.

E.18.3 Date of decision
17th June 2014.

E.18.4 Decision maker
Secretary of State DECC.

E.18.5 Area of designated site
The Alde-Ore Estuary SPA is 2,417 hectares but the relevant population is that of breeding lesser black-backed gulls at Orfordness which had reduced from about 20,000 – 23,000 pairs in 2000 to about 640 in 2012 for reasons thought to include predators, recreational access and vegetation.

E.18.6 Area of habitat or number of individuals of species affected
The examination of the proposal considered a number of effects on sea bird populations (see for example E.17 above) but the key issue addressed in this research for this case relates to the breeding population of lesser black-backed gull (LBBG) in the Alde-Ore Estuary SPA. The applicant had initially estimated in the Environmental Statement that 14 birds per annum attributed to the Alde-Ore Estuary SPA would be killed during the breeding season. However, following tagging analysis of 24 LBBG from the SPA, of which four were found to be present on the application site during the breeding season, the applicant estimated that less than 1 bird per annum attributed to the Alde Ore SPA would be killed during the breeding season.

Natural England estimated the predicted mortality to arise from other wind farms to be considered in-combination with the proposal would be 246, added to which would be 13-40

from the East Anglia One project (5-14% of the 246). However, Natural England also estimated that the bulk of collisions would occur outside the breeding season and that the element of the proposal's contribution to the in-combination mortality total to which some degree of confidence could be attached (3-7) would be so small as to not materially alter the overall in-combination mortality figure, or the likelihood of an adverse effect on integrity of the Alde-Ore Estuary SPA.

The Secretary of State undertook an appropriate assessment on the basis of in-combination effects on the breeding population of LBBG at the Alde-Ore Estuary SPA. The Secretary of State agreed with Natural England`s position that the number of predicted collisions that could be attributed to East Anglia One was so small as to not materially alter the overall in-combination mortality figure or the likelihood of an adverse effect on the SPA. It is to be noted that although the initial assumptions were that there would be likely to be a significant effect on LBBG, the detailed work undertaken for the appropriate assessment concluded that there would be no significant effect on the SPA.

The appropriate assessment also highlighted that a variety of factors, such as food availability and threats at the SPA breeding colony which were being addressed by Natural England and its partners, had far greater effects on the gull population.

E.18.7 Type of habitat or species affected – its importance and sensitivity
N/A

E.18.8 Decision
The Secretary of State also noted that his appropriate assessment for the Galloper offshore wind farm (see case E.21 below) had concluded no adverse effect on lesser black-backed gull for that project in combination with other offshore wind projects, provided that all predicted collisions from Galloper were mitigated. He was therefore confident in concluding that there would be no adverse impact as a result of the project alone and in combination on the Alde-Ore Estuary SPA. An Order for development consent was made.

E.19 Able Marine Energy Park

E.19.1 Description of development
A marine energy park and compensatory habitat scheme.

E.19.2 Location
South bank of the Humber estuary at Killingholme in North Lincolnshire.

E.19.3 Date of decision
18th December 2013.

E.19.4 Decision maker
Secretary of State for Transport.

E.19.5 Area of designated site
The Humber Estuary SPA is 37,630ha and the Humber Estuary SAC is 36,657ha.

E.19.6 Area of habitat or number of individuals of species affected
In terms of the SPA the Habitats Regulations Assessment accompanying the decision letter stated "*The Secretary of State agrees with the Panel that the AMEP development is likely to have a significant adverse effect on the Humber Estuary SPA and Ramsar site, having regard to the core purpose of their designations, namely the protection of habitats of importance for migratory birds. He notes that construction of the new quay will lead to a reduction in the extent and distribution of estuarine and inter-tidal habitat, including the loss*

of food supply from 31.5 hectares of inter-tidal mudflat; and that an additional 11.6 hectares of mudflats is likely to have reduced functionality as a result of disturbance".

"*The Secretary of State recognises that the impacts of this on the internationally important population of Black Tailed Godwit (BTG) are of particular concern given that during the period of the autumn moult they make use of the inter-tidal mudflats at North Killingholme Marshes in their thousands (the peak count of 2,566 representing 66% of the SPA population). During this period even higher numbers of BTG use the nearby North Killingholme Haven Pits as a secure roost, which are likely to be lost if the associated feeding areas are lost. The Secretary of State therefore agrees that the compensatory measures necessary to satisfy the requirements of the Habitats Regulations must include the provision of suitable nutritional resource for BTG and a roost site in proximity to that nutritional resource*." It can be taken from this statement that the Secretary of State concluded an adverse effect on the integrity of the SPA. The total loss of functional habitat in the SPA is 0.11% (43.1/37,630ha).

However, in relation to the SAC, the losses were considered not to be significant alone. The Habitats Regulations Assessment accompanying the decision letter concluded: "*In relation to the Humber Estuary SAC as a whole, the Secretary of State agrees with the Panel's assessment that, having regard to the size of the SAC, the loss of ecological function as a result of the AMEP development will be small, and that the habitats are types that are found over a wide area. He agrees, therefore, that the loss of inter-tidal and estuarine habitat at North Killingholme (which cannot be mitigated) in itself will have a very minor effect on the SAC overall*." The loss referred to here is assumed to be the 31.5ha from intertidal mudflats and a further 13.5ha of sub-tidal estuary feature from the development footprint. These would be 0.33% of the inter-tidal mudflat (31.5/9,384ha); 0.12% of the total SAC estuary feature (45/36,657); and less than 0.1% of the sub-tidal resource in the estuary (13.5/16,800ha).

However, it is noted that the examining authority appeared to have concluded a potential for in combination effects as follows, although it is unclear the extent to which compensatory measures may have been taken into account in the screening decision. "*The Panel considers that in terms of the size of the Humber Estuary SAC as a whole the loss of ecological function from the proposals would be small and that the habitats are types that are found over a very wide area. In consequence the loss of habitat in itself would have a very minor effect on the SAC overall. However loss of estuarine habitat without compensatory provision would set a precedent that would set up the prospect of cumulative adverse effects*." Although the assessments are not entirely comparable in terms of the documentary records, Natural England and the applicant had agreed that permanent direct loss of both intertidal mudflat and wider estuarine habitat qualifying features would be a likely significant effect alone.

E.19.7 Type of habitat or species affected – its importance and sensitivity
See above discussion

E.19.8 Decision
The Order for development consent was made. Having concluded that the new quay would have an adverse effect on the integrity of the SPA / Ramsar site, the order had to be granted as a derogation under the provisions of regulation 62 of the Habitats Regulations, including the provision of compensatory habitat pursuant to the requirements of regulation 66. The decision has been subject to various legal challenges not relevant to this research.

E.20 Triton Knoll offshore wind farm

E.20.1 Description of development
1,200 MW offshore wind farm covering an area of approximately 135km^2 comprising up to 288 x 3.8MW turbines up to 160m to blade tip, or 150 x 8MW turbines up to 220m to blade tip.

E.20.2 Location
The North Sea 33km off the Lincolnshire coast and 46km off the Norfolk coast and lying in UK offshore waters.

E.20.3 Date of decision
11th July 2013.

E.20.4 Decision maker
Secretary of State DECC.

E.20.5 Area of designated site
The North Norfolk Coast SPA and Ramsar site is classified, amongst many other features, for breeding Sandwich tern, *Terna sandvicensi* with a classification population of 3,457 pairs in 1989; its usual range is between 3,000 and 4,500 pairs at the site. The terns nest in colonies at Blakeney Point and Scolt Head, which have been monitored since their establishment in the 1920s. This indicates that there has been an overall increase in the size of the colonies since the early 1960s, with peak numbers of 5,600 breeding pairs in 1979. Figures for 2000 – 2004 estimated the population as a mean of 4,047 pairs but the more precautionary population estimate of 3,457 pairs (6,914 individuals) was used for the purposes of assessment.

E.20.6 Area of habitat or number of individuals of species affected
Operational effects on the terns were subject to dispute at the examination in relation to methodologies used for modelling operational collision risk. The Secretary of State adopted the applicant's approach to collision risk modelling which he had previously adopted in respect of his assessment of the Greater Wash offshore wind farm in 2012, namely applying a 98.83% avoidance rate to the Folkerts model. Natural England had proposed a 98% avoidance rate applied to the Band model. The Secretary of State concluded that the project alone could result in up to 8 predicted adult sandwich tern collision mortalities per annum (0.12% of the 6,914 individuals at classification) This was not considered to lead to unacceptable increases in mortality above the PVA mortality thresholds advocated by either the applicant or Natural England. The decision took account of mitigation restricting piling activity during the herring spawning season.

The in-combination assessment approach was also disputed on the same grounds, with the Secretary of State again preferring the 98.83% avoidance rate on the Folkert's model, and also on the grounds as to which mortality threshold to adopt, with the applicants advocating a threshold of 94 additional sandwich tern mortalities and Natural England advocating a threshold of 75. Again the applicant's approach was adopted for the assessment by the Secretary of State.

The Secretary of State agreed with the Panel's conclusions that there was capacity within the mortality threshold of 94, for the project to contribute 8 mortalities. If Natural England's threshold of 75 were accepted the effect would be that there would be no biological impact envelope within which the project could be constructed.

E.20.7 Type of habitat or species affected – its importance and sensitivity
See above

E.20.8 Decision
All parties were in agreement that adverse effect on integrity of the North Norfolk Coast SPA and Ramsar site could be excluded as a result of impacts during construction and operation related to the project alone.

The Secretary of State concluded that no adverse effects on the integrity of the breeding sandwich tern population feature of the North Norfolk Coast SPA and Ramsar are expected to arise from the project in-combination with other plans and projects as a result of impacts during construction, operation or decommissioning. An Order for development consent was made.

E.21 Galloper offshore wind farm

E.21.1 Description of development
504MW, offshore wind farm in three parts in total extending to approximately 183 square kilometres, with 207 turbines with a blade tip height of up to 195m.

E.21.2 Location
The southern North Sea approximately 27km off the Suffolk coast mostly in UK offshore waters.

E.21.3 Date of decision
24th May 2013.

E.21.4 Decision maker
Secretary of State DECC.

E.21.5 Area of designated site
The Alde-Ore Estuary SPA and Ramsar site is 2,417 hectares and approximately 27 km from the wind farm. Critical to the assessment of the impacts on the lesser black-backed gull (LBBG) population, was the background population growth and decline of this species in the SPA.

The fluctuations and trends in the background population levels of LBBG breeding at the SPA were significant when trying to predict the likely impact of additional mortality as a result of the proposal. This is because the background population had seen a sharp increase followed by sharp decrease. As well as site-specific factors relating to the breeding colony, there had also been UK-wide changes to the population in response to environmental factors, such as food availability.

The first pairs of LBBG became established at the Orfordness site in the Alde-Ore SPA in the mid-1960s. By 1986, the colony had grown to 5,000 pairs, increasing rapidly to 19,700 pairs by 1997. The population continued to increase, with a population of 21,700 pairs described in the Alde-Ore Estuary SPA site account in the UK SPA Review. The population peaked at nearly 25,000 breeding pairs in 2000, followed by a severe decline the following year from which the population had not recovered. The population levels appeared to have stabilised, but only at levels of around, or just under, 2,000 pairs. The 2012 population comprised some 1,811 breeding pairs.

The conservation status of the LBBG was considered to be ‘unfavourable declining’. The conservation objectives of the site included restoring the LBBG population to 14,074 pairs, subject to natural change, reduced from 21,700 pairs or 12% of the biogeographic population. Natural England advised that it was this revised population target and the

'unfavourable declining' conservation status of LBBG that the impacts of the proposed development should be assessed.

E.21.6 Area of habitat or number of individuals of species affected

The Secretary of State agreed with this recommendation in relation to the risk to LBBG as a result of collisions with operational turbines. Whilst the applicant's information for Habitats Regulations Assessment predicted an annual 44 mortalities as a result of collisions, the Secretary of State could not rule out the possibility, on a suitably precautionary basis, that additional mortality could be in the order of 119 birds per annum as a result of the project alone, based on a 98% avoidance rate. 119 birds would be 3.3% of the 2012 population of 1,811 breeding pairs or 0.4% of the conservation objective target of 14,074 pairs.

The Secretary of State agreed with Natural England that all predicted collision mortalities had to be mitigated in order to confidently reach a conclusion of no adverse impacts on the SPA, given the unfavourable declining status of LBBG breeding colonies at the SPA. The Secretary of State included what he considered to be robust requirements in the development consent order and was confident that the unilateral undertaking by the applicant to deliver the required SPA site-based mitigation would be delivered.

Given the extensive foraging range of LBBG (research had indicated a mean maximum of around 141 km) birds from the Alde-Ore Estuary SPA / Ramsar were likely to be at risk of collision with an additional 23 offshore wind farms as far away as Belgium and the Netherlands. The applicant predicted that this could result in an in-combination mortality of around 135 SPA birds per annum, based on a 99% avoidance rate. Natural England advised that a figure of 357 is more likely using a 98% avoidance rate.

The Secretary of State supported the principle put forward by the examining authority of a dual approach to mitigation that comprised measures related to the project itself and measures to be carried out in the SPA. This would be on top of statutory measures required to be undertaken by Natural England to restore the site to favourable conservation status. These additional measures, such as predator control and breeding habitat improvements, would ensure that, as a minimum, an additional 101 adult birds would be 'generated' at the SPA per annum during the 25-year operational life of the project. This would make an 84.8% contribution to mitigating the 119 collision casualties (101/119).

A corresponding 15.2% (18 bird) mitigation would, therefore, be required from project-based measures i.e. post-consent refinements to turbine specifications and numbers. This was twice the amount of project mitigation than had been recommended by the examining authority (7.6%/9 birds). The Secretary of State considered this necessary on the basis of evidence submitted during the examination on current and likely future chick productivity and survival at Orfordness and LBBG avoidance rates of wind farms. He was also mindful of the fact that the PVA models are more influenced by adult survival than by chick productivity and of evidence demonstrating that LBBG productivity levels, in general, showed significant annual variability for reasons that were not fully understood.

The Secretary of State also dismissed two recommendations by the examining authority. The first related to further mitigation in the form of an Area B turbine exclusion area, which the Secretary of State decided was unnecessary in light of the 100% mitigation already secured; the second would have allowed the applicant the possibility of amending the percentage reduction project mitigation on the basis of providing suitably convincing information on the success of the colony and studies on the actual level of collisions experienced by LBBG at the constructed wind farm. The Secretary of State decided that the 15.2% project mitigation would remain fixed. A monitoring and adaptive feedback process for the breeding colony was included in the unilateral undertaking. This would enable changes

to the SPA management regime in response to new information on breeding success and chick productivity at the colony.

E.21.7 Type of habitat or species affected – its importance and sensitivity
See above.

E.21.8 Decision
The Secretary of State considered that there would be no adverse effects on the integrity of the Alde-Ore Estuary SPA / Ramsar site as a result of the project alone, or in combination with other plans or projects, bearing in mind the full mitigation requirements.

The Order for development consent was made including the requirements for additional mitigation explained above. The conclusion in respect of the in-combination test was approached by the Secretary of State deciding that all 119 mortalities potentially caused by Galloper must be eliminated. Once this had been satisfactorily secured, as explained above, Galloper would then make no contribution to an in-combination assessment. Whether the applicant's in-combination estimate of 135 SPA birds per annum (99% avoidance rate) or Natural England's estimate of 357 (98% avoidance rate) was used, the Galloper component of these figures (44 or 119 respectively) would be removed. It would not have any in-combination effects.

E.22 Hinkley Point C Nuclear Power Station

E.22.1 Description of development
3,260MW European pressurised reactor nuclear power station.

E.22.2 Location
Hinkley Point, Somerset.

E.22.3 Date of decision
19th March 2013.

E.22.4 Decision maker
Secretary of State DECC.

E.22.5 Area of designated site
Three aspects of the Habitats Regulations Assessment (HRA) for the Hinkley Point C power station are used in this report. Each relates to the Severn Estuary SAC (though equivalent assessments were made in respect of the Ramsar site and SPA as relevant). The three aspects related to the following qualifying features: estuaries (which according the standard data form, extended to 99.95% of the SAC which is equivalent to some 73,678ha) and *Sabellaria* reef (which extended to 2% of the SAC which is equivalent to 1,474ha).

E.22.6 Area of habitat or number of individuals of species affected
The Secretary of State adopted the Environment Agency's HRA for the purposes of his own HRA in this respect. He concluded that during construction, there were likely to be mixing zones of construction discharges across the foreshore, which may have an in-combination impact with Hinkley Point B power station operational discharges. The mixing zones from the construction discharges and the tunnelling water discharge would be coincident in time and would occur from the same place on the foreshore.

The Environment Agency calculated that the potential mixing zone from the construction discharges would be about 100m² (0.01 ha). The mixing zone of total residual oxygen for Hinkley Point B did not appear to coincide spatially with the construction discharges across the foreshore, so the effects were not potentially additive. When combined with the mixing

zones of total residual oxygen from the Hinkley Point B operational discharge, it would give an in-combination impact of less than 0.2% of the estuaries feature for the mixing zone both at the sea bed and at the surface. Given the nature and scale of the temperature change on the benthic community, the in-combination impact was considered to be insignificant for the 'estuaries' qualifying feature.

The project would require up to 134m^3/s of water for direct cooling, which would be abstracted from the Severn Estuary via a series of seabed intake structures and tunnels. The abstraction of seawater from the Bristol Channel meant that organisms present in the water would be drawn into the water intakes. These organisms could include anything from planktonic bacteria and algae to macro-invertebrates and fish. Larger organisms (>25mm length) will be impinged on the cooling water intake screens and removed from the fine-mesh (5mm) drum screen employed to prevent debris entering the cooling water heat exchangers. Smaller organisms, such as fish eggs and juveniles, would be likely to penetrate the cooling water screens, be taken through the cooling water system and returned via the thermal discharge to the estuary. This process, known as "entrainment", had the potential to affect estuarine species and therefore the overall estuarine form and function.

The Environment Agency looked at the combined forces of entrainment including, mechanical, temperature, pressure and chemical changes, which act on phytoplankton, zooplankton (including *Sabellaria larvae*). Before settling on substrate to build reefs, *Sabellaria* larvae spend anything between six weeks and six months in the plankton and therefore have the potential to be entrained through the cooling water system. The applicant's HRA was supported by an assessment on *Sabellaria* larvae entrainment, which looked at a numerical simulation model of eggs being released from potential *Sabellaria* habitat and being transported by passive tracers by the currents. Assuming 100% entrainment mortality, the predicted worst case loss of larvae was calculated as 0.33% per day which was considered insignificant given that the natural mortality is estimated at 9% per day. Other zooplankton species studied were considered not to be adversely affected by entrainment.

The cumulative effects of Hinkley Point C together with other potentially significant power station abstractions around the Severn Estuary were considered in the Environment Agency's HRA and included the existing Oldbury, Aberthaw and Hinkley Point B power stations. Although the power stations could be considered 'background' i.e. all had been operational for more than 20 years and no significant effects to the Severn Estuary had been quantified, the Environment Agency estimated the potential cumulative impacts.

There was no data on the entrainment mortality of *Sabellaria* larvae associated with Hinkley Point B. Therefore, the Environment Agency took a similar set of parameters to those used in the calculations for Hinkley Point C alone and predicted the worst case loss from the cumulative effects of Hinkley Point B and C to be 0.55% per day. As the calculations are conservative, and based on maximum abstraction rates, 0.55% was considered to be insignificant.

In terms of physical loss of habitat, during construction there should be no physical damage to the *Sabellaria* reef, although it was noted that a small area of potential *Sabellaria* reef fell within the rock armour barge berthing and unloading area. That area equated to less than 0.05% of the SAC reef feature and was not considered significant.

E.22.7 Type of habitat or species affected – its importance and sensitivity
See above.

E.22.8 Decision
The Secretary of State adopted the conclusions of the Environment Agency's HRA described above in his own HRA. The Order for development consent was made.

E.23 Kentish Flats Extension Offshore Wind Farm

E.23.1 Project description
51MW, offshore wind farm extending the existing Kentish Flats offshore wind farm by a further 17 turbines up to 145m to blade tip over an area of about 380ha.

E.23.2 Location
The Thames Estuary, 8.6km north of Herne Bay, Kent and 9.5km north of Whitstable, Kent adjoining the existing Kentish Flats offshore wind farm and entirely within English territorial waters. The existing and, at the time of examination, almost completed London Array Offshore Wind Farm phase 1 was located 25km to the north of Kentish Flats. Other offshore activities in the area include marine aggregate extraction, dredging, commercial shipping, and fisheries.

E.23.3 Date of decision
16th February 2013.

E.23.4 Decision maker
Secretary of State DECC.

E.23.5 Area of designated site
The Outer Thames Estuary SPA is 379,268ha, lies entirely in UK territorial waters and was classified in 2010, at which point the existing Kentish Flats offshore wind farm was already completed (constructed in 2005). The Secretary of State excluded the displacement effects of that wind farm from the in-combination assessment because they were part of the baseline as surveyed by JNCC in preparation for the classification of the SPA. The wintering population of red-throated divers in the SPA at classification was 6,466 birds estimated to be about 38% of the total wintering population in Great Britain. However, the numbers vary considerably and on one count in 2010/11, 8,194 red-throated divers were counted within the London Array wind farm survey zone which comprised approximately 10% of the SPA area. Density models used in the appropriate assessment indicated a total SPA population of 6,250.

E.23.6 Area of habitat or number of individuals of species affected
All parties accepted a potential for a likely significant effect on the wintering population of red-throated divers, which was the relevant qualifying feature of the SPA. A peak of 174 birds was recorded in the area of the Kentish Flats Extension survey potential impact zone, which comprised the application site area and a 2km zone around it (2.7% of the SPA population of 6,466).

The Secretary of State accepted the need for an appropriate assessment of the project, both alone and in combination with other plans or projects, namely Gunfleet Sands I and II and the London Array Offshore Wind Farm Phase 1 and Phase 2, in respect of the displacement of red-throated divers in the Outer Thames Estuary SPA. There was uncertainty about the extent of London Array Phase 2 during the examination of Kentish Flats Extension because there had been no application to discharge the 'Grampian' condition restricting the progression of Phase 2.

Taking the effects of the Kentish Flats Extension alone, the Secretary of State concluded that he could ascertain that there would be no adverse effect on the integrity of the SPA alone. Displacement effects derived from density and disturbance modelling indicated that

the Kentish Flats Extension alone would displace 33 divers more than the existing Kentish Flats wind farm. The 33 birds was 0.5% of the SPA population and, on the basis of effective habitat loss (through birds being displaced), these effects were "*very small, especially when placed in the context of the recorded spatial and temporal fluctuations of the wintering SPA population of 6,422 birds*." "…. *a slight increase in the density of the birds in the SPA will lead to increased competition for food and other resources and that density development mortality effects could result which may be of the order of 10 – 20 birds.*" In terms of potential collision risk, the Secretary of State was "*mindful of the relatively small size and extent of the proposed extension – up to 17 turbines over an area of 780ha as compared to the Outer Thames Estuary SPA area of 379,268ha*".

The in-combination displacement of the Kentish Flats Extension with existing wind farms in the SPA was estimated to be 9.3% of the SPA population (580 birds). Of this, London Array Phase 1 accounted for 7.8% (486 birds) with Gunfleet Sands I and II accounting for a further 1% (61 birds) and Kentish Flats Extension 0.5% (33 birds). Adding what was known about the London Array Phase 2 to these figures increased the number of birds displaced by 843, to 1,423 (adding another 13.5% to make a total of 22.8% of the SPA population). The assessment considered that the inclusion of London Array Phase 2 could represent an adverse effect on the integrity of the SPA.

E.23.7 Type of habitat or species affected – its importance and sensitivity
N/A

E.23.8 Decision
The Secretary of State's conclusions following his appropriate assessment were as follows:

a) There will be no adverse effects on the integrity of the Outer Thames Estuary SPA as a result of this proposal alone, based on the assessment that the number of red-throated divers displaced by the project (33) can be considered to be very small or negligible. [0.5% of the SPA population];
b) There will be no adverse effects on the integrity of the Outer Thames Estuary SPA in combination with the existing wind farms as there is no set threshold at which effects can be considered adverse, and the population is subject to wide spatial and temporal variations. The Secretary of State was satisfied that this level of displacement could be accommodated within the SPA and was mindful that displacement is not the same thing as mortality although he acknowledged that there would be some level of density dependent mortality. [9.3% of the SPA population];
c) Without prejudice to any decision on the London Array phase 2 proposal, as regards any effects of the Kentish Flats Extension in-combination with the existing wind farms and possible future phases of the London Array Offshore Wind Farm, the Secretary of State considered that there would be no adverse effect on the integrity of the SPA in practice because, under the terms of the London Array consent, no further development can be permitted unless he is satisfied that it would not adversely affect the integrity of the SPA.

In effect this transferred the onus of demonstrating no adverse effect on integrity to the application for the London Array Phase 2. The Order granting development consent for Kentish Flats Extension was made.

On 14th February 2014 the consortium behind the London Array announced that it would not proceed with development of phase 2 of the offshore windfarm[22]; citing uncertainties in being able to meet the Grampian condition regarding the potential effects on the SPA.

[22] Refer: http://www.londonarray.com/project/london-array-to-stay-at-630mw/

E.24 London Gateway

E.24.1 Description of development
An application for a Harbour Empowerment Order and planning permission (together with other associated consents) for the development of a container port, including the construction of a quay wall, construction of a container handling and stacking facility, associated infrastructure, reclamation of inter-tidal area, realignment of sea wall and channel dredging.

E.24.2 Location
London Gateway, on the north bank of the Thames Estuary, Thurrock, Essex.

E.24.3 Date of decision
2nd May 2008.

E.24.4 Decision maker
Secretary of State for Transport.

E.24.5 Area of designated site
The Thames Estuary and Marshes SPA is 4,839ha in size (the Ramsar covers a larger area of 5,589ha). The Benfleet and Southend Marshes SPA was also considered regarding any indirect affects, but it was determined that there was no likely significant effect on this site.

E.24.6 Area of habitat or number of individuals of species affected
5ha of habitat within the SPA would be lost, along with 9ha of habitat outside the SPA boundary that is also used by the Annex 1 birds for which the SPA was classified. The development could also potentially cause a functional change in a further 60 ha of the SPA, as a result of changes in coastal and tidal processes as a consequence of the development. The total potential habitat loss therefore was 65ha within the SPA which would be 1.34% of the classified area.

E.24.7 Type of habitat or species affected – its importance and sensitivity
The site is specifically classified for its over-wintering populations of avocet *Recurvirostra avosetta*, hen harrier *Circus cyaneus* and ringed plover *Charadrius hiaticula*, along with being a habitat of international importance for its large assemblage of water birds, with over 30,000 birds over-wintering at the site.

E.24.8 Decision
The Harbour Empowerment Order was made. Having concluded that the project would have an adverse effect on the integrity of the SPA / Ramsar site, the order had to be granted as a derogation under the provisions of regulation 49 (now 62) of the Habitats Regulations, including the provision of compensatory habitat pursuant to the requirements of regulation 53 (now 66).

E.25 Mawcarse, Loch Leven, Kinross

E.25.1 Description of development
The erection of two houses on land between Ashwood and White Rose Cottage, Mawcarse, Kinross, Scotland.

There was a long history of planning refusal, appeal, judicial review and reconsideration of the planning application, but this summary focuses on the final stage of the hearing held by the Reporter and his recommendation to the Scottish Ministers.

E.25.2 Location
Land between Ashwood and White Rose Cottage, Mawcarse, Kinross, adjacent to Loch Leven.

E.25.3 Date of decision
23rd December 2005.

E.25.4 Decision maker
The Scottish Ministers.

E.25.5 Area of designated site
Loch Leven SPA/Ramsar site has a classified area of 1,612ha.

E.25.6 Area of habitat or number of individuals of species affected
Effects were considered in terms of the proposed dwelling's contribution to the deterioration of habitats supporting the migratory and Annex 1 species for which the SPA was classified. The proposal does not include any land take from the designated site, but the possible quantity of pollution in terms of phosphorus discharge arising from the original proposal was given as an estimated 8,100mg/day.

E.25.7 Type of habitat or species affected – its importance and sensitivity
Loch Leven SPA is designated for internationally important over-wintering populations of swans, geese and ducks which are migratory or listed on Annex 1 of the Directive. Whooper swan *Cygnus cygnus*, pink-footed goose *Anser brachyrhynchus* and shoveler *Anas clypeata* all overwinter at the loch.

At the time of the decision, the water quality of the loch had declined considerably in the recent past, with large influxes of phosphorus causing algal blooms. Phosphorus pollution had a detrimental effect on the aquatic plant community within the loch through the growth of algal blooms which block essential light from reaching submerged plants. Efforts to reduce the phosphorus inputs to the loch by way of a catchment management plan and restrictive policies in the local plan, in the few years preceding the planning application, had proved successful and the condition of the loch was improving. The development in its original form proposed to use a septic tank for sewage from the two houses, which was currently the system in place for other dwellings in the area, including the existing large farmhouse, owned by the developer, close to the development site. The septic tank arrangement would have discharged water to the ground or local water courses, which would have contributed to the diffuse pollution entering the loch. The potential phosphorus discharge from two new houses was estimated at 8,100mg/day.

With advice from Scottish Natural Heritage it was considered that the proposal was likely to have a significant effect upon Loch Leven SPA. This then required an appropriate assessment, and the appellants submitted a mitigation scheme which was considered at the hearing by the Reporter, in consultation with Scottish Natural Heritage. The appellants proposed to upgrade the septic tank serving the existing large farmhouse, as well as installing new efficient treatment plants for the new dwellings, thus significantly reducing the phosphorus discharge from the existing dwelling. The reduction was such that the new farmhouse discharge rate plus the discharge rate for the two new dwellings was still below the discharge rate for the farmhouse, with the old septic tank system. With the overall reduction in phosphorus discharge rates as a result of the new development and the mitigation proposed, Scottish Natural Heritage confirmed that, the development would not have an adverse effect on the integrity of Loch Leven SPA.

The following information was provided in the Reporter's report:

- Phosphorus discharge from new dwellings with the new treatment plant 8,100 mg/day;
- Phosphorus discharge from existing farmhouse with the old septic tank system 21,060 mg/day;
- Phosphorus discharge from existing farmhouse with the new treatment plant 8,100 mg/day;
- Phosphorus discharge from the development plus the existing farmhouse without mitigation 29,160 mg/day; and
- Phosphorus discharge from the development plus the existing farmhouse with mitigation 16,200 mg/day.

The Reporter admitted that it was difficult to conclude that the proposal would have a likely significant effect alone. No analysis took place. However the precedent set by granting planning permission without mitigation was discussed and it is therefore assumed that the likely significant effect was in combination with any future proposals of a similar nature. He commented in paragraph 3.12 of his report) that "*Although it was difficult to conclude that the proposal alone would be likely to result in an adverse effect on the loch's integrity, if it was approved without mitigation, an important precedent would be set, which would nullify the aims of the catchment and local plans*".

The Reporter also made reference to the Waddenzee judgement to give weight to the conclusions drawn, stating in paragraph 3.9 that "*A recent European Court of Justice decision relating to a case in the Netherlands …. (C-127/02) confirmed that where a proposal not directly connected with or necessary to site management was likely to undermine a site's conservation objectives, it would have a significant effect*" (8/RR 3.9).

E.25.8 Decision
The Scottish Ministers allowed the appeal and granted planning permission, following the Reporter's recommendations that included mitigation measures to the satisfaction of Scottish Natural Heritage.

E.26 Port of Hull Quay 2005

E.26.1 Description of development
The construction of a 'lo-lo' (lift on, lift off) handling facility accommodating vessels with a draft of up to 10.4 metres, reclamation of the river bed and the deepening, dredging and altering of the bed and shores.

E.26.2 Location
The Humber Estuary, Hull, Yorkshire.

E.26.3 Date of decision
21st December 2005.

E.26.4 Decision maker
The Secretary of State made the order, against the recommendation of the Inspector.

E.26.5 Area of designated site
At the time of the decision the Humber Flats, Marshes and Coast SPA/Ramsar was 15,202.53ha and was also a Ramsar site. The Humber Estuary pSAC was 39,492.89ha and today the SAC is 36,657ha.

E.26.6 Area of habitat or number of individuals of species affected
An area comprising 4ha of the Humber Flats, Marshes and Coast SPA would be lost as a result of the development. Whilst the Secretary of State's letter refers to there being impacts

on all of the Humber Estuary sites, i.e. the SPA/Ramsar and the pSAC, it was only the adverse effects on the SPA features of interest that formed the main part of English Nature's concerns and the discussion on the case.

When the public inquiry took place, the 4ha of designated site only held a SSSI designation and was included in the boundaries of the international sites in the period between the public inquiry being held and the Secretary of State for Transport's final decision letter. Based on figures in the Inspector's report, the Secretary of State referred in his decision, to a value of 0.01% of the SSSI, which was 37,000ha. Taking the subsequently designated European sites, the pSAC site was then 39,493ha and at designation was 36,657ha (again about 0.01% of the designated area). The loss of 4ha from the 15,202ha of the SPA was a 0.03%, loss, but that was not referred to in the decision.

E.26.7 Type of habitat or species affected – its importance and sensitivity

The Humber Flats, Marshes and Coast SPA contains wetland and coastal habitats including reedbed, grazing marsh, saltmarsh, sand dunes and exposed mud and sand flats at low tide are important for the breeding, over-wintering and migratory birds that utilise the site. The site is noted for both its wetland birds and raptor populations.

E.26.8 Decision

At the time of the public inquiry the proposed development site lay outside, but within 100m of the SPA. The inter-tidal mud flats that were to be directly affected by the development were used by water birds for which the SPA is classified, thus having a likely significant effect on the SPA qualifying features. Because the site lay outside the SPA at the time of the Inquiry, habitat creation also outside the SPA proposed by the applicant was considered by English Nature to be mitigation with no adverse effect on integrity.

Because of the classification and designations taking place between Inquiry and decision, the Secretary of State re-consulted English Nature who advised that it could not now be ascertained that Quay 2005 would not have an adverse effect on site integrity, because the habitat loss would now be from within the site and the habitat creation should be regarded as compensation.

The Harbour Revision Order was made. Having concluded that the project would have an adverse effect on the integrity of the SPA / Ramsar site, the order had to be granted as a derogation under the provisions of regulation 49 (now 62) of the Habitats Regulations, including the provision of compensatory habitat pursuant to the requirements of regulation 53 (now 66).

E.27 Immingham Outer Harbour

E.27.1 Description of development

The expansion of Immingham Harbour to develop a five berth roll-on, roll-off (ro-ro) terminal in a tidal harbour. The development included the reclamation of SPA foreshore, dredging and the construction of a bund, sea wall, five ramps, walkways and a quay.

E.27.2 Location

At the existing terminal of Immingham Harbour, North Lincolnshire.

E.27.3 Date of decision

7th July 2004.

E.27.4 Decision maker

The Secretary of State for Transport made the Harbour Revision Order without a public inquiry.

E.27.5 Area of designated site
At the time the case was decided, the Humber Flats, Marshes and Coast pSPA was 15,202ha and the Humber Estuary pSAC was 39,493ha. The Humber Flats, Marshes and Coast SPA was also a proposed Ramsar site.

E.27.6 Area of habitat or number of individuals of species affected
22 ha of habitat would be lost from within the pSPA, which equated to 0.14% of the site which was classified a few weeks after the Secretary of State issued the decision. This calculation of the percentage of land affected was not included in the Secretary of State's letter, but was calculated for the purposes of this report. A further 5ha of habitat from outside the SPA would also be lost as a result of the development proposal.

E.27.7 Type of habitat or species affected – its importance and sensitivity
Wetland and coastal habitats including reedbed, grazing marsh, saltmarsh, sand dunes and exposed mud and sand flats at low tide are important for breeding, over-wintering and migratory birds that utilise the site. The site is noted for both its wetland birds and raptor populations.

E.27.8 Decision
With a likely significant effect on the European designated sites, Associated British Ports (ABP), as a competent authority, undertook an appropriate assessment of the proposed development and concluded that it could not be demonstrated that the Immingham Outer Harbour development proposal would not have an adverse effect on the integrity of the pSPA / proposed Ramsar site and pSAC.

The Secretary of State agreed. The Harbour Revision Order was made. Having concluded that the project would have an adverse effect on the integrity of the SPA / Ramsar site, the order had to be granted as a derogation under the provisions of regulation 49 (now 62) of the Habitats Regulations, including the provision of compensatory habitat pursuant to the requirements of regulation 53 (now 66). Paragraph 47 of the Secretary of State's decision letter stated:

"*The Secretary of State Agrees with the advice of English Nature that the compensation measures set out in the Agreement, which include the managed realignment of agricultural land, of an area significantly greater than the area which would be lost to the works proposed in the Order, and creek habitat enhancement scheme, will enable the coherence of the Natura 2000 network to be protected. He therefore agrees that the requirements of Regulation 53 of the Habitats Regulations have been met*".

E.28 Gilwerne to Hafodyrynys pipeline

E.28.1 Description of development
The installation of a 25 km long and 600mm diameter, gas pipeline from the installation at Gilwern to the installation at Hafodyrynys, in order to improve gas supplies to southern Wales.

E.28.2 Location
Gilwern to Hafordyrynys, Fynwy and Monmouthshire, Wales.

E.28.3 Date of decision
3rd July 2002.

E.28.4 Decision maker
The Secretary of State for Trade.

E.28.5 Area of designated site
The Usk Bat Sites SAC is 1,686.4ha, it was a candidate SAC at the time when the project was being considered by the Secretary of State, of which 350ha was European dry heath, a qualifying feature of the cSAC. The primary reason for site selection was the presence of populations of lesser horseshoe bat *Rhinolophus hipposideros*. Caves not open to the public were also a qualifying Annex 1 feature.

E.28.6 Area of habitat or number of individuals of species affected
The Secretary of State considered that the effects on 2.5ha of the heath habitat and a potential for disturbance to the caves or the lesser horseshoe bats would be likely to be significant effects.

With regard to the heath, 1 ha of the affected area was to be subject to turfing, i.e. the heathland turfs would be removed, the pipeline laid and the turfs replaced. The remaining 1.5 ha could not be turfed and the top soil would be stripped, thus irreparably damaging the existing heathland vegetation and requiring heathland recreation by new planting and seeding.

The affected area of 2.5ha was 0.15% of the total cSAC. It was concluded that the effects on the 1ha to be turfed could be mitigated, leaving 1.5ha of affected habitat that could not be mitigated. There was therefore an unmitigated loss of 1.5ha of heath, equating to 0.09% of the total cSAC. Alternatively, 2.5ha is 0.71% of the area of European dry heath within the SAC and the 1.5 ha represents 0.43% of the area of European dry heath within the SAC. No adverse effect on integrity was considered to arise in relation to the lesser horseshoe bat population or cave habitats.

E.28.7 Type of habitat or species affected – its importance and sensitivity
The UK proportion of the European dry heaths is significant, and the UK heaths also exhibit remarkable diversity in comparison with those in other European countries. Within the UK, the climatic and altitude variations provide the rare circumstances in which such a range of heathland variations can be seen, with the range of upland to lowland heaths representative from north to south, and the oceanic to the continental heathland communities are represented from the west coast to the east. Thus, individual parts of the heathland resource are of importance in this context.

With typically nutrient poor, sandy and free draining soils, heathland turfs are easily damaged and broken up by soil movement. Whilst the 1ha of heathland where turfing could take place was not considered to have an adverse impact on the integrity of the site, where soils stripping was proposed it was considered that the soil, vegetation and seed bank would be so disturbed that recovery without intervention would be very slow, and that the habitat may never be fully replicated.

E.28.8 Decision
In light of the appropriate assessment, it was concluded that the proposal would adversely affect the integrity of the cSAC and the Secretary of State therefore considered whether there were any alternative solutions, and concluded that there were none. The appropriate assessment stated that conditions were "*very likely*" to mitigate for the negative effects, but maintained that there was still a possibility that the pipeline would still have an adverse effect on site integrity. Page 3 of the Secretary of State's decision letter said:

"*It is reasonable to consider the 1 to 2 years that the 1 ha turfed area is likely to take to restore its full species composition (i.e. restoration in area and quality), as de minimis. This would not therefore represent an adverse effect on the integrity of the cSAC. In contrast, the DTI is of the view that the 10-12 year-long effect on the 1.5 ha of cSAC habitat which will not*

be turfed cannot be considered de minimis, and thus should be considered as an adverse effect on the integrity of the site".

The mitigation methods proposed for the 1.5 ha of soil stripped heath included the propagation of dwarf shrubs for transplanting into the affected area. This method was experimental and therefore no reference could be made to previous applications to verify how successful the proposed method might be. The lack of certainty of recovery of the stripped 1.5ha was a factor in the Secretary of State's decision, as well as the longevity of the adverse effect.

The Secretary of State for Trade and Industry granted consent in accordance with Regulation 14(4)(a) of the *Gas Transporter Pipe-line Works (Environmental Impact Assessment) Regulations* 1999, after undertaking an appropriate assessment of the pipeline proposal. Having concluded that the project would have an adverse effect on the integrity of the SAC, the permission was granted as a derogation under the provisions of regulation 49 (now 62) of the Habitats Regulations, including the provision of compensatory habitat pursuant to the requirements of regulation 53 (now 66) in the form of enhancement and/or expansion of the European dry heath habitat.

E.29 White Horse Millennium Landmark

E.29.1 Description of development

The creation of a white outline depicting a horse across the hillside of Cheriton Hill, to be viewed from a distance, by the removal of turfs of calcareous grassland to create a line within which chalk slabs could be laid.

E.29.2 Location

Cheriton Hill, Crete Road West, Folkestone, within the Kent Downs.

E.29.3 Date of decision

27th March 2002.

E.29.4 Decision maker

The Secretary of State for Transport Local Government and the Regions.

E.29.5 Area of designated site

The Inspector referred to a site area of 120ha for the Folkestone to Etchinghill Escarpment cSAC. However the site area as designated is 182ha.

E.29.6 Area of habitat or number of individuals of species affected

The area of excavation was 0.02 ha according to the applicant, and potentially as much as 0.066 ha according to English Nature. The inspector acknowledged that "*the precise area remains uncertain*". Taking the inspector's reference to 120ha and the potential land take of between 0.02ha and 0.0665ha, the percentage lost would be calculated as between 0.017% and 0.056%.

Taking the actual site area of 182ha and the potential land take of between 0.02ha and 0.0665ha, the percentage lost would be between 0.036% and 0.121%.

E.29.7 Type of habitat or species affected – its importance and sensitivity

The site has the following Annex 1 habitat: semi-natural dry grasslands and scrub facies on calcareous substrate (*Festuco-Broetalia*) (important orchid sites) which is a priority habitat. The calcareous grassland has a number of rare and scarce plants, with particular importance placed on the rare orchid species present, including early spider orchid *Ophrys sphegodes*, late spider orchid *Ophrys fuciflora* and burnt orchid *Orchis ustulata*. English

Nature advised at the Inquiry that the sensitivity and rarity of this orchid site and its qualifying features were such that the effects would constitute an adverse effect on the integrity of the site.

E.29.8 Decision

Paragraph 81 of the Inspector's report stated:

"*In absolute terms the cSAC would be better able to retain its integrity without the hill-figure and it must be acknowledged that the proposals would have an immediate adverse effect on the site in terms of habitat loss. However, this does not equate to an adverse effect on its integrity if that integrity can be preserved, in the longer term, by reason of the effective management of the considerable habitat resource that the cSAC holds. Accordingly I do not regard the changes proposed as so significant that they amount to what could, overall, be regarded as an 'adverse effect on the integrity of the cSAC' (taking account of the definition of integrity given in PPG9)*".

Planning permission was granted by the Secretary of State in accordance with Inspector's recommendations, which concluded there would be no adverse effect on the integrity of the site. The Inspector did not impose conditions to ensure the implementation of the mitigation relied upon to avoid the adverse effects on integrity.

It is also noted that this case was raised in evidence and submissions at the Dibden Terminal public inquiry and the Inspector noted the contradictory nature of this decision in his report (paragraphs 36.173 – 174): "*The conclusion in the White horse Millennium Landmark case is striking, since the Secretary of State agreed with the Inspector's opinion that "the cSAC would be better able to retain its integrity without the proposed development". The decision does not establish a binding precedent*" and further "*I note that the inspector (with whom the Secretary of State agreed) considered that "the cSAC would be better able to retain its integrity without the hill-figure." Taken alone, that would necessarily imply that the hill-figure could adversely affect the integrity of the European site*.

"*However, the Inspector continued by arguing that the habitat loss would not equate to an adverse effect on the site's integrity "if that integrity can be preserved in the longer term, by reason of the effective management of the considerable habitat resource that the cSAC holds." It was on that basis that he concluded that there would be no adverse effect on the integrity of the cSAC*".

E.30 Linshaws Quarry, Peak District National Park

E.30.1 Description of development

An application to re-open Linshaws Quarry at Dunford for the extraction of sandstone and tilestone. This site was previously quarried for sandstone but had been unworked for approximately 50 years. In the interim period the site had naturally regenerated to the extent that it was included within the boundary of the South Pennine Moors SAC. The Secretary of State initially issued a Direction under the planning acts prohibiting the grant of permission whilst he considered whether to call in the application for his own determination. The case relates to the letter which the Secretary of State issued withdrawing the holding Direction and deciding not to call in the planning application.

E.30.2 Location

Linshaws Quarry, Dunford, Peak District National Park.

E.30.3 Date of decision

20th March 2002.

E.30.4 Decision maker
Secretary of State for Transport Local Government and the Regions.

E.30.5 Area of designated site
The South Pennine Moors SAC is 64,983ha. The area affected was also part of the Peak District Moors SPA, which now forms part of the South Pennine Moors SPA Phase 1, which has an area of 45,270ha.

E.30.6 Area of habitat or number of individuals of species affected
An area of 0.99 ha of the then candidate SAC was affected by the proposal. According to the Secretary of State's letter, this equated to 0.0000153% of habitat within the South Pennine Moors cSAC. However, this appears to have been a miscalculation and the amount of designated site affected equated to 0.00153%.

E.30.7 Type of habitat or species affected – its importance and sensitivity
The SAC is designated for its Annex 1 habitats, which include Blanket Bogs, a priority habitat, along with European Dry Heaths and Old Sessile Oak Woods with *Ilex* and *Blechum* in the British Isles.

E.30.8 Decision
The letter dated 20th March 2002 stated:

"*The Secretary of State has carefully considered all the national planning and other relevant planning issues relevant to this planning application and taken into account the fact that the proposed development will cover a very small part of the Peak District Moors SPA and the South Pennine Moors cSAC. Indeed, he notes that the proposed development will cover just 0.99 ha which is less than 0.0000153% of the total area of the South Pennine Moors cSAC which amounts to 64,983.13 ha. Taking all these factors into account, the Secretary of State has concluded that, on balance, any potential conflict with national planning policy is not sufficient to justify his intervention. He has, therefore, decided that he should leave the decision on whether or not to grant planning permission in this case to the NPA*".

Whilst the Secretary of State decided that he should not intervene in the decision, he did not expressly indicate whether he considered the habitat loss to be significant in terms of the Habitats Regulations. Had the Secretary of State considered that this loss would be likely to be a significant effect, he would probably either have indicated to the National Park Authority that they should do an appropriate assessment or he would have carried out an appropriate assessment after calling in the application for his own determination. The Peak District National Park Authority had considered it would be a significant effect but concluded no adverse effect on integrity.

E.31 Barksore Marshes

E.31.1 Description of development
The deposit of river dredgings on land at Barksore Marshes. The existing planning permission was reviewed under Regulation 55 of the Conservation (Natural Habitats & c.) Regulations 1994 and an order made, partly modifying and partly revoking the permission. The Order was opposed by the operator Westminster Dredgings and Medway Port.

E.31.2 Location
Land at Barksore Marshes, Lower Halstow, Sittingbourne, Kent.

E.31.3 Date of decision
9th November 1998.

E.31.4 Decision maker
The Secretary of State for Transport Local Government and the Regions.

E.31.5 Area of designated site
The proposal had the potential to affect the Medway Estuary and Marshes SPA/Ramsar site, which totals 4,684ha (4,696ha for the Ramsar site).

E.31.6 Area of habitat or number of individuals of species affected
The continued deposit of dredgings in accordance with the planning permission would destroy the value of the land as supporting habitat for avocet *Recurvirostra avosetta*. The completion of the planning permission would have directly affected 16.5% of the grazing marsh habitat within the SPA. The development site consisted of 104ha of land, 20ha of which was not classified as either SPA/Ramsar. The proposal therefore affected 84ha of the SPA / Ramsar site. Based on these figures it is calculated here that the affected area equates to 1.79% of the whole SPA / Ramsar site including other habitats such as saltmarsh, estuarine mud flats and eelgrass beds, but the Inspector was assessing the effect on the grazing marsh which supported the species directly affected.

E.31.7 Type of habitat or species affected – its importance and sensitivity
Barksore Marshes are included within the SPA for their populations of waders and terns, in particular the breeding pairs of avocet, with the Inspector's report indicating that 76% of the SPA population of avocet bred within the Barksore / Funton area.

The Inspector was in no doubt that the loss of 84ha of the habitat within the SPA holding 76% of the SPA population of an Annex 1 species would be likely to have an adverse effect on the integrity of the site. The area of land held the majority of the breeding pairs of avocets within the SPA. The Inspector's report at paragraphs 6.7 – 6.8 found:

"*I note that the development of the Order land could result in the loss of 16.5% of the grazing marsh in the SPA. That does not seem to me to be an insignificant proportion; I am aware of no policy guidance to suggest that even smaller losses (of, say, 5% or 1%) of a valued habitat type within an SPA should be regarded as being acceptable. Habitats can be as much affected by a number of small losses as by one major reduction*".

"*Further disposal of dredgings at Barksore Marshes would be likely to have an adverse effect on the integrity of the SPA. I am certainly unable to conclude that there would be no such effect*".

In his letter the Secretary of State agreed with the Inspector's conclusions and concluded that the case did not present any overriding reasons of public interest for which the development should be allowed to continue. The Secretary of State recognised (paragraph 7 of the decision letter) "*the importance of the Port of Medway and that continued dredging is imperative for its continued success. However, he agrees with the Inspector that there are practicable alternative solutions for the disposal of dredgings and that the extra cost involved would be unlikely to jeopardise the commercial success of the port. He therefore concludes that there are no reasons of overriding public interest for the continued deposit of dredgings at Barksore Marshes*".

E.31.8 Decision
The Secretary of State confirmed the Order made by Kent County Council (with a very minor modification), as recommended by the Inspector. The effect of the Order was to revoke the planning permission for all areas within the SPA, and modify the permission for the area outside, but adjacent to the SPA. The developer was financially compensated for the loss of the benefit of the planning permission.

E.32 Mostyn Docks

E.32.1 Description of development
The construction of a new quay including mooring dolphins and reclamation of foreshore with dredged material. The proposal included a new quay across the foreshore and estuarine flats of the Dee Estuary, a new berthing facility, and the dredging of the channel to provide access for larger vessels. The dredged material would be spread and compacted within the development site. The majority of the development site was an SPA and a Ramsar site.

E.32.2 Location
The Port of Mostyn, south western bank of the Dee Estuary, North Wales.

E.32.3 Date of decision
19th August 1996.

E.32.4 Decision maker
The Secretaries of State for Wales and Transport.

E.32.5 Area of designated site
The Inspector's report stated that the Dee Estuary SPA/Ramsar site was approximately 13,055ha. However the actual area appears to be 13,085ha for both the SPA and the Ramsar site.

E.32.6 Area of habitat or number of individuals of species affected
The figures quoted within the Inspector's report for the amount of SPA that would be lost as a result of the development lead to some confusion. The key paragraph (2.1.9) relating to the amount of SPA that would be lost is therefore quoted:

"*The immediate 8.71 ha site of the proposed development is located in a bay with an area of upper shore-line and inter-tidal mudflat of approximately 5.67 ha within a total SSSI/SPA/Ramsar site of about 13055 ha. The development site contributes approximately 0.07% of the total Statutory Site and the mudflat which would be lost by the development forms 0.063% of the total area of about 9000 ha of this habitat*".

It appears that the Inspector may have used the total area of the development site, which was 8.71 ha, in calculating the percentage of 0.07%, but not all of the development site is in the SPA. However, for the purposes of this report's calculation, the Inspector's own figures are used here because they were the basis of the decision. Assuming that the SPA was 13,055ha, of which 9000ha was mudflat, and on the basis of a loss of 5.67ha of mudflat from the designated site, the loss should have been quoted as 0.04% of the whole SPA and 0.063% of the mudflat resource within the SPA.

E.32.7 Type of habitat or species affected – its importance and sensitivity
The inter-tidal mud and sand flats, along with the salt marshes of the Dee Estuary are rich in invertebrates and therefore attract major populations of waterbirds that are of international importance. The upper shore line grades into brackish and swamp vegetation and maritime heathland and grassland, adding to the range of roosting habitat available for the birds that have come to the Estuary to feed on the rich invertebrate resource within the mudflats. The estuary supports a wader and wildfowl population of between 100,000 and 150,000 birds annually.

The SPA supports an extensive area of inter-tidal feeding habitat and roosting habitat for the sandwich tern *Sterna sandvicensis* and bar-tailed godwit *Limosa lapponica*, and is also of European importance for its breeding populations of common tern *Sterna hirundo* and little

tern *Sterna albifrons*. In addition to these Annex 1 species, the site supports populations of European importance of the following migratory species for winter feeding and roosting; redshank *Tringa totanus*, black-tailed godwit *Limosa limosa islandica*, curlew *Numenius arquata*, dunlin *Caldris alpina alpina*, grey plover *Pluvialis squatarola*, knot *Caldris canutus*, oystercatcher *Haematopus ostralegus*, pintail *Anas acuta*, shelduck *Tadorna tadorna* and teal *Anas crecca*.

The Assessor's report (paragraph 16.5) stated "*I cannot avoid the conclusion that the site is not a significant feeding ground. Typically less than 100 birds are present. Even species which are considered to be most affected by the proposals, such as redshank and turnstone, did not reach median daily maxima of 25 birds. These figures must be compared with estimated winter counts for the Dee Estuary as a whole of 100,000 to 150,000 birds. As a fraction of the six-yearly mean given by CCW (about 135,000) the Mostyn shore supports about 0.074%*".

The Inspector concluded that the project would be unlikely to have a significant effect upon the SSSI, stating (paragraph 16.12.10) that the proposal "*would not be likely to have an adverse effect on the nature conservation interests of the SSSI and its surroundings*". The Inspector decided not to provide a recommendation in terms of likely significant effect on the SPA and did not form any formal conclusions with regard to impacts on the SPA or Ramsar site, leaving that decision to the Secretaries of State.

However, whilst declining to make a substantial recommendation, the Inspector did say (paragraph 16.12.11) that *"as the project would be unlikely to have a significant effect upon the SSSI there would seem to be no impediment to the grant of planning permission. It is therefore reasonable to assume that there would be no apparent breach of either the Ramsar Convention or the requirements of the "Habitats Directive*".

E.32.8 Decision

Permissions were granted by the Secretaries of State who made frequent reference to the conclusions drawn in the Assessor's report. Of particular relevance to this research report is the fact that the Secretaries of State disagreed with the Assessor's indication that the small scale of the effect on its own rendered it insignificant (paragraph 13 of the decision letter). "*The Secretaries of State do not accept that the small scale of the proposal is, on its own, sufficient to justify the conclusion that the development is insignificant and therefore acceptable. The significance of effects of a development are not necessarily related to its scale*". However, after considering all the evidence, the Secretaries of State concluded that there is no likely significant effect on the SPA. "*The Secretaries of State accept that there is no evidence that the bird populations in the Dee Estuary are limited by food resources or roosting sites,*" and that "*The Secretaries of State agree with the Assessor's conclusion that the development proposal is not likely to have a significant effect on the designated sites of the Dee Estuary… as the development is considered to make an insignificant impact on the sites, it cannot destroy their integrity*" (paragraph 13 of the decision letter; and further at paragraph 16: there are "*no significant implications for the European site and they have reached the same conclusion in respect of the Ramsar site*".

Again, as in case E.29, it is noted that in his report on the Dibden Bay public inquiry the Inspector also commented on the Mostyn Docks case, because it had been put to him in evidence and submissions. At paragraph 36.162 he said:

"*I have had regard to the Ministerial planning decision relating to Mostyn Docks, in which it was found that the destruction of 8ha of protected inter-tidal habitat would be unlikely to have a significant effect on a designated SPA and Ramsar site. It is not for me to comment on that decision. However, it does not seem to me to be necessary to demonstrate that birds*

would suffer "severe hardship" in order to conclude that a project would have a significant effect on a designated site".

Whilst this appears to perpetuate the inaccuracy relating to the calculations of habitat lost from the SPA initially found in the Mostyn Inspector's report, the reference to "severe hardship" originates in the Assessor's report where, at paragraph 16.6, he stated "*Claims that loss of inter-tidal habitat at Mostyn Docks would impose severe hardships on feeding and roosting birds were not substantiated. It was conceded that the estuary provides a rich invertebrate food supply and that there is not evidence that the present bird populations are limited by food resources or roosting sites. The physiological stress of additional energy expenditure by a few birds having to fly slightly greater distances to roost was not quantified and is, in any case, likely to be insignificant*".

Decisions by Planning Inspectors / Reporters

E.33 Thameside Terminal

E.33.1 Description of development

Twenty appeals (considered together) against 2 sets of enforcement notices issued by Medway Council relating to unauthorised development. The grounds of appeal were numerous but consideration of ground a(i) included the effect of the appeal on nature conservation.

E.33.2 Location

The enforcement notices concerned land known as the former Conoco (Thameside Terminal) site at Salt Lane, Cliffe, Rochester.

E.33.3 Date of decision

14th June 2010.

E.33.4 Decision maker

The Planning Inspector.

E.33.5 Area of designated site

The development site was adjacent to the RSPB Cliffe Pools Nature Reserve which was part of the Thames Estuary and Marshes SPA. The reserve is 237ha but the overall SPA extends to 4,839ha.

E.33.6 Area of habitat or number of individuals of species affected

The assessment undertaken by the Inspector was made in respect of the whole of the Cliffe Pools reserve (237ha), with particular reference to an area known as 'Elf Pools' which were within close proximity of the unauthorised development and most likely to be impacted by the associated operations.

E.33.7 Type of habitat or species affected – its importance and sensitivity

The Cliffe Pool reserve made up less than 5% of the overall SPA but bird count data revealed that it supported 27% of the total SPA population. The reserve was therefore considered to be of high significance to the maintenance of the SPA populations. With reference to the significance of the reserve, the Inspector stated in paragraph 229 that "*I consider that it holds very significant numbers of wintering water birds. The reserve is of particular importance in the context of the SPA as a high tide roost*".

The SPA supported nationally important winter populations of goldeneye (2%) and both nationally and internationally important populations of autumn and winter lapwing (1%) (paragraph 250). The peak winter count for 2005/06 included 163 lapwing and 13 goldeneye, whilst that for 2004/05 included 323 lapwing and 5 goldeneye; both lapwing and goldeneye had been recorded in significant numbers. Most of the current activities had not commenced on the appeal site during these earlier counts.

E.33.8 Decision

Of relevance to the decision the bird counts in the years following the unauthorised development did not show obvious reductions in total bird numbers across the SPA as a whole (paragraph 239). However, neither lapwing nor goldeneye, species which were known to be sensitive to the effects of noise and disturbance, had been observed at Elf Pools since the winter of 2005/06. At paragraph 250 the Inspector stated:

"*Thus there is no objective evidence for me to rule out the possibility that Goldeneye and Lapwing have been displace from Elf Pools because of the activity on the appeal site... I cannot be certain that the activity on the TT site has not had, or is not likely to continue to have, an adverse impact on the contribution made by Elf Pools to the SPA as a whole to sustain the levels of populations for which is was classified."*

The Inspector dismissed all of the appeals and upheld the enforcement notices.

E.34 The Wash Eider Duck Case

E.34.1 Description of development

An appeal against the refusal of consent to use bird scaring devices on mussel lays within the Wash.

E.34.2 Location

The proposed activity would take place within the Wash SSSI which was part of The Wash and North Norfolk Coast SAC, The Wash (Norfolk and Lincolnshire) SPA / Ramsar site.

E.34.3 Date of decision

19th September 2006.

E.34.4 Decision maker

Planning Inspector.

E.34.5 Area of designated site

Total areas of the respective European sites are as follows:

a) The Wash and North Norfolk Coast SAC is 107,761ha
b) The Wash (Norfolk and Lincolnshire) SPA/Ramsar site is 62,212ha

E.34.6 Area of habitat or number of individuals of species affected

Mussel culture took place over 263ha, the case concerned the use of bird scaring techniques over 50% of the lay area so the effects would be apparent over 131.5ha (0.12% of the SAC and 0.21% of the SPA).

E.34.7 Type of habitat or species affected – its importance and sensitivity

The case was concerned primarily with the potential for disturbance effects upon the populations for which the SPA had been classified, but also identified adverse effects upon the benthic communities of the SAC. The original reason for refusal given by English Nature (which was the subject of the appeal) stated:

"The proposals for electronic bird scarers, in combination with the applications from the other layholders, involves use of scarers 24 hours a day, seven days a week on 23 lays. This represents over 50% of the lay area in The Wash. We consider that this level of disturbance is likely have an adverse effect on the eider and other non-target species due to loss of access to a substantial feeding area in the SSSI. We consider wild mussel and cockle stocks which would be accessible to eider are not sufficient to maintain minimum mortality levels in the eider population. Loss of mussel and cockle beds due to increased predation as a result of these proposals would constitute an adverse effect on the invertebrate interest of the SSSI. Further, the low tide survey of the Wash (Yates et al, 2004) found transects containing lays supported nearly 25% of The Wash oystercatcher population, and very high concentrations of shelduck (c. 30%), grey plover, sanderling, dunlin, bar-tailed godwit, curlew and turnstone (all c. 20%). Within these transects the lays were the main feeding area for oystercatcher and bar-tailed godwit and one of the main feeding areas for the other species" (Document 15/21).

Whilst the disturbance would occur over a relatively small area of the European sites concerned (0.12% of the SAC and 0.21% of the SPA) this area was highly significant as a feeding area, supporting high proportions of the SPA populations.

Substantial parts of the Wash were classified as being in unfavourable condition with several of the bird species being the subject of 'WeBS Alerts' (paragraph 10.7).

E.34.8 Decision

In his report the Inspector referred to two key concerns in respect of the integrity of the SPA. Firstly that disturbance from the bird scaring techniques could reduce feeding areas (paragraph 10.5) and secondly that the displacement of birds might have indirect adverse effects on the extent of naturally intertidal mussel and cockle beds (paragraph 10.6).

Paragraph 10.15 of the Inspector's report set out his conclusions and stated "*I conclude that it cannot be ascertained that the appeal proposals would not adversely affect the integrity of the European site*."

The Inspector dismissed the appeals.

Article 6(4) Opinions from the EC

The supporting documentation for the cases reviewed below in respect of the Article 6(4) opinions from the European Commission can be found on the Commission's website:

http://ec.europa.eu/environment/nature/natura2000/management/opinion_en.htm

E.35 River Main channel deepening, Germany

E.35.1 Description of development

The main purpose of the project was to widen the existing fairway of the River Main from 36m to 40m, and also to deepen the river's waterway from currently 2.5m to 2.9m. At the river bends the widening was to be scaled up to 58m to accommodate the manoeuvrability of boats. The project's dimensions would be compatible with the existing extension of the Lower Main and the Main-Danube-Canal and would be part of the Trans-European Network (TEN).

E.35.2 Location
The works were to take place on the River Main between the floodgates at Wipfeld and Ottendorf, Germany.

E.35.3 Date of decision
5th April 2013.

E.35.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.35.5 Area of designated site
Two SCIs were affected; the Mainaue zwischen Grafenrheinfeld und Kitzingen SCI and Maintal bei Sennfeld und Weyer SCI. They had a combined area of 1,706ha (individual sizes not given).

E.35.6 Area of habitat or number of individuals of species affected
The proposed scheme led to the loss of 0.946ha of priority habitat 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior'* and 0.644 ha of the non-priority habitat 'Lowland hay meadow' so overall habitat loss across both sites represented 1.59ha or 0.09% of the sites.

E.35.7 Type of habitat or species affected – its importance and sensitivity
The habitat type 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior'* is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.35.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCIs affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.36 B252/B62 Bypass, Germany

E.36.1 Description of development
The construction of a national road with associated additional works in respect of public infrastructure including local roads, energy grids, a railway and a gas pipeline.

E.36.2 Location
The new road was to start in the north of the Münchhausen municipality and end in the south of Lahntal-Göttingen connecting to the existing B62. It would run to the west of the existing B252 and would be 17.56 km long in total.

E.36.3 Date of decision
29th May 2012.

E.36.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and social so did not meet the stricter criteria for projects affecting a priority habitat.

E.36.5 Area of designated site
The Obere Lahn und Wetschaft mit Nebengewässern SCI covered the natural course of the Rivers Lahn and Wetschaft, their tributaries and river shores and extended to 374ha.

E.36.6 Area of habitat or number of individuals of species affected
The new road crossed the SCI at three locations. The site is riverine and so the scale of the effect, although not quoted, would have be very small.

E.36.7 Type of habitat or species affected – its importance and sensitivity
At all three intersections, the priority habitat type of Community interest 91E0* (alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior)*, habitat type 3260 (water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation) and the species of Community interest, *Cottus gobio* (Freshwater sculpin) and *Lampetra planeri* (Brook lamprey) were reported to have been affected by barrier effects. The project also caused direct and indirect effects on habitat type 91E0* through increased nitrogen deposition. The habitat type Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.36.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCIs affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.37 River Elbe dredge, Germany

E.37.1 Description of development
The main purpose of the project was to improve access into the port of Hamburg so as to accommodate the deeper draft of the so-called 'benchmark container vessel' (in German: 'Bemessungsschiff'). The port is situated about 130km upstream of the Elbe estuary, so improvements were needed to the waterway between the estuary mouth and the port. Consequently, the main element of the project would be the lowering of the riverbed and the disposal of the dredged material. Some other measures connected with the waterway deepening were also to be carried out.

E.37.2 Location
The widening would take place along the ship fairway Unter- and Außenelbe (river Elbe) to the port of Hamburg, Germany.

E.37.3 Date of decision
6th December 2011.

E.37.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.37.5 Area of designated site
The assessment considered nine SPAs and seventeen SCIs; four SCIs were considered to be affected by the proposed works, these were:

- Nationalpark Schleswig-Holsteinisches Wattenmeer und angrenzende Küstengebiete;
- Schleswig-Holsteinisches Elbästuar und angrenzende Flächen;
- Unterelbe (Niedersachsen);

- Komplex NSG Neßsand und LSG Mühlenberger Loch (Hamburg).

E.37.6 Area of habitat or number of individuals of species affected

All four sites cover a combined area of 491ha. The German authorities considered that the project would cause a shift in the brackish water zone of between 1-1.9km upstream. Particularly affected was one habitat 'Estuaries' and the endemic plant *Oenanthe conioides.* Whilst there was not expected to be any direct loss of the 'estuaries' feature, the indirect effects of changes to the ecological value through changes in physical and morphological parameters such as tidal dynamics, salinity, turbidity and underwater topography were considered to represent a 'virtual loss' of 320.7ha. Furthermore, the changes to salinity and wave energy would result in the virtual loss of 59.2ha of *Oenanthe conioide* habitat*.* These impacts represent 'virtual losses' of 12% of the combined sites for the *Oenanthe conioides* and 65% of the combined sites for the 'estuaries' feature.

E.37.7 Type of habitat or species affected – its importance and sensitivity

Oenanthe conioides is a priority species considered to be in danger of disappearance (Article 1d).

E.37.8 Decision

The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCIs affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.38 Schiersteiner Brücke bridge and A643 motorway extension, Germany

E.38.1 Description of development

The replacement of an existing motorway bridge (the 'Schiersteiner Brücke') together with the expansion of the motorway from four lanes to six.

E.38.2 Location

The bridge links the city Wiesbaden (Hesse) with Mainz (Rhineland-Palatinate) and crosses an 'isle' in the river Rhine.

E.38.3 Date of decision

14th September 2011.

E.38.4 Decision maker

The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and social so they did not meet the stricter criteria for projects affecting a priority habitat.

E.38.5 Area of designated site

The SCI affected was the Rettbergsaue bei Wiesbaden SCI, which is the 'isle' which the bridge would traverse. The site extended to 71.6ha.

E.38.6 Area of habitat or number of individuals of species affected

Direct loss of land was avoided but there would be functional effects over an area of 0.19ha of priority habitat caused by the construction of the bridge and the change in local microclimate due to light and rain interception by the bridge itself. This represents 0.27% of the site and 1.9% of the priority habitat type.

E.38.7 Type of habitat or species affected – its importance and sensitivity
The habitat type Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.38.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.39 Györ Town Development Plan, Hungary

E.39.1 Description of development
The request concerned a proposed modification of an allocation of 321ha of land in order to expand an existing economic area and allow the development of a car manufacturing complex with associated infrastructure.

E.39.2 Location
The proposed area for development was on the outskirts of the town of Györ and included the Eastern economic-industrial area, the Eastern bypass and the nearby industrial railway track. The proposed area for development overlapped with 279ha of the Gönyűi-homokvidék SCI.

E.39.3 Date of decision
25th January 2011.

E.39.4 Decision maker
The decision to consent to the project was taken by the Hungarian authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.39.5 Area of designated site
The Gönyűi-homokvidék SCI extended to 2,823ha.

E.39.6 Area of habitat or number of individuals of species affected
The predicted effects of the project upon habitat types are summarised below:

- loss of 143ha of the habitat type 6260* (Pannomic sand steppes), which accounted for 27% of the coverage of this habitat type on this site and 0.72% of the coverage of this habitat types in the Natura 2000 network in Hungary;
- loss of 7ha of the habitat type 91I0* (Euro-Siberian steppic woods with *Quercus spp*.), which accounted for 10% of the coverage of this habitat type on this site and 0.11% of the coverage of this habitat type in the Natura 2000 network in Hungary;
- loss of 5.5 ha the habitat 91N0* (Pannonic inland sand dune thicket (*Junipero-Populetum albae*) the relative proportions of which were not given.

As regards the species of Community interests:

- the development would lead to a loss of approx 500 plants of *Iris humilis* ssp. *arenaria* (no more than 5% of the population on the site); and would also have:
- negative impact on several thousand individuals of *Carabus hungaricus;*
- 10-50 individuals of *Cerambyx cerdo;*
- 10-50 individuals of individuals *of Lucanus cervus.*

The overall spatial extent of habitat types lost across the site is 155.5ha which was equivalent to 5.5% of the SCI.

E.39.7 Type of habitat or species affected – its importance and sensitivity

The habitat types 'Pannomic sand steppes', 'Euro-Siberian steppic woods with *Quercus spp*.' and 'Pannonic inland sand dune thicket (*Junipero-Populetum albae)'*, are all priority habitats considered to be in danger of disappearance (Article 1d).

E.39.8 Decision

The Hungarian authorities considered that the proposed project would have an adverse effect on the integrity of the SCIs affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.40 Extension of A49 'Hessen Highway', Germany

E.40.1 Description of development

The highway A49 is part of the trans-European road network. The project involved construction of a new section between Neuental and Gemünden, which would run through the western part of the Herrenwald östlich Stadtallendorf SCI. The project also included the construction of a bridge crossing the river Joßklein.

E.40.2 Location

The new road would run between Neuental and Gemünden in Germany.

E.40.3 Date of decision

3rd December 2010.

E.40.4 Decision maker

The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.40.5 Area of designated site

The Herrenwald östlich Stadtallendorf SCI extended to 2,688ha.

E.40.6 Area of habitat or number of individuals of species affected

The total loss of the habitat types 9110 (*Luzulu-Fagetum* beech forest) and 91EO* ('Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior'*) would be limited to approximately 0.96ha. The priority habitat type 91EO* would be affected over 0.09 ha by the placement of bridge abutments and the construction of the motorway. Increased nitrogen depositions from road traffic would affect the habitat type 91EO* and its characteristic plant species over an area of 5.5ha. A possible deterioration of the conservation status of this priority habitat type was therefore expected. Habitat loss would be 0.035% of the total SCI with increased nitrogen deposition affecting 0.2% of the site.

E.40.7 Type of habitat or species affected – its importance and sensitivity

The habitat type 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior'* is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.40.8 Decision

The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.41 The new section 3 of the A20 motorway, Germany.

E.41.1 Description of development
The A20 motorway was part of the traffic-concept plan of Germany for tackling the increasing volume of traffic since the reunification of Germany. It was also part of the trans-European road network. The project included the construction of the new 'section 3' of the motorway A20 in the South of Bad Segeberg, together with the construction of a bridge crossing the Travetal SCI.

E.41.2 Location
The new 'section 3' route ran to the south of Bad Segeberg between Weede and Wittenborn in north Germany.

E.41.3 Date of decision
11th June 2010.

E.41.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and social, so they did not meet the stricter criteria for projects affecting a priority habitat.

E.41.5 Area of designated site
The Travetal SCI covered an area of 1,280ha and extended for a length of approximately 20km. The site included the River Trave and several associated forest habitat types.

E.41.6 Area of habitat or number of individuals of species affected
A surface area of 1,027m² would be completely covered by a bridge abutment on the Eastern slope of the valley (the Hangwald). Also the proposed project would cause the fragmentation of the forest complex by a break of 90m width, additional air pollution (especially nitrogen deposition) caused by the traffic as well as traffic-related disturbances, which would affect the priority habitat types. Overall habitat loss of 0.1ha (0.008% of SCI).

E.41.7 Type of habitat or species affected – its importance and sensitivity
The part of the SCI affected by the construction of the bridge site was in the two most natural parts of the Trave valley; the forest belt concerned was one of the longest continual slope forests of the SCI. The forests surrounding the planned crossing of the A20 with the River Trave were characterised by three priority habitat types:

- 7220* Petrifying springs with tufa formation;
- 9180* *Tilio-Acerion* forests of slopes, screes and ravines;
- 91E0* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior;*
- as well as non-priority habitat types including 9130, beech forests (*Asperulo-Fagetum*) and 9160 oak-hornbeam forests (*Carpinion betuli*).

The priority habitat types 7220* Petrifying springs with tufa formation (*Cratoneurion*) and 9180* *Tilio-Acerion* forests of slopes, screes and ravines were rare in North Germany, and all three priority habitat types were considered to be in danger of disappearance (Article 1d).

E.41.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.42 Lübeck Airport, Germany

E.42.1 Description of development
The extension of the airport's runway by 155m and the development of the existing infrastructure including the renovation of positioning and navigation installations, the addition of buffer zones around the runway, the construction of service buildings and parking lots, the enlargement of utility services, the building of new fences and the improvement of the surface drainage systems.

E.42.2 Location
The proposed project would be in the Lübeck-Blankensee airport, in Germany.

E.42.3 Date of decision
5th May 2009.

E.42.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.42.5 Area of designated site
The Grönauer Heide, Grönauer Moor and Blankensee SCI covered an area of 345ha and surrounded the airport. The Grönauer Heide SPA was completely enclosed by the larger SCI.

E.42.6 Area of habitat or number of individuals of species affected
The site was mainly characterised by small patches of priority habitat types 'species-rich *Nardus* grasslands' (6230*) and 'bog forests' (91D0*) as well as non-priority habitat types such as ponds, dry heath lands, wet grasslands and fens as well as oak forests. All the construction works, with the exception of some electricity cables, water pipes and associated small technical buildings occupying an area of approximately 500m², were to take place outside the perimeter of the SCI. However, the operation of the enlarged airport would impact about 12ha of habitat types through increased air pollution effects (3.4% of the SCI).

E.42.7 Type of habitat or species affected – its importance and sensitivity
The two priority habitat types affected were considered to be in danger of disappearance (Article 1d). The overall habitat mosaic made the area the most species-rich site in the region of Schleswig-Holstein.

E.42.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI's affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.43 Karsruhe/Baden-Baden Airport, Germany

E.43.1 Description of development
The project concerned the expansion of the airport involving the renovation of the main runway and existing taxiways, moving a parallel taxiway, construction of new aprons and further associated buildings.

E.43.2 Location
The Karsruhe/Baden-Baden Airport in Germany.

E.43.3 Date of decision
6th June 2005.

E.43.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.43.5 Area of designated site
The Baden Airport SCI extended to 225ha.

E.43.6 Area of habitat or number of individuals of species affected
The predicted effects were as follows:

- Habitat type 2330 'Open grasslands' (extent 3.99ha) - predicted loss of 1.5ha (38% of feature, 0.67% of site) and temporary use of 0.47ha.
- Habitat type 4030 'Dry Heaths' (extent 0.05ha) - temporary use of 0.02ha.
- Habitat type 6230* '*Nardus* grassland in mountain areas' (extent 25.47ha) - predicted loss of 3.32ha (13% of feature and 1.5% of site) and temporary use of 2.88ha.
- Habitat type 6510 'Lowland hay meadows' (extent 60.6ha) - predicted loss of 3.28ha (5.4% of feature and 1.46% of site) and temporary use of 10.17ha.

If aggregated, 8.1ha (9%) of the total 90.11ha of the sites affected would be lost and 13.54ha (15.02%) would be used temporarily.

E.43.7 Type of habitat or species affected – its importance and sensitivity
The habitat type '*Nardus* grassland in mountain areas' is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.43.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI's affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.44 Construction of the TGV East high speed railway line, France

E.44.1 Description of development
This particular TGV project involved the construction of 406km of railway to enable high speed trains to connect Paris with the cities of Eastern France, and from there with neighbouring countries. The project would also connect the eastern regions of France with the western, south-western and northern regions without having to go through Paris.

E.44.2 Location
The new railway would run between Vaires-sur-Marne and Baudrecourt in France.

E.44.3 Date of decision
9th September 2004.

E.44.4 Decision maker
The decision to consent to the project was taken by the French authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and social so they did not meet the stricter criteria for projects affecting a priority habitat.

E.44.5 Area of designated site
The project was expected to affect numerous European sites, but the request for the Opinion under Article 6(4) was concerned with the significant effects upon the priority habitat type 'Inland salt meadows' within the Secteurs halophiles et prairies de la vallèe de la Nied SCI which extended to 737ha.

E.44.6 Area of habitat or number of individuals of species affected
The project would lead to the destruction of 3.75ha of salt meadow and sub halophytic meadow representing 0.55% of the resource in France, 18.6% of the feature within the site and 0.5% of the site as a whole.

E.44.7 Type of habitat or species affected – its importance and sensitivity
The habitat type 'Inland salt meadows' is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.44.8 Decision
The French authorities considered that the proposed project would have an adverse effect on the integrity of the SCI's affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.45 La Breña Dam, Spain

E.45.1 Description of development
The construction of a new dam 'La Breña II' to be built 120m from the existing La Breña I dam. Part of the 'La Breña I' reservoir was already located within the 'Sierra de Hornachuelos' SCI. The proposed new dam would completely flood the La Breña I reservoir; the main aim of the project being to increase the flow of the River Guadalquivir in its middle section to reduce water shortages in this area.

E.45.2 Location
The new dam would be built on the River Guadito close to the River Guadalquir in Spain.

E.45.3 Date of decision
7th May 2004.

E.45.4 Decision maker
The decision to consent to the project was taken by the Spanish authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and social so did not meet the stricter criteria for projects affecting a priority habitat.

E.45.5 Area of designated site
The Sierra de Hornachuelos SCI which extended to 60,020ha.

E.45.6 Area of habitat or number of individuals of species affected
The proposed reservoir would completely flood an existing reservoir within an SCI and occupy 626ha of the SCI which represented 1.04% of the total area. The impact of most significance related to the destruction of habitat for the Iberian lynx, a priority species.

E.45.7 Type of habitat or species affected – its importance and sensitivity
The Iberian lynx is a priority species which is recognised by the Spanish authorities as being in danger of extinction.

E.45.8 Decision
The Spanish authorities considered that the proposed project would have an adverse effect on the integrity of the SCI's affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.46 Siegerland industrial and commercial area, Germany

E.46.1 Description of development
The project involved the construction of a new commercial and industrial area of 140ha; 85ha of which were within a proposed SCI.

E.46.2 Location
The proposed development site was within the former military training area Trupbach near Siegen / Freudenbery (North Rhine-Westfalia).

E.46.3 Date of decision
24th April 2003.

E.46.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.46.5 Area of designated site
The Heiden und Magarrasen Trubbach SCI extended to 85ha.

E.46.6 Area of habitat or number of individuals of species affected

The project involved creation of an industrial and commercial area of 140ha which would lead to the complete destruction of the SCI.

E.46.7 Type of habitat or species affected – its importance and sensitivity
The SCI was characterised by a rich complex of habitats, including:

- 4030 European dry heaths;
- *6230 Species-rich *Nardus* grasslands on silicious substrates; and
- 6510 lowland hay meadows.

The area also hosted relevant populations of the wood lark (*Lullula arborea*) and the red-backed shrike (*Lanius collurio*), two birds species of Annex I of the Birds Directive (79/409/EEC). Two other species mentioned in that annex were also present on the site: the common crane (*Grus grus)* and the honey buzzard (*Pernis apivorus).*

The habitat type Species-rich *Nardus* grasslands is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.46.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI affected, but that it satisfied the derogation tests of Article 6(4). In this case the European Commission did not agree that the derogation tests had been met, because alternative solutions to the project existed which had not been fully explored.

E.47 Project Mainport Rotterdam, Netherlands

E.47.1 Description of development
'Project Mainport Rotterdam' was an extension plan for the port of Rotterdam consisting of a combination of better use of space still available in the existing harbour area, the 'Maasvlakte 2' land reclamation from the sea covering 2,500 ha and 750ha of new nature and recreation areas on shore.

E.47.2 Location
Rotterdam harbour and surrounding areas.

E.47.3 Date of decision
24th April 2003.

E.47.4 Decision maker
The decision to consent to the project was taken by the Dutch authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.47.5 Area of designated site
The proposed project affected five European sites; the sizes of the sites affected were not stated.

E.47.6 Area of habitat or number of individuals of species affected
The land reclamation aspects of the project were expected to lead to effects over 19.5ha of 'Grey Dunes' habitat, 23ha of 'White Dunes' and 3,125ha of the 'sandbanks slightly covered by seawater at all times' habitat.

In addition the occurrence of the Slavonian grebe was expected to decline by 0.1 – 5% in the Voordelta SPA, whilst that of the Scaup was expected to experience a decline of 8-16%.

E.47.7 Type of habitat or species affected – its importance and sensitivity
The habitat type 'Grey Dunes' is a priority habitat and is considered to be in danger of disappearance (Article 1d).

E.47.8 Decision
The Dutch authorities considered that the proposed project would have an adverse effect on the integrity of the SCIs affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.

E.48 Prosper Haniel Colliery, Germany

E.48.1 Description of development
The project involved the implementation of a new operational master plan for the colliery. This plan envisaged the extension of the mining activities which would lead to large scale ground subsidence accompanied by flooding and increased groundwater levels with impacts on ecosystems in the area.

E.48.2 Location
The Prosper Haniel Colliery is located in the Arnsberg district of Germany.

E.48.3 Date of decision
24th April 2003.

E.48.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and social and also related to security of energy supply, so they did not meet the stricter criteria for projects affecting a priority habitat.

E.48.5 Area of designated site
The area affected by the project was characterised by two proposed SCIs: the Kirchheller Heide und Hiesfelder Wald SCI of 709ha, and the Gartroper Mühlenbach SCI of 143ha.

E.48.6 Area of habitat or number of individuals of species affected
The formation of two new lakes after large scale subsidence would affect an area which was mainly characterised by the presence of priority habitat types 91D0* 'Bog woodland' (1 ha) and 91E0* 'Residual alluvial forests - *Alnion glutinoso-incanae*")' (15ha). A further 80ha of non-priority habitats would also be affected, together with deterioration of 2.9km of river. In total 96ha of habitat would be affected across two sites representing 11.3% of the combined overall site area.

E.48.7 Type of habitat or species affected – its importance and sensitivity
Habitat types 91D0* 'Bog woodland' and 91E0* 'Residual alluvial forests - *Alnion glutinoso-incanae'* are priority habitat considered to be in danger of disappearance (Article 1d).

E.48.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI's affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed that there was a case for the project to proceed in respect of economic and social reasons but did not agree there were energy supply security reasons sufficient to override the harm.

E.49 Daimler Chrysler Aerospace site, Germany

E.49.1 Description of development
The project concerned the extension of the existing industrial plant area along the River Elbe in order to enlarge the plant to complete the production of the passenger airliner the airbus A3XX. The extension was planned over an area of 171ha of the existing river basin.

E.49.2 Location
The Elbe River in Hamburg, Germany.

E.49.3 Date of decision
19th April 2000

E.49.4 Decision maker
The decision to consent to the project was taken by the German authorities but an opinion was sought from the European Commission, in accordance with Article 6(4), because the reasons considered sufficient to justify the project were economic and did not meet the stricter criteria for projects affecting a priority habitat.

E.49.5 Area of designated site
The Muhlenberger Loch SCI extended to 795ha.

E.49.6 Area of habitat or number of individuals of species affected
The proposed project was located on 171ha of a river basin designated as SCI so the loss would be 21% of the site.

E.49.7 Type of habitat or species affected – its importance and sensitivity
The SCI hosted an unspecified priority habitat type together with a priority plant species (*Oenanthe coniodes*) both of which are considered to be in danger of disappearance (Article 1d).

E.49.8 Decision
The German authorities considered that the proposed project would have an adverse effect on the integrity of the SCI's affected, but that it satisfied the derogation tests of Article 6(4). The European Commission agreed.