Acknowledgements
The authors of this report would like to express their sincere appreciation to the Steering Group members for their wisdom, careful consideration and constructive comments throughout the project, which considerably improved the value of the research and helped to keep us on track as the methodology unfolded.

The Steering Group comprised: Richard Chapman, Natasha Chick, Dr Helen Pontier and Jo Withers of Defra; Brendan Costello (RSPB), Helen Lancaster (Natural England) and Carl McClure (Bristol City Council).

We would also like to thank the planning officers in the many local authorities who we contacted for assistance in our information capture, and particularly to those who willingly gave their limited time to discuss the outcomes of the cases with us. Their patience and insightful commentary on the cases made a significant contribution to the report and added considerably to the value of the evidence base.
CONTENTS

EXECUTIVE SUMMARY ........................................1

SECTION

1. INTRODUCTION AND CONTEXT ........................................1
2. POLICY CONTEXT ..............................................4
3. SUMMARY OF METHODOLOGY ........................................6
4. RESULTS OF STAGE 1: QUANTITATIVE ANALYSIS ....................7
5. RESULTS OF STAGE 2: QUALITATIVE ANALYSIS AND DISCUSSIONS ....16
6. APPLICATION OUTCOMES IN RELATION TO PPS9 PRINCIPLES ..........27
7. CONCLUSIONS ..................................................36

APPENDIX A: METHODOLOGY ........................................39

List of Figures

1: Diagrammatic representation of the study methodology .....................6
2. Proportion of total major planning applications granted or refused planning permission ..........7
3. Proportion of total applications where the local planning authority or consultee recognised biodiversity as being material or it was overlooked .........................................................8
4: Proportion of refused applications with or without a biodiversity reason for refusal ............9
5: Proportion of planning permissions with biodiversity condition(s) attached .......................10
6: Frequency of biodiversity related subjects in conditions attached to planning permissions ....11
7. Compatibility of local policy frameworks with PPS9 .........................................................16
8a: Proportion of all Stage 2 cases granted or refused planning permission ..........................18
8b: Proportion of all Stage 2 cases granted or refused planning permission where biodiversity policy was overtly included in committee or delegated reports .........................................................18
9. Proportion of all sample local planning authorities with biodiversity SPG or SPD in place .......19
10a: Outcomes in relation to PPS9 compatibility for cases where no expert ecological consultation response received ..............................................................................................................20
10b: Outcomes in relation to PPS9 compatibility for cases where expert ecological consultation response was received ..............................................................................................................20
11a Biodiversity related outcomes where ecological survey material was submitted .............22
11b Biodiversity related outcomes where ecological survey material was not submitted ........22
12. Proportion of Stage 2 cases where harmful biodiversity impacts were potential ...............27

List of Tables

In section 4
1 Overall analysis of the 570 major planning application cases in Stage 1 .........................7
In Appendix A

A.1 Merging of classifications into the three general Defra classifications used in this study ............40
A.2: Distribution of LA sample (38) against Regional Distribution and Urban/Rural Classification ......40
A.3: Stage 2 Regional distribution and profile of selected local authorities ........................................47
EXECUTIVE SUMMARY

Purpose of the study
This is a study to examine the effectiveness of Planning Policy Statement 9 (PPS9), Biodiversity and Geological Conservation as it is applied by planning authorities, when dealing with planning applications, and to identify any barriers to its application.

Method
After a pilot phase, the project involved two principal stages:

a) a primarily quantitative analysis of a random sample of 570 specific types of planning applications in a stratified sample of 38 local authorities across England, during an agreed timeframe in 2007; and

b) a mainly qualitative analysis of a sample of 46 major planning applications drawn from those analysed in the first stage, looking in more detail as to how PPS9 principles were applied in those cases, followed by non- attributable interviews with planning officers and others about those cases and the issues they raised.

Existing policy in PPS9
The aim of planning decisions should be to prevent harm to biodiversity interests. Local planning authorities should be satisfied that harmful development cannot reasonably be located on any alternative sites; where it cannot, adequate mitigation measures should be put in place before planning permission is granted. Where a planning decision would result in significant harm to biodiversity which cannot be prevented or adequately mitigated, appropriate compensation measures should be sought. If significant harm cannot be prevented, adequately mitigated, or compensated for, permission should be refused. Planning decisions should aim to maintain, enhance, restore or add to biodiversity interests.

Materiality and consideration of biodiversity in planning decisions
In the pilot sample, biodiversity issues were recognised as material considerations in less than 1% (90 out of 10,235) of all types of planning applications determined by local planning authorities. When 570 ‘major’ planning applications were considered, biodiversity was material in 29% of cases. Biodiversity issues were judged to have been overlooked or insufficiently addressed in 8% of the 570 major development cases. PPS9 principles were ‘central’ or determining issues in a small number of cases, usually where a statutory or other designated interest may be potentially and seriously affected. 136 (24%) of the 570 major development applications were refused. Biodiversity was a reason for refusal in 21 (15%) of those cases (4% of all 570 major planning applications). Biodiversity issues are not raised unnecessarily by local planning authorities and potentially costly surveys, which may show negative results, were not routinely required for small scale proposals.

Avoidance and mitigation of potential harm
There is generally a poor understanding of the distinction between mitigation and compensation, with the terms often being used either in the opposite sense or as if they were inter-changeable. Mitigation in its correct form was the most frequently encountered PPS9 principle applied in practice. Planning officers often preferred to impose conditions as mitigation, rather than refuse permission, but may refuse permission in preference to negotiating complex compensation. Protection of ecological resources, through avoidance or mitigation of potential impacts from development, was more commonly found than positive measures to enhance the biodiversity resource. This was particularly the case in relation to species which are specially protected by law. Local planning authorities focused on conservation of recognised and designated sites and protected species within, or sometimes in very close proximity to, the application sites. They rarely took account of whether, or how, the wider habitat context could have been affected, conserved or enhanced.
Compensation
Compensation measures, though uncommon, were usually secured in relation to larger scale developments, following pre-application discussions with informed consultation bodies, where developers employed their own ecological consultants and where the compensation was a part of a larger package of measures.

Enhancement
To be certain that mitigation measures will be fully effective, they are sometimes applied at such a level that they probably amount to a net benefit for biodiversity. Examples involving intentional enhancement were limited in number and scale. Enhancement of ecological networks through landscaping schemes was the most frequent ‘missed opportunity’.

Delivery of PPS9 principles
Neither regional nor local planning policy frameworks need have been a barrier to the application of the principles of PPS9 in deciding the sampled planning applications. The positive aspects of policy, such as habitat enhancement, were more likely to be achieved where plans were specific and relevant areas were spatially defined. Ten of the 23 stage 2 planning authorities had published more detailed biodiversity-related supplementary guidance. In these authorities the outcomes of the applications were more fully consistent with the PPS 9 principles than in the sample as a whole.

Use of GIS and expert, systematic screening of planning applications reduced the risk of inadequately considering biodiversity interests from the outset. Where pre-application discussions occurred they were influential in improving the material submitted with the planning application. Where ecological survey material was submitted with a planning application it was found to be generally satisfactory. Where survey and ecological reports were provided, the processing of the application tended to result in a better ecological outcome more frequently than those where no such material was submitted.

Potential barriers to delivery of PPS9 principles
The absence of the involvement and advice of internal ecological advisers and / or informed organisations, during the processing of planning applications, is probably the greatest impediment to the consistent application of PPS9 principles. In 21 (45%) of the 46 cases examined in stage 2, no expert advice was received from either internal or external sources.

In many of the cases examined, even if biodiversity was material to the determination, or should have been material, or given greater weight, it may not have been accorded such materiality or weight in the balance of considerations when compared with issues such as economic regeneration, affordable housing, design, layout and traffic considerations.

An impediment to achieving off-site compensation is that, as a matter of law, conditions cannot be imposed that require the developer to carry out compensation measures on land that is not under the developer’s control unless the tests for ‘Grampian conditions’ are met.

Planning officers could seek to negotiate or encourage applicants to enhance, restore or add to biodiversity interests in accordance with PPS9. But if not willingly offered, benefits could not be insisted upon and required by condition or obligation, thus limiting the opportunities for planning authorities to fully apply the principles of PPS9. Planning authorities could only be confident about refusing planning permission for failure to provide biodiversity enhancement if the benefits were clearly required by a specific local policy.

The widespread use of conditions on planning permissions requiring habitat and especially species surveys to be undertaken after the grant of planning permission can lead to the principles of PPS9 not being met. It is also inconsistent with Government guidance. A small proportion of ecological surveys and reports were of an unsatisfactory standard.
1. INTRODUCTION

Context

1.1 The Coalition Government elected in May 2010 pledged to introduce measures to protect wildlife and promote green spaces and wildlife corridors in order to halt the loss of habitats and restore biodiversity. Whilst the requirements in current planning policies for biodiversity can help reduce the loss of biodiversity by avoiding or compensating for harm, and supporting the creation and restoration of habitats, there was criticism from non-governmental organisations, and some evidence, that current planning policy is not delivering the anticipated levels of protection for biodiversity.

1.2 An independent review of England’s wildlife sites and the connections between them, led by Professor Sir John Lawton, was published in September 2010 as ‘Making Space for Nature’. Amongst other things, it examined the potential for ‘biodiversity offsetting’, provided by developer contributions. It suggested that the planning process could be used to further enhance ecological networks and biodiversity.

1.3 Government’s formal response to this report was published in the Natural Environment White Paper which further indicates how the reformed planning system will play its part in delivering Government’s future vision for the natural environment. The Department for Environment, Food and Rural Affairs (Defra)’s Structural Reform Plan includes an action to assess the scope for offsetting the impact of development on biodiversity.

1.4 Biodiversity offsets are conservation activities designed to deliver biodiversity benefits in compensation for losses, in a measurable way. Losses may occur, for example through changes brought about by development granted planning permission. Residual losses are those that may occur after all the expected avoidance, reduction (mitigation) and compensation measures have been applied, and enhancement measures considered where possible, in accordance with current policy.

1.5 In England, current planning policies for biodiversity are set out in Planning Policy Statement 9 (PPS9) ‘Biodiversity and Geological Conservation’ (2005) supported by the Government Circular ‘Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system’. The relevant policies in PPS9 to be considered in determining planning applications, are summarised in section 2 of this report.

1.6 As a part of wider changes to the planning system, the Coalition Government intends to replace existing Planning Policy Statements by a single National Planning Policy Framework, a draft of which has been subject to consultation.

1.7 As part of the objective of achieving international and national targets for halting biodiversity loss, without placing undue constraints on economic growth and regeneration, Defra is developing a biodiversity offsets policy.

---

1.8 The policy will include a biodiversity offsetting metric, developed by Natural England in consultation with other bodies, to give a more robust approach to delivering compensation measures for harm to biodiversity as a result of planning decisions. A 'metric' is a tool that allows biodiversity losses and compensation to be measured. Defra intends to pilot biodiversity offsetting on live planning applications, using the biodiversity offset metric, starting in the spring of 2012.

1.9 Defra has already undertaken research to inform the development of biodiversity offsetting. As part of the work to evolve the offsetting approach, there are three phases of work to examine the current application of existing planning policy in PPS9. Phase I comprised an in-house (Defra) literature review of grey/published evidence on the effectiveness of the current PPS9 policies and principles for biodiversity conservation and enhancement in the town and country planning system in England.

1.10 Phase II, which is this project, is a more in depth study to examine the effectiveness of current planning policy through development management (dealing with applications for planning permission) as set out in PPS9 and to identify any barriers to its application. Prior to the application of the metric to future applications in the pilots commencing in 2012, a third Phase has been commissioned to examine the outcomes and any additional costs involved if the emerging biodiversity offsetting metric had been applied to a number of actual planning applications considered in an agreed timeframe and examined in Phase II.

1.11 Consequently, this report should be read in the context of the review and development of planning and biodiversity conservation and enhancement policy generally, and more specifically in the context of the developing policy of applying biodiversity offsetting in the town and country planning system in England.

Aims and Objectives of this Project

1.12 The overall aim of this project is to provide an objective and robust analysis of the effectiveness of PPS9 in protecting biodiversity, by considering how it is applied. In order to help to inform future policy, to undertake a detailed audit of the 'end to end' decision making process in a representative sample of English Local Planning Authorities.

1.13 The research was expected to:

- Determine and implement an appropriate sampling strategy and method of information capture to ensure a representativeness of the sample and responses;
- Encourage engagement, participation and responses of consultees;
- Analyse the responses and assess the degree to which local planning authorities are applying planning policies in PPS9 through decisions on individual planning applications and identify the reasons why authorities may be adopting different approaches;
- Identify and explore any barriers within the planning system, which may lead to poor application of the policies, which may therefore result in poor protection for biodiversity.

---

7 http://www.defra.gov.uk/environment/natural/biodiversity/uk/offsetting/
1.14 There is a particular focus on issues surrounding the “avoid / mitigate / compensate” hierarchy; the provision of compensatory measures for significant harm; and exploration of whether local planning authorities applied the principles of PPS9 in relation to harm in the expectation that compensation would be provided.

Limitations of data and findings

1.15 The methodology for this report is explained in detail in Appendix A. It will be clear from that description that the findings and conclusions of Stage 1, and particularly Stage 2, are based on a mix of:

   a) factual evidence drawn from a substantial and robust statistical database;

   b) the professional judgment and experience of the research team in interpreting the implications of some of the data and how PPS9 principles were applied in practice; and

   c) the views expressed by planning officers and others in the interviews.

1.16 Necessarily the nature of some of the research did not lend itself to sustained statistical analysis. Nevertheless, the professional judgments made in the interpretation of how the principles of PPS9 were applied case-by-case, are considered to be a part of the evidence base of the project. The interviews played a particularly valuable role in validating findings from the data and providing insight into the way that PPS9 is applied, and potential barriers, but these interviews necessarily varied in structure, length and focus in order to address the wide range of issues that varied from case to case.
2. POLICY CONTEXT

Planning Policy Statement 9 *Biodiversity and Geological Conservation*

2.1 The publication of PPS9, in August 2005, was an important advance from the former ‘PPG9’ *Nature Conservation* of October 1994. For the first time, PPS9 expected local planning authorities to take a more systematic approach to planning for biodiversity and geological conservation and to look to the planning system to deliver enhancement of biodiversity resources, whilst continuing the protection and conservation of sites and species.

2.2 PPS9 set out important ‘principles’ for planning authorities in the planning system – both when making plans and when determining planning applications. The key principles most relevant to this report are set out below, because they provide an important policy context for this project.

   a) Planning decisions should be based upon up-to-date information about the environmental characteristics of planning authorities’ areas, and in reviewing these characteristics authorities should assess the potential to sustain and enhance biodiversity resources.

   b) Planning decisions should aim to maintain, and enhance, restore or add to biodiversity interests. In taking decisions, local planning authorities should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; and to biodiversity interests within the wider environment.

   c) Development proposals where the principal objective is to conserve or enhance biodiversity interests should be permitted.

   d) The aim of planning decisions should be to prevent harm to biodiversity interests. Where granting planning permission would result in significant harm to those interests, local planning authorities will need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that, before planning permission is granted, adequate mitigation measures are put in place. Where a planning decision would result in significant harm to biodiversity and geological interests which cannot be prevented or adequately mitigated, appropriate compensation measures should be sought. If that significant harm cannot be prevented, adequately mitigated, or compensated for, then planning permission should be refused.

**Government circulars**

2.3 Other policy, procedural and administrative guidance relevant to this report are found principally in the following government circulars:

Circulars issued by the former Office of the Deputy Prime Minister

10/95 *Planning Controls over Demolition*
11/95 *The Use of Conditions in Planning Permissions*
02/99 *Environmental Impact Assessment*
05/05 *Planning Obligations*
06/05 (Joint Defra Circular 01/05) *Biodiversity and Geological Conservation*
08/05 *Guidance on Changes to the Development Control System*
Department for Communities and Local Government Circulars

01/06  Guidance on Changes to the Development Control System
02/08  Standard Application Form and Validation
3. **SUMMARY OF METHODOLOGY**

3.1 After adjusting the planned methodology as a result of substantial pilot work, the project involved two principal stages:

a) a primarily quantitative analysis of a random sample of 570 ‘major’ planning applications in a stratified sample of 38 local authorities across England, during an agreed timeframe in 2007; and

b) a mainly qualitative analysis of a sample of 46 ‘major’ planning applications drawn from those analysed in the first stage, looking in more detail and more critically as to how PPS9 principles were applied in those cases, followed by non-attributable discussions with planning officers and others about those cases and the issues they raised.

The full methodology and how it evolved through the pilot stages is provided in Appendix A. It is summarised in Figure 1 below.

**Figure 1**
Diagrammatic representation of the study methodology

<table>
<thead>
<tr>
<th>Initial steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Determine method for selection and then select the stratified sample of (38) LPAs</td>
</tr>
<tr>
<td>ii. Determine the survey timeframe</td>
</tr>
<tr>
<td>iii. Decide the type and number of planning applications to be targeted from each LPA</td>
</tr>
<tr>
<td>iv. Decide on data to be captured for each case</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pilot Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Random selection of 5 pilot LPAs from the sample of 38</td>
</tr>
<tr>
<td>ii. Capture first 40 planning applications in timeframe, consider relevance to biodiversity</td>
</tr>
<tr>
<td>iii. Adjust method in light of occurrence of biodiversity issues in 200 cases</td>
</tr>
<tr>
<td>iv. Generate 90 biodiversity cases from 10,560 cases</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Revised Stage 1 Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target only statutorily defined ‘major’ planning applications</td>
</tr>
<tr>
<td>Capture data in first 15 major applications in each of 38 LPAs giving 570 case studies for Stage 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 1 Quantitative Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical analysis of materiality and outcomes of 570 major planning applications, reasons for refusal, conditions imposed and planning obligations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 2 Qualitative Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>In depth analysis of 46 cases including influences on determination, application of PPS9 principles, delivery mechanisms and barriers to PPS9 implementation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-attributable discussions with planning officers and stakeholders about the 46 cases in Stage 2</td>
</tr>
</tbody>
</table>

| Reporting and Presentation of Findings |
4. RESULTS OF STAGE 1 QUANTITATIVE ANALYSIS

Materiality of PPS9 in Pilot sample

4.1 In the pilot sample, biodiversity issues were recognised as material considerations in less than 1% (90 out of 10,235) of all planning applications determined by a sub-sample of 5 of the 38 local planning authorities selected in the full stratified sample.

Overview of Stage 1 planning application cases

4.2 When only ‘major’ planning applications were considered, the results of the analysis of 570 cases in 38 local planning authorities are summarised in Table 1 below.

Table 1
Overall analysis of 570 major planning application cases in Stage 1

<table>
<thead>
<tr>
<th>Biodiversity</th>
<th>Cases granted permission</th>
<th>Cases refused permission</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiversity issues recognised in decision</td>
<td>100</td>
<td>21</td>
<td>121</td>
</tr>
<tr>
<td>Biodiversity advice not taken into account</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Biodiversity issues overlooked by the LPA</td>
<td>43</td>
<td>0</td>
<td>43</td>
</tr>
<tr>
<td>Total cases where biodiversity relevant</td>
<td>146</td>
<td>21</td>
<td>167</td>
</tr>
<tr>
<td>Cases where biodiversity not relevant</td>
<td>288</td>
<td>115</td>
<td>403</td>
</tr>
<tr>
<td>Total cases</td>
<td>434</td>
<td>136</td>
<td>570</td>
</tr>
</tbody>
</table>

Planning Application Determinations

4.3 434 (76%) of the 570 applications were granted full or outline planning permission and 136 (24%) were refused, see Figure 2. This correlates closely to national planning statistics for the period of the research where 75% of all major planning applications determined by English local planning authorities were granted planning permission.

Figure 2:
Proportion of total major planning applications granted or refused planning permission

---

Recognition of biodiversity as a material consideration

4.4 Figure 3 shows that in 124 (c.21%) of the 570 major planning applications biodiversity matters were recognised by the local planning authority, or a consulted party, as being material to the application’s determination. Recognition of biodiversity matters was based on whether a consulted party raised the issue or whether the application was:

- accompanied by an ecological statement, species survey or similar material; or
- determined with a biodiversity related planning condition attached; or
- refused with one or more reason for refusal pertaining to biodiversity.

Two of these criteria could apply to a single application.

4.5 In a further 43 (c.8%) of the 570 major application cases, the research team judged that, on the evidence available, biodiversity issues were overlooked or otherwise insufficiently assessed, in the determination of the application. Thus, biodiversity was, or reasonably could have been, a material consideration in 167 (29%) of the 570 major planning applications.

Figure 3:
Proportion of total major planning applications where the local planning authority or a consultee recognised biodiversity as being material or it was overlooked

PPS9 reasons for refusal

4.6 Of the 136 cases (24% of the 570 major applications) where planning permission was refused, 21 (15%) had one or more reason for refusal that was directly (or partly) related to PPS9 principles or more generally to biodiversity. This is about 4% of the total 570 major development cases examined.
Figure 4:
Proportion of refused applications with or without a biodiversity reason for refusal

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications refused with one or more biodiversity related reason</td>
<td>21</td>
<td>15%</td>
</tr>
<tr>
<td>Applications refused with no biodiversity reasons</td>
<td>115</td>
<td>85%</td>
</tr>
</tbody>
</table>

4.7 The reasons for refusal on biodiversity related grounds fell within a relatively narrow range of issues:

(a) Adverse effects on internationally, nationally or locally designated sites;

(b) Cumulative (or ‘in-combination’) indirect effects on internationally designated sites;

(c) Loss of non-designated environmental features of value to biodiversity, such as ancient and other woodlands or other BAP habitats, old trees, hedges and other features providing ecological stepping stones or corridors;

(d) Harm or potential harm to protected species or their habitats; and

(e) Absence or inadequacy of information about the ecological context and possible biodiversity impacts, especially in relation to protected species.

4.8 In a number of cases more than one of these reasons was cited. In all cases the local planning authority referred to the conflict with relevant national, regional and / or local planning policy in citing these reasons for refusal including PPS9. It was unusual for a biodiversity reason to be a sole reason for refusal.

Planning Permissions where PPS9 considerations were material

4.9 100 cases were identified where planning permission was granted and biodiversity was recognised by the local planning authority as material for the following reasons:

a) a biodiversity assessment, survey information or management / mitigation plan was submitted as part of the application; and / or

b) one or more biodiversity related condition was attached to the consent; and / or

c) the permission was dependent on a section 106 planning obligation pertaining to habitats, species or other biodiversity related matter.
4.10 Three cases were identified where biodiversity considerations were raised by a third party, for example a Wildlife Trust, but the local planning authority did not act upon it by requesting more information, or did not include any planning conditions to address any concerns raised in the final determination.

4.11 Of the 570 major planning applications, 434 (76%) were granted planning permission and of these 100 cases (23%) had biodiversity related planning conditions attached as shown in Figure 5 on the next page.

**Figure 5:**
Proportion of planning permissions with biodiversity condition(s) attached

<table>
<thead>
<tr>
<th>Major planning applications granted permission (n = 434)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permission granted with a biodiversity related condition (n=100 23%)</td>
</tr>
<tr>
<td>Permission granted with no biodiversity related condition (n=334 77%)</td>
</tr>
</tbody>
</table>

4.12 The subject matter of the 166 conditions imposed on the 100 planning permissions in the sample survey with biodiversity related conditions is set out below, in descending order of frequency. The number (which is also the percentage of the cases, because there were 100 cases where biodiversity conditions were imposed) is given in respect of each condition type):

(a) Protected species survey(s) to be carried out with explicit requirement for consequent mitigation to be implemented (36);

(b) Landscaping scheme to be carried out but not explicitly referring to biodiversity considerations in design (25);

(c) Protected species survey(s) to be carried out but imprecise requirement for consequent mitigation to be implemented (25);

(d) Restrictions on construction during the bird breeding season (23);

(e) Landscaping scheme to be carried out including explicit biodiversity objectives (15)

(f) Measures to ensure protection or retention of features of biodiversity value, including trees, water courses or designated habitats (13);
There were 102 conditions (61% of all conditions imposed) relating to protected species and associated mitigation measures ((a), (c), (d), (g), (i), (k), (l)). Of these 61 required a species survey to be submitted after the grant of planning permission ((a) and (c)), which is 37% of all conditions imposed and in 14% of all applications granted planning permission.

There were 20 conditions (12% of all conditions imposed) relating to habitat and site protection / mitigation ((f), (h) and (m)).

There were 19 conditions (11% of all conditions imposed) relating to habitat enhancement ((e) and (j)).

There were 25 conditions (15% of all conditions imposed) where the opportunity to relate a landscaping scheme to biodiversity objectives was missed ((b)).
4.17 Stage 1 found little evidence of enhancement being delivered, via either conditions or planning obligations. It is difficult to ascertain with any certainty from the stage 1 research (because of the grain of examination undertaken), whether the works required by certain conditions constitute enhancement works, or whether in fact they relate more closely to mitigation of impacts. To be certain that mitigation measures will be fully effective, they are sometimes applied at such a level that they probably amount to a net benefit for biodiversity.

4.18 In some cases where ecological effects are uncertain, for example where no survey has been presented or requested, but where ecological interest is locally recognised, local planning authorities attached planning conditions intended to deliver biodiversity enhancement. This could be in compliance with local policy or it may reflect local planning authorities' wider biodiversity duties under the Natural Environment and Rural Communities Act 2006⁹; or both.

4.19 The actions required in these cases were:

   a) Provision of bat and bird boxes (six cases);

   b) Eradication of invasive species (six cases); and

   c) Reinstatement / restoration of features of biodiversity value (four cases).

S.106 Planning obligations

4.20 The use of S.106 planning obligations can allow local planning authorities to grant planning permission where necessary measures cannot be secured through a planning condition. One application granted planning permission had a biodiversity related S.106 obligation relating to securing on-going site management (representing less than 0.3% of the 570 major applications).

Informatives

4.21 ‘Informatives’ or ‘notes’ can be appended to decision notices to draw the attention of the applicant or developer to opportunities, responsibilities or restrictions usually imposed under separate legislation. Stage 1 found that 15 informatives had been used in relation to biodiversity matters in relation to 10 of the cases examined. These were attached to consents in relation to:

   • requests for additional habitat/species surveys to be conducted (3 cases);

   • landscaping details [where biodiversity relevant], in relation to native species planting (3 cases);

   • protection of nesting birds or protected species during construction (8 cases); and

   • enhancement of marginal habitat areas (1 case).

---

⁹ Section 40 of the Act states that all public authorities must have regard to the conservation of biological diversity, as far as is consistent with the proper exercise of their functions.
4.22 The most frequent use of ‘informatives’ across the survey sample (8 of 15) was to draw attention to the legal position relating to protected species, primarily in relation to the Wildlife and Countryside Act 1981. Landscaping ‘informatives’ referred to opportunities to enhance biodiversity value of landscaping schemes.

Commentary

Permission and refusal rates
4.23 Referring to Figure 2, identification of permission and refusal rates is important in respect of recognising the potential role of the planning system in delivering biodiversity enhancement. Whilst refusal of permission has a role in conservation (protection of habitats and species) development can only address the opportunity for compensation or enhancement if permission is granted and the development is therefore allowed to go ahead. The majority of applications were permitted so, in principle, there is scope for planning decisions to deliver biodiversity enhancement as part of the development permitted.

Consideration of biodiversity
4.24 Referring to Figure 3, and how biodiversity was overlooked or insufficiently considered in the determination of about 8% of all the major applications examined, if this proportion was scaled up to a national, England-wide level, it could be surmised that biodiversity issues would be inadequately addressed in approximately 1,000 major planning applications\(^\text{10}\) per year (at 2010 - 2011 rates).

4.25 The research team did not identify any significant cases where biodiversity had been addressed in the course of an application’s determination, but where this was considered by the research team to have been unjustified. Biodiversity considerations did not appear to be raised unnecessarily by local planning authorities.

4.26 Local planning authorities focused on conservation of recognised and designated sites and protected species falling within, or sometimes in very close proximity to, the application sites. In doing so they did not generally take account of the wider habitat context, and hence did not consider whether or how the inherent habitat value could have been affected, conserved or enhanced as appropriate. This was particularly where designated sites or priority BAP habitats were found close to and around an application site, but where no measures were taken to complement and strengthen the network or habitat mosaic through the planning application process.

4.27 Similarly, the role that sites might play in terms of habitat connectivity, such as green stepping stones or as continuous linear features within or adjacent to the site, appeared to be overlooked.

4.28 A recurring example of this was found in relation to development in close proximity to railway cuttings and embankments, which can present an ecological pathway through urban areas and may connect with rural habitats beyond. Whilst only occasionally designated as wildlife sites, these afford some potentially significant wildlife benefit, and especially where the lines are disused, might reasonably have been expected to trigger consideration of PPS9 principles in relation to their habitat and corridor functions.

\(^{10}\) Based upon the total major planning applications made to local planning authorities, 2010-2011 at www.communities.gov.uk/planningandbuilding/planningbuilding/planningstatistics/statisticsplanning/
**Reasons for refusal**

4.29 Whilst biodiversity issues were cited as a reason for refusal in 21 cases, on taking an overall view of the way that the planning applications were reported and decided, the research team considered that in some cases, biodiversity-based reasons for refusal may have been added as makeweights, or to further 'bolster' refusals made principally on other policy grounds, such as green belt, lack of affordable housing, residential amenity, design or highways issues. Biodiversity was rarely the only reason for refusal.

4.30 Some of the cases which were refused for reasons based on inadequate ecological survey information (whether absent or of insufficient quality) may have been capable of resolution had the application been acceptable for other reasons. The application could have been deferred or resubmitted or the relevant information otherwise completed to the local planning authority’s satisfaction. The fact that surveys were not required in a number of the refused cases tends to indicate the likelihood that other issues presented more significant barriers to the granting of planning permission, and there was no point in pursuing the surveys.

4.31 The refusals cited for the direct, indirect and in-combination (cumulative) effects on internationally designated sites are likely to reflect the strict provisions of the 1994 Habitats Regulations then in place and not necessarily the PPS9 principles, although PPS9 does give the highest level of policy protection to European and Ramsar sites.

4.32 It was not always clear whether some reasons for refusal were primarily aimed at biodiversity protection or landscape and townscape conservation reasons, such as the loss of a tree or trees. In practice such matters are not mutually exclusive.

**Attaching conditions to planning permissions**

4.33 Whilst the findings illustrated in Figure 6, relating to the subject matter of conditions relating to biodiversity, demonstrate an awareness of biodiversity issues, they do not necessarily indicate that the principles of PPS9 were fully applied in these cases.

**Planning and protected species**

4.34 The interrelationship between planning and protected species legislation set out in Defra Circular 01/2005 lends weight to the consideration of protected species in the determination of planning applications. Some local planning authorities took a more precautionary approach to determination of applications potentially affecting protected species than others.

4.35 A key finding is the widespread use of planning conditions requiring protected species and occasionally habitat surveys to be carried out and submitted after planning permission is granted. This was found in 61 (61%) of the 100 cases with biodiversity conditions were attached; about 37% of all biodiversity conditions attached in the sample cases. Of these, a majority (36, 59%) included specific reference to the written approval of the local planning authority of the implementation of any mitigation measures proposed as a result of the post-decision surveys. In 25 cases (41% of the conditions requiring surveys post-decision) the local planning authority required a survey to be undertaken and the results submitted in a report, but did not clearly require the implementation of any mitigation that the report recommended.

---

11 The Conservation (Natural Habitats, &c.) Regulations 1994
4.36 Such imprecision could result in conditions being vulnerable to challenge in respect of their compliance with the tests in Government Circular 11/95\textsuperscript{12}. In any event, the post-decision use of species and habitat surveys is inconsistent with the advice set out in Defra Circular 01/2005\textsuperscript{13} paragraph 99:

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision….”

“the need to ensure that ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that surveys carried out after planning permission has been granted”.

‘Landscaping’ and habitat creation

4.37 The design and integration of habitat creation, restoration and improvement in landscaping schemes otherwise designed for amenity, can improve the value of open spaces and the connectivity between sites and features at no, or a relatively low, additional cost. Conditioning the use of native, locally sourced plant and tree species can make a contribution to enhancement of biodiversity, consistently with the principles of PPS9.

4.38 Figure 6 shows that the use of such conditions occurred in 15 cases (15% of all planning applications including a biodiversity condition and 3.5% of all planning permissions granted in the sample cases). Such cases were recorded only where there was a clear reference to habitat enhancement (usually in ‘reasons for conditions’), or where such an objective otherwise appeared to the research team to be the intention of the local planning authority. The majority of landscaping conditions did not contain direct reference to biodiversity, habitat enhancement or creation.

Protection of recognised biodiversity assets

4.39 Protection of locally designated sites is a well established planning policy, especially in local development plans. The few major planning application decisions in stage 1 which resulted in refusal of planning permission in order to protect such sites may in part be a reflection of the protection policies having a deterrent effect. However, empirical knowledge indicates that locally designated sites remain under threat and losses still occur\textsuperscript{14}.

The use of informatives

4.40 There is no obligation on the developer to comply with the advice in an informative, unless it is a reference to other legislation. Thus, landscaping ‘informatives’ referring to opportunities to enhance the biodiversity value of landscaping schemes, do not place any obligation on the developer to do so. The use of ‘informatives’ to require additional survey information which according to Defra Circular 01/2005, ought to have been obtained before the decision was made, in 3 cases, is inconsistent with Government advice. Whilst a positive step towards enhancement of the overall ecological resource, in line with PPS9 objectives, the use of an ‘informative’ in one case to utilise a habitat management opportunity relied on the developer’s good will, rather than imposing a requirement.

\textsuperscript{12} ODPM, 1995, Use of Conditions in Planning Permissions
\textsuperscript{13} ODPM, 2005, Biodiversity and Geological Conservation - Statutory Obligations and their Impact within the Planning System
\textsuperscript{14} e.g. Lawton J. H. \textit{et al} 2010, Making Space for Nature: a review of England’s wildlife sites and ecological network, Report to Defra
5. **RESULTS OF STAGE 2: QUALITATIVE ANALYSIS AND INTERVIEWS**

The consistency and influence of regional and local policy frameworks

5.1 The importance of the development plan in the determination of planning applications is discussed towards the end of this section. At the time of determining the applications in the 46 stage 2 case studies, and depending on how far the planning authority had progressed its Local Development Framework, the statutory development plan consisted of:

a) the published Regional Spatial Strategy (RSS) or, in London, the London Plan;

b) any ‘saved policies’ in County Structure Plans;

c) any ‘saved policies’ in old-style Local Plans; and

d) the policies and provisions of any Core Strategy of other Development Plan Documents adopted by the relevant planning authority.

5.2 The research period was chosen to allow for development management practice to have adjusted to the publication of PPS9, some two years earlier. The time-scales of development plan production meant that some local development policies were still not entirely in line with the principles established in PPS9, particularly in respect of the new emphasis on enhancement of biodiversity assets.

5.3 Overall, there was a strong degree of compatibility between the regional plans and the principles set out in PPS9. No region was found to be ‘at odds’ with PPS9 principles. Eight of the nine regional plans (including the London Plan) reflected a strong or relatively strong level of compatibility with national policy for biodiversity, including notably, positive approaches to protection and enhancement of ‘non-designated’ ecological assets. Only one regional plan could be seen to fall short of PPS9’s principles in respect to these positive policies for wider biodiversity enhancement.

Figure 7
Compatibility of local policy frameworks with the principles of PPS9

Local policy frameworks (non-NPAs) (n = 23)

- Plans with good compatibility with PPS9 (n=9 39%)
- Plans mostly compatible with PPS9 (n=5 22%)
- Plans with partial compatibility with PPS9 (n=9 39%)
5.4 As seen in Figure 7 above, local policy frameworks were also found to be generally compatible with PPS9 principles, but with a greater degree of variation than for the regional plans. The three National Parks have specific statutory purposes in this regard and their plans were strongly supportive of the protection and enhancement of biodiversity assets. The research identified nine of the 23 sample local planning authorities as having good compatibility with PPS9’s full spectrum of principles and five where local policy was mostly in line with the principles. All of the remaining policy frameworks were found to be at least partially in line with PPS9.

5.5 The cases found to be mostly or partially compatible with PPS9 afforded strong protection to identified ecological assets, but to varying degrees did not fully embrace the principles of wider enhancement of biodiversity and compensation for harm. Notably, where County Structure Plans remained as an element of the development plan, these often included policies for the enhancement of biodiversity, more closely reflecting the terms of the regional plans.

5.6 Some of the sample authorities’ plans set out a spatial expression of ‘wildlife enhancement areas’ or ‘wildlife corridors’, with associated guidance as to what was expected of the developer and the local planning authority itself. In other cases, the positive enhancement was expressed vaguely, without spatial expression. The officers interviewed indicated that applications made within such spatially defined areas or corridors were more likely to trigger a requirement for a habitat or species survey.

Consideration of biodiversity policy in planning reports

5.7 There was significant variation in how planning policy was covered in committee and other officer reports. Twenty four (52%) of the 46 cases had explicit reference to biodiversity policy at some level, it being absent in others.

5.8 In some cases, relevant policies were simply listed. Others presented a clearer discussion of how policies were complied with or not. Some reports presented no reference to biodiversity policy, until expressing reasons for refusal or reasons for the imposition of conditions on the permission, when reference to policy was required. Some reasons for refusal or reasons for the imposition of conditions made explicit reference to PPS9 itself.

5.9 The proportion of refusals where the officer reports contained explicit biodiversity policy analysis was greater than where policy was not adequately set out, as illustrated in Figures 8a and 8b, which to keep them together are reproduced on the next page.

The adoption of Supplementary Planning Guidance and Documents

5.10 Generally, Supplementary Planning Guidance (SPG) or more recently a Supplementary Planning Document (SPD) is used to provide more detailed guidance to applicants and planning officers, than is appropriate in development plan documents.

5.11 The study found that during the research timeframe seven of the 23 local planning authorities (excluding the NPAs) had biodiversity-related SPG or SPD in place, one of which had been adopted county-wide. All three National Park Authorities had such guidance in place.
5.12 The content and scope of these supplementary policy documents varied across the small sample. Mostly they related to procedures and expectations in relation to proposals affecting protected species, designated sites or BAP priority habitats. Some were spatially specific, setting out expectations of developers in respect of developments proposed in defined areas of recognised ecological sensitivity (or opportunity), but where development was not precluded in principle by the policy framework. No sensible statistical conclusion can be drawn in this small sample, but as a general observation, in the researchers’ opinions, where adopted SPG / SPD was in place, the outcomes of the applications were more fully consistent with the PPS 9 principles than in the sample as a whole. Having said that, the majority of the SPDs tended to focus primarily on protection of exiting assets, rather than elaboration of how habitat compensation or enhancement could be delivered.
The influence of informed consultation and in-house ecological advice

5.13 External consultations included those with:

a) the statutory consultation body, usually only Natural England;
b) non-governmental organisations (NGO’s), in particular, County Wildlife Trusts, County Bat and Badger Groups;
c) other specialist biodiversity interests; and
d) County Councils, who drew attention to Structure Plan policies, which as previously noted, were more positive in terms of biodiversity enhancement.

5.14 Engagement with these consultation bodies was irregular. Natural England was engaged positively in seven (15%) of the 46 cases. The Wildlife Trusts responded over a similar number of cases, sometimes overlapping those cases where Natural England had also responded. In all, external advice was received in 19 (41%) of the 46 cases. Internal advice was received in 16 (35%) of the 46 cases. In ten cases both internal and external advice was received. In 21 (45%) of the 46 cases no expert advice was received from either internal or external sources.

5.15 The interviews with planning officers referred to the relative decline in Natural England’s engagement in development management case work.

5.16 Where external bodies were consulted and responded, the comments related to:

a) objection to proposals on ecological grounds;
b) adequacy and scope of submitted ecological survey material;
c) omissions of or from survey documents;
d) the relative importance of sites in respect of nature conservation value;
e) ensuring proposed mitigation measures were properly secured;
f) opportunities for further enhancement; and
g) pre-application discussion and occasionally co-operation and agreement with applicants.
5.17 The availability of ‘in-house’ ecological expertise also varied considerably. The research did not identify which local planning authorities had full or part-time ecological advisors in-house, but recorded where such advice had been provided. Some of the sampled authorities ‘share’ ecologists, particularly across urban authorities. In other cases ‘ecological’ roles appeared to be combined with ‘countryside’ ‘tree’ and ‘landscape’ officers’ portfolios. 16 cases examined at stage 2 benefited from the input of in-house biodiversity officers.

5.18 A comparison of how determinations met the PPS9 principles, where expert ecological advice was or was not provided is shown in Figures 10a and 10b.

**Figure 10a**
Outcomes in relation to PPS9 compatibility for cases where no expert ecological consultation response received

**Figure 10b**
Outcomes in relation to PPS9 compatibility for cases where expert ecological consultation response was received
5.19 Where no advice was received, either from internal or external sources, seven (33% of the 21 cases) were judged to have good outcomes, consistent with PPS9. 10 (47%) of decisions were judged to have poor outcomes in terms of PPS9 principles.

5.20 In all 10 (100%) of the cases where both internal and external advice was received the outcomes were judged to be good. In the 25 cases where either internal or external (or both sources of) ecological advice was taken into account, 18 (72%) of the 25 cases were judged to have good and 3 (12%) judged to have poor outcomes.

5.21 Natural England’s focus was primarily directed to planning casework where nationally or internationally designated sites or European protected species were potentially affected; so they do not generally become involved in wider issues or the negotiation of compensation or enhancement outside such cases.

5.22 During discussions planning officers stressed that the process of validation of applications and assessment of the adequacy of ecological reports etc were dependent on in-house checks by expert staff. Likewise, where internal (or shared) ecological expertise was absent, the involvement of ecological consultees was even more important. In a number of cases formal arrangements with, for example, the Wildlife Trusts, or Biological Records Centres were in place, reducing the perceived risk of inadequately considering biodiversity interests from the outset. Such arrangements were strongly supported by planning officers. The use of Geographic Information System biological records has also significantly enhanced the ability to assess proposals against recorded biodiversity interests, particularly when located outside designated sites.

Quality of material submitted and effectiveness of validation

5.23 There was significant variation in the frequency with which ecological material was submitted; the scope of material submitted and how the material influenced the determination of validated planning applications. 24 (52%) Stage 2 sample cases had supporting ecological material submitted. Generally, where ecological material was submitted, it was found to be of a satisfactory standard. Pre-application discussions were influential in improving the submitted material.

5.24 Where survey and ecological reports were provided, the processing of the application tended to result in a better ecological outcome more frequently than those where no such material was submitted. Where ecological reports and appraisals were submitted, PPS9 principles were more likely to be achieved as shown in Figures 11a and 11b. In order to readily facilitate comparison of figures 11a and 11b they are both reproduced on the next page.

Commentary

The determination of major and complex planning applications generally

5.25 The way in which biodiversity issues were considered in the 46 case studies has to be appreciated in the context of the determination of these major and usually complex planning applications.

5.26 At the time of the determination of the cases in this study, the planning authority had a statutory duty, arising from section 38(6) of the Planning and Compulsory Purchase Act 2004, to determine a planning application in accordance with the development plan, unless material considerations indicate otherwise. Material considerations are not defined and are capable of being a very wide range of matters relevant to planning generally and to the application in particular.
5.27 Emerging development plan documents were capable of being material considerations, with greater weight being attached to them the further that they had progressed through the plan-making procedures (including especially after ‘examination’ and the publication of the Inspector’s recommendations).
5.28 The ‘development plan’ should normally be in conformity with national planning policy, established by the suite of Planning Policy Statements, of which PPS9 is one. In cases where PPS9 had been published after the adoption of the RSS or structure or local plan, its policies would therefore be capable of being a material consideration to which the decision-maker could afford substantial weight. This would be the case even in the event that the statutory development plan was not consistent with PPS9. Introductory text to the PPS confirms its potential status as a material consideration in planning decision making.

5.29 The presence of PPS9 as a material consideration, which despite section 38(6) could, and generally should, be afforded greater weight than out-of-date policies in a local plan, means that PPS9 should still have been complied with even if the regional and local policy framework was inconsistent with it.

5.30 Deciding the outcome of a complex planning application will involve the decision maker not only taking account of all material considerations (and not taking account of immaterial considerations) but also affording ‘weight’ to the differing, and sometimes competing, considerations, in coming to an overall balance of planning judgment. For each case it is a matter for the planning authority to identify whether biodiversity issues are material, if so the way in which the issues are material to the case, and how much weight they should be afforded in the planning judgment, on a case-by-case basis. It follows that when dealing with major planning applications, such as the 46 cases in stage 2, the identification, analysis and weighting of the often multiple material considerations and how all of these and the application interact with the policies and provisions of the development plan are complex.

5.31 For example, important and often determining issues in the cases studied here included (in no particular order):

- national planning policy in respect of all other matters, not just biodiversity in PPS9;
- delivery of affordable housing;
- contaminated land issues;
- flood risks;
- traffic and transport considerations;
- design and layout of development;
- impacts on the local amenity of communities; and
- built and cultural heritage constraints.

5.32 Applications often included the submission of detailed and sometimes technically complex supporting material or statements addressing these and other matters which the planning authority officers had to consider and report to Committee.

5.33 Other considerations, often highly case-specific and unique to the application, included:

- planning history of the site and how previous applications had been determined;
- the implications of setting a ‘precedent’ which may influence other decisions;
- the influence of elected members often raising issues brought to their attention by local communities;
- local community opinion;
- the objections or support of other interested parties;
Final Report Planning Policy and Biodiversity Offsets Research Phase II 1st March 2012

5.34 In many of the cases examined, even if biodiversity was material to the determination, or in the opinion of the researchers should have been material, or given greater weight, they were not accorded such materiality or weight in the balance of issues when compared with issues such as economic regeneration, affordable housing, design, layout and traffic considerations. Biodiversity issues were identified as ‘central’ or determining issues in only a small number of cases - usually where a statutory or other designated interest may be potentially and seriously affected.

5.35 There is no statutory basis, or even good practice guidance, as to the ranking of material considerations, by officers in committee reports, but nevertheless, there is a tendency for reports to deal with the issues usually by starting with the development plan policies and then taking each material consideration broadly in terms of the weight that the author of the report considers it should be given. This helps readers, especially committee members, to accord appropriate weight, in their judgment, to the issues in making the decision, in accordance with the officer’s recommendation or otherwise. Where biodiversity issues were identified as material considerations, it tended to be reported towards the end of committee reports.

5.36 It is impossible to quantify or systematically express these findings in a statistical analysis, but PPS9 principles may not have been accorded substantial weight, perhaps because of workload, complexity or sheer scale of the cases, or a lack of familiarity or expertise in respect of biodiversity issues, compared to others with which planning officers and committee members are more familiar.

5.37 The researchers gained the impression that housing, employment space, regeneration and transport, for example, were likely to be afforded greater weight, through a higher perceived political priority, in the majority of cases. Less immediately tangible outcomes such as the enhancement of ecological networks or delivery of BAP habitat targets did not compete with key planning issues such as regeneration, employment and housing. The opinions expressed by planning officers in the interviews supported this impression, particularly where a biodiversity issue might be seen as a barrier or additional cost to necessary development.

Validation

5.38 When a planning application is lodged it is checked for validity against a wide range of criteria ranging from completeness of application documentation, inclusion of necessary supporting information and the correct application fee. Because the review of case studies related to determined planning applications it could not review information about the number of applications which were not validated, and therefore registered, for want of ecological information.

5.39 Whilst the requirements of the former Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, which were then in force, set out the circumstances in which an Environmental Statement was required, in most other cases the provision of ecological information was discretionary. Validation check lists generally identified the broad type of application and site context for the provision of protected species surveys, such as works affecting older domestic properties for bats, conversion of traditional agricultural buildings for barn owls, proposals on or near water bodies for great crested newts etc.
5.40 The use of validation checklists by local planning authorities is intended to ensure that appropriate supporting material is submitted with planning applications, dependent on their scale, character, location and context, and to clarify to applicants what will be expected. The system of validation continually evolves with the changing policy context and legislative provisions. Consequently, historic validation check lists for the survey timeframe proved difficult to secure from the sample authorities because of the iterative process of updating.

5.41 Nevertheless, recognition of the need for appropriate ecological information, and protected species surveys in particular, was embedded in planning procedures at the time, in part because of the policy approach set out in PPS9 and its associated Defra Circular 01/2005. All applications would have been subject to at least a basic validation process.

5.42 The frequency of post-consent conditions and informatives requiring ecological surveys to be undertaken (see paragraph 4.35), indicates that established validation procedures were not wholly effective.

5.43 Validation lists examined during stage 2 indicate that ecological reports or protected species surveys were identified as documents which ‘might’ or ‘can’ be necessary in order for an application to be validated. Where specialist ecological officers are not available, or they are not involved within the validation process, such discretion has to be exercised by non-expert judgment.

5.44 Some planning authorities systematically engaged ‘in-house’ ecological advice in the validation process itself, particularly in order to examine whether ecological material that was submitted was of appropriate standard and scope and to decide where internal and external consultation would be needed. Officer discussions revealed the increasing use of Geographic Information Systems allowing a systematic and consistent assessment of risk to biodiversity resources than was previously possible.

5.45 One recurring situation, where validation processes did not secure ecological material at the outset, was where the application’s characteristics or site context did not fall squarely within the categories where survey material would be expected by the validation checklists. Examples were brownfield sites supporting evolving semi-natural vegetation and sites adjacent to, but not in, habitat areas of known sensitivity.

5.46 Validation processes did not require a wider ecological context to be identified beyond the application site (except for where an Environmental Statement was being scoped). Consequently, important contextual information relevant to PPS9 enhancement, may be absent from the outset, and throughout the application process in many cases, if an ecological adviser or consultant was not subsequently involved.

5.47 Examples where applicants were required to formally declare that the need for protected species surveys had been properly addressed were noted, with the planning authority being able to later refuse or invalidate the application if the need for such a survey was subsequently recognised.

5.48 Where ecological survey material was submitted with a planning application (whether on submission or on subsequent request), material was found to be generally satisfactory from professional ecological consultancies. Ordinarily, ecological reports would include measures for mitigation of any adverse impacts anticipated by the survey report. However, no doubt reflecting the applicant’s desire to minimise costs of applications, the scope of the reports and surveys would only reflect that expressly required by the planning authority. In a small number of cases ecological reports
were not found to be satisfactory. In these cases, surveys had been carried out at sub-optimal times, or species surveys had been insufficiently scoped. In one case such shortcomings were identified by an external consultation response but the planning authority nevertheless continued to determine the application in light of the original report.

*Consultation and the influence of expertise*

5.49 Informed consultation is highly influential in relation to compliance with PPS9 in the decision making process, a finding drawn from both statistical analysis and the discussions with officers. Indeed, the involvement of internal ecological advisers and the advice of informed organisations is probably the most critical factor in ensuring consistency with the principles of PPS9 and the proper consideration of biodiversity issues more generally, especially when the engagement continues during the processing of the application.

5.50 The influence of in-house and external expert advice would suggest that without it, planning officers will be more likely to overlook or under-estimate the significance of ecological issues and are more likely to under-implement the more positive aspects of the PPS9 principles. Planning officers and in-house ecologists expressed the view that planning officers cannot be expected to be experts in ecological assessment of site characteristics or the likely impacts of proposals, and even more unlikely to be able to judge positive opportunities. Where consideration of biodiversity importance was marginal or in the balance, the persistence of an ecological officers’ advice was important in sustaining biodiversity principles in the final decision and, for example, delivering more appropriate mitigation measures.
6. OUTCOMES IN RELATION TO PPS9 PRINCIPLES: AVOIDANCE, MITIGATION, COMPENSATION, ENHANCEMENT

6.1 The approach to planning for biodiversity in the PPS9 principles, described in section 2 of this report, is first to ensure sufficient information is available and then to follow the sequence of avoidance measures, reduction (or mitigation) measures; then to consider compensation for residual effects that cannot be avoided or further mitigated and then to seek enhancement or net benefit. The adequacy of information has already been covered elsewhere in this report, so this section will focus on the hierarchy of avoidance, mitigation, compensation and enhancement in respect of the stage 2 applications, and in the light of the general findings of stage 1.

6.2 All stage 2 cases were assessed by a process of professional judgment in relation to how they 'performed' in relation to the PPS9 principles described above. The judgments are summarised in Figure 12 below. It should be borne in mind that within the scope of this study, it was not possible to assess and validate the success of the measures incorporated into proposals. So the outcomes given in the Figure represent the good faith intentions of developers and planning authorities and/or the assessors’ judgments as to the likelihood that mitigation or compensation or enhancement would be achieved, or harm would be likely to occur.

**Figure 12**
Summary of PPS9 outcomes judged on evidence available

<table>
<thead>
<tr>
<th>Cases that could be assessed on evidence available (n = 44)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likely to be harmful outcomes (n=7 16%)</td>
</tr>
<tr>
<td>Conservation / mitigation (n=34 77%)</td>
</tr>
<tr>
<td>Compensation (n= 5 11%)</td>
</tr>
<tr>
<td>Enhancement (n=13 29%)</td>
</tr>
</tbody>
</table>

6.3 For two cases the outcomes were too uncertain for them to be fairly recorded. It should be noted that mitigation can occur with compensation and/or enhancement, so the totals exceed the number of the 44 cases. 34 cases resulted in no loss of biodiversity interest, either because it was lacking in the first place or because it was avoided or adequately mitigated. Five cases were likely to provide compensation. All of these 5 cases also included avoidance and mitigation measures. Thus, consistently with PPS9, compensation was not delivered on its own.
6.4 13 cases would reasonably be expected to generate enhancement of the biodiversity resource, usually from a low level of original interest. Three of these cases would generate only enhancement, because there was no potential loss or harm to avoid, mitigate or compensate. Of the other ten cases, nine included mitigation, and one included compensation and mitigation, as well as enhancement. Seven cases would be likely to result in harm. The scale of enhancement or harm cannot easily be measured in this study, but for those cases which proceed to be considered in Phase III, such measurements will be made as accurately as possible.

Avoidance of harm

6.5 The stage 2 results suggest that 7 of the 46 cases could have resulted in potential harm to biodiversity interests by way of the local planning authority:

(a) overlooking biodiversity considerations in determining the application;
(b) failing to identify or appreciate a risk of harm from the proposals;
(c) allowing direct loss of semi-natural habitats or areas with habitat potential where no mitigation or compensation was delivered;
(d) failing to appreciate the importance of the ecological connectivity function of the site; or
(e) disregarding an informed consultation response.

6.6 It is not possible, with the information available in respect of the relevant applications, to assess on, any scientific basis, the degree of harm that may be caused by these eight cases.

6.7 Avoidance of harm can be achieved through:

a) the incorporation by the applicant of measures that are designed to avoid harm, such as adjusting the scale, location or timing of development;

b) the imposition of conditions that would require avoidance measures; or

c) the refusal of the planning application.

6.8 The stage 1 results showed that 21 of the 570 cases were refused for biodiversity related reasons; stage 2 found that 7 of the 46 planning applications from the sample had specific biodiversity related reasons for refusal. These addressed:

a) inadequate species / habitat survey information;

b) potential harm to a locally designated site;

c) absence of contribution to off-site borough-wide ecological enhancement initiatives (a requirement of local policy);

d) harm to protected species or their habitat where no mitigation feasible; and

e) harm to ecological networks through loss of a non-designated site.
6.9 The combination of strong protection policies, ecological designations and awareness of policy priorities for biodiversity appear to combine to form a significant ‘deterrent effect’. This is where development proposals may be redirected, discouraged, or reduced which would otherwise lead to effects that may require compensation. This is not quantifiable but can be implied from material such as the correspondence and reports and discussions with officers.

Mitigation

6.10 In the course of the research the approach used by planning officers and others revealed a poor understanding of the distinction between mitigation and compensation, with the terms often being used either in the opposite sense or as if they were interchangeable.

6.11 Mitigation in its correct form was the most frequently encountered PPS9 principle applied in practice, either via proposals made by the applicants or, more often, by the imposition of conditions by planning authorities on planning permissions requiring mitigation measures or guaranteeing that applicants’ proposals are properly implemented in a timely manner.

6.12 The interview discussions confirmed an observed preference for planning officers to impose conditions as mitigation, rather than refuse permission, and to refuse permission rather than adopt more complex approaches which may involve compensation, whether on or off site.

6.13 In particular the use of on-site biodiversity mitigation measures via the imposition of conditions was seen by planning authorities to be:

- a ‘routine’ procedure;
- accepted and understood by developers as common practice;
- a viable and affordable solution for developers;
- compliant with the requirements of the six tests for the use of conditions in planning permissions set out in Circular 11/95;
- an enabling mechanism so that permission could be granted to development that was supported by the planning authority; and
- seen to add interest, or green credentials, to a development (for example provision of a bat roost or other integrated ecological feature).

6.14 Mitigation measures may be seen as potentially onerous from the developer’s point of view only where they required seasonal cessation or delay to construction activity, usually because of impacts upon nesting birds or other seasonally sensitive species. In these cases other nature conservation law would have imposed a degree of restriction in any event.

6.15 Interviews revealed the application of a ‘balanced risk’ where there was a theoretical risk of species being affected by proposals, but the proposals were small scale and perhaps barely above the ‘permitted development’ threshold, below which no planning application would be required. In these cases planning officers felt that it was unreasonable to require potentially costly surveys which may show negative results.
One officer acknowledged that the use of ‘informatives’, rather than conditions was seen as a proportionate, if not strictly appropriate response.

Compensation

6.16 Securing compensation measures was the least commonly employed PPS9 principle in the study. One principal officer, from a large urban authority, noted that significant compensation issues in relation to biodiversity had not been raised, or pursued by the authority for around 10 years. Stage 2 identified 5 cases where it was apparent that compensation had been secured in relation to habitat loss / creation. However, as discussed above, planning authorities’ distinctions between habitat-related compensation and mitigation were not always clear either from the written material or the discussions with officers.

6.17 In 2007 the option of pre-application advice was being used increasingly in response to general Government guidance. This would highlight ways of avoiding application proposals, at an early stage, that may have required compensation measures.

6.18 Compensation is the last ‘option’ short of refusal, in the sequence of decision making to allow potentially harmful development to proceed and consequently mitigation will generally be the preferred, less risky option where achievable.

6.19 Where compensation was addressed in policies it was in the context of it being a last resort, and was usually linked to an expectation for net gain.

6.20 Officers from a range of authority profiles indicated that where biodiversity value was of such significance that substantial compensation would be necessary, (and mitigation alone would be inadequate), the proposals would in most cases be recommended for refusal and redirected to less harmful locations; a measure which would fit well with the approach set out in PPS9.

6.21 Discussions with planning officers confirmed that circumstances in which compensation issues occasionally arose, and were successfully secured, were in relation to larger scale developments, such as utility works, transport infrastructure or strategic housing sites. In these cases developers employed ecological consultants and tended to present the compensation (and mitigation) proposals as part of the application package itself either as on-site measures or as part of a S106 unilateral undertaking. The sample of cases in this study captured only one S106 case, supporting the officers’ perception of the unusual nature of such cases.

6.22 Where large scale development proposals do propose compensation they will usually have involved pre-application discussions, not only with the local planning authority but also with consultation bodies including Natural England, the Wildlife Trusts or other local organisations. It was also noted that before compensation was considered to be necessary, it usually had to be recognised that harm would be likely to be caused to ecological interests of substantive value or scale, such as designated sites, important habitat for protected species populations, species assemblages, or BAP priority habitats. Officer experience suggested that in such cases the developer would normally be proposing schemes entailing significant capital costs, and the cost of delivering compensation habitat would be relatively low, whereas such habitat works would not be viable for smaller scale developments.

6.23 Planning officers indicated that statutory undertakers delivering infrastructure works would be more willing to adopt environmental safeguards and also be more likely to have land in ownership where compensation habitats could be delivered.
6.24 The cooperation of landowners of the sites identified as suitable compensation habitat was an important factor in delivery and viability. Land in public ownership which could be secured at affordable rates increased the likelihood of compensation delivery.

6.25 Where compensation measures are presented by the developer, officers confirmed that there were well established and frequently used mechanisms for the planning authority to secure them, through conditions or S106 obligations. But where the compensation measures were not offered or agreed to by the applicant, or were actually resisted, planning authorities could face significant issues in respect of enforcing their provision, hence the increased likelihood of refusal. In such cases officers stressed the importance of expert ecological advice to justify either a refusal or a demand for compensation measures.

6.26 As a matter of planning law, when granting planning permission, local planning authorities cannot impose conditions that would require the developer, directly, to carry out works of any kind (including any compensation measures) on land that is not under the applicant’s control (by way of ownership, lease or legal agreement). To do so would result in the planning condition failing to meet all of the six legal and policy tests set out in Circular 11/1995.

6.27 Thus, if the effects of a development require compensation measures to be delivered off-site, on land not in the applicant’s control at the time of the application approaching decision, the applicant must either secure control over appropriate land and secure (where necessary) a planning permission for the works on that land, or agree a management plan, before the planning authority can grant planning permission. Even if the developer does succeed in securing the delivery of the compensation measures off-site, it will still be necessary for them to be guaranteed. Whilst it may be appropriate, in principle, for a planning authority to use a ‘Grampian’ or ‘negative’ condition to require the offsite works, unless there are no prospects at all of them being delivered in the life of the permission\textsuperscript{15}, they will usually be guaranteed by way of a S106 planning obligation. Such an obligation may itself delay the issue of planning permission and can (but may not always) be expensive. That is why, in some cases, a planning authority is more likely to opt for refusal than delay the decision with all that that entails.

6.28 These constraints, which arise from case law, are an impediment to the achievement of PPS9 principles, by way of compensation measures but also, as discussed in the next part of this section below, to the achievement of net gain, where the benefits could only be delivered on land that lies outside the control of an applicant.

Enhancement or net benefit

6.29 Thirteen (29\%) of the 46 stage 2 cases were considered likely to deliver a degree of net benefit in relation to the original biodiversity resources on the site. However there is uncertainty as to:

- the baseline ecological resource and value of a site or building;
- the effectiveness of any particular measures secured through the planning process, for example, whether roosts were ever occupied or not, or whether habitats were actually created successfully, or not;

\textsuperscript{15} Letter from Head of Development Control Policy, ODPM, to all Chief Planning Officers dated 25\textsuperscript{th} November 2002, relating to the Merritt judgment and the use of Grampian conditions
• the implementation of the developments, including the possibility of later revisions.

6.30 Nevertheless, examples of potential net benefit were where:

• measures which almost certainly exceeded what was required to avoid harm, either because of the low risk of harm occurring or because of the scale or nature of the mitigation measures exceeding what was necessary to avoid harm (or both);

• parts of the application site were enhanced specifically for biodiversity benefits or to improve habitat connectivity;

• the future development on the site would clearly represent an improvement in habitat over its original condition;

• degraded habitat features were restored as a consequence of development;

• landscaping schemes intentionally delivered an improved environment for native species; and

• sites or parts of sites were subject to on-going management agreements for the purposes of biodiversity, where previously there were none.

6.31 Sometimes net benefit was the overt intention of the developer and / or the planning authority, but in some cases it was the incidental result of the conditions or obligations negotiated. For example, in at least one case, uncertainty over the presence of bat species resulted in artificial bat roosts being provided. In reality, there was no evidence that bats were using the site, but the general on-site habitat, as enhanced by the roosts, could reasonably be expected to attract bats in the future.

6.32 Where net benefit was an explicit objective there were two main influences. Firstly, a pro-active approach or willingness by the applicant to integrate biodiversity benefits into the proposals from the outset (or following pre-application discussions). Secondly, the relative scale and capital expenditure associated with the development. Here, there were close parallels with the circumstances influencing the delivery of compensation measures; but in the case of net benefit it is not a pre-requisite for a degree of harm to be necessary before enhancement can be delivered, or that the development itself necessarily needed to be of a large scale.

6.33 The best cases exhibiting significant biodiversity net benefit were found where major development proposals were being considered on sites with limited or degraded biodiversity value. Examples included a major housing site in an urban area which was partly bounded by two chalk streams. The site and streams had experienced historic degradation of habitat value. The proposed master-plan for the development of the site included enhancement of the river corridors and integration of a green wildlife corridor linking the two within the site. Whilst other functional benefits would accrue from these measures, they would afford significant long-term benefits for biodiversity with associated consequences in terms of the development’s layout and additional (but unspecified) costs.

6.34 Similarly, a proposal for major employment space on agricultural land with low biodiversity value presented a suite of measures designed to enhance biodiversity across the site, working within the context of links with adjacent woodland. This was
proposed by the developer, with the planning authority then conditioning a 10 year management plan (including ecological objectives) to be prepared and implemented. Both this and the previous example constituted EIA development.

6.35 Discussion with planning officers highlighted the importance of the expertise and level of professional support associated with larger developers and schemes. The value of good master-planning and an awareness of the importance of adding ‘layers of value’ to schemes are more acutely appreciated by larger house-building firms and other developers operating at regional or national levels. Biodiversity net benefit proposals were also perceived by officers as being helpful in winning local support for proposals, and/or to add to the marketability of the development. One opinion suggested such measures had been proposed to help secure a more speedy and positive decision.

6.36 Officers noted that it was important for the local planning authority not to be seen to have allowed developers to ‘buy’ planning permission by delivery of enhancement measures, regardless of other implications and the quality of the development.

6.37 Perhaps the most important impediment to achieving positive benefits through the planning system at the time when the cases were decided, was predicted to be a potential problem at the outset. The research of documentary material and particularly the discussions with planning officers confirmed it was a significant impediment to the achievement of the positive PPS9 principles. PPS9 expects local planning authorities to aim to enhance, restore or add to biodiversity interests in planning decisions. However, other aspects of Government policy, relating to the imposition of conditions and the appropriate consideration of planning obligations and, indeed, case law, acted counter to this objective.

6.38 Planning authorities could only impose conditions where the condition is necessary to enable the grant of planning permission, not, for example, to achieve net benefit which is not required to avoid or reduce the negative effects of development on biodiversity. Similarly, planning authorities had to limit their consideration of measures included in a planning obligation to those:

   a) which are directly related to the proposed development (addressing the benefits of or effects caused by the development);

   b) necessary to enable the permission to be granted from a planning point of view (the same test as a condition); and

   c) fairly and reasonably related in scale and kind to the proposed development and reasonable in all other respects.\(^\text{16}\)

Thus, whatever else may have been offered in an obligation, in terms of mitigation, compensation or enhancement, the planning authority could not take into account (and therefore could not insist upon) anything that did not meet these tests.

6.39 It follows that to achieve significant (in the context of the planning application) net benefit for biodiversity,

   a) it had to be offered, proposed or conceded by the applicant;

   b) it had to be excluded from any condition requiring it to be implemented; and

\(^{16}\) ODPM Circular 05/2005, Planning Obligations
c) it had to be excluded from a S106 obligation, or if included in one, it should not have been taken into account when making the planning judgment and balancing the planning issues in the decision.

It further follows that even if willingly offered, the planning authority could not guarantee that net benefit would be delivered by the use of conditions or obligations.

6.40 Planning officers could seek to negotiate or encourage applicants to enhance, restore or add to biodiversity interests. In doing so they could refer to PPS9 and they could refer, where relevant, to local policies. They could refuse planning permission if benefits required by policy were not provided, because the application would not have been in accord with the development plan policies (and the material consideration of PPS9). This was the outcome of at least two cases in the stage 2 analysis. But if not willingly offered, they could not be insisted upon and required by condition or obligation.

6.41 This situation was not universally understood by planning officers and other stakeholders, so there was a divergence of approach to net benefit. It ranged from (the legitimate) refusal of permission where applicants failed to contribute to policy-led strategic measures, to the (more questionable) imposition of conditions requiring net benefit measures to be delivered in addition to measures required to counter-act the adverse effects of development.

6.42 However, since the decisions on the cases in phase 2 (2007) the Community Infrastructure Levy Regulations 2010 have slightly changed the wording of the tests for S106 planning obligations, with important effect. The tests are now as follows

“A planning obligation may only constitute a reason for granting planning permission for the development if the obligation is—

(a) necessary to make the development acceptable in planning terms;

(b) directly related to the development; and

(c) fairly and reasonably related in scale and kind to the development.”

6.43 Thus, so long as compensation and / or net benefit are measures ‘necessary to make the development acceptable in planning terms’ (as opposed to being necessary to enable the permission to be granted) they can be taken into account in the planning decision. Indeed, if there is a satisfactory policy basis, and these measures are directly related to the development and fairly and reasonably related in scale and kind to the development, they can now be more readily negotiated by planning authorities and / or offered in planning obligations, in the knowledge that they can be taken into account.

6.44 Compensation, and in the future offsetting, can be required because they are to offset the effects of biodiversity loss as a result of development. Contributions can be required now for general biodiversity off-setting where adverse, cumulative effects can be off-set or compensated for by strategic measures implemented by the planning authority.

6.45 It could be argued that virtually all major planning applications could present opportunities for beneficial biodiversity actions, for example through landscaping schemes, or through a more rigorous pursuit of securing ‘biodiversity by design’. This has not always occurred.
6.46 One sample authority had prepared SPG promoting biodiversity through specific design and construction measures, but otherwise this issue was afforded little attention in the authorities in the sample.

6.47 Some development sites exhibited a potential to deliver low-key, small-scale, inexpensive, but cumulatively significant benefits, in terms of enhanced habitat connectivity through new links or stepping stones, but these were not recognised by developers or planning authorities.

6.48 Several case studies involved sites located adjacent to linear landscape features which offer opportunities for improved species movement, genetic transfer or migration. Typically these included railway embankments and cuttings (used and disused), but also hedgerow networks and watercourses and their banks. Proposals on sites abutting or close to such features tended not to be designed, modified or delivered in ways which could build upon the potential ecological functions. Conversely, the potential for disruption to existing levels of connectivity caused by proposals or their subsequent use, was rarely identified as a negative effect.
CONCLUSION

Delivery of PPS9 principles

7.1 In conclusion, taking all of the findings of the Phase II research as a whole, the key delivery mechanisms for implementing the principles of PPS9 appear to be:

a) The influence of PPS9 itself as a ‘material consideration’ whenever biodiversity issues are engaged in the planning system;

b) regional and local planning policy frameworks where they embed the principles into up-to-date planning policies requiring avoidance, mitigation, compensation and enhancement, conversely, poor policy frameworks are a barrier to implementation of PPS9;

c) biodiversity-related supplementary guidance in SPGs and SPDs, especially where they have a spatial expression and they are specific about their expectations for compensation and enhancement;

d) in the context of some potential planning applications, the ‘deterrent effect’ of the combination of strong protection policies, biodiversity designations and awareness of policy priorities for biodiversity, so that proposals are redirected, discouraged, or reduced which would otherwise lead to effects that may require compensation;

e) the availability and influence of expert ecological advice at the outset and throughout the application process as may be required;

f) the use of GIS and expert, systematic validation and screening of planning applications;

g) pre-application discussions, especially where there is an input from ecological expertise;

h) early involvement by ecological consultants with a brief that includes (or at least does not exclude) delivering opportunities for compensation and enhancement as well as conservation and mitigation;

i) the early submission of good quality adequately scoped ecological survey material with proposed mitigation and compensation measures where these are required;

j) the observed preference for planning officers to impose conditions as mitigation, rather than refuse permission;

k) where biodiversity value was of such significance that substantial compensation would be necessary, (and mitigation alone would be inadequate), the proposals would in most cases be recommended for refusal and redirected to less harmful locations;

l) net benefit is more likely where there is a pro-active approach or willingness by the applicant to integrate biodiversity benefits into the proposals from the outset (or following pre-application discussions) and where the costs can be more readily absorbed in a larger scale and higher capital expenditure development;
m) land in public ownership which could be secured at affordable rates increased the likelihood of compensation delivery;

n) where compensation measures are presented by a developer, there are well established and frequently used mechanisms for the planning authority to secure them, through conditions or S106 obligations;

o) good master-planning and an awareness of the importance of adding ‘layers of value’ to schemes;

p) biodiversity benefits are perceived as being helpful in winning local support for proposals, and/or to add to the marketability of a development, they could assist in securing a speedier and more positive decision.

Potential barriers to delivery of PPS9 principles

7.2 Again, taking all of the findings of the Phase II research as a whole, the key barriers to the effective implementation of the principles of PPS9 at the time of the decisions in 2007 appeared to be:

a) local planning policy frameworks which do not fully require / expect avoidance, mitigation, compensation and enhancement, consistently with PPS9 advice;

b) the infrequent occurrence of biodiversity as a material consideration in planning decisions, when the whole range and full number of applications that need to be determined in the development management process are taken into account;

c) the absence of the involvement and advice of internal ecological advisers and/or informed organisations, during the processing of planning applications;

d) the lack of ecological awareness amongst most planning officers who find it difficult to recognise and place appropriate weight on biodiversity issues in the balance of planning judgment, especially without expert advice; these impediments can then lead to:

   a. failure to recognise biodiversity issues as material during the consideration of planning applications;
   b. decision makers giving less weight to biodiversity issues in decision making than attached routinely to more frequently encountered planning issues such as economic regeneration, affordable housing, design, layout and traffic considerations;

e) as a matter of law, conditions could not be imposed that would require the developer to implement compensation measures or enhancement on land that is not under the developer’s control;

f) although planning officers could seek to negotiate or encourage applicants to enhance, restore or add to biodiversity interests in accordance with PPS9, if not willingly offered, benefits could not easily be insisted upon or required by condition or obligation;

g) planning authorities could only be confident about refusing planning permission for failure to provide biodiversity enhancement if the benefits are clearly required by a specific and adopted local policy;
h) expert ecological advice is usually required in order to justify either a refusal or a requirement for compensation measures to be provided and it is often not available;

i) the widespread use of conditions on planning permissions requiring species surveys to be undertaken after the grant of planning permission;

j) compensation is usually considered necessary only where there would be harm to ecological interests of substantive value or scale, such as designated sites, important habitat for protected species populations, species assemblages, or BAP priority habitats;

k) where compensation is justified on the principle described in (j) above, it would usually be in cases entailing significant capital costs, and the cost of delivering compensation habitat would be relatively low, whereas such habitat works would not be viable for smaller scale developments;

l) the need for the willing cooperation of landowners of the sites identified as suitable compensation habitat at reasonable cost;

m) securing the delivery of compensation measures off-site needs to be guaranteed, possibly by use of a "Grampian condition", but usually by way of a S106 planning obligation, which may delay the decision and, in some cases, a planning authority may opt for refusal rather than delay the decision;

n) the small proportion of ecological surveys and reports that are of an unsatisfactory standard.
APPENDIX 1
METHODOLOGY

Introduction

1. After adjusting the planned methodology as a result of substantial pilot work, the project involved two principal stages:

   a) a primarily quantitative analysis of a random sample of 570 ‘major’ planning applications in a stratified sample of 38 local authorities across England, during an agreed timeframe in 2007; and

   b) a mainly qualitative analysis of a sample of 46 ‘major’ planning applications drawn from those analysed in the first stage, looking in more detail and more critically as to how PPS9 principles were applied in those cases, followed by non-attributable discussions with planning officers and others about those cases and the issues they raised.

The methodology was illustrated in Figure 1 in section 3.

Initial steps

2. The first step in the project was to determine a method for identifying and analysing a robust sample of planning applications. This would include how that sample would be drawn from the range of local planning authorities in England, the types of planning applications to be analysed and an agreed timeframe during which the applications were considered.

3. The method evolved during and after the tendering period, during discussions with the Steering Group and during a pilot to test the method on a sample of the authorities before rolling it out to all the authorities selected for inclusion.

4. The pilot resulted in important changes which are described later in this section, the initial methodology is described first.

Sample selection of local planning authorities

5. The brief required the survey to sample English local planning authorities, with a distribution profile across the regions proportional to the number of local planning authorities within each region, and to include a proportional mix of authorities with varying urban and rural characteristics.

6. The sampling regime needed to accommodate the many factors that could influence the degree to which biodiversity matters are considered in planning decisions, across the 335 local planning authorities in England (excluding County Councils), including City, Borough, District, Unitary and National Park authorities. This included: regional differences; types of authority; characteristics of the authority area; political control; and officer expertise.

7. In order to achieve a statistically reliable sample base, to ensure that the factors likely to be influencing the consideration of biodiversity issues were taken into account, a 15% margin of error at a 95% confidence level was considered to be necessary, which required the study to select a sample size of 38 authorities, which is 11.3% of all relevant local planning authorities.
8. There are significant differences between the number and type of local authorities in each of the regions and London. To ensure that the differing types of authority areas were proportionally represented in each region in the stratified sample, local authorities were grouped as shown in Table A.1 below based on groupings of the Defra Classification of Local Authorities in England, (April 2009), which was the latest classification available at the time of the sample selection.

Table A.1
Merging of classifications into the three general Defra classifications used in this study

<table>
<thead>
<tr>
<th>Study Classification</th>
<th>Merged Defra Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Major Urban, Large Urban, Other Urban.</td>
</tr>
<tr>
<td>Significant Rural</td>
<td>Significant Rural</td>
</tr>
<tr>
<td>Rural</td>
<td>Rural 80, Rural 50.</td>
</tr>
</tbody>
</table>

9. The proportional breakdown of types of local authority per region required to fit the sample size of 38 authorities is summarised in Table A.2 below.

Table A.2:
Distribution of local authority sample (38) against Regional Distribution and Urban / Rural Classification

<table>
<thead>
<tr>
<th>Region</th>
<th>No. LPAs/NPAs</th>
<th>% total (all England) LPAs/NPAs</th>
<th>Proportion of sample of 38</th>
<th>Rounded Rural-Urban classification</th>
<th>Rural-Urban classification Sample of 38</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>41</td>
<td>12.2</td>
<td>4.6</td>
<td>5</td>
<td>19 8 14 2 1 2</td>
</tr>
<tr>
<td>East</td>
<td>48</td>
<td>14.3</td>
<td>5.4</td>
<td>5</td>
<td>19 11 18 2 1 2</td>
</tr>
<tr>
<td>London</td>
<td>33</td>
<td>9.9</td>
<td>3.7</td>
<td>4</td>
<td>0 0 33 0 0 4</td>
</tr>
<tr>
<td>NE</td>
<td>13</td>
<td>3.8</td>
<td>1.4</td>
<td>1</td>
<td>3 0 10 0 0 1</td>
</tr>
<tr>
<td>NW</td>
<td>40</td>
<td>11.9</td>
<td>4.5</td>
<td>5</td>
<td>8 2 30 1 1 3</td>
</tr>
<tr>
<td>SE</td>
<td>69</td>
<td>20.5</td>
<td>7.8</td>
<td>8</td>
<td>22 3 12 2 2 4</td>
</tr>
<tr>
<td>SW</td>
<td>38</td>
<td>11.3</td>
<td>4.3</td>
<td>4</td>
<td>24 2 12 3 0 1</td>
</tr>
<tr>
<td>WM</td>
<td>30</td>
<td>8.9</td>
<td>3.4</td>
<td>3</td>
<td>8 8 14 1 1 1</td>
</tr>
<tr>
<td>Y&amp;H</td>
<td>23</td>
<td>6.8</td>
<td>2.6</td>
<td>3</td>
<td>9 5 9 1 1 1</td>
</tr>
<tr>
<td></td>
<td>335</td>
<td>100</td>
<td>38</td>
<td>38</td>
<td>112 49 174 12 7 19</td>
</tr>
</tbody>
</table>

10. Owing to the small size of the sample relative to the number of National Park Authorities it was decided that a single National Park Authority should be selected at random. Excluding National Park Authorities, therefore, the selection of the 38 local planning authorities was made on a random basis drawing each name out of a ‘hat’ in which all relevant local planning authorities in the stratum of the sample were available for selection.
Number of planning applications to be analysed
11. Initially it was decided that in order to attempt to capture an appropriate number of applications in the first data gathering stage, the first 40 applications determined after the agreed ‘start date’ of the time frame should be checked. Thus, 1,520 planning applications would be captured for analysis. However, it was always recognised that the methodology would need to be trialled to ensure that it would produce a baseline of planning applications that would provide the required outputs of the research.

The survey timeframe
12. It was decided that the start date of the timeframe for the survey period should be 1st June 2007. This was selected by agreement because:

a) it was approximately two years after the publication of PPS9, allowing time for development management and planning policy frameworks to have been influenced by the policy in PPS9 (August 2005); and

b) it preceded the impacts of the economic downturn, including the reduction in both the overall number of planning applications submitted and the reduction in major applications which would potentially involve biodiversity issues.

Types of Planning Application
13. Because it would be necessary to analyse applications that had been decided (granted or refused planning permission), all applications that had been withdrawn by the applicant were eliminated from the data capture.

14. It was recognised from the outset that certain types of planning applications would be unlikely to raise biodiversity issues of relevance to this project. Although in some cases such applications could raise biodiversity issues, the proportion would be so small as to be negated by the sample, so it was agreed that the following types of planning application should not be included in data capture, applications relating to:

- Discharge of conditions imposed on planning permissions already granted;
- Listed Building Consent;
- Tree Preservation Orders;
- Consent to display an Advertisement;
- Certificates of Lawful Use and Development
- Changes of use not entailing physical development

15. Applications for development in domestic properties, such as house extensions, loft conversions, and ancillary buildings, often referred to collectively as ‘householder applications’ could potentially and occasionally have an impact on biodiversity. Although these applications make up a majority of applications received by planning authorities they were initially included in the data capture in order to provide a realistic picture of the application of PPS9 principles in day-to-day case work.

16. It was decided not to include appeal decisions because these would have been decided by the Planning Inspectorate or the Secretary of State, rather than the local planning authority. Some applications may have been subject to subsequent appeal procedures; but the appeal decisions were not included in the study.

Data to be captured
17. For the 38 authorities the research examined the principal relevant planning policy framework for its consistency with PPS9, because it would have been against this policy background that the applications would have been determined.
18. The initial data capture for the first 40 planning applications in the timeframe for the 38 local planning authorities would seek to establish:

   a) the number of planning applications registered of a type not excluded from selection;

   b) the number that were refused or granted;

   c) the number where biodiversity issues were identified or arose and considered in decision making;

   d) the number that were refused for biodiversity related reasons;

   e) the number that were subject to conditions related to biodiversity;

   f) the number that were subject to S106 planning obligations (legal agreements that can be made to secure actions relating to a planning permission) and of these the number that had obligations related to biodiversity; and

   g) the number of cases where, in the professional judgement of the researchers, material biodiversity issues may not to have been fully considered.

   These are not mutually exclusive categories.

19. More detailed recording of biodiversity-related outcomes, such as reasons for refusal or conditions relating to ecological matters was also carried out.

The Pilot Study

20. As indicated above, the initial stages of the research included a pilot of the proposed methodology in order to test whether it would be likely to present satisfactory outcomes for policy customers.

21. The pilot study was undertaken in the spring of 2011, and trialed the original stage 1 research approach for 5 of the 38 sample local planning authorities. The pilot sample local planning authorities were chosen so as to represent a general mix of the stratified full sample in terms of ‘urban-rural’ profiles and from across different English regions. Three ‘rural’ and 2 ‘urban’ authorities were randomly chosen from the 38 local planning authorities for the pilot. The pilot exercise then carried out an examination of (initially) up to 40 planning applications which had been determined by the five local planning authorities in the pilot sample, starting at the set date of 1st June 2007.

22. The findings from the pilot study required refinement of the initial research approach because of the infrequency with which biodiversity issues were found to be of significance in the determination of the planning applications examined.

23. Across the five local planning authorities, 200 planning applications and their decisions were initially examined. Only about 1% of these were considered to have even marginal significance for biodiversity, for example where a site’s original characteristics may have suggested the need for a protected species survey, or to display characteristics where PPS9’s principles might reasonably be expected to have been relevant.
24. This low incidence of biodiversity relevance related to the scale and nature of the proposals in the majority of planning applications. Despite having already eliminated a number of potentially small scale or irrelevant types of application, the pilot found that the substantial majority of applications related to small scale proposals unlikely to raise biodiversity issues. Typically, these would include applications for:

- Household and other domestic alterations, such as small extensions, conservatories, ancillary buildings or boundary treatments;
- Alterations to shop fronts;
- Small scale industrial and commercial proposals on established sites;
- Installation of ATMs;
- Erection of ‘smoking shelters’ (the research period coincided with the ban on smoking within public buildings).

25. Even across the ‘rural’ pilot authorities, applications were concentrated in the types of built-up areas where habitat networks would be minimal; where small scale developments would be less likely to have an identifiable effect on habitats or species; and where enhancement opportunities were limited, either because of the small scale or the low capital value of the proposed works.

26. There is the possibility that a small number of these cases may have potentially involved a biodiversity issue not apparent from the data gathered. However, it is considered unlikely that any such cases would affect the overall findings of the pilot or justify a different adaptation of the methodology than that adopted.

27. The pilot was consequently adjusted in order to search the pilot authorities’ application registers until a pre-determined number of ‘biodiversity cases’ were identified, that is cases where biodiversity was significant, or might have been significant in the researchers’ professional opinion.

28. This expansion reinforced the earlier findings as to the infrequency of biodiversity being an issue. It proved necessary to examine 10,235 planning applications across the five pilot local planning authorities, in order to identify only 90 ‘biodiversity cases’. This was less than the 200 cases target proposed in the original pilot. The approach clearly represented an unrealistic working model for the roll-out of the methodology to the full sample of 38 local planning authorities.

29. The pilot process was a valuable exercise and led to important amendments to the overall approach to the research. The degree of professional opinion and judgment necessarily applied by the researchers in the pilot information capture, is a factor to take into account when considering outcomes.

30. The evidence collected in the pilot study showed that, on a day-to-day basis across England, over the research timeframe, biodiversity was, at best, an infrequent material consideration in the determination of planning applications by the pilot authorities.

**Revised Stage 1 Approach**

31. It was agreed that in order to generate a higher likelihood of the sample survey identifying ‘biodiversity cases’, it would be necessary to more effectively filter out planning applications for small-scale development proposals. To achieve this the research methodology was refined so that only planning applications for ‘major development’ would be examined in the full stage 1 analysis.
32. ‘Major development’ was defined in the Town and Country Planning (Development Management Procedure) (England) Order 2010 as:

(a) the winning and working of minerals or the use of land for mineral-working deposits;
(b) waste development;
(c) the provision of dwellinghouses where —
   (i) the number of dwellinghouses to be provided is 10 or more; or
   (ii) the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph (c)(i);
(d) the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or
(e) development carried out on a site having an area of 1 hectare or more.

33. Adopting ‘major development’ as the threshold for the cases to be captured, meant that the research used a standard, widely recognised and consistently defined threshold regardless of which local planning authority area they were located in.

34. It was acknowledged by the project Steering Group that adopting this definition for the threshold for applications to be considered might eliminate some smaller applications where biodiversity issues may have been relevant, as a consequence of location or development characteristics. However, the infrequency of biodiversity cases in the initial pilot work indicated that a different approach, focusing on larger scale development proposals, was necessary to deliver more meaningful outputs from the research. Consideration was given to developing research-specific thresholds of scale below the formal major development threshold. However, this was discounted on the grounds of consistency and comparability elsewhere when major development is a statutorily recognised standard.

35. Because of the way most of the sample local planning authorities registered planning applications, identifying major applications remained a labour-intensive process. Normally it was necessary to examine the application in some detail to determine its status. For example, many application descriptions were non-specific regarding scale, especially those for ‘housing’, which required closer examination as to whether this was for 10 dwellings or more or the site area exceeded 0.5 ha. Similar issues arose in respect of industrial, commercial and agricultural proposals and for changes of use of land, where the size of the building area, or site area, was not specified in the application descriptions.

36. Selecting only major development proposals meant that in most cases a considerable amount of material, constituting the application and the local planning authority’s consideration of it, had to be examined in order to establish the likely implications for biodiversity and PPS9, even at this stage 1 level.

37. The inevitable consequence was to reduce the planning application sample size for each of the 38 local planning authorities in the sample survey in order to contain the data capture within the resources available to the project team. It was agreed that for each sample local planning authority 15 ‘major development’ applications would be examined, selected by the order in which they were determined from the commencement date. Thus, 570 major planning applications were examined in stage 1 to assess the relative frequency of biodiversity as a material factor in their determination.
Stage 1 Quantitative analysis

38. This (primarily) quantitative element of the research is divided into two parts, to establish:

a) The frequency within the sample where biodiversity issues emerged as actual, or reasonably likely, material considerations across the whole spectrum of local planning authority planning application casework, this pertained especially to the ‘pilot study’ outcomes; and

b) The frequency, and in what respect, biodiversity matters and PPS9 principles were being addressed generally in the major applications.

39. Material recorded in the 570 major planning application cases in stage 1 mainly comprised:

- the profile of the local planning authority, whether it was ‘Urban’, ‘Rural’ or ‘Significant Rural’, and its English region;
- a description of the proposal and whether the application was for full or outline planning permission;
- the decision reached and date of decision;
- whether biodiversity was overtly material in the local planning authority’s determination of the application;
- details of any ‘biodiversity’ conditions attached to a planning permission or approval of reserved matters;
- details of any S.106 planning obligations pertaining to biodiversity;
- any reasons for refusal explicitly relating to biodiversity;
- whether, in the researcher’s view, biodiversity or PPS9 issues may have been overlooked or underestimated;
- whether the case was an appropriate candidate for ‘stage 2’ qualitative research examination.

40. Examination of these matters involved the interrogation of factual information such as that relating to application type, local planning authority details, application description and the decision, including conditions and obligations. Other elements, such as whether or how biodiversity and PPS9 issues should have been taken into account in the application’s determination required both professional judgment and an understanding of where such information may be recorded during the development management process. To this end, the examination of the case would normally entail a review of:

- the submitted planning application material, including its Design and Access Statements, general planning statements or Environmental Impact Statements (where submitted);
- the decision notice; and
- the committee report or delegated officer report.
41. An assessment, including the environmental context and site location, was made of the application of PPS9 principles to determine whether they and biodiversity issues generally could have been more fully addressed in the determination of applications. This was carried out using aerial photographic records and Natural England’s on-line mapping resource ‘Nature on the Map’\(^\text{17}\). These resources allowed a judgment to be reached in relation to whether planning application sites’ characteristics or wider environmental contexts might suggest that biodiversity issues could have been of relevance if PPS9 principles had been fully employed.

42. In order to reduce the potential level of any subjectivity and to foster consistency in making judgments about the adequacy of considering biodiversity issues, the research team systematically examined the application site’s characteristics and wider environmental context at the time of the application (in combination with interpreting application material). Specifically, whether the site included areas likely to be of biodiversity interest, such as:

- areas designated for their wildlife interest (locally, nationally or internationally, including BAP priority habitats);
- established woodland, unimproved grassland, scrubland or other semi-natural areas or areas exhibiting low levels of management;
- trees, and particularly mature trees;
- water features;
- linear or linking natural, green or surface water features, such as streams and rivers, railway embankments / cuttings, hedgerow networks;
- green space generally, including extensive areas of gardens;
- derelict buildings or semi-natural brownfield sites;
- any other features of potential ecological interest.

43. It was necessary to have regard to the potential impacts, such as the degree of change or loss that the proposals would cause, in order to determine whether PPS9 issues were adequately addressed. From an understanding of the site and its environmental context, drawn from the application details and the wider environmental information available on the web, including satellite imagery, maps of designated areas and BAP habitats, the characteristics of the proposed development and the decision reached, it was possible to take a view as to whether or not PPS9 principles had been appropriately considered.

Stage 2 Qualitative analysis and interviews

44. Stage 2 consisted of a more qualitative examination of the way biodiversity considerations and PPS9 principles had been considered in the determination of the sample cases. The target was to examine up to 50 cases in Stage 2, which would be chosen for their potential to inform the required outcomes, where full information was available or obtainable, and where the planning authority was prepared to devote time to an interview.

45. This required cases to be selected which would capture a cross-section of the issues identified in Stage 1 findings, in respect of the range of practice as measured against consistency with the principles of PPS9. This resulted in short-listing 43 cases from 23 planning authorities in the stage 1 data base of 570 cases in 38 authorities.

46. It was intended to include a comparable analysis of cases in a National Park Authority, but the paucity of major cases occurring in any National Park Authority meant that meaningful information about the determination of applications in National Park

\(^{17}\) www.natureonthemap.naturalengland.org.uk
Authorities could only be established if the number of National Park Authorities was increased. Consequently, three National Park Authorities were selected at random and the first major planning application in each authority, in the timeframe, was selected for Stage 2 analysis.

47. The stage therefore included the identification and detailed analysis of 46 major planning applications across 26 local planning authorities. The authorities selected were representative of the full spectrum of urban, rural and significant rural councils, across the nine English regions. Table A.3 shows the profile, regional location and number of cases in the sample.

<table>
<thead>
<tr>
<th>Region</th>
<th>Stage 2 cases</th>
<th>Rural</th>
<th>Urban</th>
<th>Significant Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>East of England</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>East Midlands</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>London</td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>North East</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>North West</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>South East</td>
<td>4</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>South West</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>West Midlands</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>46</td>
<td>20</td>
<td>19</td>
<td>7</td>
</tr>
</tbody>
</table>

48. The study examined all pertinent material associated with the applications and their determination. The main documentary evidence consisted of:

- Application documents (including forms, plans, planning statements, design and access statements, ecological reports etc.);
- Consultation responses;
- Committee reports;
- Delegated item reports; and
- Decision notices.

49. These were examined in relation to a broad scope of issues, including:

a) The spatial planning policy framework;

b) Guidance material (e.g. SPG / SPD, leaflets etc.) available to would-be applicants relating to biodiversity issues and the influence they appeared to have on the application and process;

c) The effectiveness, timing and content of pre-application discussions;

d) The information that was submitted with the application;

e) How the applications were screened for biodiversity issues by the authority;

f) The scope, content and quality of the evidence base in environmental statements, habitat and / or species or other ecological surveys;
g) The scope, timing and effectiveness of consultations with nature conservation organisations (both statutory and non-statutory) and the influence of the representations on the decision;

h) Whether non-nature conservation organisations or members of the public raised biodiversity issues, the scope, nature, timing, probable accuracy and content of the representations and their influence on the decision;

i) Whether in-house ecological expertise or a regular ‘unit’ providing ecological advice was used, and the influence that advice had on the process and decision;

j) Any history of negotiations for amendments to the proposals and / or any mitigation, compensation or enhancement of biodiversity interests;

k) The planning officer’s recommendation and report and its consistency with, for example, the representations of informed stakeholders and advisors and the principles of PPS9;

l) The development plan context referred to in the decision / report and whether this appears to be comprehensive of all relevant policy issues;

m) Consistency of the decision (either by higher officer or committee) with the officer’s recommendation and its consistency with the representations of informed stakeholders and advisors;

n) A judgment as to whether the application represented conservation, or enhancement, or harm to biodiversity;

o) A judgment as to whether the outcomes were good / neutral / or poor in terms of achievement of and consistency with PPS9 principles;

p) The scope, objectives, efficacy and likely enforceability of conditions and their consistency with the tests in Government guidance.

50. The researchers judgments in terms of ‘good / neutral / or poor’ outcomes in respect of PPS9 principles was based on experience and professional opinion, as to whether the outcome for biodiversity had been good, neutral or poor in relation to what a full and proper implementation of PPS9 might have delivered. Opinions were based on careful examination of site context and characteristics, application proposals, ecological considerations by the applicant and planning authority, including their advisers and the outcomes as far as they could be ascertained.

51. Application and other relevant documentation was accessed primarily from on-line sources, but where electronic records were incomplete or absent, hard copy documents were acquired. Where necessary and accessible, officer opinion was obtained to clarify findings, although case officers had often changed or moved since the case was determined. Thirteen of the nineteen senior development management officers, ecological advisers and officers responsible for the registration and validation of new applications contacted agreed to be interviewed by telephone in stage 2. Prior to the discussions commencing, it was explained and agreed that they would be conducted on the grounds of non-attribution of comments, in order to ensure the anonymity of both local planning authorities and officers and the cases they were dealing with.
52. The anonymity of these discussions with the planning officers and other stakeholders, across the country, provided verification of information implied by written material and allowed for opinions to provide added insight into the cases which could not be gleaned from the examination of the written material alone. This element of the research proved to be particularly valuable and generally supported the statistical and qualitative findings generated from the detailed examination of documents.