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Biodiversity — Code of practice for planning and development

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Flora Locale
Landscape Institute
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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2013. It was prepared by Technical Committee BDY/1, *Biodiversity management*. A list of organizations represented on this committee can be obtained on request to its secretary.

The initial drafting of this British Standard was carried out with support from BIS as part of their ongoing programme of support for standardization.

Information about this document

This British Standard gives recommendations and guidance for those in the planning and development and land use sectors whose work might affect or have implications for the conservation or enhancement of biodiversity. As such it is applicable to professionals working in the fields of ecology, land use planning, land management, architecture, civil engineering, landscape architecture, forestry, arboriculture, surveying, building and construction.

It is not envisaged that all the recommendations of this standard will be applicable to every planning application in each jurisdiction, so a judgement has to be made as to which (sub)clauses of the standard apply in each case.

All websites referred to in this British Standard were last viewed on 29 August 2013.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Competence

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced (see Clause 4).

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

In particular, attention is drawn to the following legislation and statutory regulations. The following list is not exhaustive.

- The Wildlife and Countryside Act 1981, as amended [1]

- The Wildlife (Northern Ireland) Order 1985, as amended [2]
- The Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 [3]
- The European Habitats Directive 1992 [4]
- The Hedgerow Regulations 1997 [5]
- The Natural Environment and Rural Communities Act 2006 [6]
- The Conservation of Habitats and Species Regulations 2010, as amended [7]
- The Conservation (Natural Habitats, &c) Regulations 1994 [8]
- The Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995, as amended [9]
- The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 [10]
- The Town and Country Planning (Environmental Impact Assessment) (England and Wales) 1999 [11]
- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 [12]
- The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2012 [13]
- The Environment (Northern Ireland) Order 2002, as amended [14]
- The Wildlife and Natural Environment Act (Northern Ireland) 2011 [15]
- The Town and Country Planning (Applications) Regulations 1988 [16]
- The Town and Country Planning (General Development Procedure) Order 1995 [17]
- The Local Government Act 2000 [18]
- The Planning Act 2008 [19]
- The Planning Act (Northern Ireland) 2011 [20]
- The Planning (Northern Ireland) Order 2011, as amended [21]
- The Planning etc. (Scotland) Act 2006 [22]
- The Building Act 1984 [23]
- The Protection of Badgers Act 1992 [24]
- The Nature Conservation (Scotland) Act 2004 [25]
- The Wildlife and Natural Environment (Scotland) Act 2011 [26]
- The Forestry Act 1967 [27]
- The Environment Act 1995 [28]
- The Salmon and Freshwater Fisheries Act 1975 [29]
- The Eels (England and Wales) Regulations 2009 [30]
- The Fish Passage Regulations (in preparation) [31]

0 Introduction

0.1 General

High-quality ecological information is important for:

- a) effective decision-making;
- b) compliance with statutory obligations and policy requirements;
- c) successful implementation of practical conservation and enhancement measures during development; and
- d) achievement of desired outcomes.

This British Standard therefore seeks to:

- 1) promote transparency and consistency in the quality and appropriateness of ecological information submitted with planning applications and applications for other regulatory approvals;
- 2) give planning authorities and other regulatory bodies greater confidence in the information when they consider proposals for development or land management that potentially affect biodiversity; and
- 3) encourage proportionality and a good environmental legacy following development.

The standard is intended to assist those concerned with ecological issues as they arise through the planning process and in matters relating to consented development and activities involved in the management and use of land outside the scope of land use planning, which could have site-specific ecological implications.

While the standard is intended primarily for professionals, it recognizes that biodiversity conservation is also enjoyed and pursued by many thousands of dedicated volunteers and amateur enthusiasts. These individuals ought also to follow the recommendations of this standard.

NOTE A professional is capable of making judgements, applying their skills and reaching informed decisions in situations in which a layperson cannot, because the latter have not received relevant training or necessarily gained appropriate experience.

0.2 Implementation

This British Standard gives recommendations for a rigorous professional, scientific and consistent approach to gathering, analysing, presenting and reviewing ecological information at key stages of the planning application process.

The standard also identifies the ecological data, assessment and design of conservation measures to be fed into planning decisions to produce:

- a) appropriate, complete and consistent ecological information, within the framework of appropriate legal, policy and best-practice guidance, upon which local planning decisions can be reliably based;
- b) certainty and clarity for developers, local planning authorities and other regulatory bodies over the required biodiversity measures to be delivered as part of a specific planning consent or other approval;
- c) sufficient information with which to identify and track cumulative biodiversity outcomes (e.g. net losses and gains arising from all planning decisions);

- d) greater confidence for third parties that decisions and proposed actions involving biodiversity conservation are transparent, fair, adequate and legally sound;
- e) reduced grounds for planning appeal or legal challenge; and
- f) maximum scope for local decision-making within the changing legislative and policy framework.

Section 1 addresses the issues surrounding professional practice that are essential for the successful integration of biodiversity into the planning and development process.

Section 2 gives recommendations for integrating biodiversity into the various stages of the planning and development process.

Annex A discusses how the significance of environmental impacts/effects may be assessed.

Annex B gives an overview of the law relating to biodiversity.

Annex C provides a summary of the key requirements for different professional bodies regarding the protection of the natural environment.

Annex D gives a set of standard or model conditions for biodiversity purposes, with an explanation of how they may be used in a wide range of situations.

Annex E provides a summary of various consents that an applicant might be required to obtain in addition to their planning permission.

Annex F explains how ecologists and their contractors might, in the course of their work, have legal responsibilities under the Construction (Design and Management) Regulations 2007 [32].

Annex G lists the various activities that could impact on biodiversity and which ought to be considered as part of the risk assessment.

Annex H indicates what information from an ecological survey may be submitted to the decision-maker, and what may be included in the survey report.

1 Scope

This British Standard gives recommendations and provides guidance primarily for ensuring that actions and decisions taken at each stage of the planning process are informed by sufficient and appropriate ecological information.

In particular, this British Standard provides recommendations and guidance to all professionals working in the planning and development sectors who might encounter biodiversity as an issue during the planning, design and development process on how to:

- a) meet obligations under codes of ethics or conduct when taking decisions or undertaking actions that could affect the natural environment; and
- b) adopt a professional, scientific and consistent approach to gathering, analysing, presenting and reviewing ecological information at key stages of the planning application process, or in evaluating the ecological implications of associated activities as part of consultation or other regulatory procedures.

The processes recommended in this British Standard are applicable to the terrestrial, aquatic and marine environments.

Although the recommendations of this British Standard are intended primarily for those in the development control and management process, its principles can also be applied to forward planning, and in relation to other consenting processes, e.g. applications for EPS licence applications or environmental permits (see 9.5). The principles of the standard may also be applied to the preparation and determination of planning applications where geodiversity is a material consideration.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the reference document (including any amendments) applies.

- [N1] RIBA Plan of Work 2013 (available at: <http://www.ribaplanofwork.com/>).
- [N2] CIEEM, *Guidelines for Ecological Impact Assessment in the UK: Terrestrial, Freshwater and Coastal Environments*.¹⁾
- [N3] CIEEM, *Guidelines for Ecological Impact Assessment in Britain and Ireland: Marine and Coastal*.¹⁾
- [N4] CIEEM Professional Guidance Series No. 9 *Ecological Report Writing*.¹⁾
- [N5] CIEEM Technical Guidance Series Guidance for Preliminary Ecological Appraisals.¹⁾
- [N6] CIEEM Professional Guidance Series No. 10 *Metadata standards*.¹⁾
- [N7] CIRIA (2011) C 691 *Working with Wildlife: Guidance for the Construction Industry*. London: Construction Industry Research and Information Association. 2011.

¹⁾ Available from the Chartered Institute of Ecology and Environmental Management via: <http://www.cieem.net>

3 Terms and definitions

For the purposes of this British Standard, the following terms and definitions apply.

3.1 priority habitats and species

priority species and habitats identified as being the most threatened and in need of conservation action

NOTE In England, Wales and Scotland “habitats and species of principal importance for the conservation of biodiversity” are listed respectively in sections 41 and 42 of the Natural Environment and Rural Communities Act 2006 [6]; in section 2(4) of the Nature Conservation (Scotland) Act 2004 [25]; and in Northern Ireland, Priority Species List 2010: http://www.doeni.gov.uk/niea/northern_ireland_priority_species_list.pdf. The country-based lists are all shown on the Joint Nature Conservation Committee (JNCC) website (<http://jncc.defra.gov.uk/>). See UK Priority Lists and click on the relevant country at: <http://jncc.defra.gov.uk/page-5717>

3.2 biodiversity

variability among living organisms, including terrestrial, marine and other aquatic ecosystems and ecological complexes of which they are a part

NOTE This includes diversity within species, between species and of ecosystems.

3.3 code of professional ethics or conduct

set of guidelines which sets out acceptable conduct and behaviour for members of a profession and regulates the ethical norms, values and principles that guide professionals and inform their decisions and professional judgement

NOTE In addition to setting a professional standard, a code of ethics can also increase confidence in an organization by showing outsiders that members of the organization are committed to following basic ethical guidelines in the course of their work.

3.4 competent person

person who has the qualifications, training, skills and experience relevant to the task being undertaken

3.5 consent

approval required to allow works or development to take place where they would otherwise not be permitted in law

NOTE See Annex E.

3.6 culpable ignorance

failure to exercise ordinary care to acquire knowledge of the law or facts of a case or project which could result in unsound professional judgement or action

NOTE Culpable ignorance, in a professional sense, is where ignorance of the facts surrounding a situation does not diminish the person's responsibility for unwarranted or unfortunate outcomes of an action. Even though the person acted in good faith at the time, they were failing in a duty by being ignorant of the nature of their actions or the circumstances in which they acted. In short, they ought to have known better. Consequently, they are still subject to censure for the consequences of their action, even though these were not intended. Therefore, while culpable conduct is not necessarily criminal, it might constitute action contrary to a professional code of conduct and be sanctioned by the relevant professional body.

3.7 decision-maker

body with the responsibility and authority to take decisions on applications

NOTE In England, this includes local planning authorities, the Planning Inspectorate (including their remit for Nationally Significant Infrastructure Projects), the Marine Management Organisation, and the appropriate Secretary of State and/or Minister(s). In Scotland, it includes the Directorate of Planning and Environmental Appeals, and in Northern Ireland the Planning Appeals Commission. It also includes statutory bodies responsible for the grant of other consents necessary to enable the commencement of development, e.g. protected species licences or land drainage consent.

3.8 development

carrying out of building, engineering, mining or other operations in, on, over or under land, or making of any material change in the use of any buildings or other land

NOTE 1 Building operations include:

- a) demolition of buildings;
- b) rebuilding;
- c) structural alterations of or additions to buildings; and
- d) other operations normally undertaken by a person carrying on business as a builder.

NOTE 2 With regard to operations likely to affect biodiversity, development activities also include enabling or ancillary works, i.e. soil stripping, demolition, dewatering, vegetation removal, etc.

[SOURCE: Town and Country Planning Act 1990 [33], modified]

3.9 ecological clerk of works (ECoW)

person who has the ecological qualifications, training, skills and relevant experience to undertake appropriate monitoring and to provide specialist advice to “development” site personnel on necessary working practices required to i) safeguard ecological features on site and ii) aid compliance with any consents and relevant wildlife legislation related to the works

NOTE An ECoW is often required to make decisions quickly, and sometimes in highly pressured circumstances. It is a role that is rarely appropriate for a junior ecologist unless provided with significant support from a senior colleague.

3.10 ecological constraints and opportunities plan (ECOP)

design tool that shows where biodiversity might act as a constraint to development and also where the development site presents opportunities to retain, mitigate, compensate or enhance biodiversity

3.11 ecological impact assessment (EclA)

process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components, and usually performed as one element of environmental impact assessment

[SOURCE: Treweek 1999 [34]]

3.12 ecological metadata

information necessary to understand and effectively use data, including documentation of the data set content, contexts, quality, structure and accessibility

NOTE A simple metadata set would answer the following questions: What are the data? Why, when, where and how were data collected, and by whom? However, comprehensive metadata ought to cover much more, enabling the end-user to assess the reliability of the information provided and its suitability for a given application.

3.13 ecology

study of the distribution and abundance of species, the interaction between species, the interaction between species and their environment, and the structure and function of ecosystems

3.14 enforcement action

procedure by which a competent authority ensures conditions and obligations associated with a planning or other consent are carried out, or whereby development carried out without planning permission is brought under control

3.15 environmental impact assessment (EIA)

process of determining the likely effects of projects that could have a significant effect on the environment

NOTE "Impact" refers to an action being taken and an "effect" is the change resulting from that action. An EIA is required for compliance with European Directives 85/337/EEC [35], 97/11/EC [36] and 92/43/EEC [4], the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 [10], the Town and Country Planning (Environmental Impact Assessment) (England and Wales) 1999 [11] (in Wales), the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 [12], and the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2012 [13]. Directive 2011/92/EU [37] requires member states to assess the likely significant effects of a project (e.g. development) on the environment before determining whether consent is to be given. This British Standard refers to "significant effects" in a wider sense, to mean positive (beneficial) or negative (adverse) environmental effects that are important (material) considerations in the decision-making process, whether assessed as part of an EIA or otherwise. Annex A provides a full explanation of how significance may be assessed in any particular situation.

3.16 environmental statement

document that provides environmental information to the public and other interested parties about the environmental impact of a proposed development

3.17 favourable conservation status

condition achieved when:

- a) population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- b) the natural range of the species is not being reduced for the foreseeable future; and
- c) there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis

3.18 landscape

area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors

[SOURCE: European Landscape Convention [38]]

3.19 layperson

person who is not an expert in a given field of knowledge and has no appropriate qualifications or training, or no or little relevant experience

3.20 method statement

document that details a safe system of work, explaining in detail the work to be undertaken and possibly including illustrations and details of necessary equipment and personnel and their required competence

NOTE The method statement is usually provided for the client by the principal contractor and/or for the principal contractor by the subcontractor(s).

3.21 nationally designated statutory site

area designated at a national level and protected by European and/or national legislation

3.22 non-statutory designated site

area without protection by the law, designated at a local level and protected by local and national policy

3.23 professional

person working in an occupation requiring special education, training and experience who provides professional services and is bound by a code of professional ethics or conduct

NOTE Professionals are normally required by their professional bodies to undertake continuing professional development (CPD) as a condition of membership in recognition of their professional responsibility to ensure that they are equipped with the most up-to-date knowledge and skill to discharge their roles effectively. Examples are planners, architects, surveyors, civil engineers, landscape architects and ecologists.

3.24 professional ecologist

person who has, through relevant education, training or experience, gained recognized qualifications and expertise in the field of ecology and environmental management

3.25 professional judgement

use of accumulated knowledge and experience in order to make an informed decision that is clearly capable of being substantiated with supporting evidence

NOTE Professional judgement takes account of the law, ethical considerations and all other relevant factors related to the surrounding circumstances.

3.26 professional scrutiny

close, careful examination or study, with special emphasis on searching for errors or omissions

3.27 protected species (European)

species identified as species of European Community interest and in need of strict protection, distinguished from other species protected primarily by domestic UK legislation

NOTE These species are listed in Annex IV of European Habitats Directive [4]. See 3.29.

3.28 protected species (non-European protected species)

certain plants and animals listed in and protected by national wildlife legislation

NOTE For relevant legislation see Annex B.

3.29 protected species licence

licence required for activities that would otherwise be prohibited by protected species legislation

NOTE 1 European protected species are listed in Annex IV of the European Habitats Directive [4] and other protected species are listed in the schedules to UK legislation (see Annex B). Offences vary according to species, but include disturbance or damage of breeding sites.

NOTE 2 Planning permission per se does not authorize development to proceed in contravention of any statutory provisions relating to protected species.

3.30 scientific method

impartial mechanism for testing a theory that involves scientists, collectively and over time, constructing an accurate (that is, impartial, unbiased, reliable, consistent and non-arbitrary) representation of the world that is i) repeatable by another scientist/professional and ii) provides results that are measurable and capable of comparison

3.31 statutory consultee

government-appointed body established to give advice and to be consulted for comment on development plans and planning applications affecting matters of public interest

3.32 toolbox talks

brief, topic-focused, semi-formal presentations intended to create an increased awareness among personnel on construction sites of health and safety, environmental and sustainability issues

Section 1: Professional practice and interdisciplinary cooperation

COMMENTARY ON SECTION 1

The provisions of Section 1 on professional ethics, conduct, competence and judgement are intended to give confidence that recommendations made over ecology, and consequent decisions/actions taken, are by professionally competent individuals and, as such, are likely to be in accordance with statutory and policy requirements and therefore ultimately likely to result in more favourable outcomes for biodiversity conservation.

4 Professional practice for biodiversity conservation

4.1 General

4.1.1 Professionals involved in both the preparation and determination of planning applications where biodiversity could be a material consideration should ensure that they have adequate access to appropriate ecological expertise in order to:

- a) establish whether any particular development proposal is likely to have a significant effect on biodiversity (see Annex A); and
- b) identify any measures necessary for compliance with all relevant statutory obligations and national and local planning policy.

NOTE Significance does not relate to the scale of the development, but to the impact of the development on biodiversity.

4.1.2 In doing this, professionals should take a proportionate approach (see 5.5) to ensure that the provision of information with the application is appropriate to the environmental risk associated with the development and its location.

4.1.3 Biodiversity conservation is usually just one of many issues to be considered as part of a planning application. Consequently, professionals responsible for ecological related matters are likely to be working with various other disciplines. In these situations, professionals should work collaboratively as part of an interdisciplinary team.

NOTE 1 The success of a project is not solely down to technical expertise, but also the ability of different professionals to work together as an interdisciplinary team. Such teams are often drawn together by planning applicants, the decision-makers or by various consultees and other stakeholders for the purpose of both preparing and determining applications.

NOTE 2 The Strategic Forum for Construction [39] states that collaborative team working "means the introduction of working practices, methods and behaviours that create a culture in which individuals and organizations are able to work together efficiently and effectively. That means putting aside the fragmentation, duplication and adversarialism that has characterized the industry and replacing it with cooperation, collaboration and mutual support."

4.1.4 To optimize collaboration and promote an interdisciplinary approach, all project team members should:

- a) clarify their own roles and their expectations of each other;
- b) recognize each other's professional competences, expertise, limitations and likely contributions relevant to the project;
- c) identify overlapping responsibilities and areas of expertise, particularly where this might lead to better environmental outcomes; and
- d) negotiate consensual decisions and outcomes.

NOTE Consensus need not be a unanimous decision, but rather an equal opportunity for each member to influence the outcome.

4.2 Professional ethics and conduct

4.2.1 Where an individual is a member of an appropriate professional body they should act in accordance with their own code of professional conduct in all aspects of their work and in their relationships with others. They should also be aware of and uphold any particular requirements of their code of conduct relating to the protection of the environment.

NOTE A summary of key requirements for different professional bodies is provided in Annex C.

4.2.2 A professional's code of conduct should be used not only as a source of ethical guidance, but also as a common sense indicator to the principles of good practice to be applied and the necessity of working within their own discipline and level of competence.

4.2.3 Competent persons who are not members of a relevant professional body should act in a manner consistent with the code of conduct applicable to their own professional discipline.

4.2.4 Biodiversity conservation is not the sole preserve of the professional, but is also enjoyed and pursued by many thousands of dedicated volunteers and amateur experts. When involved with work within the planning system, these individuals should also follow the applicable recommendations of Section 2.

4.3 Professional competence

COMMENTARY ON 4.3

Professional expertise is not necessarily restricted to job title, and some individuals might have multiple qualifications and areas of competence. For instance, a landscape architect could also be a qualified ecologist. Such individuals could also be members of more than one professional body.

4.3.1 Where a public body has, in the exercise of its functions, some form of statutory responsibility to consider biodiversity conservation (e.g. under the Habitat Regulations [7, 8 and 9]), it should have access to appropriate levels of ecological competence to enable it to discharge its obligations effectively and lawfully.

4.3.2 Any individual dealing with ecological issues at any stage of the planning application process should be able to demonstrate that they have sufficient technical competence and experience to carry out the particular tasks and activities for which they are responsible in the role that they are performing. They should only attempt to offer a *bona fide* ecological opinion if they have the necessary knowledge, skills and experience to do so, or have secured appropriate competent assistance.

NOTE 1 Under any other circumstances the professional might be acting in conflict with their professional code of conduct.

NOTE 2 This is enshrined in the Code of Conduct for all members of the Chartered Institute of Building (see Annex C).

4.3.3 Where individuals have line management responsibilities, they should ensure that their staff are competent to undertake all work assigned to them and are appropriately supervised and supported where necessary, especially where junior or inexperienced staff are involved.

4.3.4 Evidence of qualifications, additional training and experience should always be available on request as further evidence of an individual's competence in a particular field of knowledge or area of expertise.

4.3.5 Individuals, such as naturalists, working in a "voluntary" capacity for certain non-governmental organizations (NGOs) should, when commenting on planning applications, be able to demonstrate that their comments are within the bounds of their own expertise and experience and any training they have received for this work. Professionals supervising their work should ensure that they are only asked to undertake work that is within their level of competence.

4.4 Professional judgement

NOTE Due to the nature of the planning system professional judgments can be challenged. Knowledgeable, experienced and objective individuals can reach different conclusions in applying professional standards, despite similar facts and circumstances. This does not necessarily mean that one conclusion is right and the other is wrong. Appropriate questioning to understand the procedures performed and the basis for conclusions reached is to be expected.

4.4.1 Development proposals that are likely to affect biodiversity should be informed by expert advice. This should be based on objective professional judgement informed by sound scientific method and evidence, and be clearly justified through documented reasoning.

4.4.2 In order to demonstrate sound professional judgement, the professional should:

- a) gather all the relevant information;
- b) identify the issue(s);
- c) identify practicable options for action that could be taken to address the issue(s);
- d) make clear the weight to be attached to the issues and options considered; and
- e) choose appropriate options and present these in a succinct and transparent manner, ensuring that the final decision or recommendation is clearly explained and can be justified.

4.4.3 An explanation, with evidence, of the assessment and decision-making process and the reasons for a particular course of action or piece of advice should be clearly documented and made available where required and/or necessary.

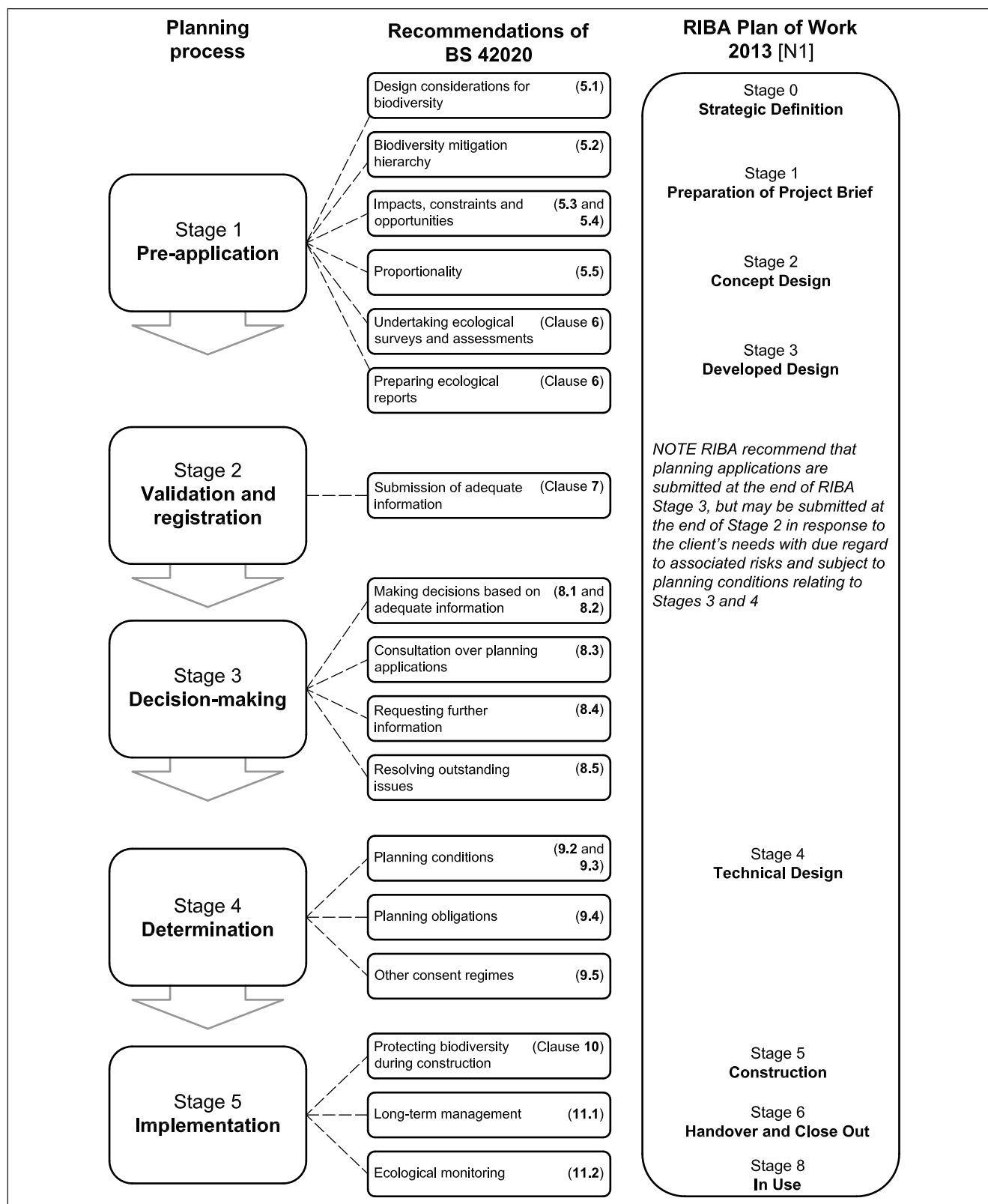
NOTE It is especially important to provide evidence of how professional judgement has been applied where ecological work does not follow, in full or in part, the recommendations set out in national good practice guidelines (see 6.3.4, 6.3.5 and 6.3.6).

4.4.4 Decision-makers should similarly be able to justify any request they make for specific information to be provided, especially where alternative options or methods are available as recommended in good practice guidelines, e.g. for ecological surveys (see 6.1.8).

Section 2: Integrating biodiversity into all stages of the planning, design and development process

NOTE Section 2 follows the logical sequence of the flow diagram in Figure 1.

Figure 1 Incorporating biodiversity into the planning and development processes



5 Design considerations for biodiversity

5.1 General

COMMENTARY ON 5.1

Biodiversity can be a material consideration in the formal planning system, whether or not the features benefit from any statutory protection.

Certain biodiversity features are of such importance and sensitivity as to prevent development occurring or to justify substantial modification of its design and layout. If significant harm resulting from a development cannot be avoided, adequately mitigated or, as a last resort, compensated for, then planning permission may be refused.

5.1.1 The initial concept and then detailed design and assessment of a development scheme is part of an iterative process in which each part of the process informs the other. The identification of biodiversity constraints and opportunities and an assessment of likely ecological impacts should be conducted at the start and considered throughout this process.

NOTE For works subject to planning consent, licences to undertake works that could affect protected species can be applied for only after planning permission has been granted. However, it is advantageous to consider at the design stage what, if any, actions will be required to mitigate for impacts on EPS. This is to ensure that the submitted proposals provide sufficient mitigation or compensation to allow any necessary licences to be granted without the need to alter plans at a later stage.

5.1.2 All professionals working in planning and development should collaborate in order to achieve the best practical and sustainable options for integrating biodiversity into the overall scheme design. In particular, because of their complimentary knowledge and skills, collaborative input from ecologists and landscape architects should be sought from the start of a project wherever possible, to:

- a) highlight opportunities and constraints;
- b) allow effective integration of these aspects into the design proposals to provide multiple benefits and to avoid potential design conflicts at a later stage;
- c) meet the requirements of policies that demand an interdisciplinary approach (e.g. landscape, biodiversity and green infrastructure strategies); and
- d) identify and advise on the need to obtain any other environmental consents that might also be required in addition to planning permission (see 9.5), especially where these may be sought in advance of, or in parallel with, the planning application process.

5.1.3 In surveying and assessing biodiversity assets and opportunities, ecologists should have regard to the planning context for the development proposal in question, referring to established planning principles, all relevant national and local plan policies, local biodiversity objectives and targets and green infrastructure strategies, along with any relevant supplementary planning documents.

5.2 Mitigation hierarchy

COMMENTARY ON 5.2

The overarching aims of ecological work used to inform the planning process are to minimize harm and to maximize benefits for biodiversity resulting from development. The generally accepted way of doing this, now embedded within the planning system, is to follow the “mitigation hierarchy”. This seeks as a preference to avoid impacts then to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures.

The principles for the mitigation hierarchy have been adopted in national planning policy guidance: Technical Advice Note TAN 5 [40] in Wales and the National Planning Policy Framework (NPPF) [41] in England. See also Mitchell 1997 [42] and the DCLG’s Environmental Impact Assessment: A Guide to Good Practice and Procedures [43].

5.2.1 The mitigation hierarchy should underpin all decisions made by professionals working within the planning and development sectors.

5.2.2 During the design stage the overall aim should be to prevent harm to existing biodiversity assets, delivering at least no net loss for biodiversity, and to deliver further benefits for biodiversity, i.e. a net gain, wherever possible. The mitigation hierarchy is a sequential process and each step in the hierarchy should be carefully considered in turn, and incorporated into the design of the development (and checked by the decision-maker) before the next step is considered in light of any residual impacts not rectified by the previous step.

NOTE 1 The mitigation hierarchy has long been part of the planning process, and is used to examine a wide range of potential impacts. The hierarchy is set out here for use when considering potential biodiversity impacts, but might be equally applicable to the consideration of potential impacts on, for example, landscape or public amenity. Avoidance, mitigation and compensation are associated with adverse effects, while enhancement is associated with beneficial effects (see also Note to 3.15).

a) Avoidance

Avoiding adverse effects through good design should be the primary objective of any proposal. This may be achieved, for example, through either the selection of alternative designs, alterations to site layout, or by selecting an alternative site where no harm to biodiversity would occur.

b) Mitigation

Adverse effects that cannot be avoided should be adequately mitigated. Mitigation measures minimize the negative impact of a plan or project, during or after its completion. An example of mitigation is the use of pollution interceptors to minimize pollution of watercourses. Ideally, mitigation measures should form part of the development proposal, but additional mitigation measures can be imposed by the decision-maker. All mitigation measures should be secured through the use of planning conditions or planning obligations.

c) Compensation

The protection of biodiversity assets should be achieved through avoidance and mitigation wherever possible. Compensation, the next step in the hierarchy, should only be used in exceptional circumstances and as a last resort, after all options for avoidance and mitigation have been fully considered. Compensatory measures should therefore only be used to address any residual impact that cannot be avoided or mitigated.

The extent of compensatory measures, whether on the development site, off site or a combination of both, should take full account of the extent and quality of the asset being lost or degraded, and the risks associated with the creation of new habitats or the restoration of existing ones. Wherever possible, compensatory measures should be timed so that biodiversity losses do not occur until compensatory measures are in place and likely to establish successfully.

Ecologists and decision-makers should be aware that there are specific statutory requirements that apply to the consideration of potential impacts on designated sites and the use of compensatory measures, e.g. under the Habitat Regulations [7, 8 and 9]. Advice should be sought from the relevant statutory nature conservation body, where necessary.

NOTE 2 In some instances, indirect effects might not occur within the footprint of the development site but at some distance from it; these might still require compensation.

NOTE 3 One means of delivering compensation is through biodiversity offsetting. Where it is not possible to offset any residual harm at the location where the impact occurs, biodiversity offsets may be undertaken at an alternative location agreed with the decision-maker. Such measures ought to be secured through a planning obligation and ought not to be used in place of any applicable statutory requirements.

d) Enhancement

The mitigation hierarchy involves a step-by-step approach of avoiding, mitigating or, where necessary, providing compensation for any adverse effects of development. Almost all development proposals provide opportunities to enhance or create new benefits for wildlife, which should be explored alongside the application of the hierarchy of measures to resolve potential adverse effects.

NOTE 4 Enhancements are additional to any measures necessary to deal with potential impacts on site, as they are an opportunity to provide new benefits for biodiversity as a consequence of the development being implemented.

Creating new habitat, enhancing existing habitat or providing new features can all contribute towards biodiversity enhancement, and helping to rebuild habitat networks in the wider area improves ecological resilience and adaptation to climate change. Benefits can be maximized if undertaken to support biodiversity work being undertaken by other parties, such as Local Wildlife Trusts or through agri-environment schemes, or if they are consistent with biodiversity strategies or priorities already in place in the local area, such as Nature Improvement Schemes (NIAs) as identified in England.

5.2.3 Avoidance, mitigation, compensatory and enhancement measures should be secured by the decision-maker through planning conditions or planning obligations (see 9.2 and 9.4).

5.2.4 Where the strategies adopted are for mitigation or compensation of significant effects, the designers should demonstrate that alternatives have been considered and that avoidance of negative impacts is not feasible.

5.2.5 Consideration should be given to how the development proposal could best contribute to delivering local biodiversity priorities, such as those identified through forward planning documents and in local biodiversity action plans and strategies (e.g. in England for Nature Improvement Areas).

5.3 Ecological impact assessment

Ecological impacts should be assessed, and recommendations for appropriate mitigation, compensation and enhancement made, in accordance with CIEEM [N2 and N3].

5.4 Ecological constraints and opportunities plan (ECOP)

COMMENTARY ON 5.4

An ecological constraints and opportunities plan (ECOP) is a useful tool/drawing that may be used to present ecological information to other professionals and can assist with gaining the best outcomes for biodiversity. It has three main roles:

- *at the pre-application stage, an ECOP may be used as an iterative tool within the design team to inform the overall design process;*
- *at the decision-making stage, it may be used to provide summary information for the decision-maker showing graphically how the mitigation hierarchy has been applied in practice – as such, it is an opportunity to show what and where the key biodiversity constraints and opportunities are associated with the proposed development described in the planning application; and*
- *at the implementation stage, it may be used to provide an overview, showing how and where biodiversity is to be addressed during the actual development works or aftercare period (e.g. as a summary drawing(s) forming part of a construction environmental management plan).*

An ECOP may be cross-referenced to landscape, historical, cultural features and tree constraints on site (BS 5837). It may also be cross-referenced or integrated with master plans and landscape plans being prepared separately by other design professionals.

5.4.1 An ECOP should be submitted with an application where appropriate and/or where agreed between the decision-maker and the applicant (see **6.1.9** and **6.5**); it may refer to land both within and outside of the application boundary.

5.4.2 An ECOP should be prepared using the results, as they become available, from ecological surveys, and initial identification of sensitive features and potential impacts, along with an assessment of their condition in relation to their potential for enhancement. The ECOP should be prepared on an appropriate scale plan showing (where relevant) the following.

- a) Areas and features on and off site, including appropriate buffer areas that, by virtue of their importance, are to be retained and avoided by both development activities and the overall footprint of development (see Annex G for potentially harmful activities).
- b) Areas and features where opportunities exist to undertake mitigation and compensation.
- c) Areas and features with potential for biodiversity enhancement.
- d) Areas and features that will be affected adversely by the proposed development, e.g. through loss or reduction of habitat and/or severance or disturbance of critical habitat linkages.
- e) Areas where ongoing biodiversity conservation management is required to prevent deterioration in condition during construction/implementation.
- f) Areas needing protection on site and/or in adjacent areas (e.g. from physical damage on site or pollution downstream) during the construction process.
- g) Areas where biosecurity measures are necessary to manage the risk of spreading pathogens or non-native invasive species.

5.4.3 The level of detail in the ECOP should be proportionate to the nature and scale of the proposed development (see **5.5**). The ECOP should be used to inform site design and layout, with biodiversity balanced against the other competing needs from the development, taking into account the international, national or local significance of the habitats and/or species affected.

NOTE An ECOP may be quite simple in format and content (e.g. when illustrating relevant biodiversity features associated with an application for a barn conversion) or may be extensive in its coverage (e.g. when applied to a large-scale development across a wide area with many biodiversity features present).

5.5 Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

NOTE 1 This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England [41].

NOTE 2 The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary (see 6.4.5).

6 Pre-application (Stage 1)

6.1 Information requirements and pre-application discussions

6.1.1 Local planning authorities should assist applicants to identify what information should be submitted with an application. To do this, they may prepare “local lists” (often known as local validation requirements) to identify for the applicant the circumstances when particular information is to be submitted with the application.

6.1.2 The level of information submitted to fulfil validation requirements should be necessary, relevant and proportionate to the development. However, where a planning application does not contain all that the decision-maker has identified in its validation requirements (see Clause 7), it should be judged as not “valid”. As such, the decision-maker is under no obligation to consider and determine it.

NOTE In addition, further written information to guide applicants might also be available from relevant statutory bodies.²⁾

6.1.3 When preparing to make a planning application, the applicant should:

- a) determine whether the proposed development is likely to affect biodiversity; and
- b) establish what information needs to be submitted with their application to ensure the decision-maker has sufficient information to reach a sound and confident decision.

6.1.4 The information submitted with the application should also allow statutory consultees and other third parties, who look at and comment on applications, to see what permission is being sought, and what the effects (both positive and negative) are likely to be.

²⁾ For example, Natural England's online Standing Advice on Protected Species: <http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/advice.aspx>; in Scotland: <http://www.snh.gov.uk/planning-and-development/advice-for-planners-and-developers/> and <http://www.snh.gov.uk/protecting-scotlands-nature/species-licensing/>; in Northern Ireland: <http://www.doeni.gov.uk/niea/land-home/plan.htm>

6.1.5 To help the applicant identify when biodiversity information is to be submitted with a planning application, reference should be made to any local list of information requirements published by the decision-maker (see **6.1.1**, **6.1.2** and Clause **7**).

6.1.6 The pre-application stage should also be used as an opportunity for the applicant, decision-maker and their consultees to identify whether an application involves a type of development and/or is in a sensitive location that will trigger formal assessment under the Environmental Impact Assessment Regulations [10] (see Annex A). If so, the application should be subjected to the necessary screening and scoping processes.

6.1.7 Additional detailed case-specific advice should, wherever possible, be sought through pre-application discussions.

NOTE 1 While not always required or practical, pre-application discussions are widely recognized as beneficial to both prospective applicants and the decision-maker in ensuring a consistent and mutual understanding of the objectives of the development and of the possible constraints and opportunities at the location of the proposed development.

NOTE 2 Pre-application discussions with the decision-maker can be time and cost effective for the applicant. They help to avoid the risk of significant ecology issues or delays arising further on in the planning process that could affect the submission or determination of planning applications. They can also demonstrate the commitment of the developer to implementing biodiversity mitigation, compensation or enhancement measures appropriate to the scheme. Also, engagement with wide-ranging stakeholders and local interest groups in the early stages can generate innovative design options while also helping to avoid costly conflict later on.

6.1.8 Where the decision-maker, and those advising them, request that particular good practice is followed (e.g. for ecological surveys), the reasons for this should be fully justified and should be appropriate and proportionate to the case in question, especially where alternative options are available (see **4.4**, **6.3.5** and **6.3.6**).

NOTE It is the responsibility of the applicant to prepare and revise the design of their mitigation schemes and to rewrite any draft environmental statement. It is not the role of decision-makers and consultees, although they might be able to offer advice on what is required to improve the application.

6.1.9 Pre-application discussions and advice should establish the type and level of supporting information required with the application, and may cover:

- a) relevant statutory obligations and policy issues for biodiversity;
- b) known biodiversity constraints, e.g. designated sites and/or protected species and priority habitats and species;
- c) necessary ecological surveys to be submitted with the planning application;
- d) likely impacts and opportunities for mitigation, compensation and enhancement (see **5.2**);
- e) appropriate good practice guidelines to be followed, and any variation, departure or partial use of such guidelines where case-specific circumstances warrant it (see **6.3.5** and **6.3.6**);
- f) necessary consultations with other statutory bodies;
- g) the need for other consents (see Annex E);

- h) means of securing planning controls, e.g. planning conditions and obligations, and the level of detailed information that may be secured at a later stage if consent is granted; and
- i) any particular drawing, plans, pro forma documents, etc., that could be required or used to assist in presenting the findings (see 5.4 and 6.8).

6.1.10 Pre-application discussions should aim to ensure that any and all ecological evidence required with the planning application is proportionate to the proposed development (see 5.5).

6.2 Adequacy of ecological information

6.2.1 All ecological information should be prepared and presented so that it is fit to inform the decision-making process (see 8.1). As such, all ecological information should be:

- a) appropriate for the purpose intended and obtained using appropriate scientific methods of ecological investigation and study (see 6.10);
- b) sufficient, i.e. in terms of:
 - 1) scope of study;
 - 2) habitats likely to be affected;
 - 3) species likely to be affected;
 - 4) ecological processes upon which habitats and species and system function are dependent;
 - 5) coverage of a sufficiently wide area of study commensurate with the requirements of the species or feature of interest, including connected systems (e.g. downstream);
 - 6) undertaken over a sufficient period of time and at an appropriate time of year to reveal sufficient details of populations or habitat characteristics (see 6.4.4);
 - 7) being sufficiently up to date (e.g. not normally more than two/three years old, or as stipulated in good practice guidance); and
 - 8) identification of risks, e.g. spread of pathogens or invasive non-native species.

NOTE The shelf life of any given survey depends on the type of survey undertaken and whether environmental conditions within the study area were "normal" or unusual at the time undertaken (e.g. extreme weather), or are likely to have changed or remained the same. The greater the recent change, the greater the need for up-to-date information.

6.2.2 The ecological information should be understandable by laypersons (i.e. include a non-technical summary), be substantiated throughout with clear evidence, be true and accurate, and follow good practice guidelines, where appropriate, for both content and format (see 6.3.5 and 6.3.6).

6.3 Ecological reports

6.3.1 Ecological reports to the client and other members of the design team may go through various provisional drafts during the pre-application design process. However, the final report submitted with the application should provide as much certainty as possible (see 6.6.1) and be prepared specifically with the aim of enabling the decision-maker to reach a sound and lawful determination of the application (see 6.6 and 8.1). The emphasis should be on identifying and addressing significant impacts. All non-site or non-case specific information should be placed in an appendix, rather than the main text.

6.3.2 Reporting should concentrate on identifying and addressing significant impacts (see Annex A).

6.3.3 In order to provide the decision-maker with adequate standard information (see 6.2 and 8.1), ecological reports submitted in support of planning applications should include both of the following.

- a) The results and findings of all necessary ecological surveys and other data gathering exercises (see H.1).
- b) A detailed description (ecological assessment) of how biodiversity could be affected by proposed development and the measures proposed to ensure significant adverse effects are addressed (e.g. avoided mitigated or compensated) and that opportunities for enhancement are maximized (see H.2).

6.3.4 For a small-scale development proposal (see Note 1), the decision-maker may provide a “report pro forma” (see 6.8) upon which ecological information may be submitted with the planning application (see Note 2). In such a case, the decision-maker should make clear when such a form is sufficient and acceptable on its own or when it needs to be supported by a standard report including all relevant elements from Annex H.

NOTE 1 Such small-scale developments include “householder applications”, “conversion of agricultural buildings” and “minor developments”, with the latter defined (section 2.1, The Town and Country Planning (Development Management Procedure) (England) Order 2010) [44]), as i) residential proposals of 1 to 9 units or of not more than 0.5 hectares, ii) provision of a building(s) with less than 1 000 m² of floor space or iii) other development carried out on a site of less than 1 hectare.

NOTE 2 For example, Dorset planning authorities operate a biodiversity protocol that requires completion of a pro forma (see 6.8). Normally, for small-scale developments, this information is sufficient for the Council to assess the biodiversity implications of the proposed development.

6.3.5 Ecological reports should have a logical structure and be prepared in accordance with the CIEEM Professional Guidance Series No. 9 *Ecological Report Writing* [N4]. Reports should be tailored where necessary to the requirements of the intended audience.

6.3.6 Methods used to undertake surveys and to prepare information presented in ecological reports should (except in the circumstances covered by 6.3.7) follow published good practice guidelines where they exist (see, for example, the normative references in Clause 2). Claims of compliance with good practice should be substantiated (see 4.4).

6.3.7 A competent ecologist should, as appropriate, modify their approach from that of published good practice or standing advice issued by a statutory body, where, for example:

- a) it is necessary to adapt to the specific requirements of a case or site;
- b) an innovative approach might improve upon published good practice and/or provide a more valuable outcome;
- c) it might only be appropriate to follow good practice guidance in part as the guidance offers a range of optional methods (e.g. for surveys), of which only one is appropriate to the study in question; or
- d) published good practice is out of date and/or where better techniques have been developed and recognized throughout the profession.

6.3.8 To achieve full scientific disclosure (see **6.10**), where the use of guidance is only relevant in part, is not followed, or if only parts of it are followed:

- a) this should be fully justified in accordance with Clause 4; and
- b) both the benefits and limitations (see **6.7**) arising from any partial use or departure from good practice should be reported in full.

NOTE To claim compliance with good practice, and then not to disclose any omission or departures from such good practice, might be interpreted as a misrepresentation of the facts and could be in breach of an individual's code of professional conduct (see Clause 4).

6.3.9 Ecological reports should describe the methods of study and analysis actually used, rather than describing only what is published in good practice guidelines.

NOTE Describing published good practice guidelines, rather than the actual methods used for the survey, could be considered as misrepresenting the facts and in breach of an individual's code of professional ethics or conduct.

6.3.10 Reports should demonstrate clearly how all staff involved in associated work (e.g. surveys, analysis of results and formulation of recommendations) are competent to undertake the specific work they have been involved with (see Clause 4).

6.4 Undertaking ecological surveys

6.4.1 Survey methods should follow good practice guidelines and, where undertaken, preliminary ecological appraisals (PEAs) should be conducted in accordance with the CIEEM Technical Guidance Series Guidance for Preliminary Ecological Appraisals [N5] (see **6.3.4**).

6.4.2 Where available, local record centres (LRCs) or other appropriate data providers should be approached initially for species and habitat information to inform desk studies. The data generated through desk studies should be properly analysed and interpreted, with the results used to inform fieldwork and further assessment of the development proposal. Only the main findings and conclusions from desk studies should be provided with the ecological report, with the full results of the desk studies available on request.

NOTE It is not necessary to provide long, uninterpreted species lists from LRCs or other data providers in the information submitted in the report.

6.4.3 Ecological surveys should be carefully programmed into the early phases of the pre-application process. They should also, ideally, be carried out sufficiently in advance of detailed design work to enable the results to be taken fully into account in the design process as this facilitates the logical sequence of events in Figure 1.

NOTE It is recognized that, on occasion, ecological advice is not sought until after pre-application work is well advanced, or even after the planning application has been submitted formally to the decision-maker. Although this is not the ideal situation, timely and appropriate expert advice can still make a valuable contribution to the process of biodiversity conservation and enhancement. However, the cost of incorporating biodiversity into the development could be higher if surveys are not conducted until after designs are well advanced, especially if there are significant effects that need to be addressed.

6.4.4 Surveys should be undertaken at the appropriate time(s) of year to allow for the seasonal characteristics of some habitats and the seasonal behaviour of some species.