

# Biodiversity and Development

## Supplementary Guidance SG07

May 2021



**Falkirk Council**

## Supplementary Guidance

A suite of 14 supplementary guidance notes (SG's) is currently being produced by the Council in conjunction with LDP2. The number of SGs is reducing from seventeen to fourteen, as three of the adopted SGs are being consolidated to provide a more comprehensive and integrated approach to guidance. The SGs seek to provide more detailed guidance on how particular local development plan policies should be applied in practice.

These SGs form a statutory supplement to LDP2, and are intended to expand upon planning policies and proposals contained in the plan.

A full list of the supplementary guidance in this series is found below.

-  **Development in the Countryside**
-  **Neighbourhood Design**
-  **Residential Extension and Alterations**
-  **Shopfronts**
-  **Green Infrastructure and New Development**
-  **Affordable Housing**
-  **Biodiversity and Development**
-  **Local Nature Conservation and Geodiversity Sites**
-  **Landscape Character Assessment and Landscape Designations**
-  **Trees and Development**
-  **Frontiers of the Roman Empire (Antonine Wall) World Heritage Sites**
-  **Listed Buildings and Unlisted Properties in Conservations Areas**
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# Biodiversity and Development

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# 1. Introduction

## What is biodiversity and why conserve it?

- 1.1 Biodiversity simply means all living things. All plants, animals and habitats, whether rare or common, are part of the planet's biodiversity (variety of life).

Biodiversity is at the heart of our aim of a more sustainable future. A healthy and diverse natural environment is vital to our economic, social and spiritual well being, now and in the future.

The last 100 years have seen considerable declines in the numbers and health of many of our wild plants and animals. It has also seen many of our habitats and ecosystems damaged or fragmented.

The Falkirk Council area is rich in biodiversity, providing vital environmental services and directly contributing to our quality of life. However, human activity is placing ever-increasing demands on our natural resources. We have a shared responsibility to conserve and enhance our local biodiversity for the good of current and future generations.

## Biodiversity and development

- 1.2 Development of all kinds can put pressure on our natural environment. However, development and biodiversity conservation can work together. By adhering to relevant legislation, planning policies and guidance, and by considering biodiversity early on in the planning process, we can achieve quality developments that protect, enhance and benefit from biodiversity.

## Who is this guidance for?

- 1.3 This guidance note is intended to assist developers in making a planning application which will meet the Council's biodiversity objectives.

It includes:

- An introduction to key biodiversity legislation, policy and guidance;
- An outline of the Council's Biodiversity Objectives;
- Details of how biodiversity conservation should be incorporated into development;
- Checklists for different development types.

## How strictly will the guidance be applied?

- 1.4 Various species, habitats and sites are given statutory protection and the council has a duty to uphold this legislation via the planning process.

Other nationally and locally important habitats, species and sites are highlighted in Council policy and strategies: these features must be fully considered within planning applications and their protection and enhancement will be expected.

Additional biodiversity enhancements will be encouraged wherever possible.

## 2. Context

### The Local Development Plan

- 2.1 This document is one of a series of supplementary guidance notes to help developers meet the requirements of planning policy and achieve best practice. The policies summarised below set out Falkirk Council's agenda for protecting local biodiversity and the network of sites and features of ecological importance within the area. These policies are available in full at [www.falkirk.gov.uk](http://www.falkirk.gov.uk).

### PE19 Biodiversity and Geodiversity

The Council will protect and enhance habitats and species of importance, and will promote biodiversity and geodiversity through the planning process. Accordingly:

1. Development likely to have a significant effect on Natura\* 2000 sites (including Special Protection Areas, Special Areas of Conservation, and Ramsar Sites) will be subject to an appropriate assessment. Qualifying interests of a Natura\* 2000 site may not be confined to the boundary of a designated site. Where an assessment is unable to conclude that a development will not adversely affect the integrity of the site, development will only be permitted where there are no alternative solutions, and there are imperative reasons of overriding public interest. These can be of a social or economic nature except where the site has been designated for a European priority habitat or species. Consent can only be issued in such cases where the reasons for overriding public interest relate to human health, public safety, beneficial consequences of primary importance for the environment or other reasons subject to the opinion of the European Commission (via Scottish Ministers).
2. Development affecting Sites of Special Scientific Interest will not be permitted unless it can be demonstrated that the overall objectives of the designation and the overall integrity of the designated area would not be compromised, or any adverse effects are clearly outweighed by social or economic benefits of national importance.
3. Development likely to have an adverse effect on European protected species; a species listed in Schedules 5, 5A, and 8 of the Wildlife and Countryside Act 1981 (as amended); or badgers as per section 10 of the Protection of Badgers Act 1992, will only be permitted where the applicant can demonstrate that a species licence is likely to be granted.
4. Development affecting Local Nature Reserves, Wildlife Sites, Sites of Importance for Nature Conservation and Geodiversity Sites (as identified on the Proposals Map and in Supplementary Guidance SG\*\* 'Local Nature Conservation and Geodiversity Sites'), and national and local priority habitats and species (as identified in the Falkirk Local Biodiversity Action Plan) will not be permitted unless it can be demonstrated that the overall integrity of the site, local habitat or local species population will not be compromised, or any adverse effects are clearly outweighed by social or economic benefits of substantial local importance.
5. Where development is to be approved which could adversely affect any site, habitat or species of significant local nature conservation value, the Council will require appropriate mitigating measures to conserve and secure future management of the relevant natural heritage interest. Where habitat loss or fragmentation is unavoidable, the creation of replacement habitat to compensate for any negative impacts will be required, along with provision for its future management. Where adverse impacts on locally important species are unavoidable, measures to protect and enhance the wider local population of that species will be required.
6. All development proposals should conform to Supplementary Guidance SG07 'Biodiversity and Development'.

\* Following confirmation of the UK's exit from the EU, sites designated under the Habitats Regulations will no longer form part of the formal Natura network of sites. As these sites will continue to form part of a Europe-wide network of designated sites they will in future be referred to as "European sites".

Other LDP policies of particular relevance to biodiversity and development are:

PE13 Green and Blue Network  
PE16 Protection of Open Space  
PE20 Trees, Woodland and Hedgerows  
PE21 Promotion of Forestry and Woodland  
PE22 The Water Environment  
PE23 Marine Planning and the Coastal Zone  
PE25 Soils and Agricultural Land

## 2. Context

### Legislation, Policy and Guidance

2.2 The table below gives a brief overview of the main legislation, policy and guidance relating to biodiversity and development. This underpins the Council's approach to the protection and enhancement of biodiversity within the planning process.

	Feature	Example of Feature or Designation *	Relevant Council Policies	Implications for Development	Key Legislation and Guidance
<b>Sites</b>	Sites legally designated for their international, national or local importance.	Special Protection Area Special Area of Conservation Site of Special Scientific Interest Local Nature Reserve.	PE19	Protect sites against potentially damaging or disturbing operations.	<ul style="list-style-type: none"> <li>• Wildlife and Natural Environment (Scotland) Act 2011</li> <li>• Wildlife &amp; Countryside Act 1981 (as amended)</li> <li>• Nature Conservation (Scotland) Act 2004</li> <li>• Environmental Assessment (Scotland) Act 2005</li> <li>• Protection of Badgers Act 1992</li> <li>• SPP (14) Natural Heritage</li> <li>• PAN 51: Planning, Environmental Protection and Regulation</li> <li>• PAN 60: Planning for Natural Heritage</li> <li>• Local Nature Conservation Sites: Biodiversity and Geodiversity SG</li> <li>• Falkirk Area Biodiversity Action Plan</li> <li>• The Scottish Biodiversity Strategy</li> <li>• The Scottish Forestry Strategy 2019-2029</li> </ul>
	Locally designated biodiversity and geodiversity sites.	Wildlife Sites Sites of Importance for Nature Conservation (SINCs) Geodiversity Sites.	PE19	Presumption against development. Where, in exceptional cases, development is permitted appropriate mitigation, enhancement and compensation will be required.	
<b>Habitats</b>	Habitats legally protected for their international or national importance.	e.g. Raised bog Saline lagoon	PE19	Sites legally designated for their international, national or local importance.	
	LBAP, UKBAP and Scottish Biodiversity List Habitats	22 UKBAP and Ancient woodlands and trees.	PE19	Habitats to be protected and enhanced wherever possible.	
<b>Plants &amp; Animals</b>	Species legally protected for their international or national importance.	e.g. Great crested newt Badger.	PE19	Avoid or (in certain rare circumstances and with the relevant licenses) mitigate against adverse impacts on these species.	
	Nesting birds.	Protection of all nesting birds.	PE19	Do not disturb, damage or obstruct breeding birds and their nests.	
	LBAP, UKBAP and Scottish Biodiversity List Species.	45 UKBAP and 102 LBAP Priority Species.	PE19	Species to be protected and benefitted wherever possible.	
<b>Bio-security</b>	Invasive non-native species.	e.g. Japanese Knotweed (and all other plants and animals when outside their native range)	PE19	No species to be caused to spread into the 'wild' outwith its native range.	

\* See Appendix 2 for a list of relevant legally protected species and habitats, Appendix 3 for a list of Invasive non-native species, Appendix 4 for a list of LBAP species and habitats and Appendix 5 for details of protected sites.

## 2. Context

### Our Biodiversity Duty

- 2.3 Part 1 of the Nature Conservation (Scotland) Act 2004 places a duty on all public bodies and office holders to further the conservation of biodiversity. This duty applies to both Falkirk Council, in determining planning applications, and to any public body undertaking development activity.

### Scotland's Biodiversity Strategy

- 2.4 The Scottish Parliament is committed to playing a full part in fulfilling the UK Government's obligations under the Convention on Biological Diversity. It's approach to national biodiversity conservation is set out in the "Scottish Biodiversity Strategy". This strategy aims to conserve biodiversity for the health, enjoyment and well being of the people of Scotland now and in the future.

### The Falkirk Area Biodiversity Action Plan

- 2.5 The Falkirk Area Biodiversity Action Plan aims to protect and enhance the biodiversity of the Falkirk Council area, through focused local action. The habitats and species listed within this plan as local priorities will be given special consideration when assessing planning applications.

### Biodiversity Net Gain

- 2.6 Biodiversity net gain requires developers to ensure biodiversity is enhanced and left in a measurably better state than pre-development. They must assess the type and condition of habitats present before submitting plans, and then demonstrate how they are improving biodiversity - such as through the creation of green corridors, planting more trees, or forming local nature spaces.

This approach is now mandatory in England. Although not mandatory in Scotland, developers are encouraged to apply this principle.

### 3. Biodiversity Objectives

3.1 The Council will assess planning applications with a view to ensuring that they comply with the following overall aim and take full account of the biodiversity objectives listed below.

**Overall Aim:**

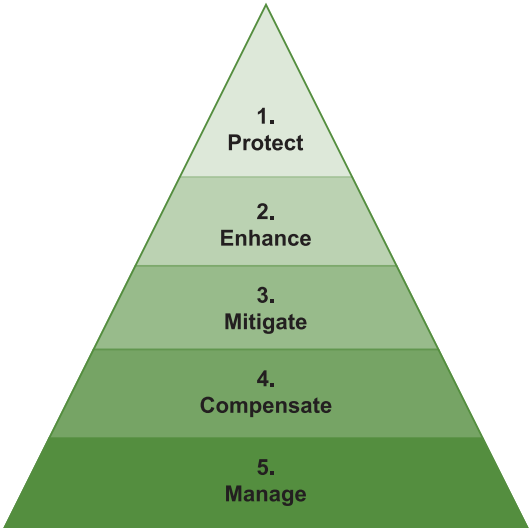
To ensure that species, habitats, sites and networks that are of national or local ecological importance are protected and that our wider biodiversity is maintained and enhanced.

**Biodiversity Objectives:**

Protect	Protect our existing ecologically important species, habitats, sites and habitat networks before, during and after development.
Enhance	Pursue opportunities to improve the ecological value of all or part of the development site. Creating quality green infrastructure benefits people as well as biodiversity. Consider aiming for Biodiversity Net Gain.
Mitigate	Minimise negative impacts on biodiversity through appropriate mitigation measures.
Compensate	Provide compensatory biodiversity creation or enhancement, where development is permitted and negative impacts on key biodiversity features cannot be avoided.
Manage/ Maintain	Ensure the long-term protection and quality of environmental features through appropriate design and the development and implementation of biodiversity management plans, where necessary.

3.2 The above objectives reflect the hierarchy of biodiversity conservation themes (see figure 1 below) that should be considered for any development. These will be reiterated throughout this guidance.

**Figure 1 : Hierarchy of Biodiversity Conservation Themes**





## 4. Developing with Biodiversity

### Fitting Biodiversity into the Development Process

- 4.1 To ensure compliance with biodiversity legislation, and the Council's Biodiversity Objectives, consideration of biodiversity should happen throughout the development process. This chapter identifies five key steps to ensure that biodiversity conservation is adequately addressed and indicates how these should fit into the design, planning, construction and aftercare phases of a development. These five steps are then discussed in more detail.

Development Process	Scoping	Initial Planning/Masterplan	Detailed Planning	Construction	Aftercare
	Land identification Design Team Selection Feasibility Studies Data Needs Assessment Initial Consultations	Identify Opportunities and Constraints Produce Masterplan/ Initial Site Layout	Detailed Design Planning Application Tender Works Tender Review	Award Contract Commence Works on Site Completion of Development	Ongoing Monitoring, Management and Site Maintenance
Biodiversity Step	1. Consultation & Scoping	2. Detailed Surveys & Impact Assessment	3. Design to Meet Biodiversity Objectives	4. On-site Implementation - To Meet Biodiversity Objectives	5. Management, Monitoring & Aftercare
Mechanisms/ Requirements	<p>Appoint Ecologist</p> <p>Do an initial site audit to identify:</p> <ul style="list-style-type: none"> <li>Initial biodiversity issues and opportunities;</li> <li>Data requirements. Early discussions to help identify biodiversity issues/ opportunities and data requirements.</li> </ul> <p>Source any relevant historical biological data.</p>	<p>Undertake:</p> <ul style="list-style-type: none"> <li>Habitat survey;</li> <li>Protected species surveys;</li> <li>Other surveys as necessary;</li> <li>Consultation with relevant bodies.</li> </ul> <p>Commence:</p> <ul style="list-style-type: none"> <li>Ecological impact assessment.</li> </ul> <p>Use sufficient, up to date ecological data to inform the master planning or initial layout design process.</p> <p>If you are applying the principle of Biodiversity Net Gain, start the process early.</p>	<p>Ensure all designs take full account of biodiversity, meeting legislative and policy requirements and, where possible, going beyond this to benefit biodiversity.</p> <p>Identify site biodiversity objectives</p> <p>Undertake:</p> <ul style="list-style-type: none"> <li>Ongoing consultation with the Council to ensure sufficient data and assessment is provided with a planning application;</li> <li>Consultation with other relevant bodies</li> </ul> <ul style="list-style-type: none"> <li>An Ecological impact assessment of the detailed design clearly detailing proposed mitigation, compensation and enhancement proposals.</li> </ul> <p>In some cases a Construction Environmental Management Plan may be required.</p> <p>In some cases a Site Biodiversity Management Plan may be required.</p> <p>Refer to Nature Scot standing advice and guidance: <a href="https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents">https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents</a></p>	<p>Undertake:</p> <ul style="list-style-type: none"> <li>Communication of environmental conditions &amp; obligations to all relevant site staff;</li> <li>Ongoing monitoring to ensure continued adherence to wildlife legislation and planning conditions;</li> <li>Engage an ecological clerk of works to oversee environmental protection and enhancement on site;</li> <li>Implement the Construction Environmental Management Plan (if required) and all agreed mitigation, compensation and enhancements.</li> </ul>	<p>Implement</p> <ul style="list-style-type: none"> <li>A site Biodiversity Management Plan to ensure appropriate long-term management of important ecological features;</li> <li>Financial provision for future maintenance of the site;</li> <li>Ongoing monitoring of ecological features to ensure successful establishment, protection &amp; management.</li> </ul>

Specific requirements will differ for different development types: See Section 5: Development checklists for more detail.

## 4. Developing with Biodiversity

### Step 1 - Consultation and Scoping

4.2 An Initial Site Audit should be undertaken to determine the possible environmental issues at a potential development site. A completed example is shown here using the Initial Site Audit in Appendix 1. In the case of a site with a range of established environmental features, habitats or species this audit is best undertaken by a qualified ecologist. The initial audit will assist in the selection of an appropriate development site, highlight potential biodiversity issues and opportunities at a site, and help identify what further survey data will be required.

Early discussions with the Council and other relevant organisations should also be used to identify the environmental data and assessment that will be required to inform a planning application. This is particularly important for more complex applications.

A considerable amount of environmental data already exists, particularly relating to designated sites and some legally protected species. Early consultation with relevant statutory and non-statutory organisations will ensure that, where available, historic data for a development site is obtained. The absence of existing environmental data for a site does not mean that there are no features of ecological significance.

Ecological data is available from a wide range of online sources and national recording schemes. This can be very useful, however it is important to ensure that the datasets being used are appropriate to the area and the intended use and any limitations to the data are noted.

Example 1 : Initial Site Audit



## 4. Developing with Biodiversity

	Tick if Yes	If Yes then you may need to:
Does the site include all or part of a statutorily designated site: e.g. SPA, SAC, SSSI?		Refer to Nature Scot standing advice and guidance or consult Falkirk Council for further advice.
Could the development impact on a statutorily designated site outwith the development area?		Refer to Nature Scot standing advice and guidance or consult Falkirk Council for further advice.
Is the site on or near a non-statutory designated site: i.e. a SINC, Wildlife Site or geodiversity site?		Consult Falkirk Council to determine under what circumstances, if any, development might be acceptable and the ecological data required.
Does all or part of the site form a Wildlife Corridor or 'Stepping Stone' or form part of a Habitat Network?		Assess the potential ecological impact of the development on wildlife corridors and habitat networks.
<b>Does the site include any of the following habitats?</b>		
Mature Trees (Individuals or small stands)	✓	<b>Survey for: Bat Roosts, Breeding Birds</b> See Trees and Development SG for further advice on trees. Include this feature in an Ecological Impact Assessment.
Woodland		<b>Survey for: Bat Roosts, Badgers, Breeding Birds, pine marten and LBAP species associated with Woodland</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Hedges		<b>Survey for: Breeding Birds and other LBAP species associated with Hedgerows</b> Determine whether the hedge is native, species-rich. Include this feature in an Ecological Impact Assessment.
Rivers, Streams or Wet Ditches	✓	<b>Survey for: Otters, Water Voles and other LBAP species associated with Watercourses</b> Determine the presence of protected fish such as salmon or eels. Undertake a phase II habitat survey. Include this feature in an Ecological Impact Assessment.
Ponds, Pools or Lochs		<b>Survey for: Great Crested Newts, Water Vole, and other LBAP species associated with this Habitat</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Wetland or Bog	✓	<b>Survey for: LBAP species associated with Wetlands or Bogs</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment. Assess impacts on peat soils (if present).
Long/Rough Grassland (Unimproved, semi-improved, or species-rich)	✓	<b>Survey for: LBAP species associated with Grassland</b> <b>Check for: Breeding Birds</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Bings/Spoil Tips/Rock Faces		Assess the potential ecological value of the site (this can vary greatly for this type of habitat). <b>Survey for: Helleborine Orchids (on suitable bings) and other LBAP species associated with the Habitat</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Brownfield Habitat (Open mosaic habitat on previously developed land)		Assess the potential ecological value of the site (this can vary greatly across brownfield sites). For sites of potential high ecological value: <b>Survey for: Invertebrates</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Heath (Heather)		<b>Survey for: LBAP species associated with Heather/Heath</b> <b>Check for: Breeding Birds</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment. Assess impacts on peat soils (if present).
Buildings/Barns		<b>Survey for: Bat Roosts, Barn Owls, other Nesting Birds and other LBAP species associated with Buildings.</b> Include these species in an Ecological Impact Assessment.
Scrub	✓	<b>Survey for: LBAP species associated with Scrub, Breeding birds</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Coastal Sand, Mudflat, Lagoons or Saltmarsh		<b>Survey for: LBAP species associated with the Habitat</b> Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Invasive Non-Native Species	✓	<b>Survey for: The presence and extent of Invasive Non-Native Species.</b>

## 4. Developing with Biodiversity

### Step 2 - Detailed Surveys and Impact Assessment

#### 4.3 Habitat and Species Surveys

Where the initial site audit indicates that the site does or could support species, habitats or features of biodiversity interest specific, targeted surveys should be carried out.

As an absolute minimum, sufficient data should always be obtained to determine the presence or absence of legally protected and LBAP Priority species and habitats (see Appendices 2 & 4), and if present to indicate the distribution and population size/area.

For sites with areas of semi-natural habitat or LBAP priority habitats a Phase II habitat survey is likely to be required. Additional survey data may be necessary to inform mitigation, enhancement, compensation and management works on site, and will be a requirement for certain development types or sites. These additional data needs will be highlighted by the initial site audit and/or by early discussions with the Council and other relevant bodies.

Optimum survey seasons and methods vary for different species and habitats. Expert advice should be sought to ensure that surveys take place at the appropriate time, using the appropriate methodology and covering an appropriate search area. In some cases more than one survey will be required to provide sufficient data on a species/habitat. Given these time constraints survey requirements for a development should be determined at the earliest possible stage to avoid delays later in the planning process. Habitat Surveys should, where relevant, identify wetland habitats on the site using 'A Functional Wetland Typology for Scotland'. A National Vegetation Classification (NVC) survey should be completed for any wetlands identified.

#### 4.4 Ecological Impact Assessments

The potential ecological impacts associated with a proposed development can be predicted once sufficient baseline data has been collected. An ecological impact assessment should address the following questions:

- What features of ecological value could be impacted by the development?
- Is the impact positive or negative?
- Is the impact direct or indirect?
- Is the impact permanent? If not how long will it last?
- What is the likely magnitude of the impact?
- Are there cumulative impacts?
- How important is the feature being impacted?

Developments where there is clearly going to be little or no environmental impact may not need to produce an ecological assessment. If in doubt the need for an ecological assessment should be discussed with relevant Council Officers.

#### 4.5 Environmental Impact Assessment

Certain major developments will require a formal Environmental Impact Assessment (EIA) under the Environmental Impacts Assessment (Scotland) Regulations 1999. The contents of such an EIA are stipulated by the regulations. (See Appendix 6 for more information.)

#### 4.6 Appropriate Assessment

Developments which are deemed by the 'competent authority' to have the potential to have a 'likely significant impact' on the qualifying species or habitats of a Special Protection Area or Special Area of Conservation will require a formal Appropriate Assessment to establish that proposals will not have an adverse effect on site integrity. (See Appendix 6 for more information.)

#### 4.7 BS42020

British Standard for ecological data submitted as part of the planning process has been developed. Applicants should ensure that the ecological data they submit with a planning application conforms to British Standard 42020.

#### 4.8

**The ecological surveys/baseline data and impact assessment should accompany your planning application. They must inform the determination of your planning application and so cannot be submitted after determination as a condition of planning consent.**

## 4. Developing with Biodiversity

### Step 3 - Design to Meet Biodiversity Objectives

- 4.9 The process of audit, survey and impact assessment should identify a range of biodiversity constraints and opportunities for a development. These constraints and opportunities should inform development of the masterplan or site layout plan. Even where few features of ecological value have been identified on site the developer should consider opportunities to enhance the value of the site for wildlife.

Site specific biodiversity objectives should be identified which are relevant and achievable within the development framework, meet legislative requirements and address the Council's Biodiversity Objectives: to protect, enhance, mitigate, compensate and maintain biodiversity. You may wish to adopt a target of 'Biodiversity Net Gain' for your development.

On submission of a full planning application detailed designs and methodologies will be required, demonstrating how the proposed biodiversity objectives are to be achieved on site. At this stage planning conditions may be used to secure implementation of the necessary actions to ensure that the agreed biodiversity objectives are achieved.

Developers may wish to consult the Council prior to making an application to ensure that their proposed biodiversity objectives will adequately meet the Council's requirements. Evidence that sufficient consideration has been given to biodiversity issues (at a level proportionate to the site and proposal in question) and justification of the range of biodiversity objectives proposed should accompany a planning application.



## 4. Developing with Biodiversity

### Example 2 : Biodiversity Objectives

#### 4.10 Identify biodiversity constraints and opportunities



#### Set biodiversity objectives

- Ensure no disturbance of the bat roost;
- Time works to ensure no disturbance to nesting birds;
- Retain mature trees and hedge;
- Protect and enhance the biodiversity value of the watercourse and wetland by creating a suitably managed 10m buffer zone either side of it. This will also create an important wildlife corridor between the Wildlife Site and the nearby woodland;
- Protect and enhance the Wildlife Site with an undeveloped buffer zone around it; Provide access to this site at a level which is compatible with its conservation needs;
- Minimise the impact of construction work on retained biodiversity features, excluding activity from sensitive biodiversity areas;
- Compensate for loss of the long grass area and associated species by creating new areas of long grassland in openspaces and along road verges, with suitable grassland management;
- Compensate for loss of central scrub area by enlarging scrub habitats on the site boundary;
- Design and locate the SUDs ponds to maximise their value for wildlife and complement existing wetland habitats;
- Use native species in landscaping wherever possible, to benefit biodiversity. e.g. enhance existing areas of trees, hedge and scrub on the site boundary with additional native planting. Secure appropriate long-term management of all biodiversity and landscaped areas, including the Wildlife Site.

## 4. Developing with Biodiversity

### Step 4 - On-Site Implementation

- 4.11 It is essential that the detailed design and methodologies adopted to fulfill the agreed biodiversity objectives are put into practice on site. Where a development is permitted on the basis that the proposed mitigation, compensation and enhancement measures would make the overall impact on biodiversity acceptable, these measures are likely to be a condition of planning consent.
- 4.12 **Ecological Clerk of Works**  
For sites with legally protected habitats or species or other complex ecological sensitivities an Ecological Clerk of Works should be appointed for the duration of work on site. For other proposals it may be necessary to engage an Ecological Clerk of Works to oversee specific elements of the project.
- 4.13 **Construction Environmental Management Plan**  
A Construction Environmental Management Plan (CEMP) should be used to detail the actions required to deliver agreed biodiversity objectives during the construction phase and to ensure that all site personnel are aware of the biodiversity issues and commitments associated with the project.
- 4.14 **Staff Awareness**  
Training of site staff may be required to ensure adequate awareness of on-site biodiversity issues and obligations.
- 4.15 **Monitoring and Updated Surveys**  
In certain circumstances ongoing monitoring of key biodiversity features or updated surveys will be required to ensure continued adherence to relevant legislation, policy and planning conditions. If commencement of work on site is delayed it may be necessary to update protected species surveys prior to works commencing. This is usually the case if protected species surveys are more than 1 year old.

### Step 5 - Management, Monitoring and Aftercare

- 4.16 Ongoing management of areas of biodiversity value to be retained, enhanced or created is essential. Only with appropriate management will these areas reach and maintain their full potential for wildlife and people.
- 4.17 **Biodiversity Management Plan**  
Suitable management may be secured through the production of a Biodiversity Management Plan for all or part of the development site. This plan may be required with a planning application, however in some cases it is appropriate for its production to be a condition of planning consent. Discussion with the relevant Council Officer will identify if and when a Biodiversity Management Plan is required.  
  
A trained ecologist should be used to ensure that the management plan contains appropriate prescriptions and adequate monitoring mechanisms. Sufficient funds or a suitable funding mechanism must be put in place to implement the proposed management for the lifetime of the management plan.
- 4.18 **Monitoring Programmes**  
In certain circumstances ongoing monitoring of key biodiversity features will be required to ensure continued adherence to relevant legislation, policy and planning conditions.
- 4.19

The production of environmental surveys, impact assessments, biodiversity objectives, detailed methodologies for biodiversity conservation and biodiversity management plans must be carried out by a qualified ecologist.

As a guide, a 'suitably qualified ecologist' will:

- have a relevant biological or environmental qualification;
- have several years relevant experience;
- have the necessary survey and assessment skills and knowledge of relevant legislation;
- have good references from similar jobs.

They may also have membership of a professional body such as CIEEM or be a Chartered Environmentalist (CENV)

## 4. Developing with Biodiversity

### Issues and Opportunities for Biodiversity

4.20 This section highlights some of the key biodiversity issues and opportunities that should be considered when planning a development. It provides guidance on the type of biodiversity protection, enhancement, mitigation, compensation and management measures that will be looked for in a good planning application.

Clearly the issues and opportunities will differ for different development types and different sites. For more guidance on the likely considerations for different development types see Section 5.

### Protect

4.21 Protection of biodiversity must meet legislative and policy requirements. In addition developers should aim to protect all species and habitats of local importance (i.e. LBAP priority species and habitats - see appendix 4). Protection issues to be considered include:

#### Statutory Responsibilities

- Adhere to legislation protecting specific species, habitats and sites;
- Consult with relevant agencies and where necessary obtain licenses for work affecting legally protected species, habitats or sites;
- Ignorance is not a defense; it is the developer's/contractor's duty to ensure work will not impact upon legally protected features.

#### Precautionary Principle

- Where the ecological importance of a feature is unknown the precautionary principle should be applied. Do not damage or disturb something until you are sure it is not of ecological importance.

#### Other Features of Ecological Importance

- Protect non-statutory local nature conservation sites from damage. There is a presumption against development which adversely affects locally designated sites. Even where, in extreme cases, development is granted, protection of key elements of the site will be required. As such activity on site should not commence until it is clear whether permission has been granted and which features are to be protected;
- Protect species and habitats of national and local importance (i.e. those identified by the UKBAP, Scottish Biodiversity list and LBAP);
- As far as possible other ecological features should be retained and incorporated into the site design and layout. Existing habitats, species, and wildlife corridors should be the starting point for a design that meets biodiversity objectives;
- Protect existing habitat networks and wildlife corridors;
- Protect existing seed banks and valuable soils (e.g. peat or soils from ancient or semi-natural habitats);
- Protect against the spread of invasive non-native species (within or between sites).
- Ancient, long established and semi natural. Including sites identified in the Scottish Ancient Woodland Inventory, should be protected as a resource of irreplaceable value.

#### Protection Measures

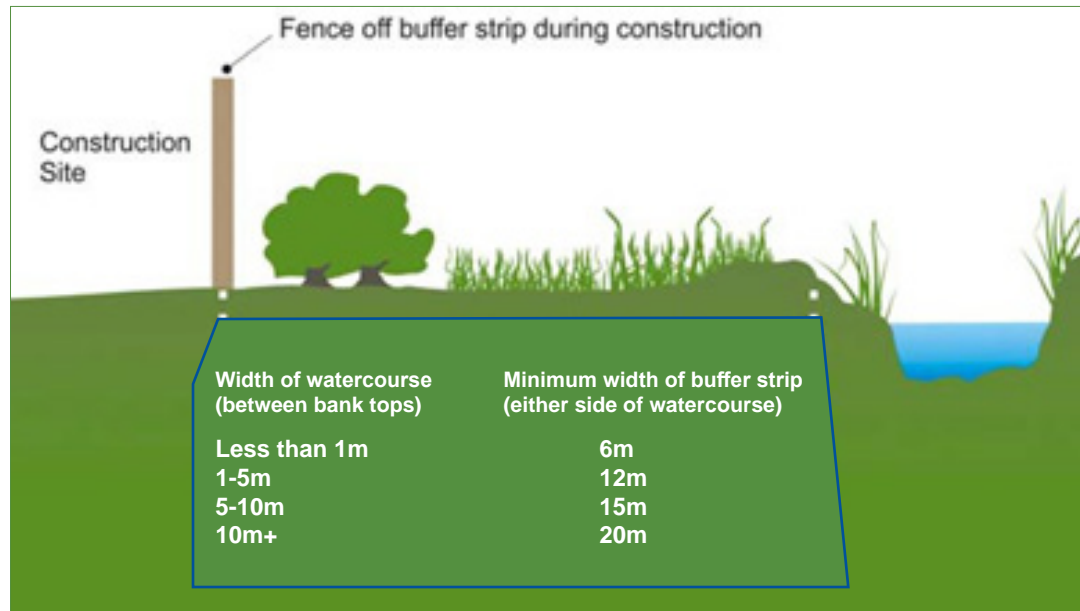
- Fence off key areas of habitat to avoid direct damage;
- Schedule operations to avoid disturbance at key times (e.g. bird nesting season);
- Adopt pollution prevention measures;
- Create undisturbed buffer zones around ecological features and exclude construction activity from these areas. A buffer strip of a minimum of width either side of a watercourse is required. Wider watercourses will require a larger buffer strip (measured from the bank top). The table in 4.22 provides minimum widths however, these will be dependent on site conditions and may need to be larger;
- Ensure site personnel are aware of the protection requirements and mechanisms on site;
- Implement a biosecurity plan to prevent the spread of invasive non-native species.



## 4. Developing with Biodiversity

### Example 3

#### 4.22 Leave a buffer strip of at least 10m beside watercourses to protect and benefit biodiversity



## 4. Developing with Biodiversity

### Enhance

4.23 Enhancement can involve improving or enlarging existing habitats or creating new habitat or ecological features. It could aim to reinforce an existing species population or encourage new wildlife to the site. Well implemented and maintained enhancements are an opportunity to improve the site for the benefit of both wildlife and people. A suitably qualified ecologist should be used to help design appropriate and effective biodiversity enhancements. Enhancement opportunities to consider include:

#### Enhancing Existing Habitat

- Improve or enlarge existing areas of natural habitat;
- Leave nature to take its own course - rather than planting up areas, it may sometimes be better to leave them to colonise naturally. Where planting is undertaken suitable native species should be used;
- Create permanent buffer zones around existing habitats (e.g. a strip at least 10m wide either side of a watercourse) to help protect and enhance that habitat, making it more valuable to wildlife. Incorporate semi-natural habitats into larger areas of openspace to increase their attractiveness to wildlife;
- Restore watercourses that have been canalised or culverted, to recreate a more natural form with meanders, stepped sides and wetlands;
- Link existing and new habitat areas with 'wildlife corridors' or 'stepping stones' to significantly increase their value for biodiversity. Explore opportunities to reinforce or enlarge existing habitat networks.

#### Creating New Habitat

- New habitats should be appropriate to the area - look at the habitats already present on or near the site and aim to complement these. The wildlife already present gives an indication of the sort of habitats and species that will thrive;
- Design SUDs ponds or treatment beds to create wetland habitats of benefit to biodiversity. Consider incorporating grassed swales and creating open watercourses rather than underground pipes. Rain gardens can manage runoff and benefit biodiversity;
- It may be possible to design and manage areas of public openspace to benefit wildlife. E.g. sow native grass and wildflower mixes in areas where short amenity grassland is not required;
- Where openspace is limited, green or brown roofs may be used to provide additional wildlife habitat;
- Restoration plans for large sites such as mineral workings and landfill sites offer an ideal opportunity for large scale habitat creation and should be carefully designed to optimise the benefit to biodiversity.
- Creation of habitat as part of new development should where possible offer places of refuge for wildlife where conflict with recreational use is minimised.

#### Landscaping for Biodiversity

- Where possible native species should be used in planting schemes - these generally offer greater wildlife benefits than non-native species. However, carefully selected horticultural varieties and structural planting can also offer wildlife benefits;
- Boundaries and verges offer opportunities to landscape for biodiversity. Native hedges should be used in preference to fences or non-native hedges. Long grass can be left along verges to provide wildlife corridors;
- Avoid solid barriers which prevent the movement of wildlife through a site. E.g. use permeable fencing or leave gaps for wildlife at the base of garden fences.

#### Attracting Wildlife

- Use a show home garden or borders to encourage wildlife gardening (e.g. planting nectar-rich flowers or composting);
- Where appropriate (and particularly where other suitable habitat has been lost) provide bird and bat boxes, and incorporate bat and swift 'bricks' into buildings.

#### Spaces for People

- Consider providing public access to natural areas, where this will not generate undue disturbance or damage to the species or habitats present. Interpretation facilities such as information boards at areas of ecological interest will help to ensure that enhancements benefit local people as well as wildlife and encourage sympathetic use of the area.

## 4. Developing with Biodiversity

### Example 4

#### 4.24 Design SUDS ponds to maximise their biodiversity values

Create a pond complex, with seasonal and semi-seasonal ponds separated from permanent ponds in the summer.

