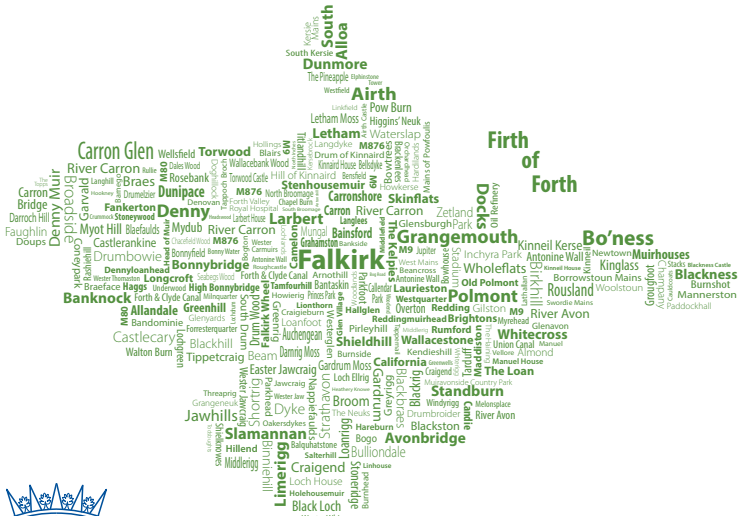
Biodiversity and Development

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.

- SG01 Development in the Countryside
- SG02 Neighbourhood Design
- SG03 Residential Extension and Alterations
- SG04 Shopfronts
- SG05 Green Infrastructure and New Development
- SG06 Affordable Housing
- SG07 **Biodiversity and Development**
- SG08 Local Nature Conservation and Geodiversity Sites
- SG09 Landscape Character Assessment and Landscape Designations
- SG10 Trees and Development
- SG11 Frontiers of the Roman Empire (Antonine Wall) World Heritage Sites
- SG12 Listed Buildings and Unlisted Properties in Conservations Areas
- SG13 Developer Contributions
- SG14 Renewable and Low Carbon Energy

Biodiversity and Development

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.

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

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
Sites	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.	• Wildlife and Natural Environment (Scotland) Act 2011 • Wildlife & Countryside Act 1981 (as amended) • Nature Conservation (Scotland) Act 2004 • Environmental Assessment (Scotland) Act 2005 • Protection of Badgers Act 1992 • SPP (14) Natural Heritage • PAN 51: Planning, Environmental Protection and Regulation • PAN 60: Planning for Natural Heritage • Local Nature Conservation Sites: Biodiversity and Geodiversity SG • Falkirk Area Biodiversity Action Plan • The Scottish Biodiversity Strategy • The Scottish Forestry Strategy 2019-2029
	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.	
Habitats	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.	
Plants & Animals	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.	
Bio-security	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.

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:

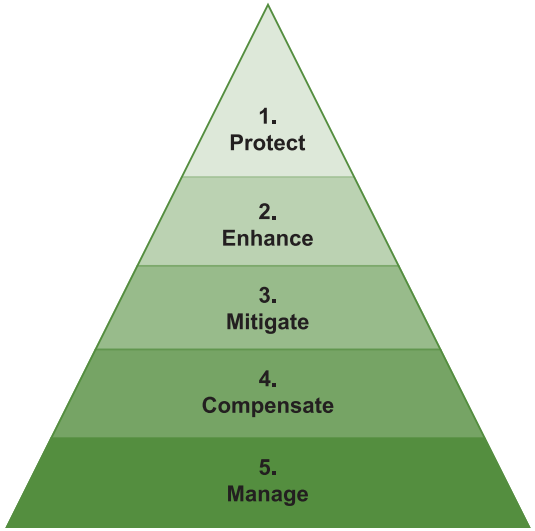
To ensure that species, habitats, sites and networks that are of national or local ecological importance are protected and that our wider biodiversity is maintained and enhanced.

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



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** Land identification Design Team Selection Feasibility Studies Data Needs Assessment Initial Consultations	**Initial Planning/Masterplan** Identify Opportunities and Constraints Produce Masterplan/ Initial Site Layout	**Detailed Planning** Detailed Design Planning Application Tender Works Tender Review	**Construction** Award Contract Commence Works on Site Completion of Development	**Aftercare** 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	Appoint Ecologist Do an initial site audit to identify: • Initial biodiversity issues and opportunities; • Data requirements. Early discussions to help identify biodiversity issues/ opportunities and data requirements. Source any relevant historical biological data.	Undertake: • Habitat survey; • Protected species surveys; • Other surveys as necessary; • Consultation with relevant bodies. Commence: • Ecological impact assessment. Use sufficient, up to date ecological data to inform the master planning or initial layout design process. If you are applying the principle of Biodiversity Net Gain, start the process early.	Ensure all designs take full account of biodiversity, meeting legislative and policy requirements and, where possible, going beyond this to benefit biodiversity. Identify site biodiversity objectives Undertake: • Ongoing consultation with the Council to ensure sufficient data and assessment is provided with a planning application; • Consultation with other relevant bodies • An Ecological impact assessment of the detailed design clearly detailing proposed mitigation, compensation and enhancement proposals. In some cases a Construction Environmental Management Plan may be required. In some cases a Site Biodiversity Management Plan may be required. Refer to Nature Scot standing advice and guidance: https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents	Undertake: • Communication of environmental conditions & obligations to all relevant site staff; • Ongoing monitoring to ensure continued adherence to wildlife legislation and planning conditions; • Engage an ecological clerk of works to oversee environmental protection and enhancement on site; • Implement the Construction Environmental Management Plan (if required) and all agreed mitigation, compensation and enhancements.	Implement • A site Biodiversity Management Plan to ensure appropriate long-term management of important ecological features; • Financial provision for future maintenance of the site; • Ongoing monitoring of ecological features to ensure successful establishment, protection & management.

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

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

	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.
Does the site include any of the following habitats?		
Mature Trees (Individuals or small stands)	✓	**Survey for: Bat Roosts, Breeding Birds** See Trees and Development SG for further advice on trees. Include this feature in an Ecological Impact Assessment.
Woodland		**Survey for: Bat Roosts, Badgers, Breeding Birds, pine marten and LBAP species associated with Woodland** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Hedges		**Survey for: Breeding Birds and other LBAP species associated with Hedgerows** Determine whether the hedge is native, species-rich. Include this feature in an Ecological Impact Assessment.
Rivers, Streams or Wet Ditches	✓	**Survey for: Otters, Water Voles and other LBAP species associated with Watercourses** 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		**Survey for: Great Crested Newts, Water Vole, and other LBAP species associated with this Habitat** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Wetland or Bog	✓	**Survey for: LBAP species associated with Wetlands or Bogs** 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)	✓	**Survey for: LBAP species associated with Grassland** **Check for: Breeding Birds** 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). **Survey for: Helleborine Orchids (on suitable bings) and other LBAP species associated with the Habitat** 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: **Survey for: Invertebrates** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Heath (Heather)		**Survey for: LBAP species associated with Heather/Heath** **Check for: Breeding Birds** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment. Assess impacts on peat soils (if present).
Buildings/Barns		**Survey for: Bat Roosts, Barn Owls, other Nesting Birds and other LBAP species associated with Buildings.** Include these species in an Ecological Impact Assessment.
Scrub	✓	**Survey for: LBAP species associated with Scrub, Breeding birds** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Coastal Sand, Mudflat, Lagoons or Saltmarsh		**Survey for: LBAP species associated with the Habitat** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Invasive Non-Native Species	✓	**Survey for: The presence and extent of Invasive Non-Native Species.**

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.**

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.

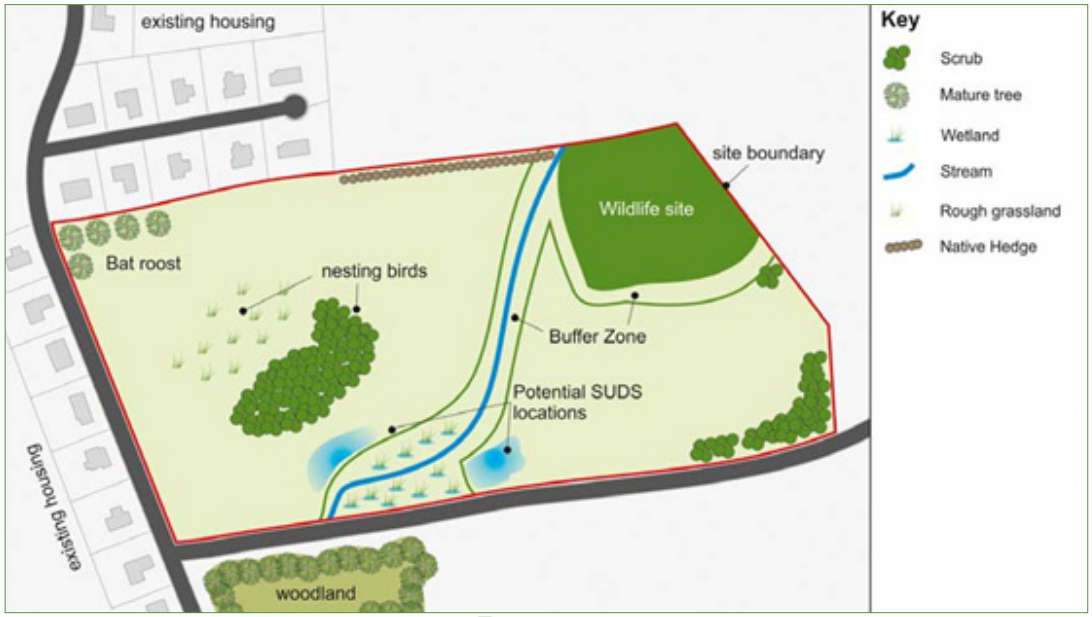
Site specific biodiversity objectives should be identified which are relevant and achievable within the development framework, meet legislative requirements and address the Council's Biodiversity Objectives: to protect, enhance, mitigate, compensate and maintain biodiversity. You may wish to adopt a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

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.

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)

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

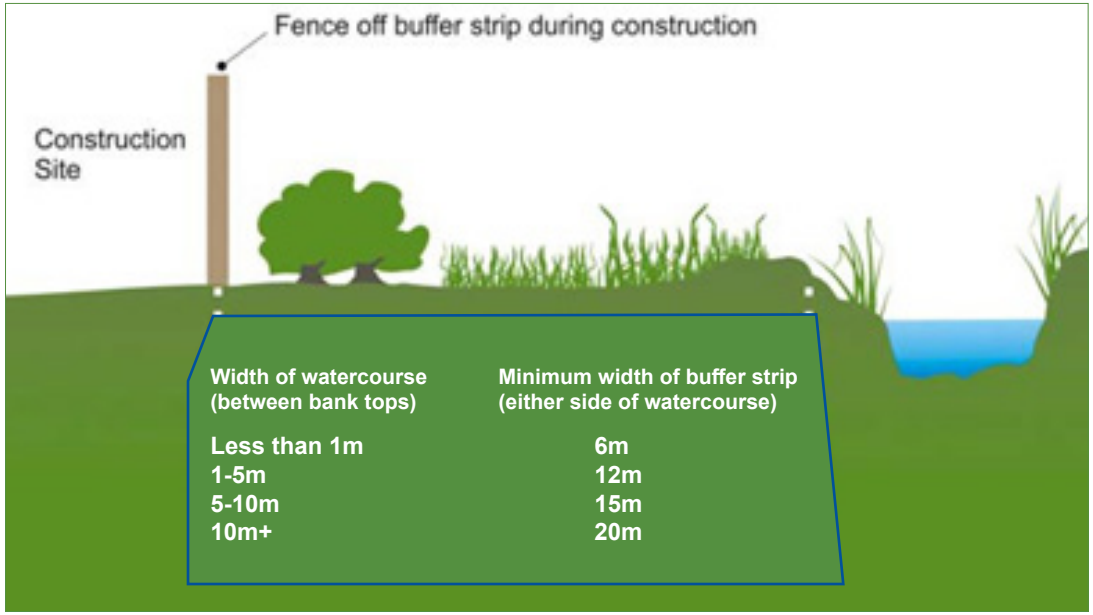
- Protect non-statutory local nature conservation sites from damage. There is a presumption against development which adversely affects locally designated sites. Even where, in extreme cases, development is granted, protection of key elements of the site will be required. As such activity on site should 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.

Example 3

4.22 **Leave a buffer strip of at least 10m beside watercourses to protect and benefit 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 be 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.

Example 4

4.24 **Design SUDS ponds to maximise their biodiversity values**
Create a pond complex, with seasonal and semi-seasonal ponds seperated from permanent ponds in the summer.

Mitigate

4.25 Mitigation of negative impacts should be achieved by good quality design informed at the earliest possible stage by sound ecological data and assessment of environmental impacts. The objective of minimising negative impacts should inform the whole design and construction process, from choosing a site to post-construction maintenance. Mitigation measures need to respond to the sensitivities of a specific site. However, measures to consider include:

Minimise Disturbance & Damage

- Minimise disturbance to species (particularly legally protected species and UKBAP, Scottish List and LBAP species) by avoiding key areas where they are present. It may be necessary to erect barriers between the main development site and the areas occupied or used by the species in question to ensure no direct disturbance. In the case of legally protected species more stringent safeguards may be required; disturbing activity is likely to require a license and advice should be sought from NatureScot;
- Translocation cannot be viewed as mitigation for the loss of irreplaceable habitats such as ancient woodland;
- Areas of habitat to be retained should be fenced off prior to and throughout construction work to avoid any direct damage;
- Impacts from pollution (dust, noise, light, polluted runoff, etc.) should be minimised through careful design and the implementation of suitable pollution prevent measures during construction;
- Construction activity should, as far as possible, be scheduled to avoid sensitive times of year (e.g. the bird breeding season);
- The use of bright lighting on site during the hours of darkness should be minimised, due to its potential to disturb bats and other night foraging creatures;
- Unavoidable flood defence work or alteration of watercourses should be undertaken sensitively, creating stepped banks to provide varied habitats. Culverting should be avoided;
- Provision of nest boxes and bat boxes or bat/swift 'bricks' can help to mitigate against loss of nesting/ roost sites;
- Soil disturbance and compaction should be minimised. Careful soil management is particularly important when working with peat soils;
- Where valuable habitat has to be removed, careful storage and re-use of the topsoil on site can preserve the seedbank and allow similar species to re-establish. This may also reduce disposal costs;
- It may be necessary to implement a biosecurity plan detailing measures to be taken to prevent the spread of invasive non-native species (e.g. exclusion zones around invasive plants, washing of plant and equipment);
- It may be necessary to detail mitigation measures, along with any other good construction practice to be adopted, in a Construction Environmental Management Plan (CEMP).

Create Stepping Stones, Wildlife Corridors and Habitat Networks

- Development can often fragment habitats within or around a site. These fragmented habitats may become too small and isolated to support healthy wildlife populations or to withstand pressures such as damage from recreational use. This fragmentation and isolation should be mitigated by:

  - Retention of buffer zones around fragments of habitat;
  - Creation of habitat 'stepping stones' (close enough together to allow species to travel from one area of habitat to the next);
  - Creation of wildlife corridors to link habitat fragments.

  Ideally stepping stones should be large areas of high quality habitat but even individual trees, groups of trees, patches of grassland, green roofs, or long-grass verges will help.

  A wildlife corridor is a linear feature which species can move easily and safely along to travel between larger areas of habitat (e.g. hedgerows, watercourses, long-grass verges, planting strips, tree lines or shelterbelts).

Training and Supervision

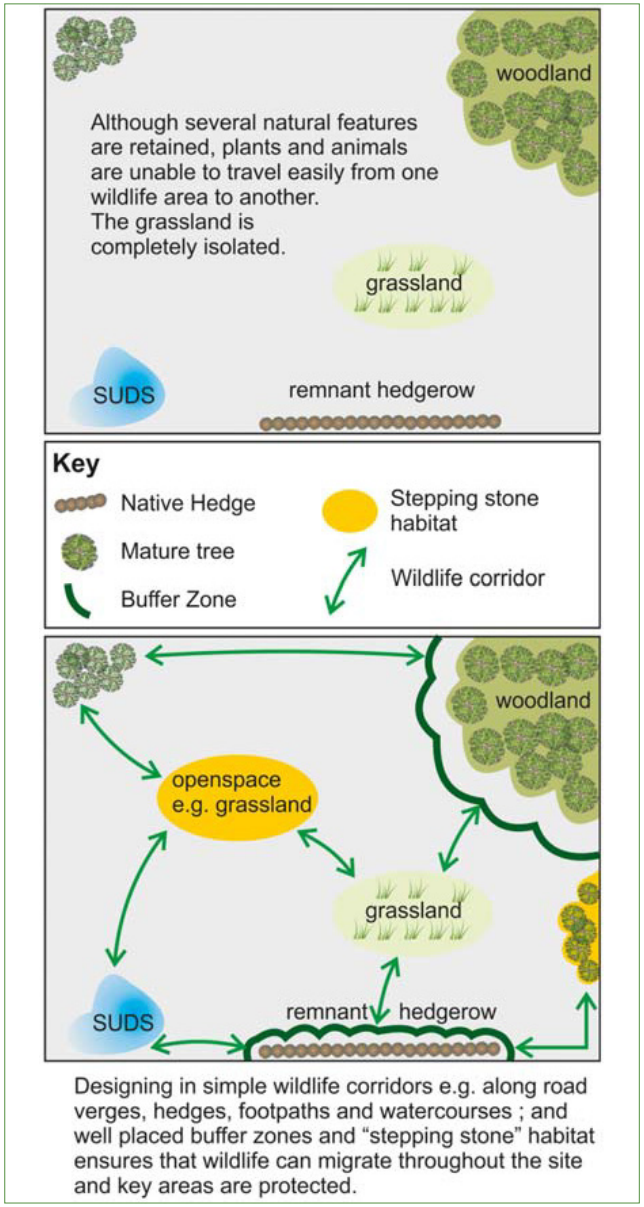
- All site personnel should be briefed by an ecologist on the biodiversity issues on site and the measures in place to safeguard important habitats and species. This will reduce the potential for accidental disturbance or damage;
- For more sensitive sites (e.g. those with legally protected species) an Ecological Clerk of Works should be appointed to ensure that the necessary mitigation is carried out.

Example 5

4.26 **Wildlife Corridors, Buffers and Stepping Stones**

A development without wildlife corridors, buffers or 'stepping stones'.

A development with wildlife corridors, buffers or 'stepping stones'.



Designing in simple wildlife corridors e.g. along road verges, hedges, footpaths and watercourses ; and well placed buffer zones and "stepping stone" habitat ensures that wildlife can migrate throughout the site and key areas are protected.

Compensate

4.27 Where negative impacts on biodiversity cannot be adequately mitigated, compensation will be required. Where possible compensation should be provided onsite. However, offsite options might be considered where the development site does not offer adequate scope for onsite compensation. The loss of some habitats, e.g. ancient woodland, cannot be adequately compensated for. Compensation options to consider include:

Habitat Creation

- New habitat may be created to compensate for habitat that is lost or reduced in value. Where compensatory habitat is provided it must be of an equal or greater size, and to a similar, if not better, quality. Ideally this should be provided within the development site. However, if this is impossible, it may take place outwith but near the site with suitable wildlife corridors/stepping stones linking the compensation area to any remaining habitat within the development site. In certain circumstances habitat creation within or near to a site is not feasible. In such cases a contribution to biodiversity conservation or habitat creation in the wider area may be considered instead;
- Where key species are to be displaced into a newly created habitat, this should be done well in advance of disturbance to the existing habitat. Newly created habitat will take time to establish. Translocation is generally difficult and should only be attempted as a last resort.

Habitat Enhancement

- Enhancement of a nearby area of habitat rather than creation of new habitat may also be an option for compensation. This is likely to require enhancement of a larger area than that lost. This option will not be acceptable in cases where it is critical that the overall area of habitat in the locality is not reduced.

Biodiversity Features

- Provision of features such as bird boxes, bat boxes and bat 'bricks' (of an appropriate design and in the right location) may help to compensate for habitat loss.

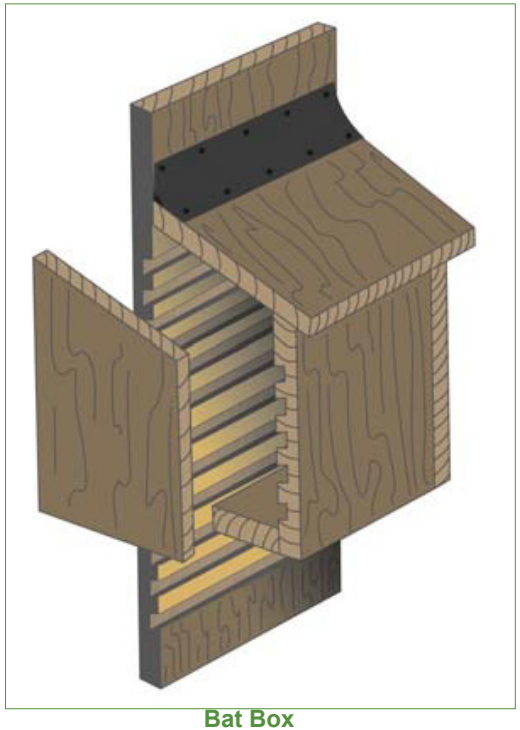
Contributions towards Local Biodiversity Conservation

- In certain circumstances compensation may take the form of a sum of money to assist with enhancement and management of nearby sites of ecological importance. This may be particularly important where development will lead to increased pressure on these sites;
- Compensation may take the form of a sum of money to assist with biodiversity conservation within the local Falkirk Council area. The Local Biodiversity Action Plan may be used to help identify the priorities for local conservation action.

  Note : in some instances the negative impacts of a proposed development on biodiversity will be unacceptable and in such cases planning permission will not be granted for the development regardless of the compensation offered.

Example 6

4.28 **Provision of suitably designed bird or bat boxes may help to compensate for loss of other potential nesting/roosting (e.g. areas of trees or scrub)**



Bat Box

Two designs are shown here but advice should be sought on the most appropriate design for a specific location.

Bird Box

Manage/Maintain

4.29 Where ecological features are retained or created appropriate ongoing management and maintenance must be put in place. The size and nature of the development and the ecological features on site will determine the scale of management provision required. In some cases providing for future management will require implementation of specific management regimes; in others it will simply require a suitable initial design.

Some developments will require a Biodiversity Management Plan for all or part of the site to ensure appropriate ongoing management of the features of importance for biodiversity.

Ongoing monitoring is important to ensure that the required protection or enhancement of biodiversity is taking place successfully and check whether additional protection measures are required to meet legislative requirements or planning conditions. Periodic monitoring may be a condition of planning consent.

Management plans should cover at least the 10 years following completion of a development and ideally plan for longer term management and maintenance.

It is worth noting that natural areas are often less expensive to maintain than more intensively managed areas. Options for leaving areas of grass uncut, reducing or eliminating the need for pesticide use, and reducing the use of horticultural varieties that may require regular pruning should be considered.

A Biodiversity Management Plan is likely to include the following areas of action:

- Ensuring new habitats or plants have established successfully;
- Management of retained or created habitat (e.g. annual cutting of meadows);
- Periodic maintenance of features such as bird or bat boxes;
- Control of invasive non-native species (if necessary);
- Provision and maintenance of access and interpretation (where appropriate).

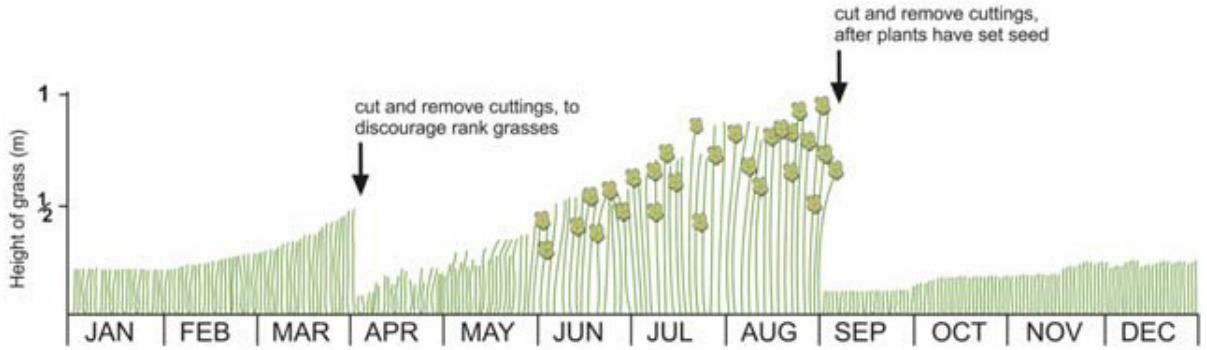
Example 7 : Management of Grassland Areas for Biodiversity

4.30 **Management of Grassland Areas for Biodiversity**

Areas of long grass can be of considerable benefit to biodiversity. Long grass could, for example, be retained on verges, as swathes within areas of short grass, or as larger meadow areas.

Ideally areas of long grass should be cut periodically to prevent rank grass swamping wildflower species. The grass cuttings must be removed to prevent the build up of nutrients in the soil.

The timing of cutting is important. Below is a guide to cutting times, although the species present will dictate ideal cutting times for a site.



Biodiversity Checklists

5.1 The following checklists offer a quick guide to the main likely biodiversity requirements and opportunities for different development types. The issues listed are not exhaustive and other considerations may arise following discussion with relevant Council officers and other organisations.

Checklists are provided for each of the following development types:

Householder/Minor Proposals:

- Householder proposals - alterations, extensions etc.;
- Listed building consents;
- Change of use;
- Developments of less than 10 houses and less than 0.5ha.

Significant New Developments:

- Developments of 10 or more houses or over 0.5 ha;
- Other major built development (over approx. 1000 sq m floorspace or 1 ha).

Mineral Workings & Landfill Sites

Wind Turbines and Wind Farms

Road & Rail Facilities

The above development types are indicative only, to give a guide to the most appropriate checklist to use. If in doubt early discussion with Council Officers is recommended.

Biodiversity Checklist - Householder or Minor Proposals

5.2 Undertake an initial site audit to help identify whether there are any issues that require further investigation (see Appendix 1).

Further investigation is only likely to be required if the proposal involves the following:		**If So:**		**Then**
Roofing/Roofing Works (on an existing roof)	→	Check for the presence of bat roosts and breeding bird sites.	→	If present do not disturb bats, bat roosts (even if not in use) or nesting birds. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.
Demolition	→	Check for the presence of bat roosts and breeding bird sites.	→	If present do not disturb bats, bat roosts (even if not in use) or nesting birds. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.
A Barn Conversion	→	Check for the presence of barn owls, other breeding birds and bat roosts.	→	If Barn Owls are present consult Falkirk Council to determine appropriate mitigation (e.g. provision of nest boxes). Do not disturb bats, bat roosts (even if not in use) or nesting birds. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.
Impact on a Designated Site (see Appendix 5)	→	Check status of the site and the likely impact of the development.	→	Consult Council Officers to determine whether development might be considered. There is a presumption against development which adversely affects designated sites. Identify suitable protection, enhancement, mitigation & compensation.
Damage to or loss of key habitat features such as:		Check for the presence of barn owls, other breeding birds and bat roosts.		
Watercourses	→	Survey for water voles & otters. Fish and invertebrate surveys may be needed.	→	IIf legally protected species or habitats are found Refer to Nature Scot standing advice and guidance or consult Falkirk Council.
Ponds	→	Survey for great crested newts (if the habitat is suitable).	→	Do not disturb nesting birds.
Trees/Woodland	→	Check for bats, nesting birds and badgers.	→	Aim to retain and protect ecological features as far as possible.
LBAP Priority Habitats (see Appendix 4)	→	Assess impact of development on the feature	→	Mitigate to minimise impacts on species and habitats.
LBAP Priority Species (see Appendix 4)	→	Assess impact of development on priority species.	→	If loss of habitat is unavoidable, replacement habitat should be provided (e.g. bird or bat boxes, tree planting, wetland creation etc.)
Invasive Non-Native Species	→	Check for invasive non-native species.	→	Prevent the spread of invasive non-native species.

Additional enhancement to benefit biodiversity is encouraged. The level and type of biodiversity enhancements expected will be proportionate to the scale and environmental impact of the proposed development.

Where areas of ecological importance are being retained or created appropriate management should be put in place.

Biodiversity Checklist - Significant New Development

5.3 A suitably qualified ecologist should undertake an initial site audit (see Appendix 1) to help identify areas/issues that require further investigation. Early discussions with Falkirk Council are vital to agree biodiversity issues and opportunities and to identify further data needs.

Feature Present		If So:		Then
Suitable Habitat for Legally Protected Species or Legally Protected Habitats	→	Survey to determine the presence/absence and status of protected species and habitats. Prevent damage or disturbance. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.	→	If the species/habitats present do not preclude all development, assess impacts on species/habitat and design to meet legislative requirements and enhance associated habitats. A license may be required for work impacting on a legally protected species or habitat.
Designated Sites	→	Identify designated sites on or near the development site. Assess the likely impact of the development on each designated site. Note, a site may be affected even if outwith the development area.	→	Consult the council (or Nature Scot standing advice and guidance for statutory designations) to determine whether development may be considered. There is a presumption against development that will adversely impact on a designated site. Identify suitable protection, enhancement, mitigation and compensation. An Appropriate Assessment will be required for developments likely to affect qualifying features of an SPA or SAC.
Buildings	→	Check for the presence of barn owls, other breeding birds and bat roosts.	→	If Barn Owls are present consult Falkirk Council to determine appropriate mitigation (e.g. provision of nest boxes). Do not disturb bats, bat roosts (even if not in use) or nesting birds. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.
Habitat suitable for LBAP species, LBAP habitats or other ecologically valuable features	→	Survey to determine status of habitat or species. Assess impact of development and identify mitigation.	→	Protect LBAP species and habitats wherever possible. Retain ecological features of value where possible. Mitigate to minimise impacts on species and habitats. If loss of habitat is unavoidable, replacement habitat should be provided.
Wildlife Corridors, Stepping Stones or Habitat Networks	→	Assess impact of development in terms of habitat fragmentation and the loss of wildlife corridors/stepping stones. Assess potential to improve habitat connectivity/networks.	→	Protect wildlife corridors, stepping stones and habitat networks wherever possible. Provide buffer zones around key habitat. Design layouts should identify wildlife corridors and stepping stones. Take opportunities to reinforce and augment existing habitat networks.
Invasive Non-Native Species	→	Survey for invasive non-native species.	→	Prevent spread of invasive non-native species. Produce a biosecurity plan if necessary.

Additional enhancement to benefit biodiversity is encouraged. The level and type of biodiversity enhancements expected will be proportionate to the scale and environmental impact of the proposed development.

Where areas of ecological importance are being retained or created appropriate management should be put in place.

REMEMBER !

Biodiversity Objectives

- **Protect**
- **Enhance**
- **Mitigate**
- **Compensate**
- **Manage**

Biodiversity Steps

1. **Consultation & Scoping**
2. **Survey & Assessment**
3. **Design to meet Biodiversity Objectives**
4. **Onsite Implementation**
5. **Management**

Biodiversity Checklist - Mineral Workings and Landfill Sites

5.4 A suitably qualified ecologist should undertake an initial site audit (see Appendix 1) to help identify whether the site is appropriate for the proposed development and any areas/issues that require further investigation. Early discussions with Falkirk Council are vital to agree biodiversity issues and opportunities and to identify further data needs.

Feature Present		If So:		Then
Suitable Habitat for Legally Protected Species or Legally Protected Habitats	→	Survey to determine the presence/absence and status of protected species and habitats. Prevent damage or disturbance. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.	→	If the species/habitats present do not preclude all development, assess impacts on species/habitat and ensure legislative requirements are met. A license may be required for work impacting on a legally protected species or habitat. Restoration plans should aim to reinstate habitats associated with protected species.
Designated Sites	→	Identify designated sites on or near the development site. Assess the likely impact of the development on each designated site. Note, a site may be affected even if outwith the development area.	→	Consult the council (or https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents for statutory designations) to determine whether development may be considered. There is a presumption against development that will adversely impact on a designated site. Identify suitable protection, enhancement, mitigation and compensation. An Appropriate Assessment will be required for developments likely to affect qualifying features of an SPA or SAC.
Peat	→	Identify peat deposits and survey to establish the condition of the peat habitat.	→	Consult the Council and SEPA to determine whether potential impacts on peat would be acceptable.
Habitat suitable for LBAP species, LBAP habitats or other ecologically valuable features	→	Survey to determine status of habitat or species. Assess impact of development and identify mitigation.	→	Protect LBAP species and habitats wherever possible. Retain ecological features of value where possible. Mitigate to minimise impacts on species and habitats. If loss of habitat is unavoidable, it may be necessary to provide replacement habitat nearby. Reinstate and enhance habitat during restoration.
Wildlife Corridors, Stepping Stones or Habitat Networks	→	Assess impact of development in terms of habitat fragmentation and the loss of wildlife corridors/stepping stones. Assess potential to improve habitat connectivity/networks.	→	Where possible provide alternative corridors, stepping stones and habitat networks to allow species safe movement around/across the site while operational. Restoration plans should aim to reinstate and improve wildlife corridors, stepping stones and habitat networks.
Invasive Non-Native Species	→	Survey for invasive non-native species.	→	Prevent spread of invasive non-native species. Produce a biosecurity plan if necessary.

REMEMBER !

Biodiversity Objectives

Protect
Enhance
Mitigate
Compensate
Manage

Biodiversity Steps

1. Consultation & Scoping
2. Survey & Assessment
3. Design to meet Biodiversity Objectives
4. Onsite Implementation
5. Management

Biodiversity Checklist - Wind Turbines and Windfarms

5.5 A suitably qualified ecologist should undertake an initial site audit (see Appendix 1) to help identify whether the site is appropriate for the proposed development and any areas/issues that require further investigation. Early discussions with Falkirk Council are vital to agree biodiversity issues and opportunities and to identify further data needs.

Feature Present		If So:		Then
Suitable Habitat for Legally Protected Species or Legally Protected Habitats	→	Survey to determine the presence/absence and status of protected species and habitats. Prevent damage or disturbance. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.	→	If the species/habitats present do not preclude all development, assess impacts on species/habitat and ensure legislative requirements are met. A license may be required for work impacting on a legally protected species or habitat.
Designated Sites	→	Identify designated sites on or near the development site. Assess the likely impact of the development on each designated site. Note, a site may be affected even if outwith the development area.	→	Consult the council (or https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents for statutory designations) to determine whether development may be considered. There is a presumption against development that will adversely impact on a designated site. Identify suitable protection, enhancement, mitigation and compensation. An Appropriate Assessment will be required for developments likely to affect qualifying features of an SPA or SAC.
Birds (see Appendix 6)	→	Follow national guidance on bird surveys for wind turbine applications.	→	Assess impacts on birds and consider protection, mitigation and compensation. Consult https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents re. protected species.
Bean Geese (see Appendix 6)	→	Seek advice regarding required surveys.	→	Consult https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents. An Appropriate Assessment may be necessary.
Bats	→	Undertake bat roost and activity surveys.	→	If present refer to Nature Scot standing advice and guidance or consult Falkirk Council. Consider protection, mitigation & compensation.
Habitat suitable for LBAP species, LBAP habitats or other ecologically valuable features	→	Survey to determine status of habitat or species. Assess impact of development (construction & implementation phases).	→	Protect LBAP species and habitats wherever possible. Retain ecological features of value where possible. Mitigate to minimise impacts on species and habitats. If loss of habitat is unavoidable, replacement habitat should be provided. Reinstate and enhance habitat post construction.
Wildlife Corridors, Stepping Stones or Habitat Networks	→	Assess impact of development in terms of habitat fragmentation and the loss of wildlife corridors/stepping stones. Assess potential to improve habitat connectivity/networks.	→	Protect wildlife corridors, stepping stones and habitat networks wherever possible. Provide buffer zones around key habitat. Design layouts should identify wildlife corridors and stepping stones. Take opportunities to reinforce and augment existing habitat networks.
Invasive Non-Native Species	→	Survey for invasive non-native species.	→	Prevent spread of invasive non-native species. A biosecurity plan may be necessary.

Biodiversity Checklist - Road and Rail Developments

5.6 A suitably qualified ecologist should undertake an initial site audit (see Appendix 1) to help identify whether the site is appropriate for the proposed development and any areas/issues that require further investigation. Early discussions with Falkirk Council are vital to agree biodiversity issues and opportunities and to identify further data needs.

Feature Present		If So:		Then
Suitable Habitat for Legally Protected Species or Legally Protected Habitats	→	Survey to determine the presence/absence and status of protected species and habitats. Prevent damage or disturbance. Refer to Nature Scot standing advice and guidance or consult Falkirk Council.	→	If the species/habitats present do not preclude all development, assess impacts on species/habitat and ensure legislative requirements are met. A license may be required for work impacting on a legally protected species or habitat.
Designated Sites	→	Identify designated sites on or near the development site. Assess the likely impact of the development on each designated site. Note, a site may be affected even if outwith the development area.	→	Consult the council ((or https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents for statutory designations) to determine whether development may be considered. There is a presumption against development that will adversely impact on a designated site. Identify suitable protection, enhancement, mitigation and compensation. An Appropriate Assessment will be required for developments likely to affect qualifying features of an SPA or SAC.
Buildings, Bridges and Tunnels	→	Check for bat roosts, breeding birds, and signs of other protected species (e.g. otter, water vole, badger) using paths through tunnels or under bridges.	→	Do not disturb protected species or their roosts/resting places. Refer to Nature Scot standing advice and guidance or consult Falkirk Council. Avoid and mitigate against impacts on species (e.g. provide runways under bridges where the banks are to be disturbed).
Habitat suitable for LBAP species, LBAP habitats or other ecologically valuable features	→	Survey to determine status of habitat or species. Assess impact of development and identify mitigation.	→	Protect LBAP species and habitats wherever possible. Retain ecological features of value where possible. Mitigate to minimise impacts on species and habitats. If loss of habitat is unavoidable, it may be necessary to provide replacement habitat nearby.
Wildlife Corridors, Stepping Stones or Habitat Networks	→	Assess impact of development in terms of habitat fragmentation and the loss of wildlife corridors/stepping stones. Assess potential to improve habitat connectivity/networks.	→	Minimise loss of wildlife corridors. Where development cuts across a wildlife corridor consider the need for an underpass/animal tunnel and/or warning signs to provide wildlife crossing points. Design the road/rail corridor to maximize its value as a wildlife corridor and reinforce/ augment existing habitat networks.
Invasive Non-Native Species	→	Survey for invasive non-native species.	→	Prevent spread of invasive non-native species. Produce a biosecurity plan if necessary.

REMEMBER !

Biodiversity Objectives

Protect
Enhance
Mitigate
Compensate
Manage

Biodiversity Steps

1. Consultation & Scoping
2. Survey & Assessment
3. Design to meet Biodiversity Objectives
4. Onsite Implementation
5. Management

Appendix 1 - Initial Site Audit

6.1 An initial audit of the biodiversity constraints and opportunities at a site should be undertaken at the earliest opportunity. This will give an indication of any additional biodiversity data that will be required as well as highlighting features such as designated sites, ecologically important habitats and species, and habitat networks that should be considered throughout the planning and design process.

Discussion with relevant Council Officers will also help to identify survey needs, constraints and opportunities.

The checklist on the page opposite gives an indication of the features which an initial site audit should consider and the likely next steps.

Protected Species
If legally protected species are identified by surveys refer to the Nature Scot standing advice and guidance or consult Falkirk Council regarding legal constraints, additional data requirements, potential mitigation requirements and licensing arrangements.

The checklist on the page opposite should be used as a guide only. Every site and every development is different. Some areas and developments will require little or no further ecological investigation while others may require significant survey work and ecological assessment. If in doubt about the survey and assessment effort that will be required please seek advice as soon as possible.

6.2

	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?		Consult NatureScot or Falkirk Council for further advice.
Could the development impact on a statutorily designated site outwith the development area?		Consult NatureScot or 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.
Does the site include any of the following habitats?		
Mature Trees (Individuals or small stands)		**Survey for: Bat Roosts, Breeding Birds** See Trees and Development SG10 for further advice on trees. Include this feature in an Ecological Impact Assessment. Check the Ancient Tree Inventory where veteran trees are identified on site. SG10 link: https://www.falkirk.gov.uk/services/planning-building/planning-policy/supplementary-guidance/docs/ldp2/SG10%20Trees%20and%20Development.pdf?v=202011041217
Woodland		**Survey for: Bat Roosts, Badgers, Breeding Birds, pine marten and LBAP species associated with Woodland** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment. See SG10 Trees and Development for further advice on trees. SG10 link : https://www.falkirk.gov.uk/services/planning-building/planning-policy/supplementary-guidance/docs/ldp2/SG10%20Trees%20and%20Development.pdf?v=202011041217
Hedges		**Survey for: Breeding Birds and other LBAP species associated with Hedgerows** Determine whether the hedge is native, species-rich. Include this feature in an Ecological Impact Assessment.
Rivers, Streams or Wet Ditches		**Survey for: Otters, Water Voles and other LBAP species associated with Watercourses** 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		**Survey for: Great Crested Newts, Water Vole, and other LBAP species associated with this Habitat** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Wetland or Bog		**Survey for: LBAP species associated with Wetlands or Bogs** 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)		**Survey for: LBAP species associated with Grassland** **Check for: Breeding Birds** 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). **Survey for: Helleborine Orchids (on suitable bings) and other LBAP species associated with the Habitat** 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: **Survey for: Invertebrates** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Heath (Heather)		**Survey for: LBAP species associated with Heather/Heath** **Check for: Breeding Birds** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment. Assess impacts on peat soils (if present).
Buildings/Barns		**Survey for: Bat Roosts, Barn Owls, other Nesting Birds and other LBAP species associated with Buildings.** Include these species in an Ecological Impact Assessment.
Scrub		**Survey for: LBAP species associated with Scrub, Breeding birds** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Coastal Sand, Mudflat, Lagoons or Saltmarsh		**Survey for: LBAP species associated with the Habitat** Undertake a Phase II Habitat Survey. Include this feature in an Ecological Impact Assessment.
Invasive Non-Native Species		**Survey for: The presence and extent of Invasive Non-Native Species.**

Appendix 2 - Legally Protected Species and Habitats

6.3

European Protected Species likely to occur within the Falkirk Area	Habitat most likely to be found in
Bats	Roosts: Buildings, Tunnels, Bridges, Trees
Great Crested Newts	Ponds/pools and terrestrial habitat within 1km of breeding ponds (grassland, woodland, rubble piles etc)
Otter	Rivers and larger streams

Other Legally Protected Species likely to occur within the Falkirk Area	Habitat likely to be found in
Adder	Heath or Bog
Atlantic Salmon	Rivers
Badger	Woodland and Scrub but forages across Grassland and other Habitats
Barn Owl	Nests: Barns and similar structures. Feeds: Over open Grassland and Farmland
Common Tern	Mudflats, Saltmarsh, Openwater
Kingfisher	Rivers and Larger Streams
Red Squirrel	Woodland/Parkland (Particularly Conifer Woodland)
Short-Eared Owl	Estuary, Saltmarsh, Heath, Bog, Fen
Slow Worm	Heath, Grassland, Scrub
Water Vole	Streams and Lochs (and very occasionally in Wet Grasslands)

Habitats which may be protected by designation as an SAC and which occur in the Falkirk Area
Active Blanket Bog
Raised Bog
Estuaries
Saline Lagoons
Inter-Tidal Mudflats

6.4

Invasive non-native species known or likely to occur in the Falkirk Area (as at 2013)	Habitat in which they usually occur
Bullhead	Rivers and Canals (present in Union Canal)
Canadian Pondweed	Ponds, Pools, Lochs
Chalara fraxinea (Ash dieback fungus)	Ash Trees
Giant Hogweed	Wasteground, Roadsides, Pasture, often by Lowland Watercourses
Himalayan Balsam	Damp, semi-shaded places. Often by Watercourses
Japanese Knotweed	Most terrestrial Habitats, especially Urban areas, Waste ground, Riverbanks
Minnow	Streams and Pools/Ponds
New Zealand Flatworm	Shady Wooded areas and Gardens
New Zealand Pygmyweed	Ponds/Pools
North American Mink	Widespread but focused around Aquatic Habitats
North American Skunk Cabbage	Wetlands and beside Watercourses
Parrot's Feather	Standing Water, Wetlands and slow moving Watercourses
Rainbow Trout	Rivers and Lochs/Pools
Rhododendron Ponticum	Woodland, Heath, Parkland and Gardens
Ruffe	Rivers and Canals
Sea Buckthorn	Coastal Areas and landscaping schemes
Water Fern	Standing Water and slow flowing Watercourses
Zebra Mussel	Freshwater: Slow Rivers, Canals, Lochs

Note : Other invasive non-native species and pathogens are likely to spread into this area over time. Therefore up to date advice should be sought when considering biosecurity issues.

Appendix 4 - Local Biodiversity Action Plan (LBAP) Habitats and Species

6.5 The local biodiversity action plan (LBAP) process has identified a list of priority habitats and species which are of particular national and/or local ecological value and a priority for conservation action locally. This local list includes most species and habitats which are identified as national priorities on the UKBAP list or as priorities for action on the Scottish Biodiversity list and which occur in the Falkirk area.

The full list of UKBAP priority species and Scottish Biodiversity List species is available at www.jncc.defra.gov.uk and www.biodiversityscotland.gov.uk respectively

LBAP Priority Habitats
Estuary
Mudflats
Saline Lagoons
Saltmarsh
Arable
Boundary Features
Lowland, Dry Acidic Grassland
Neutral Grassland
Heath
Lowland Raised and Intermediate Bog
Canals
Fen, Marsh and Swamp
Rivers and Streams
Standing Open Water
Open Mosaic Habitat on previously Developed Land (including Bings)
Gardens
Urban Greenspace
Urban Wildlife Corridors
Broadleaved and Mixed Woodland
Wood Pasture and Parkland

LBAP Priority Species	
Mammals	
Common Name	**Scientific Name**
Badger	Meles meles
Brown Hare	Lepus europaeus
Brown Long-eared Bat	Plecotus auritus
European Otter	Lutra lutra
Hedgehog	Erinaceus europaeus
Pine Marten	Martes martes
Soprano Pipistrelle Bat	Pipistrellus pygmaeus
Water Vole	Arvicola terrestris

LBAP Priority Species	
Amphibians, Reptiles and Fish	
Common Name	**Scientific Name**
Common Frog	Rana temporaria
Common Toad	Bufo bufo
Great Crested Newt	Triturus cristalus
Palmate Newt	Triturus helveticus
Smooth Newt	Triturus vulgaris
Adder	Vipera berus
Common Lizard	Lacerta vivipara
Slow Worm	Anguis fragilis
Atlantic Salmon	Salmo salar
Brook Lamprey	Lampetra planeri
European Eel	Anguilla anguilla
River Lamprey	Lampetra fluviatilis
Sea/Brown Trout	Salmo trutta fario
Sparling (Smelt)	Osmerus eperlanus
Twaite Shad	Alosa fallax

LBAP Priority Species	
Ferns and Lower Plants	
Common Name	**Scientific Name**
Hay Scented Buckler Fern	Dryopteris aemula
A Liverwort	Plagiochilia spinulosa
Moonwort	Botrychium lunaria
Pillwort	Pilularia globulifera
A Liverwort	Lepidozia pearsonii

LBAP Priority Species	
Invertebrates	
Common Name	**Scientific Name**
Small Pearl-Bordered Fritillary	Boloria selene
Green Hairstreak Butterfly	Callophrys rubi
Large Heath Butterfly	Coenonympha tullia
A Mud Snail	Omphiscola glabra
Common Blue Butterfly	Polyommatus icarus
Swordgrass Moth	Xylena exsoleta

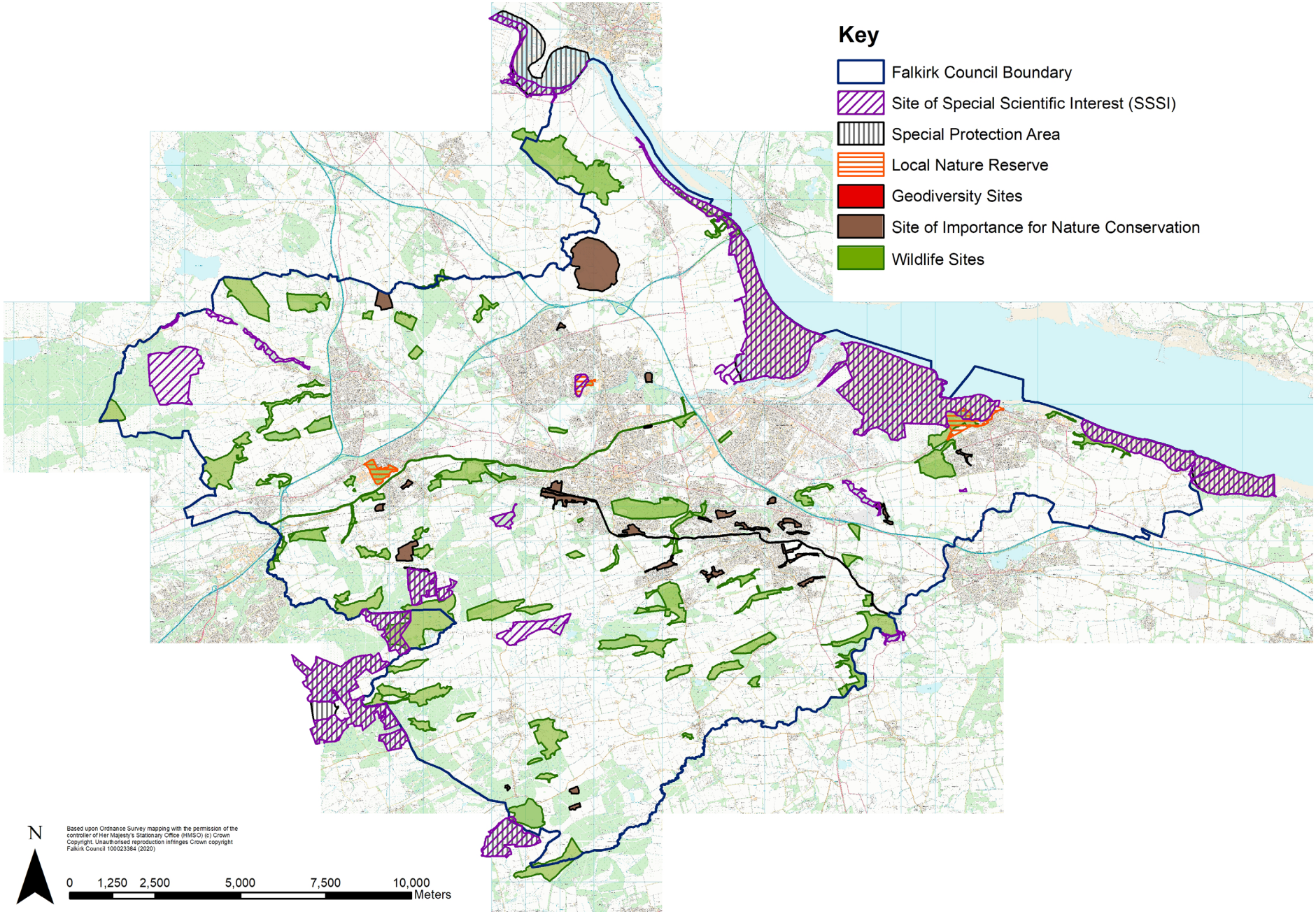
LBAP Priority Species	
Flowering Plants	
Common Name	**Scientific Name**
Annual Knawel	Scleranthus annuus
Bennett's Pondweed	Potamogeton x Bennetti
Bluebell	Hyacinthoides non-scripta
Dune Helleborine	Epipactis leptochila dunensis
Field Scabious	Knautica arvensis
Grass of Parnassus	Parnassia palustris
Greater Butterfly Orchid	Platanthera Chlorantha
Harebell	GCampanula Rotundifolia
Ivy-Leaved Water Crowfoot	Ranunculus hederaceus
Lesser Butterfly Orchid	Platanthera bifolia
Ox-eye Daisy	Chrysanthemum leucanthemum
Purple Ramping Fumitory	Fumaria purpurea
Ragged Robin	Lychnis flos-cuculi
Round-Leaved Sundew	Drosera rotundifolia
Smooth Cats-Ear	Hypochaeris glabra
Tufted Loosestrife	Naumburgia thyrsiflora
Whorled Caraway	Carum verticullatum
Wych Elm	Ulmus glabra
Young's Helleborine	Epipactis youngiana

LBAP Priority Species	
Birds	
Common Name	**Scientific Name**
Barn Owl	Tyto alba
Bean Goose	Anser fabilis
Black Grouse	Tetrao tetrix
Black-Tailed Godwit	Limosa limosa
Bullfinch	Pyrrhula pyrrhula
Common Tern	Sterna hirundo
Cuckoo	Cuculus canorus
Curlew	Numenius arquata
Dipper	Cinclus cinclus
Dunlin	Calidris alpine
Golden Plover	Pluvialis apricaria
Grasshopper Warbler	Locustella naevia
Great Crested Grebe	Lychnis flos-cuculi
Green Woodpecker	Picus viridus
Grey Partridge	Perdix perdix
Greylag Goose	Anser anser
Hen Harrier	Circus cyaneus
House Sparrow	Passer domesticus
Kestrel	Falco tinnuculus
Kingfisher	Alcedo atthis
Knot	Calidris canutus
Lapwing	Vanellus vanellus
Lesser Redpoll	Carduelis flammea
Linnet	Carduelis cannabina
Merlin	Falco columbarius
Pink-Footed Goose	Anser brachyrhynchus
Pintail	Anas acuta
Red-Breasted Merganser	Mergus serrator
Redshank	Tringa tetanus
Reed Bunting	Emberiza schoeniculus
Sand Martin	Riparia riparia
Sedge Warbler	Acrocephalus schoenobaenus
Shelduck	Tadorna tadorna
Short-Eared Owl	Asio flammeus
Skylark	Alauda arvensis
Snipe	Gallinago gallinago

LBAP Priority Species	
Birds	
Common Name	**Scientific Name**
Song Thrush	Turdus philomelos
Spotted Flycatcher	Muscicapa striata
Starling	Sturnus vulgaris
Swallow	Hirundo rustica
Swift	Apus apus
Teal	Anas cracca
Tree Pipit	Anthus Trivialis
Tree Sparrow	Passer montanus
Twite	Carduelis flavirostris
Water Rail	Rallus aquaticus
Wood Warbler	Phylloscopus sibilatrix
Woodcock	Scolopax rusticola
Yellowhammer	Emberiza citrinella

Note : This list is subject to periodic review.
The most up to date list will be published in the current Falkirk Area Biodiversity Action Plan.

6.6


Key
Falkirk Council Boundary
Site of Special Scientific Interest (SSSI)
Special Protection Area
Local Nature Reserve
Geodiversity Sites
Site of Importance for Nature Conservation
Wildlife Sites
N
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Appendix 6 - Further Information

6.7 The following sources provide further information, often with particular reference to development.

General Guidance	Websites	Publications
Biodiversity & Development	www.biodiversityinplanning.org/ www.nature.scot (NatureScot website)	Biodiversity by Design : A guide for Sustainable Communities, TCPA, 2004 Falkirk Area Biodiversity Action Plan, Falkirk Council
Biodiversity & Development	https://www.iema.net/policy/natural-environment/principles-and-guidance	
Legislation and Designated Sites	**Websites**	**Publications**
Legislation & Statutory Protection	www.nature.scot (protected species & protected areas sections)	Planning Permission and Wildlife: What you need to Know, NatureScot, 2011 Scotland's Wildlife: The Law and You, NatureScot, 2009
Locally Designated Sites	www.falkirk.gov.uk	Local Nature Conservation Sites: Biodiversity & Geodiversity SG08, Falkirk Council
Species	**Websites**	**Publications**
Bats	www.bats.org.uk - Buildings, Bats and Development section www.nature.scot	Bat Mitigation Guidelines, English Nature, 2004 Bats and Onshore Wind Turbines, Natural England, 2012 Bats and Single Large Wind Turbines: joint agencies interim guidance, Natural England, 2009
Badgers	www.nature.scot www.scottishbadgers.org.uk	Badgers and Development, NatureScot, 2002
Water Voles, Otters and other Aquatic Mammals	www.nature.scot	Watervole Conservation Handbook 3rd Edition, WildCRU, 2011
Birds	www.nature.scot	Windfarm Impacts on Birds - a series of information notes available at www.nature.scot
Bean Geese	www.sites.google.com/view/scotlands-bean-geese	
Trees	www.woodlandtrust.org.uk	Trees and Development Supplementary Guidance (2nd edition), Falkirk Council, 2014 The Ancient Tree Inventory www.woodlandtrust.org.uk
Invertebrates	www.buglife.org.uk	
Amphibians, Fish & Reptiles (including Great Crested Newts)	www.nature.scot www.froglife.org	The Great Crested Newt Conservation Handbook, Froglife, 2001
Non-Native Invasive Species & Biosecurity	www.nonnativespecies.org www.nature.scot	Invasive Species Management for Infrastructure Managers and the Construction Industry, CIRIA, 2008

Habitats	Websites	Publications
Woodland	www.forestry.gov.scot	The Woodland Trust's 'Planners' Manual for Ancient Woodland and Veteran Trees': www.woodlandtrust.org.uk/publications/2019/07/planners-manual-for-ancient-woodland-and-veteran-trees-scotland/ Residential Developments and Trees: www.woodlandtrust.org.uk/media/1688/residential-developments-and-trees.pdf Emergency Tree Plan: www.woodlandtrust.org.uk/publications/2020/01/emergency-tree-plan/
Fresh Water	www.sepa.org.uk	Ponds, Pools and Lochans, SEPA, 2000
Hedges/Boundary Features	www.hedgelink.org.uk	
Open Mosaic Habitat on previously developed land (brownfields)	www.buglife.org.uk	Planning for Brownfield Biodiversity: a best practice guide, Buglife, 2009
Soils	www.sepa.org.uk/land/soil.aspx www.nature.scot (soils & development section)	Scottish Soil Framework, Scottish Government, 2009
Green Roofs	www.greenroofguide.co.uk	BUILDING GREENer: Guidance on the use of green roofs, green walls and complementary features on buildings, CIRIA, 2007. Creating Green Roofs for Invertebrates, Buglife
Integrated Habitat Networks	www.nature.scot (Habitat networks and spatial ecology section) http://www.centralscotlandgreennetwork.org/	An Essential Guide to Habitat Networks, NatureScot, 2011
Surveys and Ecological Assessment	**Websites**	**Publications**
Survey Times	www.biodiversityinplanning.org/	
Ecological Information and Assessment		BS42020 Biodiversity - Code of Practice for Planning and Development, British Standards Institution, 2013
Wetland Survey and Assessment	www.sniffer.org.uk	A functional wetland typology for Scotland: https://www.sniffer.org.uk/wfd95-a-functional-wetland-typology-for-scotland
Environmental Impact Assessment	www.scotland.gov.uk www.nature.scot	Code of Practice for Planning and Development, British Standards Institution, 2013
Appropriate Assessment	www.nature.scot	Natura Sites and the Habitats Regulations - How to consider proposals affecting SACs and SPAs in Scotland", NatureScot, 2011

Appendix 6 - Further Information

Construction Good Practice	Websites	Habitats
Construction Site Good Practice	wwww.ciria.org	Working with Wildlife Site Guide, CIRIA, 2005
Landscaping		Scotland's Native Trees and Shrubs: A designer's guide to their selection, procurement & use in road landscape., Scottish Executive
Specific Development Types	**Websites**	**Publications**
Road Schemes		Biodiversity Impact: Biodiversity and Environmental Impact Assessment: A good practice guide for road schemes, H. Byron, 2000 Cost Effective |Landscape: Learning from Nature. Landscape design and management policy., The Scottish Office, 1998
Mining		Biodiversity and Opencast Coal Mining: A good practice guide, RSPB
Landfill Sites		Wildlife Management & Habitat Creation on Landfill Sites.,Ecoscope, 2000
Wind Turbines/Windfarms	www.nature.scot (Recommended bird survey methods to inform impact assessment of onshore wind farms)	

Appendix 7 - Useful Contacts

Development Management Unit
Development Services
Falkirk Council
Abbotsford House
David's Loan
Falkirk FK2 7YZ
Telephone: 01324 504748
Email: dc@falkirk.gov.uk

Falkirk Area Biodiversity Officer
Development Services
Falkirk Council
Abbotsford House
David's Loan
Falkirk FK2 7YZ
Telephone: 01324 504863
Email: planenv@falkirk.gov.uk

Bean Goose Action Group
c/o NatureScot
http://sites.google.com/view/scotlands-bean-geese

Buglife
Balallan House
24 Allan Park
Stirling
FK8 2QG
Tel: 01786 447504
E-mail: scotland@buglife.org.uk
www.buglife.org.uk

Central Scotland Green Network Trust
Hillhouseridge
Shottskirk Road
Shotts
Lanarkshire
ML7 4JS
Tel: 01501 822015
www.csgnt.org.uk/

Falkirk Invasive Species Forum
c/o Falkirk Biodiversity Officer (details as above)

CIRIA
Classic House
174-180 Old Street London
EC1V 9BP
Tel: 020 7549 3300
E-mail: enquiries@ciria.org www.ciria.org

Scottish Forestry
Silvan House
231 Corstorphine Road
Edinburgh
EH12 7AT
Tel: 0131 370 5250
Email: scottish.forestry@forestry.gov.scot

Royal Society for the Protection of Birds (RSPB)
South and West Scotland Regional Office
10 Park Quadrant
Glasgow
G3 6BS
Tel: 0141 331 0993
E-mail: glasgow@rspb.org.uk www.rspb.org.uk

Scottish Environment Protection Agency (SEPA)
Strathallan House
Castle Business Park
Stirling
FK9 4TZ
Tel: 01786 457700
Fax:01786 446855
www.sepa.org.uk

NatureScot
Forth Region
Silvan House
3rd Floor East
231 Corstorphine Road
Edinburgh
EH12 7AT
Tel. 0131 316 2600
E-mail: ENQUIRIES@Nature.scot
www.nature.scot

Woodland Trust Scotland
Woodland Trust Scotland
South Inch Business Centre
Shore Road,
Perth
PH2 8BW
Tel: 01738 635544
E-mail: scottishcampaigns@woodlandtrust.org.uk

6.9 **Appropriate Assessment**
Appropriate assessment is required when a plan or project affecting a Natura site is not connected with management of the site for nature conservation, and is likely to have a significant effect on the site (either alone or in combination with other plans or projects). An appropriate assessment considers the potential impacts on the qualifying interests and conservation objectives of the Natura site. It must be based on, and supported by, robust scientific evidence. A competent authority must not authorise a plan or project unless, by means of the appropriate assessment, they can ascertain that it will not adversely affect the integrity of a Natura site.

Biodiversity - the variety of life, including
All plants, animals, habitats and ecosystems.

Brown Roofs
Also known as wildlife roofs, these are green roofs which are specifically designed for wildlife and either replicate the habitat for a single or limited number of species or create a range of habitats to maximise the array of species which may inhabit the roof.

Ecosystem
An ecosystem is a community of living organisms (plants, animals and microbes) in conjunction with the non-living components of their environment (things like air, water and soil), interacting and functioning as a system. Ecosystems often provide us with vital services such as carbon sequestration or flood alleviation.

Ecological Impact Assessment
An assessment of the ecological impacts that may occur as a result of a proposed project, including the likelihood, size and significance of the impact. The assessment usually considers measures that could be put in place to remove or reduce certain of these environmental impacts.

Environmental Impact Assessment
Environmental Impact Assessment (EIA) is a means of drawing together, in a systematic way, an assessment of the likely significant environmental effects arising from a proposed development. Developments falling within a description in Schedule 1 to the 2011 EAI Regulations always require EIA. Development of a type listed in Schedule 2 to the 2011 EIA Regulations will require EIA if it is likely to have a significant effect on the environment, by virtue of factors such as its size, nature or location.

FABAP
The Falkirk Area Biodiversity Action Plan (FABAP) is the LBAP which covers the Falkirk local authority area.

Green Roofs
Green roofs are vegetated layers that sit on top of the conventional waterproofed roof surfaces of a building. Whilst green roofs come in many different forms and types, usually a distinction is made between extensive, intensive and biodiverse or wildlife roofs.

Habitat Network
A habitat network is a network made up of areas of habitat which are either physically connected or functionally connected, so they form a single area in which particular species can move around and survive. Functionally connected habitats, while not physically connected, are located such that species can move from one to the other. A habitat network may consist of just one habitat (e.g. woodland) or may include a whole range of habitats (e.g. grassland, wetland and woodland).

LBAP
The Local Biodiversity Action Plan (LBAP) is a process which identifies local priorities for conservation action and works to focus conservation activity on these priorities.

Scottish Biodiversity List
The Scottish Biodiversity List is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland.

UKBAP
The UK Biodiversity Action Plan sets out biodiversity targets and actions for the UK, aimed at achieving its international obligations to halt biodiversity loss. Many biodiversity actions and targets are now devolved and Scotland's response to the international obligation is detailed in the Scottish Biodiversity Strategy: 2020 Challenge.