



Planning for Nature

Development Management and Wildlife Guide

April 2022



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Frog cover photo: © Lorne Gill/NatureScot

1 INTRODUCTION

1.1 Background

“Biodiversity” encompasses the variety of life, from fungi and microbes to large animals and woodlands. The term recognises the value of diversity of ecosystems, habitats, species, and genes within species. It is this variety as a whole that supports ecosystem services including health, landscapes, food production and cultural values. Perth and Kinross has a diverse range of habitats, from internationally recognised wetlands at Loch Leven, the Tay Estuary reed beds, to the unique alpine flora of Ben Lawers and Schiehallion.

However biodiversity is in crisis, having suffered significant decline, and is under sustained pressure from land use change and the climate emergency. The natural environment of Perth and Kinross needs to be protected and restored. Perth & Kinross Council has signed the Edinburgh Declaration and produced a Climate Action Plan which recognises the need to tackle the twin crises together.



Loch Tay SAC & Ben Lawers NNR

The Nature Conservation (Scotland) Act 2004 places a duty on all public bodies to further the conservation of biodiversity. This duty extends to actions in the Tayside Local Biodiversity Action Plan (LBAP) 2016-2026, published in 2016 by the Tayside Biodiversity Partnership (TBP), a partnership of organisations across Tayside. The LBAP sets targets to protect and enhance biodiversity in Angus and Perth and Kinross with the vision to have a fully functioning ecosystem network from Highland Perthshire to the Tay Estuary, to help reduce flooding, assist species to adapt to climate change and ensure there is no further loss of biodiversity.

In accordance with the biodiversity duty Local Planning Authorities must consider the potential impact of developments on wildlife and habitats and require that planning applications demonstrate how developers have addressed the needs of biodiversity.

1.2 Purpose and Use of this Guidance

This guidance sets out how the biodiversity and geodiversity of the Perth and Kinross Local Development Plan area (excluding National Parks) will be taken into account when considering proposals for development of all scales, and the expectations of the Council when deciding applications.

The guidance will help applicants fully consider the wildlife and habitat implications of proposals which need planning permission. This guidance is a material consideration in the consideration of planning applications.

Applicants should refer to this guidance at the earliest opportunity for important information on potential natural heritage requirements and on constraints and opportunities for development. Applicants are encouraged to seek **pre-application advice** from the Development Management Team to identify potential issues and to avoid unnecessary delays in the planning process

Applicants should also consider NatureScot guidance. NatureScot is a statutory consultee for certain developments that affect wildlife including proposals that require an Environmental Impact Assessment (EIA), those that could affect sites with a statutory nature conservation designation and licensing of work that may affect protected species.

Key information is contained in text boxes throughout the guidance:

LEGISLATION:
key processes to follow in wildlife legislation

LOCAL DEVELOPMENT PLAN POLICIES

POINTS TO REMEMBER: for applicants to address



The River Devon at Rumbling Bridge

1.3 Policy Context

Perth & Kinross Council encourages high quality development that contributes positively to the local environment. The Council has a broad approach to conserving nature, taking into account ecosystems and natural processes, as well as conserving important areas, habitats and species; and recognising the importance of green infrastructure to support biodiversity and provide resilience through networks of urban trees, woodlands, wetlands and grasslands. Protecting and restoring natural habitats and nature networks helps ecosystems provide multiple benefits such as flood reduction, pollution control and the enhanced health and wellbeing of communities through amenity and recreation.

Local Development Plan 2 policies aim to protect and enhance the natural environment. Policy 41 describes the overarching position of the Planning Authority. The relevant sections of the policy are set out throughout this guidance. The overarching policy recognises that as well as seeking to protect legally protected sites and species, the Planning Authority has a duty to both conserve and enhance the wider biodiversity of Perth and Kinross.

Policy 41: Biodiversity

The Council will seek to protect and enhance all wildlife and wildlife habitats, whether formally designated / protected or not, taking into account the ecosystems and natural processes in the area.

The Council will apply the principles of the Planning for Nature: Development Management and Wildlife Guide and will take account of the Tayside Local Biodiversity Action Plan (LBAP) and relevant national and European legislation relating to protected species when making decisions about applications for development....

The biodiversity duty is delivered through requiring avoidance, mitigation and compensation for wildlife and habitats affected by a proposal, as well as ensuring developers maximise the opportunities for enhancing biodiversity, including:

- improving habitat network connectivity and other green infrastructure to support protected species and areas
- safeguarding and promoting important non-protected priority habitats and species including those identified in the Tayside Local Biodiversity Action Plan (LBAP)
- providing resilience to climate change through connectivity and supporting habitat
- supporting ecosystems services such as pollination, surface water management, and pest control
- providing increased access to nature and improved wellbeing

When considering planning applications the Council expects applicants to address:

- International Sites and Protected Species;
- National Sites and Protected Species;
- Local Sites, wild bird habitats, LBAP priority species and habitats and those noted on the Scottish Biodiversity List as “conservation action needed” or “avoid negative impacts”.
- Other wider natural heritage interests including species and habitats on the SBL, habitats that support priority species and habitat connections such as blue and green infrastructure.

Policy 41 and this guidance should be read in conjunction with other nature based policies in LDP2 and their associated guidance documents. In particular an expectation is placed on developers to incorporate and enhance nature based solutions and green and blue infrastructure in their design at an early stage.

This guide should be read in conjunction with:

- Perth & Kinross Council (2019) Green Infrastructure**
- Perth & Kinross Council (2019) Open Space Provision for New Developments**
- Perth & Kinross Council (2019) Placemaking**
- Perth & Kinross Council (2019) Forest & Woodland Strategy**

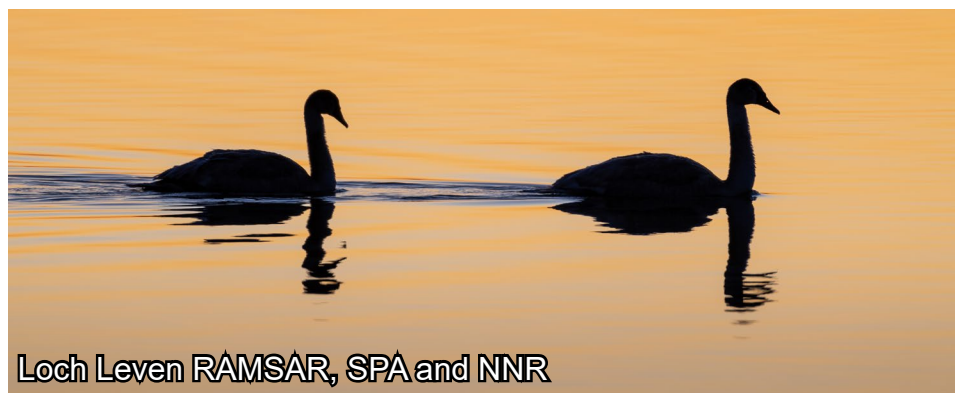
Wildlife and Habitat Considerations in Determining a Planning Application:

- Early design action: wildlife and geological conservation forms a positive part of early development design rather than being an afterthought
- Clarity of understanding: proposal shows a clear understanding of the planning authority requirements concerning biodiversity and geological conservation
- Sufficient information: proposal includes sufficient information on wildlife and habitats to ensure it does not get held up unnecessarily or refused. This means:
 - ✓ Surveys are provided in accordance with section **4 Surveys & Impact Assessments**
 - ✓ Any limitations in surveys do not significantly affect the results
 - ✓ Priority species, habitats, or protected areas on, near, or connected with the proposal are identified
 - ✓ The impact of the design on each priority species, habitat or protected area is clearly explained
 - ✓ Mitigation, compensation and enhancement is clearly set out in assessments and demonstrated in the proposal.

2 PROTECTED AREAS

All sites for development are likely to have value for biodiversity, but some areas receive particular protection. Protected areas within Perth and Kinross carry statutory protection at the International, National (UK and Scottish) and local levels. Some local sites do not have legislative protection but are supported by planning policy. Policies 38 and 41 of Local Development Plan 2 seek to ensure that protected sites and the qualifying habitats and species within them are considered appropriately when determining relevant planning decisions. In line with the mitigation hierarchy proposals should demonstrate avoidance of impacts on protected areas in the first instance through site selection and design.

International	National	Local
Special Areas of Conservation (SAC)	Sites of Special Scientific Interest (SSSI)	Local Nature Reserves (LNR)
Special Protection Areas (SPA)	National Nature Reserves (NNR)	Local Nature Conservation Sites (LNCS)
Ramsar	National Parks	



Loch Leven RAMSAR, SPA and NNR

2.1 International Sites

Policy 38A: International Nature Conservation Sites

Development which could have a significant effect on a site designated or proposed under the Habitats or Birds Directive (Special Areas of Conservation and Special Protection Areas) or Ramsar site, will only be permitted where:

- (a) an appropriate assessment has demonstrated that it will not adversely affect the integrity of the site; or
- (b) there are no alternative solutions; and
- (c) there are imperative reasons of overriding public interest, including those of social or economic nature; and
- (d) compensatory measures are provided to ensure that the overall coherence of the European network is protected.

Sites included in this policy were those originally designated under European Directives and now form part of the UK site network. These include Special Areas of Conservation (SACs) which were designated for their habitats and species under the EC Habitats Directive, and Special Protection Areas (SPAs) which were designated for their birds under the EC Wild Birds Directive. These sites have protection under the Habitats Regulations¹ and are known as European sites. Ramsar sites are internationally important wetlands which in Perth and Kinross are also identified as European sites and receive the same level of protection.

¹ Principally The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)

There are a large number of European sites in Perth and Kinross. These include The River Tay SAC, Dunkeld and Blairgowrie Lochs, the Firth of Tay and Eden Estuary and Loch Leven. Where a development could have an impact on a European site an assessment of the impact on the qualifying features of the site must be made by the Planning Authority. Impacts can be at a significant distance from the site where there is ecological connectivity.

SAC and SPA Policies and Guidance

Policies 45-47 as listed below address specific European sites vulnerable to development. Consideration should be given to all proposals within the catchment area of these sites as to whether they have a likely significant effect. Associated guidance provides information on how particular aspects of the site such as water quality should be addressed. Note that all the qualifying features of the site should be considered when assessing impacts.

See:

- Policy 45: Lunan Lochs Catchment Area
- Policy 46: Loch Leven Catchment Area
- Policy 47: River Tay Catchment Area
- **NatureScot Guidance on Protected Areas**
- **PKC Guidance on Protected Areas**



River Tay SAC

Habitats Regulations Appraisal (HRA)

Applicants should establish early on whether any future development could impact on a European site in accordance with policy 38A. Proposals with ecological connectivity have potential to affect a European site even if outside the development site, separated by distance or outside the Perth and Kinross area. For example a proposed development may affect birds that are a qualifying interest of a European site several kilometres away but use the proposed location for feeding or resting. In combination (cumulative) effects will also need to be considered.

If a European site could be affected the applicant will need to have provided enough information for Perth & Kinross Council to determine whether there will be a Likely Significant Effect (LSE) on the qualifying interests of the European site.

LSE is any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the European site was designated, excluding trivial or inconsequential effects. The word 'likely' should not be interpreted as 'more probable than not' but as a description of the existence of a risk of a significant effect. If an LSE is identified then the applicant will be asked to provide information to enable an Appropriate Assessment to be undertaken. Mitigation measures are taken into account at the Appropriate Assessment stage and cannot be used to rule out an LSE. For example all development with more than trivial effects within the Loch Leven catchment will require an HRA.

The project can then only be permitted if Perth & Kinross Council can ascertain through the Appropriate Assessment that it will not adversely affect the integrity of the site.

See: **NatureScot Guidance on Habitats Regulations Appraisal**

2.2 National Sites

Policy 38B: National Designations

Development which would affect a National Park, National Scenic Area, Site of Special Scientific Interest or National Nature Reserve, will only be permitted where the Council as Planning Authority is satisfied that:

- (a) the proposed development will not adversely affect the integrity of the area or the qualities for which it has been designated; or
- (b) any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.

Sites of Special Scientific Interest (SSSIs) are notified for their special habitats, flora, fauna, geology or geomorphology. These include Geological Conservation Review Sites, national or internationally valued sites of geological interest. There are 107 SSSIs in Perth and Kinross and two National Nature Reserves - Ben Lawers and Loch Leven - with internationally important habitats and species. Adverse effects from a proposal on sites with an ecological connection must be considered.

[NatureScot Sitelink](#)

[NatureScot Guidance on Protected Areas](#)

Designated Sites: Points to Remember

- Take note of which designated sites may be affected by the proposals and how any effects may be avoided or mitigated
- Even though a development may not lie within a designated site there can still be functional connectivity. Effects on such sites must be considered even where they are some distance from the proposed development.

2.3 Local Sites

Policy 38C: Local Designations

Development which would affect an area designated by the Council as being of local conservation or geological interest will not normally be permitted, except where the Council as Planning Authority is satisfied that:

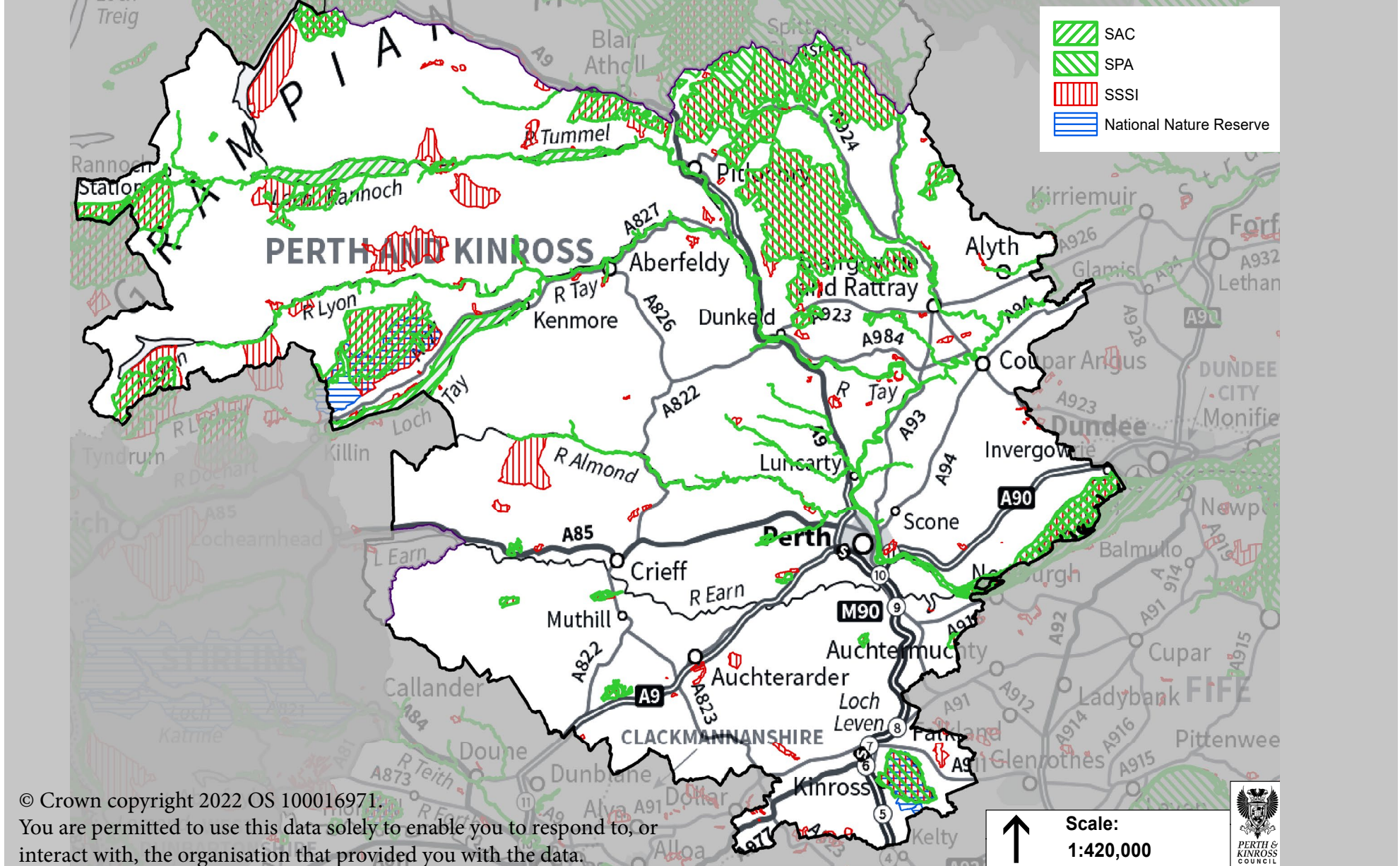
- (a) the objectives of designation and the overall integrity of the designated area would not be compromised; or
- (b) any locally significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social and economic benefits.

Local non-statutory designations are protected through planning policy. These are known as Local Nature Conservation Sites (LNCS) and Local Nature Reserves (LNR). Perth & Kinross Council has one LNR on the Inner Tay Estuary and any impact on this site should be assessed against policy 38. The Council has identified potential LNCS for biodiversity and geodiversity which following assessment will be designated and published as an appendix to this guidance.

Planning officers can check if a candidate LNCS is potentially affected. Until designated, information on candidate biodiversity sites will help inform the application under Policy 41 and other relevant policies. Information is also available on candidate geodiversity sites including updated assessments of undesignated Geological Conservation Review sites. Geodiversity is specifically addressed in the following policies.

- Policy 33: Renewable and Low-Carbon Energy
- Policy 39: Landscapes
- Policy 49B: Minerals and Other Extractive Activities - Supply

International and National Designations



3 PROTECTED SPECIES AND LICENSING

Policy 41: Biodiversity

...

European Protected Species

Planning permission will not be granted for development that would, either individually or cumulatively, be likely to have an adverse effect upon European protected species (listed in Annex IV of the Habitats Directive (Directive 92/43/EEC)) unless the Council as Planning Authority is satisfied that:

- (a) there is no satisfactory alternative; and
- (b) the development is required for preserving public health or public safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

In no circumstances can a development be approved which would be detrimental to the maintenance of the population of a European protected species at a favourable conservation status in its Natural range.

Other Protected Species

Planning permission will not be granted for development that would be likely to have an adverse effect on protected species unless it can be justified in accordance with the relevant protected species legislation (Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act (1992)).

3.1 Protected Species and Planning

Most bird species and a wide range of wild animals and plants have general protection from deliberate or reckless damage or harm under the law. In addition to this, some species, including bat species, otter, wildcat and great crested newt, along with some plants including slender naiad, are European Protected Species and have special protection from disturbance and harm.

A number of species and plants including red squirrel, pine marten, water vole, fresh water pearl mussel and rare butterflies and moths, are protected under domestic legislation from intentional or reckless injury, killing or damage to, destruction of, or obstruction of access to a place of shelter. Badgers and badger setts also receive specific protection from destruction and disturbance. Other species such as reptiles and amphibians also receive limited protection.



The species referred to in this guidance as protected species are as follows:

- European Protected Species protected under Schedule 2 (animals) and 4 (plants) of The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)
- Birds, animals and plants listed on Schedules 1, 5 and 8 (respectively) of the Wildlife and Countryside Act 1981
- Badgers (protected by the Badgers Act 1992 (as amended))

A full list of protected and other priority species in Scotland can be found in the [Scottish Biodiversity List](#). See [NatureScot webpages](#) for detailed protected species advice.

The presence of protected species on or near a site is critical when preparing proposals and making determinations on planning applications. It is vital that adequate survey work is carried out in good time to understand the site and determine the presence or absence of these species (see **4 Surveys & Impact Assessments**). As impacts on protected species must be known before determining planning applications, suspensive conditions for these surveys cannot and will not be issued. Additional pre-construction and monitoring surveys may be required by condition.

The presence of protected species rarely imposes an absolute block on development, however proposals should demonstrate how effects on species will be avoided or mitigated (see **5 Good Design & Mitigation**) and this can affect the design, layout and timing of works. Information provided with an application should satisfy the requirements set out in **NatureScot Standing Advice for Planning Consultations** for the relevant species.

Before granting planning permission for a development that may require a licence the Planning Authority must be satisfied that a licence will likely be issued. For European Protected Species this requires that the proposal meets the tests set out in Policy 41. These are the same three tests used by NatureScot to determine whether a licence will be granted (see **3.2 Licensing**).

Protected Species: Points to Remember

- Consider as early as possible whether protected species are present on, or using, sites for development, and conduct surveys well before making an application.
- Protected species surveys needed to understand a proposal's impact cannot be required by condition.
- If the presence of a protected species is suspected, the applicant must inform the Council
- The supporting evidence and survey work must be carried out at the right time, by a suitably qualified ecologist.

Breeding Birds

All wild birds and active nests are protected by law. Work carried out during the breeding season risks damaging nests or eggs, or disturbing nesting birds. From 1 March to 31 August, birds may nest in trees, on and in buildings, or in rough grassland or scrub. As no licence is available to remove birds or nests for development, the best way to avoid delay is to schedule works outwith the breeding season. To inform mitigation and design, surveys in the season prior to work are needed where significant vegetation is being removed, for wind farms, and demolition of, or work to the roofline of, agricultural or pre-1960s buildings.

Nest sites on/in structures should be retained where-ever possible including during pointing. Where unavoidably lost, species specific artificial nests can help mitigate this. Declining species such as Barn Owls, Swifts, Sparrows, Swallows and House Martins are particularly vulnerable to loss of nest sites. Replacement nests should be provided as close as possible to the original location. Submissions must include a location plan of nest installations.

Enhancement will be requested to be provided as follows:

- In settlements with swifts within 2km: at least one integrated swift nest brick into 25% of homes over 2 storeys. As swifts nest in colonies, the recommended provision of nests is: House: 1-4. Small block of flats: 4-10. Large building: 10-20.
- In rural areas: roosts for house martins and tree sparrows
- In each new barn, stable or agricultural building over 3 meters high: an integrated barn owl box.

SNH (2017) Swift Best Practice Advice Note
Barn Owl Trust (2015) Barn Owls and Rural Planning
NatureScot Advice on Birds as Protected Species



3.2 Licensing

Planning permission does not affect or replace any need to obtain licences or permits required by other environmental protection legislation and applicants will be required to obtain a licence before work can commence. A licence may also be required for works that do not require planning permission such as works carried out under permitted development.

After obtaining planning permission, the applicant may need to apply for other licences regarding protected species before work can start on site or if protected species are found during development.

NatureScot is responsible for assessing and issuing most protected species licences in Scotland. A licence from NatureScot will be required for works which may otherwise constitute an offence involving species with special protection.



Pipistrelle in roof space

See [NatureScot: Species Licensing A-Z Guide](#)



European Protected Species

To carry out an activity that may constitute an offence, regarding European Protected Species, a licence can be issued by NatureScot as long as three tests are met. The planning authority must also be satisfied these tests can be met before granting planning permission.

- Test 1: that there is a licensable purpose.
- Test 2: that there is no satisfactory alternative.
- Test 3: that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. A qualified ecologist should be able to provide advice on this or alternatively seek advice from NatureScot.

See: [NatureScot: European Protected Species Licensing](#)

Other Protected Species

Activities that would constitute an offence can be permitted under a licence for protected species including water voles, pine martens, and red squirrels for social, economic or environmental reasons. This could cover a range of activities including development. However, it is important to note that licences may only be issued for this purpose provided that:

- the activity authorised by the licence will contribute to significant social, economic or environmental benefit; and
- there is no other satisfactory solution.
- there will be no significant negative impact on the conservation status of the species.

NatureScot will have regard to the conservation status of the species concerned and expected appropriate mitigation or compensation measures to be proposed. See NatureScot:

[Species Licensing A-Z Guide](#)

[Licensing for social economic or environmental purposes](#)

Badgers

Badgers are protected under the Protection of Badgers Act 1992 (as amended). Interference with a badger sett is an offence. Interference includes disturbance to badgers in setts, damage to setts, or obstruction of access to setts. Development within 30m of a sett could result in disturbance, or up to 100m for disruptive works. Any works that could result in interference are likely to require a licence.

For the purpose of development it is only possible for licences to permit someone to 'interfere with a badger sett'; it is not possible to licence removal, translocation or the killing of badgers.

Planning submissions should show interference is avoided or, if unavoidable, contain sufficient information to demonstrate that the licensing tests will be met, and a licence would likely be issued. See:

- [NatureScot: Badgers: licences for development](#)
- [Scottish Badgers: Guidance on Protecting Badgers for LPAs](#)



Protected Species: Points to Remember

- Identify any needs for licensing as soon as possible
- Make sure the relevant licensing tests can be met for any protected species present
- See the NatureScot website for species specific licensing requirements
- Allow enough time in the project programme for the issuing of licences

3.3 Other Priority Habitats and Species

Protected and Other Priority Habitats

Groundwater Dependent Terrestrial Ecosystems (GWDTE) are protected habitats sensitive to excavation >0.5m or drainage that affects groundwater. GWDTE should be identified in surveys and unacceptable impacts avoided through design and mitigation in accordance with [forestry](#) and [renewables](#) guidance.

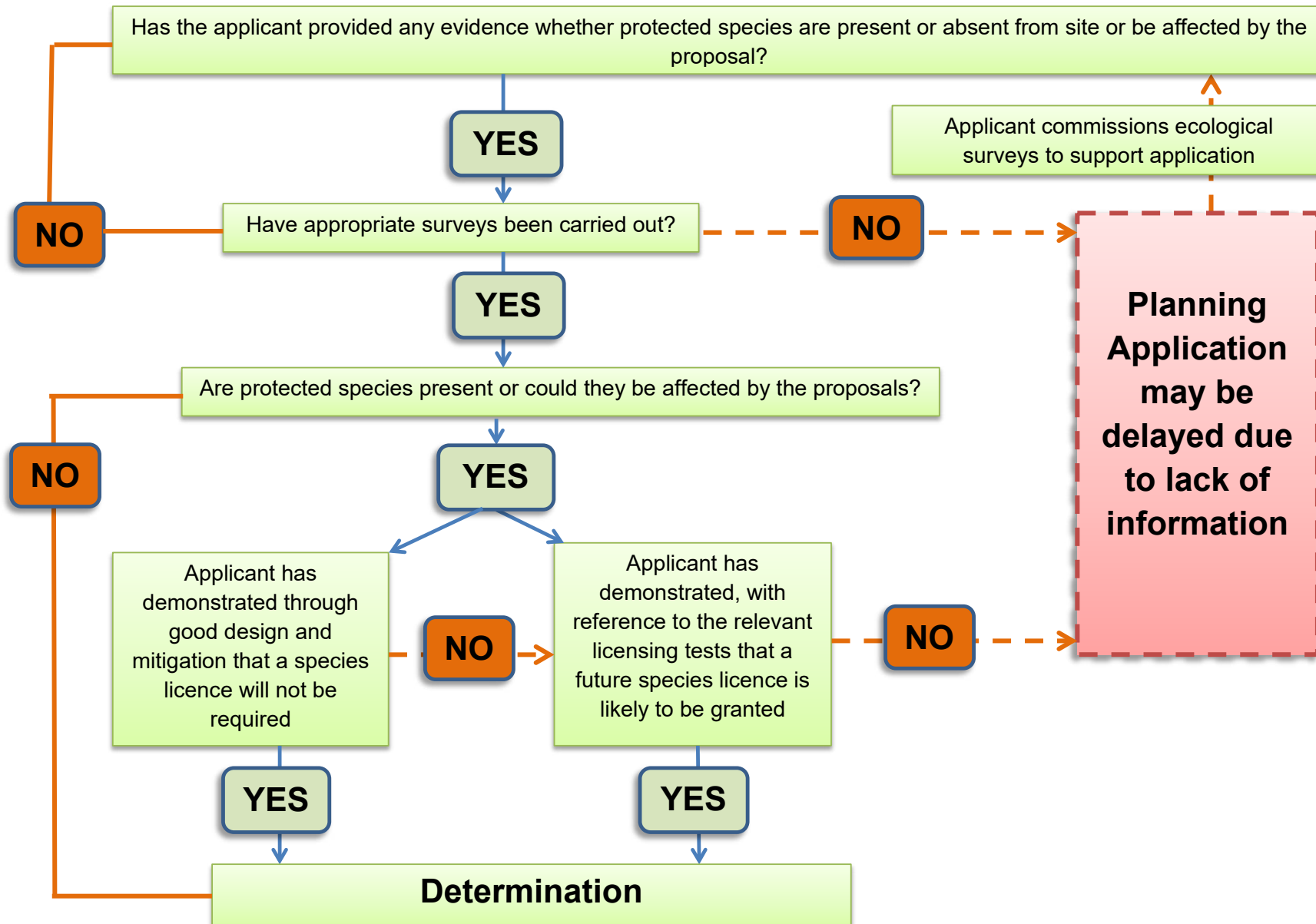
Applicants should also identify, and seek to protect and restore priority habitats, including ancient woodland and peatland in accordance with LDP policies 40 and 51, and rare habitats listed in the Tayside LBAP and the Scottish Biodiversity List, especially those listed as "conservation action needed" or "avoid negative impacts".

Other Priority Species

Non protected rare and declining species listed on the Scottish Biodiversity List (especially those listed as "conservation action needed" or "avoid negative impacts") the Tayside LBAP and local registers should be considered in survey work and significant impacts on important populations or their supporting habitats addressed in submissions.

Activities that May Affect Protected and Other Priority Species or Habitats	
Activity	European or UK Protection and Other Priority Species & Habitats
Developments adjacent to or affecting any waterbody or watercourse	EPS: Otter, Great Crested Newt, Beaver, Bats, Slender Naiad UK: Water Vole; all breeding birds, Common Toad, Common Frog, Newt species, Atlantic Salmon, Lampreys, Freshwater Pearl Mussel Priority: Wintering birds, rare dragonflies
Barn and rural building conversion/demolition (especially unoccupied, stone-built buildings with wooden beams)	EPS: Bats. UK: Breeding birds (esp. Swift, Swallow, House Martin and Barn Owl).
Alteration or demolition to the roof space or roof line of buildings such as churches/chapels, institutions, schools. Buildings with weather boarding or hanging tiles, or any pre 1960 buildings or structures, within 200m of water or woodland. Any pre 1914 building. Building adjacent to woodland or water. Development affecting caves, mines, tunnels, cellars and exposed rock faces, bridges, viaducts, culverts, chimneys, kilns ice houses.	EPS: Bats UK: Breeding birds (esp Swift, Swallow, House Martin, Starling, House Sparrow)
Floodlighting of churches and historic buildings or floodlighting any greenspace or building within 50m of trees or hedgerows	EPS: Bats UK: Breeding birds. Priority: rare invertebrates especially moths
Affected woodland, hedgerows, lines of trees and scrub	EPS: Otter, Wildcat, Bats UK: Badger, Red Squirrel, breeding birds, Pine Marten, protected butterflies and fungi. Priority rare butterflies and moths, hedgehogs, rare plants, hedgerows, rare woodlands
Any felling or lopping, affecting dead, old and veteran trees and trees with a girth over 1.5m, or containing obvious holes or cracks or cavities or covered in ivy.	EPS: Bats UK: Breeding birds (such as barn owl), protected invertebrates. Priority rare lichen and fungi, rare invertebrates
Developments affecting derelict land, brown-field sites, railways and land adjacent, grassland and allotments	EPS: Bats, Reptiles UK: Breeding birds (such as barn owl); protected Butterflies; Reptiles; Badger. Priority: rare invertebrates,
Developments affecting quarries, cliff faces and gravel pits	EPS: Bats UK: Breeding birds such as Peregrine Falcon, Sand Martin; protected butterflies; reptiles; Badger. Priority: rare invertebrates and plants
Developments (such as wind farms) affecting open farmland, moorland and forestry sites in hilly, upland, exposed areas	EPS: Otter; Bats. Water Framework Directive: GWDTE UK: Red Squirrel; Badger; Water Vole; raptors such as Hen Harrier, Hobby, Golden Eagle and Owl species, protected invertebrates, Mountain Hare Priority: rare invertebrates / plants, calcareous grassland, blanket bog

Protected Species Information Requirements



4 SURVEYS & IMPACT ASSESSMENTS

Policy 41: Biodiversity

..... In particular, developers may be required to:

- (a) ensure a detailed survey is undertaken by a qualified specialist where one or more protected or priority species is known or suspected. Large developments that will have an impact on the environment may require an Environmental Impact Assessment;
- (b) demonstrate all adverse effects on species and habitats have been avoided wherever possible. A Landscape Plan may be required to demonstrate the impact of the development and how good design and site layout can enhance the existing biodiversity;
- (c) include mitigation measures and implementation strategies where adverse effects are unavoidable

Impacts on species and habitats across and beyond the site must be understood and addressed. Ecological surveys and assessments help applicants consider constraints and opportunities posed by wildlife and habitats at an early stage, and will ensure decision makers have the full information to assess an application. Site surveys and assessments should be undertaken by suitably qualified and experienced persons using recognised methodology. A list of qualified ecologists can be found in the Chartered Institute of Ecological and Environmental Management (CIEEM) Professional Directory at: www.cieem.net.

Information on species and habitats are available from:

[NatureScot: Sitelink](#)
[NBN Atlas Scotland](#)
[Scotland's Environment Web](#)

4.1 Preliminary Ecological Appraisal

A Preliminary Ecological Appraisal should be undertaken to understand the characteristics of the site and how development may affect wildlife and habitats including:

- any nature designations in, near or with connectivity to the site;
- protected and priority LBAP or SBL habitats and species likely to be in, near or affected by the site
- potentially important habitats (such as old structures, mature trees, scrub, woodland, hedgerows, ponds or watercourses).

Following a desktop study and Phase 1 habitat survey a preliminary Ecological Appraisal Report (PEAR) is produced which identifies potential impacts, mitigation options, constraints and opportunities, and further survey requirements.

The PEAR rarely contains sufficient information to inform a planning application but is used to inform the initial design, and scope further work required for the Ecological Impact Assessment to be submitted with the application. The Appraisal must be conducted in accordance with:

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal Table of Activities that May Affect Protected and Priority Species or Habitats p12.

4.2 Ecological Impact Assessment

Following further surveys and pre-application discussions, the PEAR is used to scope and inform an Ecological Impact Assessment (EclA). The EclA sets out clearly how the proposal has been located and designed to avoid, mitigate and compensate for impacts on species and habitats and provide enhancement measures in line with the mitigation hierarchy.

The extent and scope of the EcIA will be proportionate and depend on the site characteristics, location and the proposed development. For example an EcIA for a householder application may be shorter and simpler than for a larger development. The EcIA should take into account the principle in Policy 41 that “the Council will seek to protect and enhance all wildlife and wildlife habitats, whether formally designated/protected or not ...”. This should include addressing how wildlife use the site such as for foraging, shelter or movement and impacts on, or opportunities for, habitat connectivity across the site or between sites of importance for nature.

Submitted proposal designs and plans submitted with an application must demonstrate that the measures identified in the EcIA have been implemented.

EcIA must follow: **CIEEM (2018) Guidelines for Ecological Impact Assessment (EcIA)**

4.3 Environmental Impact Assessment (EIA)

Environmental Impact Assessment (EIA) is a statutory process which identifies the environmental effects (both negative and positive) of certain development proposals. A full EcIA is likely to form part of the EIA.

EIA only applies to those developments that are likely to have a significant environmental effect by virtue of factors such as its nature, scale or location. These are identified under Schedule 1 and Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Where there is doubt about whether an EIA is required, applicants can ask the planning authority for a screening opinion.

More information on EIA can be found at the following links:

[NatureScot: Environmental Impact Assessment](#)
[PKC Advice on EIA and Major Developments](#)

4.4 Survey and Report Best Practice

Surveys must:

- be less than 24 months old from the date of survey.
- be carried out by suitably qualified and experienced persons using recognised methodologies
- be carried out at an appropriate time, month of the year and in suitable weather conditions in line with published best practice
- be adequate in scope and execution. The planning authority will require additional surveys if inadequate detail is provided.
- record and map the range of habitats and wildlife species found on site and within recommended distances. Off site surveys may be required where there are likely impacts on sensitive habitats and species.

EcIA Reports must:

- include an assessment of the likely effects of development on nationally and locally important habitats and wildlife recorded on site, in the locality and with ecological connectivity.
- address impacts and mitigation during construction, occupation /operation and, where relevant, decommissioning/restoration.
- contain recommendations, to avoid, mitigate and compensate impacts, that adhere to the mitigation hierarchy, and identify recommended enhancement measures.



Appropriate Timing of Surveys

Survey timing is important to ensure the presence of habitats and species are not missed and to ensure the most accurate recording of evidence. The appropriate time of year to undertake surveys for various species and habitats is indicated in **Annex 2: Ecological Survey Calendar**. Species surveys are also weather dependent so surveys may need to be delayed or repeated for unsuitable weather. Surveys must detail all such constraints.

Some surveys may be required over more than one season, or several years, such as for potentially affected European sites or bird flight patterns near wind farm sites. Surveys must be no older than 2 survey periods (or 24 months). If surveys are older than is recommended, the Planning Authority may require further surveys before the application can be determined.

For mobile species that have the ability to expand their range and whose distribution may change over time pre-construction surveys may also be needed once consent is granted.

See: **CIEEM Guidelines for Survey Methodology**
NatureScot Professional Advice

Timing of Ecological Surveys: Points to Remember

- Consider what surveys are required as early as possible
- Discuss surveys with planning authority
- If a proposal could affect a SSSI or a European Site, consult NatureScot prior to submitting the application
- Make sure species surveys are carried out at the optimum time of the year (see **Annex 2: Ecological Survey Calendar**.)
- Ensure surveys are carried out in optimal weather conditions for that survey
- Highlight any survey limitations and constraints

Bats

Bats are strictly protected and surveys must be conducted by qualified and experienced surveyors in accordance with best practice (**Collins, 2016**). Some surveys will require a licensed surveyor. Due to the seasonal nature of bat activity, surveys must be conducted before applying for planning permission. Failure to do this will result in delay or refusal of permission. The Council's **Bat Survey guidance note** sets out this process including the features which trigger a bat survey.

Surveys should include buildings on site and all trees on or near the site and reports should address impacts from construction and operation/occupation - including lighting - on summer roosts, hibernacula and foraging resources. Where full surveys are recommended by preliminary surveys, they must be provided before planning permission can be granted.

Any required mitigation should be integrated such as through access to roof space or integrated bat bricks, boxes or tubes. Bat boxes on trees are appropriate as temporary solutions during construction or demolition.

Permanent roosts should be provided as enhancement per ecologist recommendations and address year round requirements. Minimum provision consists of bat bricks, boxes, tubes or roof access in 50% of all new or replacement buildings adjacent to existing or proposed suitable habitat. Submissions should include a location plan of roost provision.



5 GOOD DESIGN & MITIGATION

Policy 41: Biodiversity

The Council will seek to protect and enhance all wildlife and wildlife habitats, whether formally designated/protected or not, taking into account the ecosystems and natural processes in the area.

...

Proposals that have a detrimental impact on the ability to achieve the guidelines and actions identified in these documents will not be supported unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. In particular, developers may be required to:

...

(b) demonstrate all adverse effects on species and habitats have been avoided wherever possible. A Landscape Plan may be required to demonstrate the impact of the development and how good design and site layout can enhance the existing biodiversity;

(c) include mitigation measures and implementation strategies where adverse effects are unavoidable;

(d) enter into a Planning Obligation or similar to secure the preparation and implementation of a suitable long-term management plan or a site Biodiversity Action Plan, together with long-term monitoring.

Avoidance, mitigation, compensation and opportunities for enhancing wildlife and habitats, nature based solutions and green infrastructure should be considered early in the design. Implementing the **CIEEM Net Gain Principles** throughout a proposal's development is encouraged to ensure the best outcomes for biodiversity. Habitats and species both on site and in the surrounding area should be taken into account along with direct and indirect impacts and how ecosystems function. Consider for example, how species will move through a development, and the impacts of lighting, vegetation removal or surface water changes, and the impacts on prey (including insects) or foraging behaviour.



Craighall SUDS (c) D Muir

Plans and design statements should demonstrate these measures including any mitigation, compensation and enhancement recommended in EclA reports. Biodiversity should be incorporated into site requirements such as a biodiverse SuDS pond, raingardens or swales, or by including native and flowering/fruiting species in landscaping. Actions should support protected species and sites, and the priorities and actions in the **Tayside Biodiversity Partnership Local Biodiversity Action Plan** and on the **Scottish Biodiversity List** particularly those marked as “conservation action needed” or “avoid negative impacts”. Detailed advice is available:

**Incorporating Biodiversity into Development (TBP)
Advice for Planners and Developers (NatureScot)
Advice for Developers (SEPA)
Green Infrastructure Guidance (PKC, 2020)
Open Space Guidance (PKC, 2020)
Forest and Woodland Strategy (PKC, 2020)**

Example of Opportunities to Protect and Enhance Biodiversity

Site Appraisal

Retain Existing Hedgrow

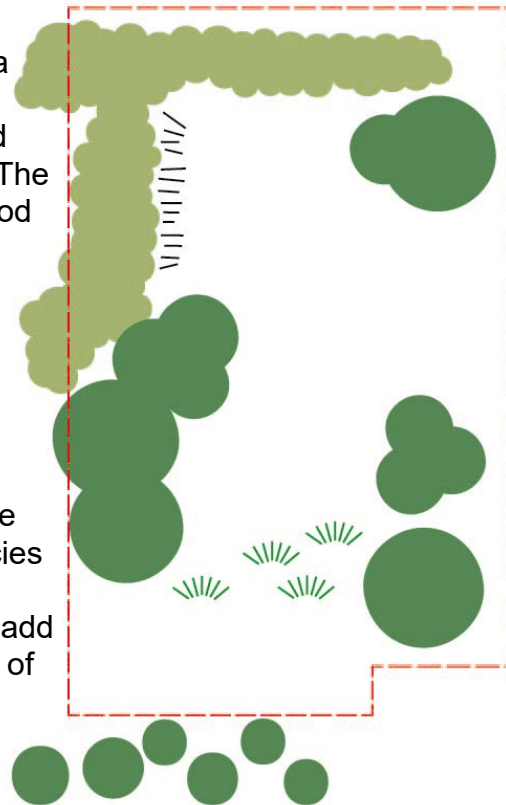
This connects to the wider area and provides shelter, nesting and feeding areas for birds and animals including hedgehogs. The embankment here could be good for bees and other insects.

Retain Existing Trees and Incorporate into Design

Avoid loss of trees which may have a Tree Preservation Order. Mature trees especially are biodiversity rich and may be ideal habitat for protected species such as bats and red squirrels. Trees are unique features that add to the attractiveness and value of development

Retain Marshy Ground

This may already be used by amphibians and is an ideal location for a bog garden or biodiverse SUDS pond, subject to expert advice. These can support protected species like newts and support a wide variety of plants and insects.



Address Wider Connectivity

Look outside the site boundary to see how the site can contribute to connecting or enhancing existing habitats.

Site Design

Bat and bird roosts

Use integrated bat bricks, boxes, and tubes to meet different needs. Use integrated swift nest boxes, and sparrow and housemartin nests.

New Planting

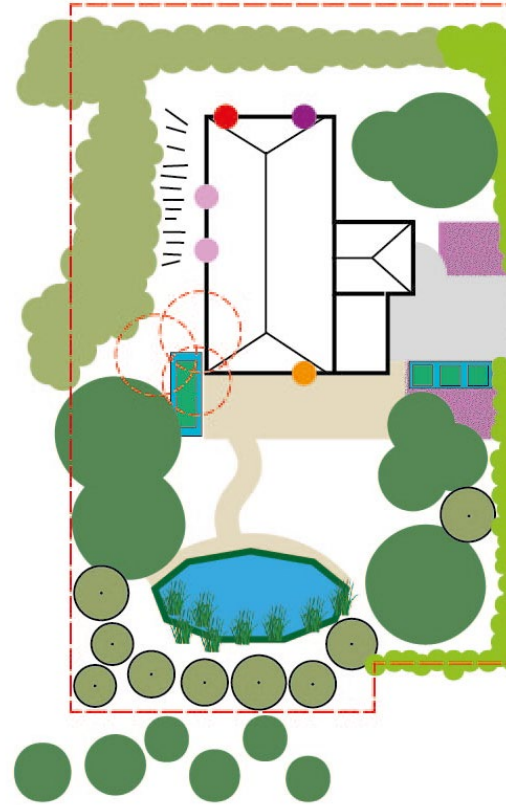
Enhance or complement existing and connecting trees. Here willow and alder in wet areas connect to wider woodland. Mixed native planting for the pond, hedgerow and trees, along with fruit trees, provide food and shelter for birds and pollinating insects.

Raingarden & Pond

Raingardens reduce and filter runoff and support biodiversity. Keep pond paths to one side to reduce disturbance of wildlife. Swales and a green roof or wall could also be used.

Increase Connectivity

Extending the hedge allows wildlife to access food and shelter more easily.



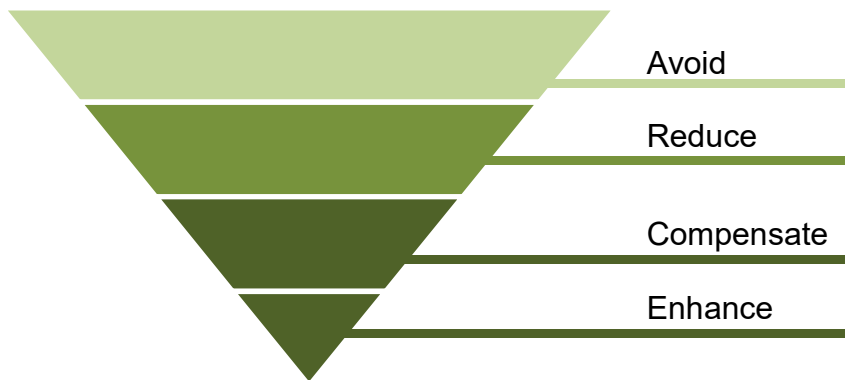
Key

- | | | | |
|-------------|--|----------------------|--|
| New tree | | Patio / Path | |
| New hedge | | Swift brick | |
| Shrub bed | | Bat box, brick, tube | |
| Rain Garden | | Other bird nests | |
| Pond | | Hardstanding | |

5.1 Mitigation Hierarchy

The mitigation hierarchy applies when considering how an application manages potential adverse impacts on wildlife and habitats. Supported by surveys, designs should first prevent or avoid impacts, before taking measures to minimise and reduce unavoidable impacts. Following mitigation, compensation will then address residual impacts. Beyond addressing impacts, applicants are also requested to include enhancement appropriate to the site. **Annex 4: Mitigation & Enhancement Checklist** and **Tayside Biodiversity Guidance** show how the mitigation hierarchy can be applied in different circumstances.

The Mitigation Hierarchy



Avoid

Impacts must be avoided in the first instance by taking into account sensitive areas early in design. Trees and woodlands should be retained, existing nest/roost sites safeguarded, buffers applied, wildlife movement maintained and habitat fragmentation avoided. For example amphibian dispersal patterns should be understood before designing roads. Timing can also help avoid impacts by avoiding times or seasons when species are active or breeding.

Mitigate

Unavoidable impacts must be reduced as far as possible through measures such as appropriate timing of works, root protection areas, wildlife safe construction, wildlife tunnels or bridges, appropriate lighting, and buffers between habitats and roads. **Annex 3: Ecological Mitigation Calendar** notes seasonal restrictions on mitigation. Note that translocation of species (where permitted) or habitat is a last resort only appropriate where the loss is acceptable and is unlikely to be considered as mitigation. A Construction Method Statement is required with proposals for larger sites where sensitive habitats, species or designated sites may be affected, and a Construction Environment Management Plan will then set out more detail before construction. All submissions should clearly address requirements set out in ecological reports, LDP developer requirements, in-principle conditions and pre-application advice.

New Habitat

New habitats such as gardens, orchards, ponds and planting, should be safely accessible by the wildlife attracted to them.

- Amphibians must have access to SuDS and waterbodies through tunnels, or by use of wildlife kerbs or dropped kerbs along roads within 500m of any new or existing water bodies.
- Hedgehogs and small mammals prefer hedges but where used, fences or solid walls must have 13cm x 13cm gaps.
- Foraging bats and breeding birds should be protected by ensuring lighting does not fall on new or existing nest boxes, bat roosts or planting.



Compensate

Compensation measures address impacts that cannot be avoided or fully mitigated. These are only appropriate to address residual loss where it can be demonstrated that impacts have been avoided and mitigated wherever possible, and should not be relied on to offset avoidable loss. Where roof access is unavoidably lost for example, bat roosts and swift nests provide compensation.

Compensation should be as like to the original resource as possible or improve on it, such as replacing exotic woodland with native or improving connectivity. An unavoidable, acceptable, loss of a section of woodland could be compensated for by extending another part of the same woodland. The amount of compensation may be greater than the resource lost where establishment or use of the resource is uncertain, or where it may take time to develop.

Compensation should be in the same location or as close to the original location as possible, such as peat restoration on a wind farm site where peat is unavoidably disturbed. Off-site compensation is a last resort once demonstrated that on site losses following avoidance and mitigation are not significant.

Metrics can show sufficiency of compensation. **Natural England's Biodiversity Metric 3.0** or **Small Sites Metric** can help with the caution that these are not designed for Scotland and require expert advice. Other evidence based methodologies can also be used.

Enhance

All proposals should consider measures beyond compensation. These should be based on surveys, location, surrounding habitats and landscape character, follow ecologist recommendations, be proportionate to the scale of the proposal, and aim to support **Tayside LBAP** actions. Examples include:

- Native trees, orchards, hedgerows and wildflowers
- Nesting boxes or bricks for swifts, house martin and sparrows
- Nesting boxes for kestrel and owls in woodland

- Wildlife corridors for hedgehogs, frogs and newts
- Ponds, swales or raingardens
- A green or living roof
- Permanent bird and bat roosts/nests per this guidance.

Enhancement measures should be described in the submitted EclA or for major applications, a Site Biodiversity Action Plan (Site BAP) which sets out quantity, locations, techniques, timescales and monitoring arrangements. Submissions should clearly show how enhancement measures have been incorporated into design schemes and architects' drawings to ensure they are realised. See: **TBP: Incorporating Biodiversity into Development**

5.2 Management and Monitoring

A Construction Environment Management Plan is required for larger sites or where sensitive habitats or sites are identified. On sites where habitats and features, including new planting, are created or may be adversely affected, ongoing monitoring and management through CEMPs and Site BAPs or long term management plans is required to ensure lasting benefits. Monitoring and management plans will be secured by condition.

Good Design and Mitigation – Points to Remember

- Use results of ecological surveys to inform site selection and design
- Follow the mitigation hierarchy
- Avoid detrimental impacts on biodiversity through good design and site layout
- Mitigate the effects of unavoidable impacts
- Compensate for residual impacts taking into account the biodiversity value of the lost resource
- Address impacts on wildlife attracted to new habitat
- Incorporate features to enhance biodiversity into design
- Include a management and monitoring plan

5.3 Forestry, Woodland and Trees

LDP2 Policy 40A supports proposals which protect existing trees and protects and expand woodland. Policy 40B requires a tree survey for all trees on site. To ensure the protection in 40A, surveys extend to any tree or woodland potentially affected by a development i.e. on or adjacent to a site. Surveys must clearly show the impact of any proposed development. See **Annex 1: Tree and Woodland Surveys**. In exceptional cases where tree/ woodland loss is unavoidable mitigation is required and the Council will follow the **Scottish Government's Policy on the Control of Woodland Removal** (PCWR). EclA should also address consequential impacts on biodiversity.

The mitigation hierarchy applies to trees and woodland as follows:

Avoid

Surveys and designs should demonstrate avoidance of tree and woodland loss through design and layout, construction exclusion zones and woodland buffers. See the **Green Infrastructure Guidance** for information on masterplans and green networks.

Trees that should be protected for their high nature conservation value include mature native trees and all veteran and ancient trees as they have the greatest biodiversity value. Those previously recorded are listed on the **Ancient Tree Inventory**.

The PCWR applies a presumption against removal to all woodland. A **strong** presumption against removal applies to native woodland and plantation on ancient woodland sites (PAWS). Removal is only permitted in the exceptional circumstances set out in the **PCWR Implementation Guide**. A **particularly strong** presumption against removal applies to ancient semi-natural woodland, native woodland PAWS, and long established plantations (LEPO) with significant biodiversity features. PAWS and LEPO surveys should assess ancient woodland characteristics.

Mitigate

In exceptional cases, where loss is unavoidable, proposals should demonstrate the mitigation of impacts through minimising loss, retaining connectivity, retaining dead wood on site, and minimising edge effects. Designs should show appropriate construction exclusion zones around trees, woodland and their root protection areas. Native trees should be planted to buffer ancient woodland.

Compensate

Only acceptable, unavoidable tree/woodland loss can be compensated for as woodland cannot be easily replaced due to soil and ground flora. Compensation should be on or adjacent to the site of loss and be like for like unless providing greater biodiversity value. In exceptional circumstances off site compensation in the local area may be agreed.

Compensation should take into account the biodiversity value lost and the time for planting to establish, and use local seed and stock wherever possible. Consideration of the carbon value of any loss is also encouraged. Losses should be compensated with at least 3 trees for every tree lost. Native planting is preferred. See **Open Space Guidance** for species.

All woodland removal for development requires compensatory planting with limited exceptions in PCWR. The area proposed should reflect the lost biodiversity and amenity value, and aim to improve connectivity. Woodland with a strong presumption against removal requires a greater area than has been removed.

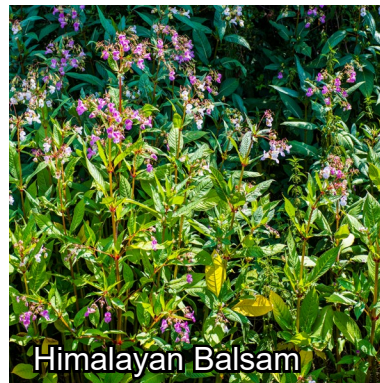
Enhance

Proposals should enhance the biodiversity value of a site and support the **Forest & Woodland Strategy**, and **Tayside LBAP** priority species, habitats and actions. Actions include protecting and restoring historic orchards, and enhancing the extent and condition of native woodland.

5.4 Invasive Non-Native Species (INNS)

There are many species of non-native plants that have been introduced to Scotland over time which we enjoy in our gardens, but a few are invasive in the natural environment. They can cause serious problems by out-competing our native plants for light, space and nutrients. The environmental damage can be irreversible so need to be controlled. The most common invasive species in Perth and Kinross are Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzanum*) and Himalayan balsam (*Impatiens glandulifera*).

Under the Wildlife and Natural Environment (Scotland) Act 2011 it is an offence for any person to plant, or otherwise cause to grow any plant in the wild at a place outwith its native range. If INNS are found on a site, the developer must submit an Invasive Species Control Plan with the planning application and ensure spread is prevented by containment, eradication or removal. The **Non-Native Species Code of Practice** will help developers to understand their legal responsibilities. NatureScot also has advice for professionals on **Invasive non-native species**.



INNS may be inadvertently introduced to a development site through soil contaminated with seeds or roots. If large volumes of soil are moved on or introduced to a site, a soil sustainability management plan will be required.

If a development is responsible for the introduction of an INNS either within or outwith the site, the developer will have to remove the species and dispose of material appropriately. Japanese knotweed, giant hogweed and Himalayan balsam are regarded as controlled waste. Developers should seek advice on the disposal of these plants by referring to the SEPA website. See:

Sepa Guidance Invasive Non-Native Species
NetRegs Guidance Japanese knotweed, giant hogweed and other invasive weeds

5.5 Geodiversity

Rocks, sediments and soils form the basis of much biodiversity through the chemical composition and drainage that supports habitats. Rocks, fossils and geomorphological elements such as moraines, eskers and drumlins are important too for their cultural heritage value. Many of the most important features are identified through national Geological Conservation Review sites or identified as local nature conservation sites (see **2.3 Local Sites**).

All development should consider its impact on soils and landforms and consequential impacts of soil, gravel and sand extraction. Under Policy 39: Landscape proposals should aim to protect and enhance the geological and geomorphological elements on the landscape, while mineral extraction under Policy 49 should address impacts on geodiversity as part of natural heritage.

Impacts can be avoided by ensuring trees do not affect or block views of important features, and quarry restoration plans should identify important geological features to be conserved through a geological assessment.

6 ASSESSING PLANNING APPLICATIONS

The design of any development must be based on a good knowledge of the site, including the habitats and species present on and surrounding the site. This understanding will help applicants to put forward development proposals that respond appropriately to the constraints and opportunities of a site, and to identify ways in which they can contribute to avoiding, mitigating impacts and enhancing wildlife and habitats while providing opportunities for people to experience nature close to where they live.

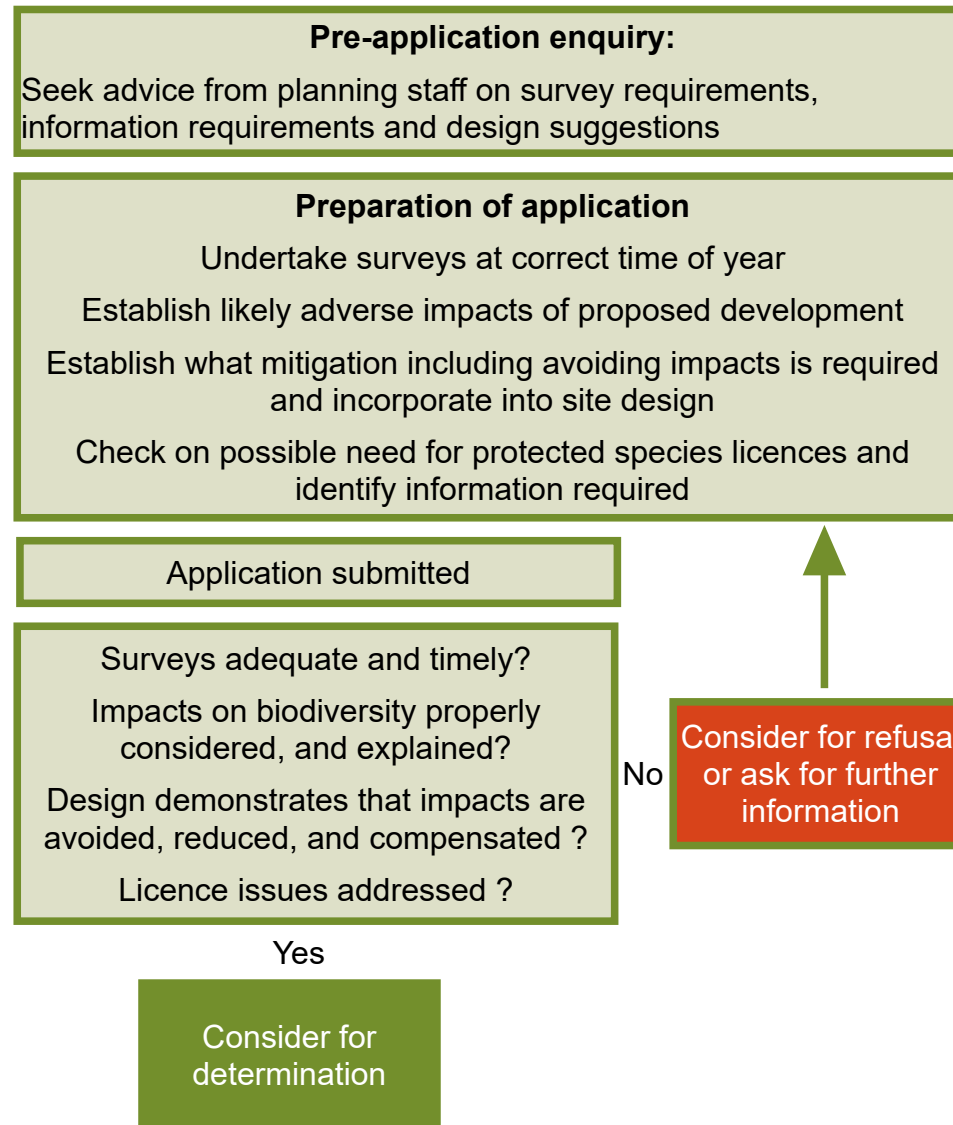
Key issues in the development management process with regard to wildlife and habitat considerations are summarised opposite. Addressing these points will help to ensure that the planning application process does not encounter unnecessary complications, delays or refusal.

A pre-application enquiry is always recommended to help understand survey requirements and their effect on when an application can be submitted. Early ecological reports will also ensure recommendations can be incorporated into designs and landscape plans.



Note that NatureScot and SEPA have set out when planning officers should consult with them. See:

- **Consulting NatureScot on planning and development**
- **Advice for planning authorities (SEPA)**
- **Advice for developers (SEPA)**



7 APPENDICES

Annex 1: Tree and Woodland Surveys

Woodland Surveys

To determine both the amenity and biodiversity value of existing woodland on or connected to a site, a woodland survey should be submitted. This will include essential site data, including site area, orientation, aspect, woody and herb species composition/ratios, age class, determination of woodland type, woodland condition, silvicultural history, soil type, site drainage, site boundaries/ woodland edge, and identifiable habitats, and designations.

Woodland surveys should include a brief description summarising the woodland characteristics at time of assessment, the impact of development, and concise recommendations for woodland improvements, to meet increased amenity, biodiversity and silvicultural values, forming the basis of woodland management proposals.

Tree Surveys

In respect of individual trees, or groups of amenity trees, tree surveys will be required that identify tree species represented, and details of tree condition based on a Visual Tree Assessment (VTA), with recommended works specified in accordance with BS3998: 2010 Recommendations for Tree Work. A tree survey must include a scaled plan with trees plotted.

Where tree surveys are required in conjunction with proposed development, tree surveys must form part of an Arboricultural Impact Assessment that includes the aforementioned details, and includes tree categorisation (illustrated on a tree constraints plan), mitigation measures, tree protection systems, and a detailed

tree protection plan that shows the proposed site layout, overlaid with the Root Protection Areas and clearly illustrates the Construction Exclusion Zone (CEZ), in accordance with BS5837: 2012 Trees in Relation to design, demolition and construction. The report should demonstrate how trees removed will impact the site characteristics.

It is essential that reports include an Arboricultural Method Statement advising how the proposed development can be developed acceptably, avoiding and minimising adverse impact on existing trees, and comments on the interface of trees being retained and construction methodology, utility routes, proposed surface water and foul drainage systems, and site-specific constraints.

Compensatory Planting Plans

Accompanying both woodland and tree surveys, it is expected that landscape proposals are provided detailing replacement or compensatory planting, wherever possible within, or adjacent to, the site of loss.

Compensatory planting should use native trees, recognise site characteristics, be compatible with existing trees & woodland, and the proposed development, and seek to bring amenity and biodiversity enhancements to the site. See the preferred species list in [Open Space Guidance](#).

Compensatory planting details should include, species selection, stock size, stock type, planting density, plant protection measures, planting preparation, and a proposed maintenance schedule to ensure successful establishment of new planting.

Annex 2: Ecological Survey Calendar

	Recommended Period for Survey			Sub-optimal Period for Survey				Surveys not Possible				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Habitat & Vegetation	UKHAB/Phase 1 surveys only (least suitable time)			UKHAB/Phase 1 & NVC detailed habitat assessment and rare plant surveys				UKHAB/Ph1 surveys only. Not suitable for detailed or rare plant surveys				
	Mosses and Lichens					No Moss & Lichen surveys			Mosses and Lichens			
Badgers	Limited surveys	Bait marking and sett surveys		Limited suitability for bait marking and sett surveys			Sett surveys			Limited surveys		
Bats	Hibernation roost inspections only		Limited Activity	Summer roost emergence surveys				Limited Activity		Hibernation roost inspections only		
	Preliminary surveys and internal inspections possible all year round. Trees best surveyed in winter.											
Birds	Winter species		Breeding and migrant species	Breeding birds		Low Activity		Migrant Species		Winter Species		
Great Crested Newts	Newts Hibernating		Pond survey/ terrestrial surveys			Terrestrial Habitat survey			Newts hibernating			
			Egg Surveys	Egg & Larvae	Larvae Surveys							
Reptiles	Reptiles hibernating		Surveys Possible	Peak survey months	Surveys possible	Reduced refugia survey effectiveness		Peak survey	Limited Activity	Reptiles hibernating		
Red Squirrels	Surveys possible weather dependent		Optimum survey time					Surveys possible	Surveys possible except breeding		Surveys possible	
Beavers	Surveys possible all year round. Foraging signs most visible in winter weather permitting.											
Otters	Limited by vegetation cover and weather conditions rather than seasons											
Water Voles	Low activity	Initial habitat	Habitat and field signs/ activity surveys. May be limited by vegetation cover and weather							Initial habitat	Low activity	
Pine Martens	Surveys Possible weather dependent		Optimum Survey time Breeding den surveys		Optimum Survey Time			Surveys possible weather dependent				
Fish	Timing of surveys depends on migration pattern and breeding period of species concerned											
FWP Mussels	No surveys			Surveys during low flow only					No Surveys			

Annex 3: Ecological Mitigation & Works Calendar

	Recommended period for mitigation			Some mitigation possible				Mitigation restricted				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Habitat & Vegetation	Planting and translocation		No mitigation for most species							Planting and translocation		
Badgers	Artificial sett construction only No disturbance of existing setts					Exclusion from setts and destruction				Artificial sett only		
Bats	Maternity roost work				No maternity roost works				Maternity roost work			
	Hibernation period			Hibernation roost works							Hibernation period	
Birds	Clearance works with caution		Nesting season (avoid ALL clearance works without breeding bird survey)							Clearance Works with caution		
Great Crested Newts	Pond management only		Both terrestrial and aquatic trapping possible				Terrestrial trapping only				Pond management only	
Reptiles	Scrub clearance only		Capture and translocation programmes and scrub clearance where no birds are present				Sub-optimal capture and translocation		Capture and translocation		Scrub clearance only	
Red Squirrels	Avoid all works in red squirrel habitat									Optimum time for works		Avoid all works
Beavers	Contact NatureScot			Kit dependency period. No lethal control.				Contact NatureScot				
Otters	No season specific constraints. Caution to be applied at all times											
Water Voles	Avoid works in habitat		Trapping/exclusion	Avoid works (breeding season)					Trapping and exclusion			
Pine Martens	Works in areas of habitat and dens		Avoid all works in pine marten habitat								Works in areas of habitat and dens	
Fish	Mitigation for the protection of watercourses is required at all times of year Mitigation for particular species will need to be timed so as to avoid their breeding season, this varies between species											
FWP mussels	Consult NatureScot and SEPA											

Annex 4: Mitigation & Enhancement Checklist

All Proposals

- Surveys cover the whole site and surrounding habitat in accordance with best practice guidance.
- Surveys are less than 24 months old or no more than 2 survey periods, cover all relevant species and habitats and were carried out at the correct time of year and according to best practice. All surveys recommended in preliminary reports have been conducted.
- An Ecological Impact Report (EclA) has been provided covering potentially affected sites, species and habitats.
- Design demonstrates the mitigation and enhancement recommendations in EclA, LDP developer requirements, in principle conditions and pre-application advice. Major developments have a site BAP or long term management plan.
- Tree and Woodland surveys are provided where trees or woodland are on or adjacent to the site or potentially affected by development
- Valuable trees and woodland such as veteran and ancient trees, and ancient woodland are identified and protected.
- Existing trees, woodland and valuable habitat are incorporated into design and protected from construction and ongoing impacts.
- Any tree or woodland loss meets the tests in policy 40 and the Control of Woodland Removal Policy and is adequately compensated.
- Sufficient information on the impact on protected areas has been provided to ensure the tests in Policy 38 can be met.
- Any potential impacts on peatland or carbon rich soils are addressed in line with Policy 51.
- Sufficient mitigation for protected and priority species has been provided to demonstrate that the licensing tests are likely to be met.
- The mitigation hierarchy has been followed and demonstrated through design.
- Mitigation addresses temporary construction impacts, long term impacts and the impact on wildlife attracted to new habitats
- Construction sites protect wildlife from being trapped or disturbed by noise or lighting. Construction impacts are addressed through a CMS, and CEMP to be provided where necessary.
- Enhancement measures set out in EclA are incorporated into development including minimum bat and breeding bird measures.
- Enhancement measures complement or implement Tayside LBAP actions.
- Site BAP or management plan set out management and monitoring of mitigation and enhancement.

Residential and Business Development

- Fragmentation of habitats or creating barriers to wildlife movement are avoided.
- Existing habitat is incorporated into green corridors.
- Underpasses or wildlife kerbs are provided within 500m of new or existing ponds.
- Hedges are used or 13cm x 13cm holes provided in fences or walls between gardens.
- New bat and bird roosts/nests are integrated into buildings as enhancement.



- ❑ Masterplans and landscape plans demonstrate use of green corridors incorporating existing mature trees and water courses, with added biodiverse features including mixed hedges, grassland, native and flowering/fruited trees and ponds.
- ❑ Lighting is directed away from nesting, roosting or foraging habitat and takes into account the impact on insects.
- ❑ Drainage uses above ground measures: swales, raingardens and biodiverse ponds.

Public Open Space and Recreational Features

- ❑ Masterplans and landscape plans incorporate and link existing wildlife resources.
- ❑ Open spaces and waterways are linked with trees, woodland, rough grass and hedges.
- ❑ All SUDS features, including raingardens, ponds, and swales are biodiverse with native planting; and are incorporated into open space.
- ❑ A riparian buffer of at least 6 meters is provided along one side of waterways reinforced with planting for roosting, shelter, breeding and protection from recreational users.
- ❑ Valuable habitat such as ancient woodland is protected and enhanced with buffers.
- ❑ Areas of open space are proposed to be maintained as wild grassland, wildflower meadows, and bio banks.
- ❑ Native trees, hedges and shrub species are used, particularly those that support protected and priority species in the area, including fruiting and blossom bearing native trees. See the [Open Space SG](#).
- ❑ Impacts of recreational usage and disturbance on existing and potential wildlife addressed, safeguarding some areas from disturbance e.g. by use of thorny plants.
- ❑ Historic orchards, which are often rich in biodiversity, are safeguarded and restored with new school and community orchards planted where possible.



Road and Rail

- ❑ Fragmentation and loss of habitat connectivity is avoided through route and build design. Where unavoidable, connectivity of habitat is mitigated through underpasses, green bridges, squirrel bridges, and dry passage under bridges/culverts.
- ❑ Verges and swales are planted with native grasses and wildflowers and a wildlife friendly maintenance programme is provided.
- ❑ Tree and hedge lines are maintained, with local native species used for landscaping and screening.
- ❑ Sustainable drainage systems such as swales and balancing ponds enhance biodiversity, and amphibian dispersal is protected through location, fencing and underpasses.

- ❑ Geological exposures are assessed and preserved where identified as valuable.
- ❑ Bat and bird nesting/roosting resources are incorporated into bridges and walls.

Renovations of Rural Buildings

- ❑ Existing bird nest sites are retained or replaced. All lost bird nests are replaced with integrated artificial replacements.
- ❑ Bat roosts or access to roof space are retained where possible. Integrated bat bricks, boxes and tubes or access tiles are used to replace any lost roosts and to provide roosting resource where there is suitable foraging habitat nearby.
- ❑ Bat friendly roof and timber treatment and underlay is used.
- ❑ Barn Owl boxes are incorporated into large agricultural buildings

Wind farms

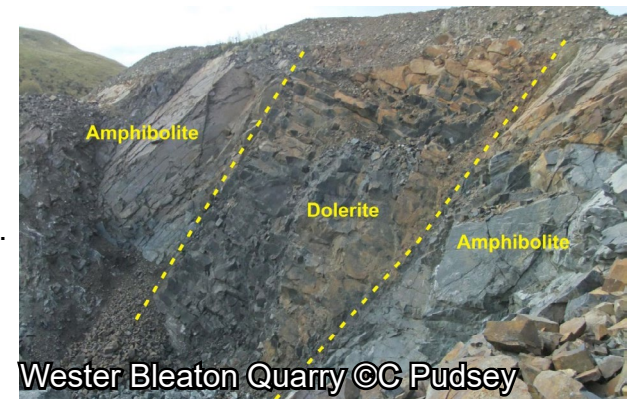
- ❑ Peat and bog habitats are shown to be avoided through site identification and turbine location. Any damage is mitigated and compensated through on site restoration.
- ❑ GWDEs are identified in surveys and adverse impacts avoided per SEPA guidance.
- ❑ Site selection minimises impacts on birds taking into account commuting distances from protected areas and migrating species.
- ❑ Site and turbine location takes into account impacts on foraging bats.
- ❑ Biodiversity mitigation and enhancement are incorporated into the design, construction, operation and restoration stages.



Bog restoration, Portmoak

Mineral Workings

- ❑ Biodiversity mitigation and enhancement is incorporated at design stage for operation, phased and final restoration
- ❑ Opportunities for nature are incorporated into operational requirements including native hedgerows and woodland for landscaping; enriching bunds and unused areas with grasslands and wildflowers
- ❑ LBAP priorities are addressed in design reedbeds, grassland, heathland and lochans
- ❑ Monitoring plans identify operational features that may support important wildlife and may need to be safeguarded such as rocky ground for reptiles and sand banks for sand martins.
- ❑ Restoration aims to enhance the previously existing habitat. Areas that become valuable to wildlife such as ponds, sand banks, and bare ground for invertebrates are retained.
- ❑ At restoration, valuable geodiversity interests are identified and are safeguarded.



Wester Bleaton Quarry ©C Pudsey

Annex 5: Glossary

Ancient Woodland: Semi-natural woodland continuously wooded since 1750 or 1860. More unambiguously referred to as ancient semi-natural woodland. The Ancient Woodland Inventory also includes PAWS and LEPO. “Roy” woodlands are on 1750 but not 1860 maps but may still retain ancient woodland features.

BAP: Biodiversity Action Plan. setting out the biodiversity objectives, and actions for biodiversity at a site (Site BAP) or regional (LBAP) level.

Biodiversity: the variety of life. It includes all the living things around us. Biodiversity underpins the services nature provides.

CEMP: Construction Environmental Management Plan. Details the implementation of measures in accordance with environmental commitments in EclA or EIA Reports. An outline CEMP may be required before planning permission is granted.

CMS: Construction Method Statement. Details the specific methodology to avoid and mitigate impacts from construction. This may be required before planning permission is granted.

Ecosystem Services: The benefits for people provided by the natural environment.

Enhancement: Measures to increase the value for biodiversity after mitigation and any compensation is taken into account.

European Sites: SPAs and SACs. These are retained in Scottish law after leaving the European Union.

Fragmentation: Where habitat is divided by development creating increased edges and creating barriers to wildlife movement.

Geodiversity: The variety of rocks, minerals, fossils, landforms, sediments and soils, and the natural processes which form them.

Green (and Blue) Infrastructure: The network of natural and

semi natural areas and features which provide multiple benefits including water based (blue) features such as SuDS.

GWDTE: Ground Water Dependent Terrestrial Ecosystems. Wetlands which critically depend on groundwater flows and/or chemistries and are sensitive to hydrological changes.

HRA: Habitat Regulations Appraisal. A legally required appraisal of the effects of a plan or proposal on SACs and SPAs.

INNS: Invasive Non-Native Species. Non-native plants and animals which can detrimentally impact on native biodiversity.

LEPO: Long established woodland of plantation origin from 1750 or 1860. A form of ancient woodland where semi natural woodland characteristics may develop.

Mitigation: measures to reduce negative impacts

PAWS: Plantation on ancient woodland sites. These may be able to be restored with appropriate management.

Priority Habitats and Species: Protected and non-protected habitats and species as listed in the Tayside LBAP and those on the Scottish Biodiversity List.

Raingarden: Any vegetated area designed to attenuate rainwater including green roofs and swales, often a garden feature designed to take rainwater from downpipes.

SAC: Special Area of Conservation. An international designation to protect an area for important habitat and the species it supports.

SPA: Special Protection Area. An international designation to protect an area for its importance for birds.

SuDS: Sustainable Drainage System. Solutions to manage rainfall in a way similar to natural processes.

TPO: Tree Preservation Order. To protect specific trees or woodland for their amenity, cultural or historical significance.