

# Biodiversity Site Survey Guide

## For applicants and developers

### Notes:

- In the first instance a **Preliminary Ecological Appraisal (PEA)**<sup>1</sup> should be carried out to determine which species or habitats may be impacted by the proposal. In some cases, further surveys or assessments may be required as recommended by the surveyor, Council staff and/or NatureScot.
- Surveys for protected species **cannot** be covered by planning condition(s).
- Some surveys can only be carried out at specific times of the year - Please refer to the survey calendar at the end of this document for more information.
- The Council advise that The Wildlife Information Centre (TWIC) are consulted on species records before surveys are carried out.

Consideration	Tick if it applies	If YES, then:	Completed
<b>Does the development site include any designated sites?</b>			
Does the site include all or part of a statutory site e.g. SPA, SAC, SSSI? <sup>2</sup>	<input type="checkbox"/>	An Ecological Impact Assessment (EIA) is likely required. Consult NatureScot or SBC for advice	<input type="checkbox"/>
Is there a nearby statutory site e.g. SPA, SAC, SSSI that may be impacted by the development?	<input type="checkbox"/>	Site specific surveys are likely required. Consult NatureScot and/or SBC for more information	<input type="checkbox"/>
Does all or part of the site affect a non-statutory site, i.e. a Local Biodiversity Site (LBS) <sup>3</sup> ?	<input type="checkbox"/>	Consult SBC to determine under which circumstances, if any, development might be acceptable, and the ecological data required	<input type="checkbox"/>
Does all, or part of the site, form a wildlife corridor or 'stepping stone' linking areas of ecological value through a Nature Network?	<input type="checkbox"/>	Assess ecological impact of development on site and adjacent area of habitat, and identify possible mitigation	<input type="checkbox"/>
		<b>If NO, then:</b>	<b>Completed</b>
Has a Phase 1 Habitat Survey been undertaken to help define the key habitats on site?	<input type="checkbox"/>	Consider undertaking a Phase 1 Habitat Survey at the earliest opportunity	<input type="checkbox"/>

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1 CIEEM Guide to Preliminary Ecological Appraisal [cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf](https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf)

2 NatureScot Site Link map- [SiteLink - Map Search \(nature.scot\)](https://www.nature.scot/site-link)

3 Local Biodiversity sites - [LBS | Scottish Borders Council](https://www.scottishborders.gov.uk/development/planning-and-construction/planning-conditions/local-biodiversity-sites)

Consideration	Tick if it applies	If YES, then:		Completed
<b>Does the site include any of the following habitats (based on a Phase 1 Habitat Survey)?</b>				
Buildings/barns?	<input type="checkbox"/>	Survey for:	<ul style="list-style-type: none"> <li>• Bats</li> <li>• Barn Owls</li> <li>• Breeding birds</li> <li>• Amphibians and reptiles</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/>
Brownfield?	<input type="checkbox"/>	Survey for:	<ul style="list-style-type: none"> <li>• Birds</li> <li>• Badgers</li> <li>• Amphibians and reptiles</li> <li>• Invertebrates</li> </ul>	<input type="checkbox"/>
Trees? (individuals or small stands)	<input type="checkbox"/>	Survey for:	<ul style="list-style-type: none"> <li>• Bats</li> <li>• Birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/>
		Check for:	1. Tree Preservation Orders 2. Conservation designations	
		Undertake:	<ul style="list-style-type: none"> <li>➤ Tree survey to standard BS5837:2012</li> </ul>	
Woodlands or woodland edges?	<input type="checkbox"/>	Survey for:	<ul style="list-style-type: none"> <li>• Bats</li> <li>• Birds</li> <li>• Red Squirrel</li> <li>• Pine Marten</li> <li>• Badgers</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/>
		Undertake:	<ul style="list-style-type: none"> <li>➤ Phase II Habitat Survey or NVC survey</li> <li>➤ Tree survey to standard BS5837:2012</li> </ul>	
Hedges?	<input type="checkbox"/>	Survey for:	<ul style="list-style-type: none"> <li>• Determine if the hedge is species rich</li> <li>• Breeding birds</li> <li>• Badgers</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/>
Scrub? (Vegetation dominated by shrubs sometimes with few scattered trees)	<input type="checkbox"/>	Survey for:	<ul style="list-style-type: none"> <li>• Bats</li> <li>• Badgers</li> <li>• Birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/>
		Undertake:	<ul style="list-style-type: none"> <li>➤ Phase II Habitat Survey</li> <li>➤ Ecological Impact Assessment (EclA)</li> </ul>	
Grassland (semi-improved or unimproved)?	<input type="checkbox"/>	Survey for:	<ul style="list-style-type: none"> <li>• Birds</li> <li>• Invertebrates</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/>
		Undertake:	<ul style="list-style-type: none"> <li>➤ Phase II Habitat Survey or NVC survey</li> <li>➤ Ecological Impact Assessment (EclA)</li> </ul>	

Consideration	Tick if it applies	If YES, then:		Completed
<b>Does the site include any of the following habitats (based on a Phase 1 Habitat Survey)?</b>				
Heath (heather)?	<input type="checkbox"/>	<b>Survey for:</b> <ul style="list-style-type: none"> <li>• Birds</li> <li>• Reptiles</li> <li>• LBAP Species</li> <li>• Invertebrates</li> </ul>		<input type="checkbox"/>
		<b>Undertake:</b> <ul style="list-style-type: none"> <li>➤ Phase II Habitat survey or NVC survey</li> </ul>		
Rivers, streams or wet ditches?	<input type="checkbox"/>	<b>Survey for:</b> <ul style="list-style-type: none"> <li>• Otters</li> <li>• Atlantic Salmon and Sea Trout</li> <li>• Freshwater Pearl Mussels</li> <li>• Water voles</li> <li>• LBAP Species</li> </ul>		<input type="checkbox"/>
		<b>Undertake:</b> <ul style="list-style-type: none"> <li>➤ Ecological Impact Assessment</li> </ul>		
Ponds, pools or lochs?	<input type="checkbox"/>	<b>Survey for:</b> <ul style="list-style-type: none"> <li>• Otters</li> <li>• Water Voles</li> <li>• Amphibians</li> <li>• LBAP Species</li> <li>• Freshwater Invertebrates</li> </ul>		<input type="checkbox"/>
		<b>Undertake:</b> <ul style="list-style-type: none"> <li>➤ Ecological Impact Assessment</li> </ul>		
Wetland or bog?	<input type="checkbox"/>	<b>Survey for:</b> <ul style="list-style-type: none"> <li>• Birds</li> <li>• Amphibians</li> <li>• LBAP Species</li> <li>• Freshwater Invertebrates (particularly dragonflies)</li> <li>• Peat (distribution, depth and condition)</li> </ul>		<input type="checkbox"/>
		<b>Undertake:</b> <ul style="list-style-type: none"> <li>➤ Phase II Habitat Survey or NVC survey</li> <li>➤ Ecological Impact Assessment (EcIA)</li> </ul>		
		<b>Check with:</b> <ul style="list-style-type: none"> <li>NatureScot and SBC to determine possible development constraints</li> </ul>		
Coastal sand, mudflats, lagoons?	<input type="checkbox"/>	<b>Survey for:</b> <ul style="list-style-type: none"> <li>• Birds</li> <li>• LBAP Species</li> <li>• Invertebrates</li> </ul>		<input type="checkbox"/>
		<b>Undertake:</b> <ul style="list-style-type: none"> <li>➤ Phase II Habitat Survey</li> <li>➤ Ecological Impact Assessment</li> </ul>		
Bings/ spoil tips/rock faces?	<input type="checkbox"/>	<b>Survey for:</b> <ul style="list-style-type: none"> <li>• Birds</li> <li>• Reptiles</li> <li>• LBAP Species</li> </ul>		<input type="checkbox"/>
		<b>Undertake:</b> <ul style="list-style-type: none"> <li>➤ Phase II Habitat Survey</li> <li>➤ Ecological Impact Assessment (EcIA)</li> </ul>		

Glossary of Terms	
<b>Ecological impact Assessment (EclA)</b>	Is an assessment of the likely significant ecological effects of a project, irrespective of its scale or type. An EclA can be part of the ecological component of an <i>Environmental Impact Assessment (EIA)</i> .
<b>LBAP</b>	Local Biodiversity Action Plan is a time-limited plan of actions and objectives developed by SBC in collaboration with a wide range of local stakeholders. The aims and objectives are specific to the Scottish Borders and the challenges and threats the habitats, species and land in the Borders faces. The document is available from the SBC website.
<b>LBS</b>	<i>Local Biodiversity Site</i> is a non-statutory designation for sites which are at least of local importance to biodiversity but which may be important for nationally or internationally protected species and/or habitats. The sites were identified by the SBC as part of the Local Development Plan process and are available at: <a href="#">LBS   Scottish Borders Council</a>
<b>NVC survey</b>	<i>National Vegetation Classification</i> is a standard classification system for British vegetation. It is based solely on plant species composition and categorises vegetated habitats into a series of plant communities using standard field methods and data analysis/classification techniques.
<b>Phase I survey</b>	A habitat classification system created by the UK Joint Nature Conservation Committee. Habitats are assigned to a specified category, and maps are produced using standard colour and/or letter codes
<b>Phase II survey</b>	Describes further surveys - usually undertaken after a Preliminary Ecological Appraisal - required to inform an EclA or planning conditions. The surveys vary depending on the location, nature and scale of the proposed development, the habitats present on site, and the likely or potential impacts.
<b>Preliminary Ecological Appraisal (PEA)</b>	A PEA is a quick assessment of the ecological features present or potentially present within a site or in the surrounding area (within the Zone of Influence for a proposal) to determine the likely impacts of a development. It usually consists of a desk study and a walkover survey.
<b>SAC</b>	<i>Special Area of Conservation</i> - A statutory designation for special and internationally protected habitats and/or species, listed in the Habitats Directive. Together with SPAs, they are known as <i>European Site</i> . <i>European Sites</i> require not just the avoidance of impacts on species and habitats but also that all species and habitats covered under the designation maintain a favourable conservation status.
<b>SPA</b>	<i>Special Protection Area</i> - a statutory designation specifically for more rare, threatened or vulnerable bird species listed in Annex I of the Birds Directive, or certain regularly occurring migratory species.
<b>SSSI</b>	<i>Site of Special Scientific Interests</i> is a statutory designation made by NatureScot under the Nature Conservation (Scotland) Act 2004. They are areas of land considered to best represent natural heritage in terms of flora, fauna, geology or geomorphology. Many SSSIs are also <i>European sites</i> .

## Survey Calendar (Adapted from NatureScot<sup>4</sup>)

This survey calendar should be used as a reference guide only with advice being sought from a qualified ecologist as site and project specific circumstances may alter seasonal windows

*N - Surveys not possible; L - Limited survey period; O - Optimal survey period*

Habitats/Vegetation		
Jan Feb Mar – L	Apr May June Jul Aug Sep – O	Oct Nov Dec -L
Phase I sub-optimal. Mosses and Lichen only	Detailed assessment surveys, National Vegetation Classification Surveys for higher plants and ferns, mosses and lichens in April, May and September only	Phase I sub-optimal. No other detailed plant surveys. Mosses and lichens only

Badgers				
Jan – L	Feb Mar Apr – O	May Jun Jul Aug – L	Sep Oct Nov - O	Dec - L
Limited sett/bait surveys	Limited Activity	Limited bait marking and sett surveys	Sett surveys	Limited sett/bait surveys

Bats				
Jan Feb Mar – O	Apr – L	May Jun Jul Aug Sep – O	Oct – L	Nov Dec - O
Inspection of hibernation, tree and building roosts	Limited Activity	Summer roost emergence and activity surveys (Maternity roosts start to form in May, females give birth in June, Mating starts in September)	Limited Activity	Inspection of hibernation, tree and building roosts

Birds					
Jan Feb – O	Mar Apr – O	May Jun - O	Jul Aug – L	Sep Oct - O	Nov Dec - O
Winter species	Breeding Migrant species	Breeding birds	Low activity	Migrant species	Winter species

Otters											
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec – O											
Limited by vegetation cover and weather conditions rather than seasons											

Water Voles				
Jan - N	Feb – L	Mar Apr May Jun Jul Aug Sep Oct - O	Nov - L	Dec - N
Low activity	Initial habitat survey	Habitat and field signs / activity surveys May be limited by vegetation cover and weather	Initial habitat survey	Low activity

Great Crested Newts				
Jan Feb - N	Mar Apr May Jun – O	Jul Aug – L	Sep Oct – L	Nov Dec - N
Newts hibernating	Pond surveys for adults / Terrestrial surveys Newts hibernating / Egg surveys April to mid-June / Larvae surveys from mid-May	Terrestrial habitat and larvae surveys	Terrestrial habitat survey	Newts hibernating

Pine Martins											
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec – O											
Surveys may be conducted all year-round weather permitting. Optimum time is spring and summer. Surveys for breeding dens from March to May											

Red Squirrel											
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec – O											
Surveys may be conducted all year-round weather permitting. Optimum time is spring and summer. Surveys for breeding females from December to September											

Reptiles					
Jan Feb - N	Mar Apr May Jun – O	Jul Aug - L	Sep - O	Oct – L	Nov Dec - N
Reptiles hibernating	Peak survey months are April and May	Reduced basking time reduces effectiveness of refugia survey	Peak survey month	Limited activity	Reptiles hibernating

Fish											
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec - O											
For coastal, river and stream dwelling species, the timing of the surveys will depend on the migration pattern of the species concerned. Where surveys require information on breeding, the timing of surveys will need to coincide with the breeding period, which may be summer or winter months, depending on the											