



Guidance for Pre-commencement Ecological Survey Reports and Environmental Mitigation Plans

Introduction

This document provides guidance to merchants on the content and layout of pre-commencement ecological survey reports (Section 1) and Environmental Mitigation Plans (Section 2) for standing sale harvesting operations. You are not obliged to use the guidance, but it will help you to understand the level of detail we expect for a survey or EMP to be fit for purpose. It may be subject to future updates.

Process

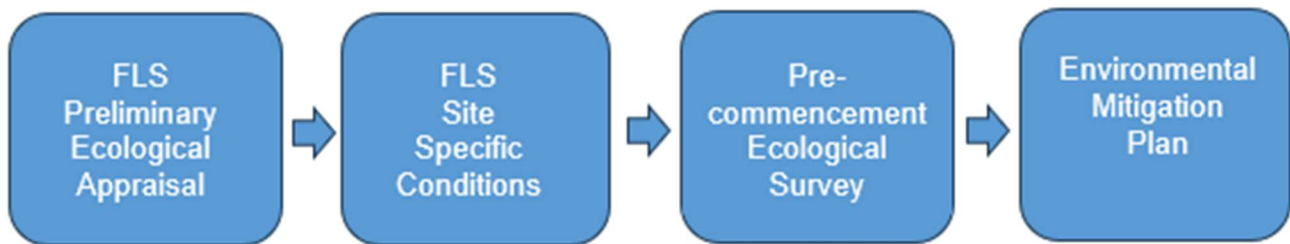


Figure 1 - Diagram of process

The *FLS Preliminary Ecological Appraisal (PEA)*¹ sets out the issues and constraints on the site, which then form part of the *FLS Site Specific Conditions (SSCs)*. The SSCs, together with the results of the *Pre-commencement Ecological Survey (PES)*, should inform the *Environmental Mitigation Plan (EMP)*.

The PES and the EMP should be provided as separate documents.

Content

The outline content at each stage should be broadly similar and cover the following categories²:

- Statutory Designations
- Historic Environment
- Bird Species
- Animal Species
- Priority Habitats

¹ This will also encompass heritage/historic environment considerations.

² Occasionally, additional environmental constraints (for example rare/protected plants) may be present and will need to be included in the survey and mitigation plan.

- Deadwood and Retentions
- Water Protection

PESs and EMPs will be evaluated by the Decision Maker (Regional Environment Adviser - REA) or one of their team, with support from the Wildlife Ecologist if needed.

Note: Because operations are frequently undertaken under the FLS Red Squirrel Licence, there are specific requirements in relation to red squirrel, given in section 1.4.4. and in the separate Competence document.

1 Pre-commencement Ecological Survey (PES)

1.1 Introductory information

- Site name, central grid ref and area (ha)
- Date(s), times and duration of pre-commencement ecological survey
- Name and qualifications of pre-commencement ecology surveyor³ (and report author if different)
- Name and job role of Environmental Mitigation Plan author
- Weather conditions during survey
- Weather conditions for previous week⁴
- Location map showing boundary of site and area surveyed

1.2 Site description

Brief summary including tree species, other vegetation, presence of any priority (such as Scottish Biodiversity List) habitat types, current management if known or apparent

1.3 General constraints on pre-commencement ecological survey

Any constraints that may have affected survey on a site-wide basis (e.g. heavy rain, poor visibility, large scale windblow, limited access, damage or disturbance). Explanation to be provided where needed; for example, reason for limited access. Detailed constraints in relation to species should be included in the relevant sections below.

1.4 Consideration of specific features

The listed items must be recorded for each element and photographic evidence and a map provided. Information should be brought forward from the previous stage(s) and should broadly follow the same pattern: describe the relevant feature(s), detail the issues and constraints (and whether further licences or consents are required); and consider the potential impact of operations and the planned mitigation required (such as likely timing constraints or the physical marking out of issues on the ground).

³ Surveyor must meet competence requirement – see separate Competence requirements document

⁴ This is required to give context to survey results – for example, prolonged rain in the days before survey could mean some signs would have been washed away.

1.4.1 Statutory Designations⁵

Statutory designations will be detailed by FLS in the Site Specific Conditions. The following must be recorded for each feature identified:

- Description and location (at least OS 8 figure grid reference and / or supporting map ID number)
- Issues and constraints
- Designated Site Consent (if required)
- Potential impact of operations and the planned mitigation required (including timing constraints).

1.4.2 Historic Environment

Where known, historic environment features that need protection will be detailed in the Site Specific Conditions. The following must be recorded for each feature identified:

- Description and location (at least OS 8 figure grid reference and / or supporting map ID number)
- Issues and constraints
- Details of Scheduled Monument Consent (if required)
- Potential impact of operations and the planned mitigation required (such as marking out features or agreeing / limiting vehicle access).

1.4.3 Bird species

Where known to be present, relevant bird species will be detailed in the Site Specific Conditions. Bird species must be surveyed for during the pre-commencement ecological survey. The following must be recorded for each feature identified:

- Description and location (at least OS 8 figure grid reference and / or supporting map ID number)
- Issues and constraints
- Potential impact of operations and the planned mitigation required (for example, timing constraints, marking out or limiting vehicle access).
- Constraints on survey (for example, limited access). This must include an assessment of the impact or significance of that constraint.

1.4.4 Other animal species

Where known, relevant animal species will be detailed in the Site Specific Conditions. Animal species must also be surveyed for during the pre-commencement ecological survey. The following must be recorded for each feature identified:

- Description and location (at least OS 8 figure grid reference and/or supporting map ID number)
- Issues and constraints
- Potential impact of operations and the planned mitigation required (for example, timing constraints, marking out or limiting vehicle access).

⁵ Including off-site but within zone of influence e.g. rivers downstream that may be affected by siltation

- Constraints on survey (for example, limited access). This must include an assessment of the impact or significance of that constraint.

Additional requirements in relation to red squirrel:

Evidence to be included in pre-commencement survey:

- Squirrel sightings: location, numbers and behaviour
- Feeding signs: location, whether old or fresh, quantity and frequency
- Dreys: location, position in tree, tree species
- Cone abundance

Further evidence derived from methods such as camera trapping may be required:

- where red squirrels are considered abundant but have not been confirmed
- where the presence of greys may be suspected but has not been confirmed

1.4.5 Priority Habitats (such as Scottish Biodiversity List)

Significant Priority Habitat will be detailed in the Site Specific Conditions. The following must be recorded for each feature identified:

- Description and location (at least OS 8 figure grid reference and / or supporting map ID number)
- Issues and constraints
- Potential impact of operations and the planned mitigation required (for example timing constraints, marking out or limiting vehicle access).

1.4.6 ASNW / PAWS

ASNW and PAWS features that require protection will be detailed in the Site Specific conditions.

The following must be recorded for each feature identified:

- Description and location (at least OS 8 figure grid reference and / or supporting map ID number)
- Issues and constraints
- Potential impact of operations and the planned mitigation required (for example timing constraints, marking out or limiting vehicle access).

1.4.7 Deadwood and Retentions

Deadwood features that require protection or retention will be detailed in the Site Specific Conditions.

The following must be recorded for each feature identified:

- Description and location (at least OS 8 figure grid reference and / or supporting map of retention zones)
- Issues and constraints
- Potential impact of operations and the planned mitigation required (for example timing constraints, marking out or limiting vehicle access).

1.4.8 Water Protection

Water issues noted in the Site Specific Conditions or identified on site must be described; the issues, constraints and potential impact of operations identified; and the planned mitigation shown clearly on a map or document and communicated effectively. The FWM will ensure that mitigation is carried out during the work on site.

Note: Absence of evidence is not evidence of absence. The pre-commencement ecological survey report must be clear in its description of evidence or lack thereof. “No signs”, without further corroboration, does not necessarily mean a given species is not present.

For example:

- **No signs of otters were seen along a water course but if parts were inaccessible, or the water was high, or there had been recent rain, then if the habitat is otherwise suitable it should be assumed that signs may have been missed and otters might be present.**
- **A large area of windblow might conceal a badger sett, but if the windblow is not recent and no other signs of badgers were noted around the windblow area or nearby then the risk of a badger sett being present might be considered low.**

2 Environmental Mitigation Plan (EMP)

2.1 General Structure and Content

The Environmental Mitigation Plan (EMP) should follow the same order as given above (Sections 1.4.1 to 1.4.8) and reference both the Site Specific Conditions supplied by FLS and the findings of the pre-commencement ecology survey. It should include:

- Details of the issues to be considered for the features identified
- A full description of the operational mitigation actions proposed
- Details of any species licences or other legal consents that may be required

In all cases the planned mitigation actions should be evidenced, for example by written and/or photographic record.

2.2 Specific Requirements

2.2.1 Locational mitigation measures

The following items should be fully documented and included on a large scale annotated constraints map, which should be provided to operators both digitally and on paper. This list may not be exhaustive.

- Identify feature and status (e.g. goshawk nesting site, scheduled ancient monument, priority open habitat)
- Breeding season dates (if relevant)
- Buffer distances and markings
- Start and end dates of buffers or other constraints (give specific dates)
- Mitigation pack in operation (red squirrels only)
- Operational methods (e.g. hand fell only, direction of felling, water protection measures)

2.2.2 Operational briefings

Operational briefings (e.g. toolbox talks) should be used to advise all machine operators of constraints, for example nests or dreys that may be discovered during works in other locations than those previously identified, and the type of markings that will be used to indicate different constraints. Briefings must include operators that may only be on site for part of the contract. You should avoid use of vague terms such as “operators will be vigilant” as this is hard to evidence. Instead, describe the details of what your operational briefings will cover, and how sensitive features will be demonstrated to operators.

2.2.3 Examples of mitigation measures

The following are illustrative examples of mitigation measures to demonstrate the level of detail expected.

Toolbox talk

A toolbox talk will be held at the beginning of works and at any further time needed, for example if a new operator starts on site. The toolbox talk will encompass the following:

- The importance of environmental protection and the operators’ roles and responsibilities
- The features present on site
- Provision of accurate annotated maps
- Details of timing constraints
- Significance of markings to be used to identify constraints or features, including the colour and type of marking (e.g. paint, tape) that will be used: for example, for drey trees that must not be felled, or an area in which machines must not be used
- A site walkover to point out particular features and how to identify them e.g. badger sett, squirrel drey, raptor nest

Priority habitats and protected features

- **Protect ancient woodland during harvesting:** Protect the roots and canopy of veteran trees – keep the base of old trees brash free. Retain all marked standing and fallen deadwood from the ancient woodland and protect other unmarked material where possible. Do not extract over marked fallen deadwood or incorporate into brash mats. Leave some non-native material - particularly large dead standing ‘snags’ and large diameter tree butts
- **Protect Priority Open Habitat during harvesting:** A small area (approx 0.5 ha) of calcareous grassland is present at NY12345678 and marked with tape. No vehicles must enter the taped area and no timber, brash or other materials should be stored within it.

Historic Environment

- **Protect and avoid a designated scheduled monument during harvesting:** a hut circle is situated within the coupe at NH 1234 5678 (Scheduled Monument no. 123). In order to safely fell the trees around the hut circle, the scheduled area will be marked out with a 20 m buffer zone. Harvesting and extraction routes will be carefully planned to avoid the marked area. Where necessary, harvesting machines will reach into the buffer zone from outwith the marked area.

- **Protect and harvest a designated scheduled monument:** a hut circle lies within the coupe at NH 1234 5678 (Scheduled Monument 123). In order to safely fell the trees within the scheduled area, we will apply for Scheduled Monument Consent from Historic Environment Scotland. The scheduled area will be marked out with a 20 m buffer zone, and the hut circle will be clearly marked. Harvesting and extraction routes will be carefully planned to avoid the hut circle, and ensure the minimum disturbance necessary.
- **Protect and avoid a heritage feature during harvesting:** a ruined township lies within the coupe at NH 1234 5678. In order to safely fell the trees on and around the township, the buildings will be marked out with 10 m buffer zones and the associated dykes marked out with 5 m buffer zones. Harvesting and extraction routes will be carefully planned to avoid structures, and ensure the minimum disturbance necessary. Where necessary, harvesting machines will reach into the buffer zone from outwith the marked area.
- **Protect and harvest a heritage feature:** a ruined township lies within the coupe at NH 1234 5678. In order to safely fell the trees on and around the township, the buildings will be marked out with a 10 m buffer zone and the associated dykes will be marked out with 5 m buffer zones. Harvesting and extraction routes will be carefully planned to avoid the structures, and ensure the minimum disturbance necessary.

Protected species

- **Protect squirrel dreys during harvesting:** two squirrel dreys present at NV 1234 5678 and NW 87654321. Work will take place under FLS red squirrel licence mitigation pack 4: drey trees will be retained and clearly marked with tape, and not felled in the breeding season. Order of felling will be from east to west to allow squirrels to move into the retained mature plantation at the west end of the coupe. Photographs of marked drey trees will be provided for evidence. Operators will be made aware of timing constraints, drey locations and markings on maps, will be fully briefed on maintaining vigilance for further potential dreys, and will alert the FWM immediately if any are found, in which case the FWM will contact the FLS Contract Manager.
- **Avoid disturbance to an osprey nest site:** The nest is located within coupe 05045 at grid reference NL 1234 5678. Ospreys are site faithful and are expected to return to the nest site in mid-March – April 2026. A 750 m buffer zone will be clearly marked with tape around the nest site from first occupancy until chicks fledge early September. Photographs of marked buffer zone will be provided as evidence. Buffer distances may be reviewed in line with guidance from a suitably qualified ecologist to account for topography, aspect and screening.

All operational staff will be informed of the presence of this species during the pre-commencement meeting including timing and zoning requirements. During operations staff will be vigilant and if any visible or audible signs of disturbance are observed e.g. birds circling overhead, repeated calling of adult birds, obvious and visible agitation of birds at or near the nest, all machinery will be shut down and operations suspended and advice will be sought from a Schedule 1 licensed ecologist.