	Name	Title
Author	Dan Thomas	Environmental Project Manager
Checked by	Simon Hall	Environmental Project Manager
Approved by	Richard Baldwin	Head of Delivery

Contents

1 Introduction 3

2 Legislation 3

3 General Compliance Requirements 4

4 Revision History 5

1 Introduction

1.1 There are many potential sources of dust from a construction site which need to be closely managed on an ongoing basis to ensure it is adequately controlled on site. Likely sources of dust include:

- Haul roads and access tracks;
- Yards and storage areas;
- Soil storage areas;
- Construction corridor (exposed areas following stripping);
- Material transportation;
- Transport of mud onto the public highway;
- Loading and unloading materials;
- Quarrying or blasting activities;
- Crushing / screening activities;
- Stone breaking;
- Concrete or stone cutting.

1.2 Once dust particles are airborne, it is very difficult to prevent them from dispersing into the surrounding area. The most effective technique is to control dust at source and prevent it from becoming airborne.

2 Legislation

2.1 In the event of dust becoming an issue there is potential for enforcement action from the Scottish Environment Protection Agency (SEPA) or the local authority. There is also the potential for legal action, which will have cost, programme and reputation implications.

2.2 Likely actions and implications include:

- Health and & Safety implications for operatives on site and wider public;
- Nuisance to neighbours and bad publicity for the site;
- Abatement notice or enforcement action from regulators;
- Impact on project programme and budget (e.g. compliance with statutory notices relating to dust levels / abatement notices);
- Under the Clean Air Act 1993 and Part 3 of the Environmental Protection Act 1990, local authorities can impose limits on dust generated from a site;
- Impacts on ecology (e.g. impacting on plant growth, smothering of habitats, watercourse pollution, local pH changes etc);
- Claims from farmers for dust damage to crops.

3 General Compliance Requirements

3.1 Planning the Works

3.1.1 Where Dust has the potential to become an issue, a protection plan should be developed.

3.1.2 Likely sources of dust should be identified ahead of works and appropriate mitigation measures put in place to minimise the risk of dust become an issue.

3.1.3 Nearby potential receptors such as residential dwellings or sensitive habitats should be identified, and the works planned minimise the risk of dust impacting on these, with the adoption of up-front appropriate mitigation measures.

3.1.4 Contingency measures should be put in place to enable a prompt, efficient and legally compliant response in the event of dust becoming an issue.

3.2 Avoiding Dust Generating Activities

3.2.1 Plan activities to ensure that, as far as practical, particularly dusty activities are not carried out in unsuitable weather conditions (i.e. very dry / windy conditions) unless suppression is in place.

3.2.2 Store materials away from the site boundary.

3.2.3 Limit vehicle speeds along stone access tracks.

3.2.4 Vehicles carrying bulk materials should be sheeted if could give rise to dust.

3.2.5 Keep height of soil stockpiles to a minimum and gently grade the side slopes.

3.2.6 Minimise the height of fall of materials.

3.2.7 Reduce the height that materials are unloaded from.

3.2.8 Mud should not be deposited on roads. Where applicable, wheel cleaning facilities will be provided prior to vehicles leaving site.

3.2.9 Keep all public roads well swept and bowse if required. Ensure a road sweeper can be commissioned locally to the site in the event of an issue arising.

3.2.10 Do not use drills that are powered by compressed air unless appropriate control measures are in place.

3.2.11 Ensure any tools or plant which have facilities for dust suppression utilise this function.

3.3 Management and Mitigation

3.3.1 Inspect high risk areas daily, especially during dry weather.

- Suppress dust from soil stockpiles, haul roads, stripped working corridors and material storage areas, by bowsing with water, where required;
- Ensure the relevant permissions and consents have been obtained for water used for suppression activities (e.g. CAR authorisation from SEPA or Standpipe licence from Scottish Water);

- Ensure efficient use of water to dampen down dust (e.g. use of diffusers to suppress wide areas with a spray/mist rather than a standard hosepipe arrangement);
- Any run-off from dust suppression activities shall be controlled in line with best practice to avoid creating sediment contaminated run off;
- Communicate dust management procedures to all relevant personnel and provide suitable training if required;
- Follow-up any complaints immediately and take action to avoid a repeat complaint.

3.3.2 Further information available in:

- BRE (2003) Control of dust from construction and demolition activities;
- DETR (2000) Environmental handbook for building and civil engineering projects;
- CIRIA (2005) Environmental Good Practice – site guide.

4 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created	N/A	1.00	Richard Baldwin
02				

Scottish & Southern Electricity Networks

TG-NET-ENV-521

Environmental

General Environmental Management Plan (GEMP)

- Biosecurity (On Land)

	Name	Title
Author	Dan Thomas	Environmental Project Manager
Checked by	Simon Hall	Environmental Project Manager
Approved by	Richard Baldwin	Head of Environment

Contents

1 References 3

2 GEMP – Biosecurity (On Land) 3

3 Revision History 5

1 References

The documents detailed in Table 1.1 – Scottish and Southern Electricity Networks Documents below, should be used in conjunction with this document.

Reference	Title
PR-NET-OPS-025	Foot and Mouth Disease

2 GEMP – Biosecurity (On Land)

2.1 General principles of Soil Management Process

2.1.1 Biosecurity is important when any agricultural land, hill ground and moorland that carries stock, farm steadings, forestry and woodland, rivers and lochs and aquaculture units is entered where there is a risk of spreading pest or disease.

2.1.2 Biosecurity good practice will minimise the risk of contamination and the spread of animal and plant diseases, parasites and non-native species. You cannot always see disease causing agents, plant pests, parasites and non-native species and they can be picked up and carried on clothing, footwear, on vehicles and equipment to other locations.

2.1.3 The main risk identified for our work has been identified as the transfer of potato cyst nematode and clubroot (a brassica disease) in arable land. These are predominately spread by contaminated soil, plant matter or dung.

2.1.4 There is also the risk of spreading insect pests, or bacterial, viral and fungal tree pathogens in woodland areas, or causing the spread of non-native invasive species or injurious weeds.

2.1.5 Additionally, there are several diseases capable of being transmitted from animals to humans including Lyme Disease, Leptospirosis, E. coli O157 and Salmonella. Good hygiene practice will significantly reduce the risk of contracting or spreading a disease.

2.2 Biosecurity Control Stages

2.2.1 The stage of biosecurity control that should be practiced will vary according to:

- Type of work you are carrying out
- Use of land you are entering e.g. is it used to grow crops such as brassicas or potatoes
- Livestock movement, some sites are governed by stricter disease control measures
- Landowner / occupier as well as project specific requirements
- The known presence of current pests and diseases or restrictions applied to land or premises

2.2.2 The stages (Stage 1 and Stage 2) described below are based on Scottish Government guidelines but have been tailored to the type of works normally undertaken by us or our contractors.

2.2.3 Unless there is a specific risk or requirement Stage 1 should suffice (see below). The control measures are only the minimum recommended and you must comply with any biosecurity procedures put in place by the contractor or landowner.

2.3 Biosecurity Control – Stage 1

2.3.1 For non-intrusive works e.g. site visits, walkover surveys and intrusive works in low risk areas i.e. where there is no know reasonable risk of the transmission of disease or pests.

- Ensure the landowner has been notified and is aware of the works/surveys to be undertaken
- Ensure all personnel have been briefed and understand what is required of them and the possible consequences of not adhering to the measures explained
- Ensure footwear is clean (visually free from soil and debris) before entering site. If necessary, brush and wash with water
- Ensure vehicles, plant and tools (including temporary access materials such as 'bog mats' and track way panels) to be used on the site is cleaned at the commencement of the works and thereafter is kept clean and, in particular, remove any accumulated mud, especially when moving between holdings
- Make use of any facilities provided at the premises to clean footwear if required by the contractor or land manager
- Keep access to a minimum, do not access areas unnecessarily and if practical do not take vehicles onto premises and keep to established tracks
- Respect any notices or instructions
- Food, Litter and packaging must be removed from site to prevent animals from eating or getting tangled up in material, litter etc
- Ensure that gates are left as they are found, as per the Scottish Government's Biosecurity Code. For more information on specific diseases refer to Scottish Government web pages

2.3.2 The minimum equipment to be carried in the vehicle should include a stiff brush, water sprayer with sufficient water to clean equipment and footwear/clothing, a hoof pick to remove mud between boot treads and suitable container.

2.4 Biosecurity Control – Stage 2

2.4.1 Ensure landowner has been contacted well in advance of any works taking place. Establish whether there are any control measures needed which relate specifically to the area you are working. For intrusive works i.e. ground-breaking operations in areas which have been deemed to be high risk. Also, for all non-intrusive work e.g. site walkovers where there are specific landowner or project requirements for this level of biosecurity non-intrusive works e.g. site visits, walkover surveys and intrusive works in low risk areas i.e. where there is no know reasonable risk of the transmission of disease or pests.

2.4.2 High risk areas are those fields which have been either identified as having the potential to be used to grow brassicas (oil seed rape, cabbage, turnips, swede, etc) or potatoes, or any other areas deemed to be high risk by the contractor.

- Mitigations as per Stage 1
- Clean and disinfect footwear using appropriate disinfectants (please refer to Farmland Biosecurity Policy for further guidance)
- Ensure vehicles, plant and tools (including temporary access materials such as 'bog mats' and track way panels) are adequately cleaned and disinfected using appropriate methods. Pay particular attention to the tyres and wheel arches. This is doubly important when moving from one farm to another to reduce the risk of spreading disease

2.4.3 If the stages 1 and 2 are not anticipated to be sufficient e.g. there is a known outbreak of a contagious pest or disease, please refer to PR-NET-OPS-025 Foot and Mouth Disease, and SEARS guidance for enhanced biosecurity control.

2.4.4 Further guidance can be obtained from the SEARS website and latest advice on the type of disinfectant to used can be obtained from the Department for Environment, Food and Rural Affairs (DEFRA) website: http://disinfectants.defra.gov.uk/

3 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created	N/A	1.00	Richard Baldwin
02				

Scottish & Southern Electricity Networks

TG-NET-ENV-522

Environmental

General Environmental Management Plan (GEMP)

- Restoration

	Name	Title
Author	Dan Thomas	Environmental Project Manager
Checked by	Simon Hall	Environmental Project Manager
Approved by	Richard Baldwin	Head of Delivery

Contents

1 Introduction 3

2 Legislation 3

3 General Compliance requirements 3

4 Revision History 6

1 Introduction

1.1 The way in which stripping, storage and replacement of soils / turfs is undertaken can significantly increase the successfulness of any reinstatement. The following guidance should form a basis of the restoration plan for the project.

1.2 Important guidance on soil management principles is contained in the Soil Removal, Storage and Reinstatement General Environmental Management Plan (GEMP) and should be followed in conjunction with this GEMP.

2 Legislation

2.1 Reinstatement and restoration obligations will be imposed on the works through the core consenting regimes, including:

- Planning permission under the Town and Country Planning (Scotland) Act 1997 (as amended);
- S37 consent under the Electricity Act 1998 (as amended);
- SSSI consent under Nature Conservation (Scotland) Act 2004 (as amended);
- Natura Consent under Conservation (Natural Habitats, &c.) Regulations 1994 (as amended); and
- CAR authorisations under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

2.2 Any obligations imposed under these consents must be complied with.

3 General Compliance requirements

3.1 Planning Construction Works

3.1.1 In planning construction works seek to avoid intrusive work wherever possible. There will be less reinstatement and restoration required once construction is finished.

3.1.2 Seek to:

- Avoid major earthworks wherever possible;
- Retain natural features such as rocky outcrops;
- Avoid loss of mature trees; for example, remove young regenerating birch in preference to mature trees which may have biodiversity and landscape value and will give structure to the finished works;
- Site tracks and micro-site route around groups of trees to leave natural features rather than dissecting groups/copses;
- When crossing hedges or walls plan to use existing gaps;

- Design any permanent drainage ditches to be as natural as possible (sinuous with varied banks and alignments etc);
- Design drainage measures carefully to avoid unnecessary long-term effects on adjacent habitats which could be difficult to restore; and
- Plan all site activities to reduce the need for vehicle movements. This will help in final restoration by minimising compression etc.

3.2 Planning Restoration

3.2.1 Restoration at the end of the works will always be more successful if planned in advance. A soil management and restoration plan should be developed in advance of the works.

3.2.2 Always:

- Plan restoration in advance of working on-site - this will save time and money at a later stage and will ensure that opportunities are not lost, and a more successful outcome is achieved;
- Ensure that detailed restoration plans take account of specific habitat types and locations;
- Identify where soils and peat and turfs will be stored;
- Take account of all agreements made during consenting process and with landowners;
- Take account of all environmental interests, for example, seek to enhance local biodiversity (avoiding planting on sensitive archaeological or geological sites);
- Plan how monitoring of restoration will be undertaken identifying when, how frequently and by whom;
- Consider how deer pressures (grazing and wallowing) or other grazing may affect the success of planting and plan restoration works accordingly; and
- Plan restoration taking account of run-off erosion risks on steep slopes in poor conditions; be aware of the potential for sediment rich run-off to smother sensitive or newly established vegetation in poor weather conditions and seek to minimise this.

3.3 Early Works

3.3.1 Early works will help in achieving more successful final restoration. These include the following:

- Always take photographs of the site before works start to guide later restoration including of any drainage that will be disturbed;
- Strip turfs and vegetation carefully and use in temporary works to prevent erosion;
- Turfs can be stored successfully in temporary cut-off ditches in some locations which can aid attenuation and prevent turfs / vegetation from drying out;
- Store top soil and subsoil separately according to best practice;

- Store stripped materials in the immediate vicinity (or as close as feasible) for future Re-use in site restoration;
- Keep a record of where all soils and turfs are stored. Consider signage on storage areas to help identifying source and type of material storage when it comes to reinstatement;
- Remove large boulders (rather than cover) to replace in restoration works;
- Remove noxious weeds in accordance with best practice and legal requirements. Do not allow unnecessary spread or this will compromise the success of final restoration works;
- Seek to avoid compression of soils as much as possible on restoration. Drainage may be impeded and may result in extensive rush areas being created; and
- During construction seek to avoid creating eroded areas which can be difficult to restore successfully.

3.4 Final Restoration

3.4.1 At the end of construction in any area the land and vegetation must be restored to pre-construction conditions. This should be done carefully and sympathetically taking account of all required mitigation and of the conditions. The following principles should also be adopted where appropriate:

- Undertake restoration works in suitable weather conditions - wet ground conditions can be difficult as can hot dry and windy spells;
- Restoration should ensure the successful integration of the site with surrounding land uses and habitats;
- All field, roadside or other boundaries disturbed during construction operations would be reinstated using the original materials (in the case of stone dykes, this having been carefully set aside for re-use) or to the original specification and to at least the pre-existing condition, or better;
- Natural regeneration of habitats should be promoted in all appropriate areas;
- Where hedgerow field boundaries are removed, they are to be replanted with the same species and at the same spacing intervals;
- Any required replanting and / or reseeding should be undertaken at appropriate times of the year and with the agreement of landowners / occupiers (and SNH if within designated sites);
- Identify the most appropriate machinery to use for restoration in any area (small digger or large machine etc) according to the sensitivity of the habitats and the extent of areas to be restored (take advice from the site ecologist);
- Undertake small sections of the site for restoration and monitor success with input from the site environmental representative(s) before restoring large areas;
- All accesses are to be restored to original condition.

- A pro-active approach to restoration i.e. use of temporary access materials such as Trackway panels and appropriate low pressure construction vehicles, particularly in areas of wet ground, is encouraged.
- Unless otherwise specified all decommissioned tower foundations are to be removed to 1.5 m below ground level.

4 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created	N/A	1.00	Richard Baldwin
02				

Scottish & Southern Electricity Networks

TG-NET-ENV-523

Environmental

General Environmental Management Plan (GEMP)

- Bad Weather

	Name	Title
Author	Dan Thomas	Environmental Project Manager
Checked by	Simon Hall	Environmental Project Manager
Approved by	Richard Baldwin	Head of Delivery

Contents

1 Introduction 3

2 General Compliance Requirements 3

3 Revision History 4

1 Introduction

1.1 It is important to consider the implications of poor weather conditions and associated environmental risks.

1.2 Bad weather, particularly heavy rain, can increase the risk of significant environmental impacts during construction (for example, on sensitive habitats and increased risk of sediment laden run-off into surface waters).

1.3 Storm events can also impact oil storage areas and increase the risk of a loss of oil to the environment.

2 General Compliance Requirements

2.1 General

2.1.1 Identify an action plan before construction starts that identifies measures to implement in times of extreme weather. This should include heavy rain, high winds, heavy snow, prolonged freezing condition and periods of dry weather.

2.1.2 The weather forecast should be checked daily and changes to work activities or mitigation requirements implemented on an ongoing basis.

2.1.3 Identify and communicate any areas of flood risk. SEPA flood mapping can assist in this but should not be the sole information used in any risk assessment.

2.1.4 Ground conditions should be checked regularly, and assessment made as to whether they are suitable for the proposed site activities.

2.1.5 Check whether plant is causing damage on site because of poor ground conditions exacerbated by bad weather.

2.1.6 Plan for high run-off in advance and Identify protection measures (silt traps, straw bales and booms etc.).

2.1.7 Check for any materials stored close to watercourses during construction activities which could be washed into the water in times of storm.

2.1.8 During times of excessive rainfall and ground saturation, stripping and reinstatement works should not be undertaken.

2.1.9 Check any containment bunds (oil storage, concrete washout etc) have the appropriate capacity and empty if necessary, to prevent any un-controlled discharge.

2.1.10 Ensure all skips and waste containers are covered / closed to minimise water ingress.

2.1.11 Emergency response plans should take account of bad weather.

2.1.12 Consider the use of a visual display board which can be used to alert site staff to the expected weather and the necessary preparations that are required.

3 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created	N/A	1.00	Richard Baldwin
02				

APPENDIX O. SPECIES PROTECTION PLANS

Scottish & Southern Electricity Networks

TG-NET-ENV-501

Safety, Health and Environment

Badger Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Project Manager
Checked by	Alistair Watson	Environmental Advisor
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 Part 1: General Protection Plan 3

4 Part 2: Project Licence Protection Plan 11

5 Revision History 14

Appendix A Project Licence Method Statement Template 15

1 Introduction

Badger is a protected species under the Badger Protection Act and is afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures for the protection of badgers and their shelters during construction works on SHE Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for badger to be present (Part 1), and where a Project Licence for badger has been issued by SNH to cover the project (Part 2):

1.1 Part 1: General Protection Plan

This Part applies to all projects where badger may be present). Part 1 outlines the responsibilities of SHE Transmission and the *Contractor* regarding protection of badger. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

1.2 Part 2: Project Licence Protection Plan

This is provided to *Contractors* in addition to Part 1 for large projects where a Project Licence has been issued by SNH to cover the work and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

2 References

The documents detailed in **Error! Reference source not found.**, below should be used in conjunction with this document

Table 2.1- Miscellaneous Documents

Title
The Protection of Badgers Act 1992
https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing
SNH's "Scotland's Wildlife: Badgers and Development (2001)"

3 Part 1: General Protection Plan

3.2 Background

Badgers (*Meles meles*) are members of the weasel family with a very widespread distribution in Scotland. They normally live in small family groups (clans) in sometimes large underground structures called setts. Setts

are closely associated with woodland and sloping ground, but badgers can exploit many diverse types of habitat including upland moorland. Although they typically consume large numbers of earthworms, they are omnivorous and will forage on a wide variety of foods including grains and carrion. The distance from the sett which they travel varies widely, with those in upland areas having to exploit large areas. Four kinds of setts are recognised – main, annexe, subsidiary and outlier although badgers are also known to use above ground nests and rock crevices.

The badger breeding season is generally acknowledged to run between 1st December and 30th June with cubs born in February.

Signs of badger:

- Dung heaps or latrines – small pits are dug and large faeces of variable consistency are deposited. Dung tends to have an inoffensive odour.
- Badger prints and tracks – badger paths are often well worn and lead from setts to and along boundaries such as fences. They may be marked at strategic points with dung heaps where they constitute the edge of a home range. Badger prints are about 4.5 – 6.5 cm wide and have five toes with very prominent claws.
- Guard hairs – stiff, long, elliptical, hairs with black and white bands.
- Setts – typically large D-shaped burrows with large spoil heaps of excavated soil often with discarded bedding mixed in.
- Snuffle holes – indentations in the ground where badgers have been rooting for food such as bulbs and invertebrates.

3.3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Protection Plan where badger may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

3.4 Legislation

Badger is protected under The Protection of Badgers Act 1992. Under this Act it is illegal to intentionally or recklessly[1] damage a badger sett or cause a dog to enter a sett, to obstruct access to a sett and to disturb a badger while occupying a sett, or for any person to kill, injure or take a badger. It is also an offence to cruelly ill-treat a badger, to dig for or to snare a badger.

[1] Reckless acts would include not having or disregarding a mitigation plan aimed at protecting badgers resulting in killing, injury, and/or disturbance of any badger or badger resting place, or carrying out an activity which would result in an offence where the presence of badger was foreknown.

This legislation means that badgers are fully protected in Scotland. Under Section 10 (1) of The Protection of Badgers Act 1992, Licences may be granted to interfere with a badger sett within an area specified in the Licence by any means so specified.

3.5 Surveying for Badger

Surveys for badger must be undertaken in all works areas containing suitable badger habitat, a maximum of 12 months prior to the works commencing, (this includes site investigations), to ensure the availability of up-to-date information on shelter locations. A preconstruction check should also be made of works areas a maximum of three weeks prior to the start of works, to check for any changes to sett location / status.

Surveys must extend for a minimum of 30 m beyond working areas, including access tracks increasing to 100 m in areas of potential high noise and vibration (piling, blasting, etc.) for high noise activities.

The preconstruction surveys will be carried out by suitably qualified and experienced ecologists who will identify whether the setts are Active, Inactive or Defunct.

- Active - the presumption in Scotland is any suitable site that could be used for shelter in active badger territory is considered an active sett unless proven otherwise, through a lack of supporting evidence of current use, and by appropriate monitoring.

- Inactive - these can be characterised by tunnels looking disused (e.g. cobwebs and overgrown vegetation / leaves in the entrance) and no presence of signs of current use by badger (e.g. hairs, footprints, snuffle holes etc.). Appropriate monitoring is required to provide absolute certainty that the sett is not in current use by badger.

- Defunct - these are characterised by a loss of the structural integrity of the tunnel entrance (such as when they have been trampled by cattle) and/or roots growing through the tunnel, (i.e. the hole could not be used for shelter by a badger in its current state), and no other signs of current use by badger being present

Appropriate monitoring (e.g. the use of suitable camera traps) should be undertaken where required to determine if any sett is being used for breeding. Camera trap monitoring may also require a Licence from SNH.

3.6 Review of Badger Survey

Once a badger survey has been carried out, the ecologist / ECoW should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / ECoW.

Relevant site documentation and project information sources should be updated with new and amended information on badger constraints as it is produced, with changes communicated to appropriate staff immediately.

3.7 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb badgers in their setts or to destroy / exclude any sett. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any sett that may be affected (See Figure 1):

Avoidance

This is the preferred option for active / inactive setts identified within 30 m of works (or 100 m for high noise / vibration activities), an initial protection zone of either 30 m (or 100 m) will be marked on the ground and appropriately signed to restrict work access.

Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited outwith the protection zone. If badger disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

Disturbance

For any works required within 30 m of active setts, and for high noise / vibration activities such as pile driving or blasting within 100 m of setts, a Licence from SNH will be required (either Individual or Project).

Individual Licence applications to SNH should be accompanied by a Species Protection Plan which outlines how disturbance will be minimised and setts protected, for example through screening of works and modifying protection zones.

If a Project Licence is in place, and a breeding sett will be disturbed during the breeding season (1st December – 1st July), a Method Statement must be submitted to SNH licensing team for written approval in accordance with Part 2 of this document, prior to any works commencing.

Destruction

Destruction of setts should only be undertaken as a last resort. For destruction of active setts a Licence will be required from SNH (either Individual or Project) Individual Licence applications to SNH should be accompanied by a Species Protection Plan which outlines how disturbance will be minimised and individuals protected.

The plan should include appropriate monitoring to ensure breeding is not taking place and provision for the creation of an artificial sett if required. Any sett subject to works under Licence will be monitored during and after those works. If a Project Licence is in place, a Method Statement must be submitted to SNH licensing team in accordance with Part 2 of this document for written approval prior to any works commencing.

3.8 Mitigation Measures

3.8.1 General Mitigation

- Any temporarily exposed pipe system should be capped when staff are off site to prevent badgers from gaining access.
- All exposed trenches and holes should be provided with mammal exit ramps e.g. wooden planks or earth ramps when Contractors are off site.
- An emergency procedure should be implemented by site workers if badger / badger setts are unexpectedly encountered. All work within 30 m (100 m for high noise/vibration activities) should cease until a suitably qualified and experienced ecologist has inspected the site and determined the appropriate course of action.
- An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH licensing team if required).

3.8.2 Monitoring and Reporting

- The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to badger is delivered.
- Reports will be submitted to SNH as required by the relevant Licence.

3.8.3 Exclusion / Destruction of Inactive Setts at any time of year

Where there is a structure that requires to be excluded or destroyed which may be used by badger, a survey to determine whether the feature is in active use is required to determine whether a licence. For guidance see the SNH website (https://www.nature.scot/sites/default/files/2017-07/A1391121%20-%20Badgers%20-%20Current%20use%20-%20Guidance%20-%204%20September%202014.pdf).

Should the structure be deemed to be inactive the following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing. A licence from SNH is not required.

Monitoring

a. Any potentially inactive sett must be monitored for a minimum of 14 days where weather conditions are favourable (up to 28 days if unfavourable) to check for current use by badger.

b. A combination of the following methods will be used, as appropriate:

- An appropriately positioned camera trap to monitor badger activity at the sett.
- Small pencil-sized sticks placed in the floor of the tunnel just inside the entrance(s), pointing upright.
- Checks for other badger sign (*e.g.* hair, snuffle holes, latrines and fresh scuff marks).
- Sand placed at the sett entrance(s).

Exclusion

c. Following adequate monitoring, and where the named Agent is confident that there is no sign of use by badger, the sett will be excluded for 7 days using a gate[2] set in the one-way position.

d. Exclusions must be overseen by a named Agent on the Project Licence.

Monitoring Exclusion

e. The sett will be visited regularly through the exclusion process to check activity and to check on the integrity of the exclusion materials and make good any damage. If it is apparent that badger(s), or other animals, have breached the exclusion any necessary repairs will be made and exclusion period will be restarted.

Exclusion / Destruction of the Sett

f. Following exclusion, temporary blocking by wiring the gate shut, or destruction of the sett will be undertaken, where required, under the supervision of the Agent.

g. Where the sett is not required to be destroyed the exclusion gate / sheeting may be left whilst works proceed around the sett and removed once works have finished.

h. Where the inactive sett is required to be destroyed, this will be carried out using appropriate plant or hand tools.

i. For setts on distinct slopes, the excavation will start at least 1 m away from the entrance spoil heap on the down-slope side (up to 4-5 m in front of the entrance itself). For setts on flat ground the excavation will start in front of the entrance hole and hand digging will be utilised to assess the direction and number of tunnels in all directions. Once this has been established a appropriate plant can be used to further progress the excavation. A trench will be dug under direction of the Agent. In the unlikely event that badgers are found during this process all excavation will cease and the badger(s) will be allowed to freely move away from the area. The Agent / ECoW will decide on when the excavation can re-commence.

j. The excavation will continue slowly, working forwards into the tunnels and chambers until the Agent is satisfied the entire sett has been excavated. Once fully excavated the soil will then be backfilled and compressed to deter animals from excavating further holes.

k. Construction works will be programmed to commence as soon after this process as possible to reduce the probability of animals returning to the area.

3.9 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 40 days) to ensure the licence is in place prior to any work commencing.

[2] The specification of gates, fencing and materials would be in accordance with DMRB and the Natural England Technical Information Note 25 (Appendix 2). The badger mesh fence specification is as described in SNH's "Scotland's Wildlife: Badgers and Development (2001)".

3.10 Project Licence

An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable badger offences.

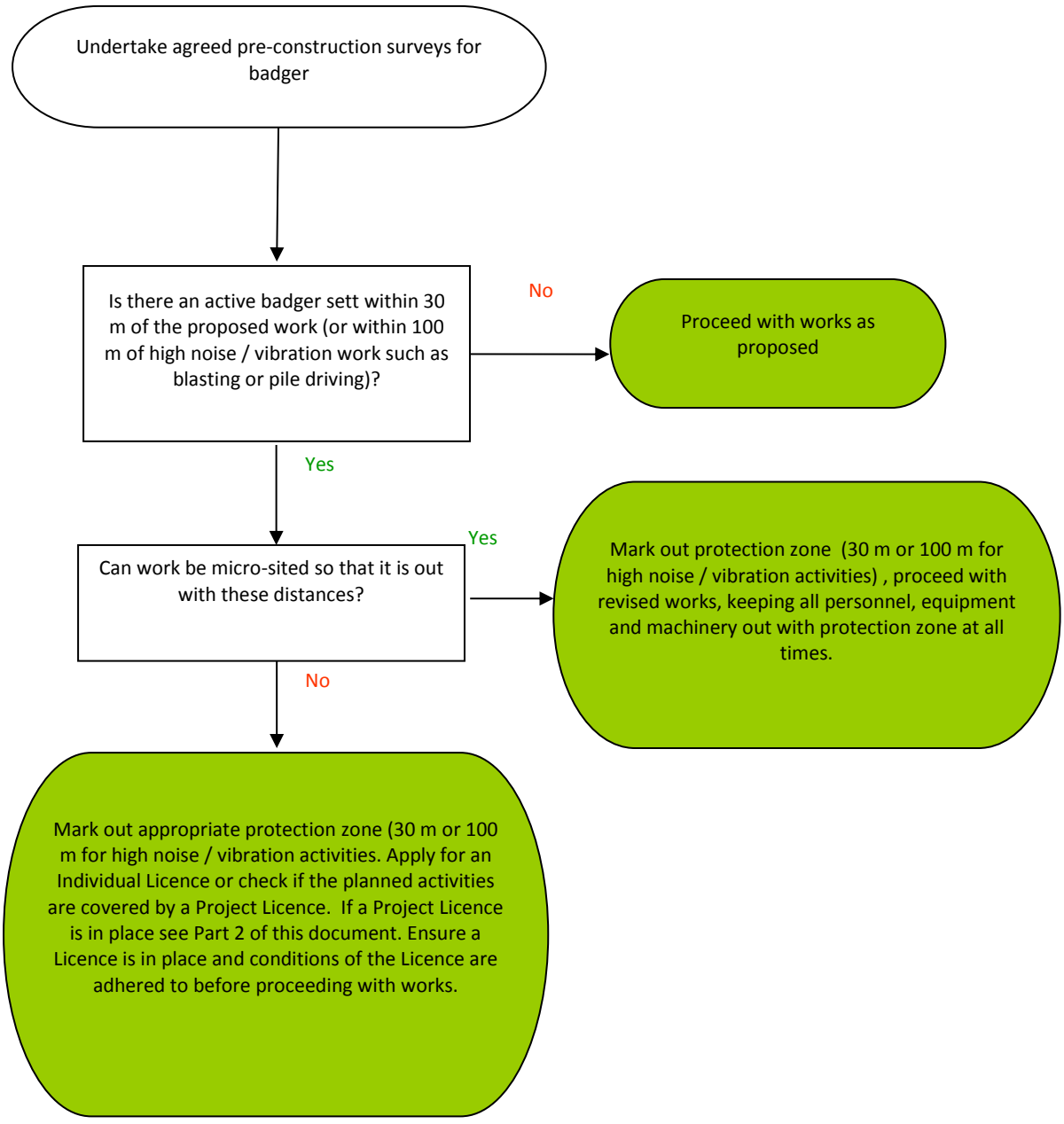
For example, multiple instances of disturbance to a number of badger setts over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-development surveys within 12 months of the planned project start date, and pre-construction surveys within 3 weeks of works commencing. Any Project Licence application will need to be accompanied by the Mitigation Plan and procedures for badger included in Parts 1 and 2 of this SPP

3.11 Individual Licence

For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable badger offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing.

Further guidance and details of how to apply for a badger Licence can be found on the SNH website (https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing).

Badger Mitigation Decision Tree



4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (insert Licence number) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor*'s responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

4.1 Works Allowed under the Project Licence

Under the Project Licence there is a general presumption against works being carried out which could disturb badgers in their setts, or to destroy / exclude any sett unless it can clearly be demonstrated that either it is inactive (*i.e.* through monitoring) or that there is no alternative solution against Project timescales and requirements.

4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved by SNH prior to any works commencing:

a. Destruction of any active setts within the breeding season (1st December – 30th June inclusive).
b. Destruction of a breeding sett, or a sett which cannot be discounted as a breeding sett, at any time of year.
c. Disturbance (*i.e.* works within 30 m, or 100 m for high noise / vibration works) to a breeding sett, or a sett which cannot be discounted as a breeding sett, during the breeding season.
d. Where it is proposed to exclude (even temporarily) such a proportion of setts in a given clan's territory as to cause a significant impact on the clan.
e. Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

Proposed mitigation works should be agreed with SNH.

4.3 Activities not requiring additional SNH approval

The following works may be carried out under this SPP and / or specific Method Statements without the prior approval of SNH when a Project Licence is in place, using the prescribed methodologies:

4.3.1 Exclusion / Destruction of a non-breeding active sett from July – November inclusive

The following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing:

Pre-works Assessment

a. In advance of any ground-breaking or use of construction machinery within 30 m of a sett entrance (or 100 m for blasting operations) an Agent on the Project badger licence will consider in detail the scope of the proposed works, type of sett and topographical location to determine if exclusions can be avoided without placing badgers at risk.

Exclusion

b. As agreed with SNH, badger gates and appropriate materials[4] will be used for the exclusion of setts, unless in rare circumstances, in which case SNH licensing team will be consulted beforehand. Exclusions must be overseen by a named agent on the Project badger licence.

c. The gate would be set to the two-way position for at least 7 days and then set to one-way for 14 days.

Monitoring Exclusion

d. To monitor use of the sett the a combination of the following methods may be used.

- An appropriately positioned camera trap to monitor badger activity at the sett.
- Small pencil-sized sticks placed in the floor of the tunnel just inside the entrance, pointing upright.
- Threads pinned to the gate and gate frame to confirm if the gate has been opened.
- Sand placed at the sett entrance (inside and outside the gate).

e. The sett will be visited regularly through the exclusion process to check activity and to check on the integrity of the exclusion materials and make good any damage. If it is apparent that badger(s) have breached the exclusion any necessary repairs will be made and exclusion period will be restarted.

Destruction of the Sett

f. Destruction will proceed as per the method outlined for destruction of inactive setts.

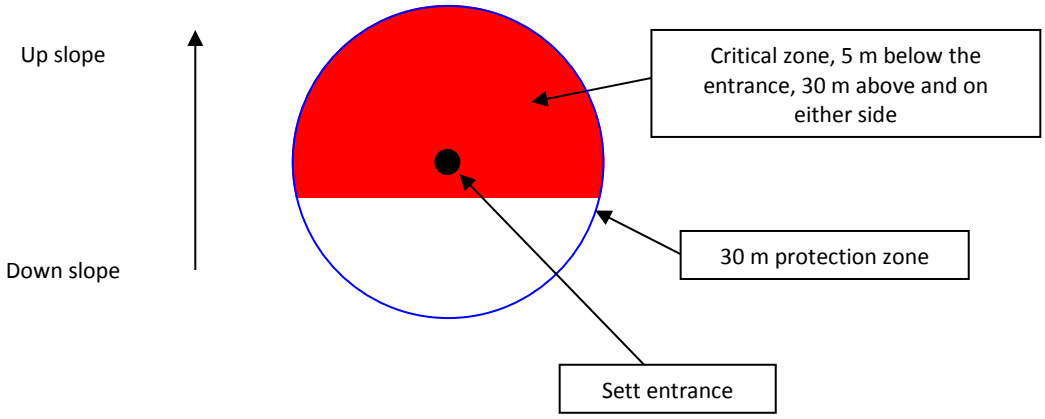
4.3.2 Disturbance to a non-breeding active sett from July – November inclusive

The following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing:

Tree Felling and Scrub clearance

All tree and scrub clearance will be undertaken in accordance with the conditions of a Standard Forestry Operations Licence (see https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/badgers-and-licensing/badgers-licences-land).

Track Construction



a. Track construction can be carried out within the 30 m protection zone under the Project Licence providing it does not impact on the "Critical Zone", as shown in the diagram above, and lie within 5 m of the sett entrance. An Agent / ECoW on the Project badger licence will carry out a risk assessment and mark out the maximum protection zone to ensure the integrity of the sett is protected. If works are proposed in the critical zone between 20 and 30m from an entrance, careful hand-digging of a cross trench at the edge of proposed access track route or tower compound will be performed to confirm the tunnels do not extend under the works.

b. The Agent / ECoW will be present immediately before construction starts to re-check for any ecological constraints including newly dug badger setts. Details of any ecological constraints, and associated mitigation, not related to badger will be communicated separately to this plan to all site workers.

Tower Compound Establishment

c. A tower compound can intrude within the 30 m protection zone under the Project licence, where there is no alternative, providing it does not impact on the "Critical Zone" and the sett entrance is a minimum of 5 m out with the compound boundary. The An Agent / ECoW on the Project badger licence will carry out a risk assessment and mark out the maximum protection zone to ensure the integrity of the sett is protected.

d. Badger proof fencing / gates will be used for the compound to reduce the risk of badgers entering the works area. One-way badger gates will be installed at the nearest corner of the compounds to allow animals to escape.

e. The Agent / ECoW will be present immediately before construction starts to re-check for any ecological constraints including newly dug badger setts. Details of any ecological constraints, and associated mitigation, not related to badger will be communicated separately to this plan to all site workers.

5 Revision History

No	Overview of Amendment and Text affected	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-707 (Rev 1.00)	1.00	Richard Baldwin
02	Hyperlink to "Current use" guidance 'What is a badger sett?' has been added under newly created paragraph 3.8.3. 4.3.1 'Exclusion / Destruction of Inactive Setts at any time of year' (Rev 1.00) has been moved under 3.8.3 to represent Licensing Team changes in accordance with legislation.	TG-NET-ENV-501 (Rev 1.00)	1.01	Richard Baldwin

Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

<insert species record reference>

<insert date>

Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for ***<insert details of works>*** to be completed under ***<insert licence details>***. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition ***<insert No.>*** of the above Licence states that a ***<insert species>*** Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect ***<insert species>***. Therefore, no works which would *<insert licensed activity>* ***<insert species>*** shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- ***<insert licence details>***, SNH
- Species Protection Plan (SPP): ***<insert SPP No. and title>*** Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

Licensable Works

Introduction

<Insert details>

Baseline Description

<Insert description, including photographs / location plan>

Table 1: Summary of Data

Reference	Easting	Northing	Date recorded	Description	Date works exclusion zone demarcated & distance

Survey Summary

<Insert details>

Description of the Proposed Licensable Works

<Insert details>

Works Duration

<Insert details>

Consideration of Alternatives

<Insert details>

Impact Assessment

<Insert details>

Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

<insert details of methodology>

During works:

<insert details of methodology>

<Insert Contractor's name>

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of *Contractor's* Representative:..... Date ..../ /

Print name in full: .....

Scottish & Southern Electricity Networks

TG-NET-ENV-502

Safety, Health and Environment

Bat Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Project Manager
Checked by	Alistair Watson	Environmental Advisor
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 Part 1: General Protection Plan 4

4 Part 2: Project Licence Protection Plan 9

5 Revision History 13

Appendix A Project Licence Method Statement Template 14

1 Introduction

All bat species occurring in Britain are European Protected Species (EPS), protected under Annex II and IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive) and are afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures for the protection of bats and their shelters during construction works on SHE Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for bats to be present (Part 1), and where a Project Licence for bats has been issued by SNH to cover the project (Part 2):

1.1 Part 1: General Protection Plan

This Part applies to all projects where bats may be present and is issued to Contractors. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of bats. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation

1.2 Part 2: Project Licence Protection Plan

This is provided to *Contractors* in addition to Part 1 for large projects where a Project Licence has been issued by SNH to cover the work and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

2 References

The documents detailed in Table 2.1- Miscellaneous Documents, below should be used in conjunction with this document

Table 2.1- Miscellaneous Documents

Title
EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)
Conservation (Natural Habitats &c.) Regulations 1994
Conservation (Natural Habitats &c.) Amendment (Scottish) Regulations 2007
https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing

3 Part 1: General Protection Plan

3.2 Background

Bats are a diverse group of mostly nocturnal flying mammals of which there are generally recognised to be 9 different species in Scotland.. There are four more common or widespread species; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipestrelle (*P. pygmaeus*), Daubenton's bat (*Myotis daubentonii*), and brown long-eared bat (*Plectotus auritus*). The two pipistrelle species mentioned above are the ones most likely to be encountered.

The other less common species are Natterer's bat (*M. nattereri*), Nathusis pipistrelle (*Pipistellus nathusii*), Leisler's bat (*Nyctalus leisleri*), whiskered bat (*M. mystacinus*), and Noctule bat (*N. noctula*).

Identification can be made by using bat detectors and recording devices to differentiate the characteristic echolocation signals (used to navigate and catch prey) as well as flight patterns, morphology and DNA analysis of droppings.

Bats exploit a wide variety of natural and semi-natural habitats such as woodlands, pasture, water and hedges in pursuit of insect prey such moths and midges. They use a variety of strategies to catch their prey. For example brown long-eared bats glean insects from foliage, whereas Daubenton's bats gaffe insects from near the surface of water.

Bats rest up during the day in roosts within sheltered voids or cavities. Although all bat species in Scotland rely heavily on man-made structures, roosts can be found in; buildings and ruins, trees (woodpecker holes, cracks, flaky bark and callused flush cuts), bridges, caves and tunnels. Signs of an active roost may include urine staining, presence of flies, scratch marks, strong odour and droppings, however not all roosts have such features. Tree roosts can be particularly difficult to identify.

Roosts are communal structures which are in use at different times and many different types of roosts exist varying from temporary day roosts to more permanent maternity and hibernation roosts. The most sensitive periods for maternity roosts are from early May to late August and hibernation roosts are in use from October until March. Bats are particularly vulnerable to disturbance during hibernation which could result in mortality due to cold temperatures and lack of food resource.

3.3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Protection Plan where bats may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

3.4 Legislation

All bat species *(Chiroptera)* in Britain are European Protected Species (EPS), protected under Annex II and IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive). The Habitats Directive is transposed in Scottish law by the Conservation (Natural Habitats

&c.) Regulations 1994, as amended by The Conservation (Natural Habitats &c.) Amendment (Scottish) Regulations 2007 and others. Bats are listed on Schedule 2 of the Habitats Regulations 1994.

The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007 enhanced this protection. As EPS, it is an offence to deliberately or recklessly[1] kill, injure or take (capture) bats, deliberately or recklessly disturb or harass bats, and damage, destroy or obstruct access to a breeding site or resting place of any bat. It is important to note that bat roosts are protected even at times of year when not in use.

3.5 Surveying for Bats

1. Surveys for bats must be undertaken in all works areas containing suitable bat habitat, at a suitable time of year a maximum of 12 months[2] prior to the works commencing, (this includes site investigations), to ensure the availability of up-to-date information on shelter locations.
2. Surveys must extend for a minimum of 30 m beyond working areas.
3. Pre-construction surveys will be undertaken for all potential roosting features likely to be affected (i.e. built structures and trees). If evidence of roosting bats is encountered further survey may be required to confirm species, roost type and usage.

3.6 Review of Bat Survey

Once a bat survey has been carried out, the ecologist / ECoW should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / ECoW.

Relevant site documentation and project information sources should be updated with new and amended information on bats constraints as it is produced, with changes communicated to appropriate staff immediately.

3.7 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb bats or to destroy / exclude or obstruct access to any bat roost. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any roost that may be affected:

---

1 Reckless acts would include not having or disregarding a mitigation plan aimed at protecting Bats resulting in killing, injury, and/or disturbance of any Bat or Bat Roost, or carrying out an activity which would result in an offence where the presence of Bats was foreknown.

2 Note: Information from any previous surveys (e.g. surveys carried out to provide data for EIA or other Assessments) can be a useful guide to bats activity in an area, particularly if roosts were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing.

Avoidance

This is the preferred option for roosts identified within 30 m of works, an initial protection zone of either 30 m will be marked on the ground and appropriately signed to restrict work access.

Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited out with the protection zone. If bat disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

Disturbance

Works required within 30 m of an active roost may constitute disturbance and therefore may require a Licence from SNH (either Individual or Project) this needs assessing on a case by case basis. In these circumstances the ecologist / EcoW must be tasked to assess the likelihood of disturbance to bats, and therefore the need for a licence (in consultation with SNH licensing team if required).Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance will be minimised and roosts protected, for example through timing works for when bats are least likely to be present, screening of works and modifying protection zones.

If a Project Licence is in place, part 2 of this document should be used to ascertain whether a formal Method Statement is required to be submitted for approval to SNH prior to works commencing which could disturb bats.

Roost Destruction

Destruction of roosts should only be undertaken as a last resort. For destruction of roosts a Licence will be required from SNH (either Individual or Project). Destruction of maternity roosts and hibernation roosts will only be licensed outside of the seasons when they are in use.

Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance of bats will be minimised, roosts compensated for, and individual bats protected. Roost destruction may not always be permitted; this will depend on roost type and rarity of species (see species matrix in part 2 of this document)

If a Project Licence is in place the following activities require a formal Method Statement to be submitted and approved by SNH in accordance with Part 2 of this document, prior to any works commencing:

- Destruction of a breeding / hibernation roost of a Brown long-eared or Daubenton's bat.
- Destruction of any roost of an uncommon species (Natterer's, Leisler's, Whiskered, Noctule, Narthusius's pipistrelle) at any time of year.

For all other scenarios (such a destruction of a non-breeding roost of a more common species outside of the active season) works should be carried out in accordance with part 2 of this document. Any roost subject to works under Licence will be monitored during and after those works.

3.8 Mitigation Measures

3.8.1 General Mitigation

1. An emergency procedure will be implemented by site workers if signs of bat (*e.g*. urine staining, droppings or animals) are encountered. All work within 30 m will cease and the Ecologist / ECoW will inspect the site and define mitigation (if required) in line with this SPP.
2. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH if required).

3.8.2 Monitoring and Reporting

1. The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to bats is delivered.
2. Reports will be submitted to SNH as required by the relevant Licence.

3.9 Licensing Requirements

Licence applications must be sent into SNH species licensing team sufficiently in advance of the project start date (approximately 30 days) to ensure the licence is in place prior to any work commencing.

3.10 Project Licence

An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable bat offences.

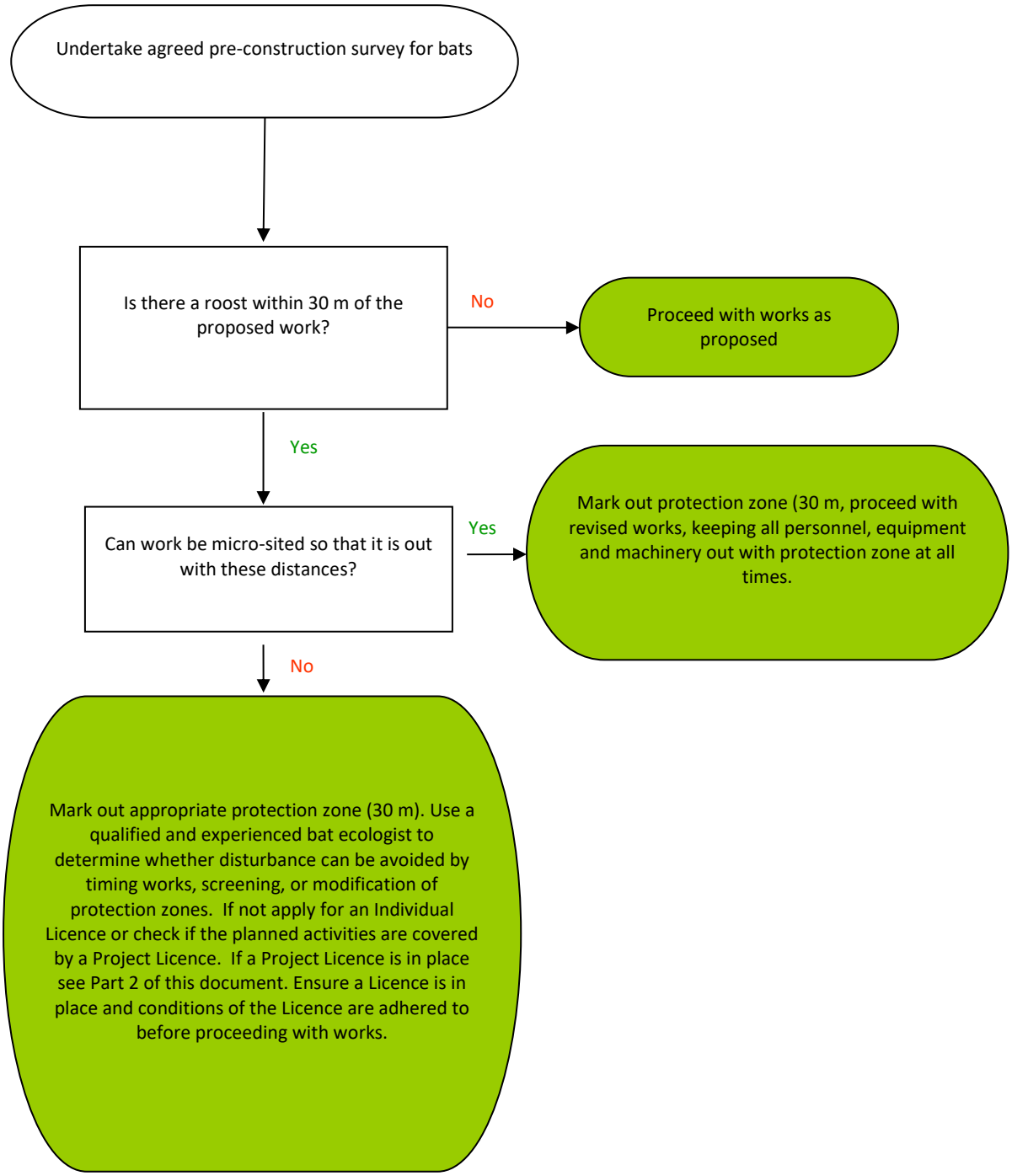
For example, multiple instances of disturbance to a number of bat roosts over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-development surveys within 12 months of the planned project start date, and pre-construction surveys within 3 weeks of works commencing. Any Project Licence application will need to be accompanied by the Mitigation Plan and procedures for bats included in Parts 1 and 2 of this SPP

3.11 Individual Licence

For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable bats offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing.

Further guidance and details of how to apply for a bat Licence can be found on the SNH website (https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing).

Bat Mitigation Decision Tree



4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (insert Licence number) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor*'s responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

4.1 Works Allowed under the Project Licence

Under the Project Licence there is a general presumption against works being carried out which could disturb bats, or to destroy / exclude or obstruct access to any bat roost unless it can clearly be demonstrated that either it is inactive (*i.e.* through monitoring) or that there is no alternative solution against Project timescales and requirements.

4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved by SNH prior to any works commencing:

a. Disturbance of breeding or hibernation roosts of Common Pipistrelle, Soprano pipistrelle, Brown long-eared, and Daubenton's bat during the seasons when they are likely to be in use;

b. Disturbance of breeding or hibernation roosts of all non-common bat species (i.e. Natterer's, Leisler's, Whiskered, Noctule, Nathusius's, and any other species not normally found in Scotland) at any time.

c. Disturbance of non-breeding and non-hibernation roosts for all non-common bat species (i.e. Natterer's, Leisler's, Whiskered, Noctule, Nathusius's, and any other species not normally found in Scotland);

d. Destruction of a Brown Long-eared or Daubenton's breeding or hibernation roost

e. Destruction of any roosts for all non-common bat species (i.e. Natterer's, Leisler's, Whiskered, Noctule, Nathusius's, and any other species not normally found in Scotland)); and

f. Any exceptional circumstances not covered in this SPP or Points a to c above.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

Proposed mitigation works should be agreed with SNH.

Species Matrix

This matrix summarises which activities at which time of year can be carried out under this SPP or require an approved method statement. For explanation see text of this SPP.

	Breeding / Hibernation Roosts		Non-breeding / non-hibernation Roosts	
Species	**Disturbance**	**Destruction**	**Disturbance**	**Destruction**
Common Pipistrelle	SPP (outwith seasons)	SPP (outwith seasons)	SPP	SPP
Soprano Pipistrelle	SPP (outwith seasons)	SPP (outwith seasons)	SPP	SPP
Brown Long Eared	SPP (outwith seasons)	Approved MS	SPP	SPP
Daubenton's	SPP (outwith seasons)	Approved MS	SPP	SPP
Natterer's	Approved MS	Approved MS	Approved MS	Approved MS
Nathusius's Pipistrelle	Approved MS	Unlikely to be allowed	Approved MS	Approved MS
Leisler's	Approved MS	Approved MS	Approved MS	Approved MS
Whiskered	Approved MS	Unlikely to be allowed	Approved MS	Approved MS
Noctule	Approved MS	Approved MS	Approved MS	Approved MS
Other species not normally found in Scotland	Approved MS	Approved MS	Approved MS	Approved MS

4.3 Activities not requiring additional SNH approval

The following works may be carried out under this SPP and / or specific Method Statements without the prior approval of SNH, using the prescribed methodologies:

a. Disturbance to non-breeding (note according to European guidance mating roosts are considered to be breeding roosts) and non-hibernation roosts, and disturbance to maternity / hibernation roosts (outwith the seasons they are in use), for the more common species (i.e. common and soprano pipistrelle, Brown long-eared, and Daubenton's bats) Destruction of any common or soprano pipistrelle roosts (including breeding and hibernation) at an appropriate time of year for the type of roost (i.e. When bats are not likely to be present and avoiding sensitive seasons).

b. Destruction of non-breeding and non-hibernation roosts for brown long-eared and Daubenton's bats, at an appropriate time of year for the type of roost when bats are not present, or avoiding sensitive seasons.

4.3.1 1. Disturbance to non-breeding and non-hibernation roosts at any time of year, and disturbance to maternity and hibernation roosts outwith the seasons they are in use,

a) This methodology applies to the following:

- Disturbance to non-breeding and non-hibernation roosts of Common pipistrelle, Soprano pipistrelle, Brown long-eared and Daubenton's bats.

b) If works are to be completed within the protection zone when bats are present the following measures will be adopted in order to minimise potential disturbance to the roost:

- Works will be completed in a manner to reduce and ensure minimal disturbance;
- No use of directional lighting; and
- No site compounds and/or vehicle parking areas will be permitted within 30 m of the roost.

c) Prior to the commencement of Project works, a protection zone will be established to retain the maximum possible distance between Project works and the roost in order to prevent damage. In most cases this protection zone will be no less than 1 m from the drip line of the tree or 5 m for buildings or cave entrances, and will be set up by the Ecologist / ECoW who is an Agent on the Project bat Licence, or a suitably qualified bat worker under their supervision. No construction works will be completed within this zone.

d) All site construction staff will be made aware of the presence of the roost and the requirement to remain outwith the protection zone at all times through a Toolbox Talk and the site EMP.

e) A watching brief would be undertaken by the ECoW as required to ensure that the protection zone has not been breached and that the roost/roost feature has not been inadvertently damaged.

f) No specific ecological mitigation is considered to be required for the disturbance to non-breeding and non-hibernation sites.

4.3.2 2 & 3. Destruction of roosts at an appropriate time of year

a) This methodology applies to the following:

- Destruction of roosts of Common and Soprano pipistrelle bats; and
- Destruction of non-breeding and non-hibernation roosts of Common pipistrelle, Soprano pipistrelle, Brown long-eared and Daubenton's bats.

b) Destruction of these roosts will only be completed at an appropriate time of year (dependent on roost status, avoiding sensitive seasons and if presence/absence of bats can be confirmed).

c) Prior to the commencement of Project works within 30 m of non-breeding and non-hibernation roosts, a protection zone will be set up by the ECoW. No works will be completed within this area until the roost has been destroyed in a controlled manner.

d) All site construction staff will be made aware of the presence of the roost and the requirement to remain out with the protection zone at all times through a Toolbox Talk and the site EMP.

e) Prior to licensed destruction of the roost, appropriate mitigation / compensation shall be provided on a like-for-like replacement basis (*e.g*. provision of roost features that would match the roost to be destroyed). Replacement roost features would be sited as close as possible to the roost to be destroyed but out with any potential disturbance distances. Compensatory roost provision would be agreed with SNH.

f) The destruction of the roost will be completed in a controlled manner under the supervision of the ECoW (who is an Agent on the Project Licence, or a suitably qualified bat worker under their supervision), in order to ensure that no bats are injured and/or killed. The following measures will be adopted during the controlled destruction of the roost:

- Prior to any works being completed that will result in the destruction of non-breeding and non-hibernation roosts, a survey will be completed to determine whether bats are present or absent, the status of the roost and the species involved (through visual or lab analysis of droppings).
- Where a roost is to be destroyed during the active period, and the presence of bats is confirmed or cannot be discounted, bats will be excluded from the roost using an appropriate exclusion device. (*e.g.* a cotton sleeve) which will be fitted to the observed entrance/exit point by the ECoW.
- A dawn survey will be undertaken on the day of the exclusion to confirm the absence of bats returning to the roost. These surveys will be undertaken when the dawn temperature is > 8° C. Should bats be seen entering the roost the exclusion will be postponed for 3 days and the process repeated.
- The exclusion device will remain in place for 7 days, unless this corresponds to a period of cold or adverse weather (where the temperature at dusk is < 8° C or heavy rain), then the excluder must stay in place for a further 7 days.

- In the event of bats being identified within the roost during destruction, the ECoW is responsible for determining the best course of action with respect to the welfare of the animals.

5 Revision History

No	Overview of Amendment and Text affected	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-708 (Rev 1.00)	1.00	Richard Baldwin
02	Sentence 3.8.2 (1) has been replaced by the equivalent sentence of precursor TG-PS-LT-708. Paragraph 3.10 has been replaced by the equivalent paragraph of precursor TG-PS-LT-708. Paragraph 3.11 has been replaced by the equivalent paragraph of precursor TG-PS-LT-708 (with exception of update to SNH hyperlink)	TG-NET-ENV-502 (Rev 1.01)	1.01	Richard Baldwin

Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

<insert species record reference>

<insert date>

Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for ***<insert details of works>*** to be completed under ***<insert licence details>***. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition ***<insert No.>*** of the above Licence states that a ***<insert species>*** Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect ***<insert species>***. Therefore, no works which would *<insert licensed activity>* ***<insert species>*** shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- ***<insert licence details>***, SNH
- Species Protection Plan (SPP): ***<insert SPP No. and title>*** Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

Licensable Works

Introduction

<Insert details>

Baseline Description

<Insert description, including photographs / location plan>

Table 1: Summary of Data

Reference	Easting	Northing	Date recorded	Description	Date works exclusion zone demarcated & distance

Survey Summary

<Insert details>

Description of the Proposed Licensable Works

<Insert details>

Works Duration

<Insert details>

Consideration of Alternatives

<Insert details>

Impact Assessment

<Insert details>

Scottish & Southern Electricity Networks

Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

<insert details of methodology>

During works:

<insert details of methodology>

<Insert Contractor's name>

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of *Contractor's* Representative:..... Date ..../ /

Print name in full: .....

Scottish & Southern Electricity Networks

TG-NET-ENV-503

Safety, Health and Environment

Otter Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Project Manager
Checked by	Alistair Watson	Environmental Advisor
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 Part 1: General Protection Plan 4

4 Part 2: Project Licence Protection Plan 10

5 Revision History 12

Appendix A Project Licence Method Statement Template 13

1 Introduction

Otter is a European Protected Species and is afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures for the protection of otters and their shelters during construction works on Scottish Hydro Electric (SHE) Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for otter to be present (Part 1), and where a Project Licence for otter has been issued by Scottish Natural Heritage (SNH) to cover the project (Part 2).

1.1 Part 1: General Protection Plan

This Part applies to all projects where otter may be present. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of otter. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

1.2 Part 2: Project Licence Protection Plan

This is provided to Contractors in addition to Part 1 for large projects where a Project Licence has been issued by SNH to cover the work and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

2 References

The documents detailed in Table 2.1 below, should be used in conjunction with this document.

Table 2.1- Miscellaneous Documents

Title
EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)
Conservation (Natural Habitats &c.) Regulations 1994.
The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007
https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing

3 Part 1: General Protection Plan

3.2 Background

Otters (*Lutra lutra*) are members of the weasel family with a widespread distribution in Scotland. They are largely solitary, semi-aquatic and obtain most of their food from rivers or the sea. Otters living on rivers may travel distances of 16 km or more at night. They use two kinds of shelter – underground holts and above ground couches. Otters may dig their own holts but they often enlarge existing structures such as rabbit holes so identification can be difficult. Couches may be nest-like structures or simply a depression in a stick pile or under a windblown tree. Each individual will use multiple shelters and holts can be located up to 500 m from watercourses. Otters may have cubs at any time of year.

Breeding sites are generally found in areas with the following characteristics:

- Relatively undisturbed by humans / ungrazed by stock.
- Close (<50 m) to water but rarely flooded or just above the floodplain level.
- Containing patches of dense cover (e.g. scrub thickets, deciduous woodland, young conifer plantation, heather, log piles, tree roots, rock piles, stands of tussocky tall fen vegetation, or reed beds).

Signs of otter:

- Spraints (droppings) which have a high mucus content and are often formless, generally black or greenish –black in colour and may contain obvious fish bones or scales.
- Otter prints and tracks – otter paths are 12-15 cm wide and normally connect with water and holts they are marked with spraints. Otter prints are about 6 cm wide and have five toes.
- Feeding remains – hard parts of crustaceans, unpalatable bits of amphibians and bony parts of fish.
- Otter shelters - holts or couches.

3.3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Protection Plan where otter may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

3.4 Legislation

Otter is a **European Protected Species (EPS)** protected under Annex II and IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive). The Habitats Directive is transposed in Scottish law by the Conservation (Natural Habitats &c.) Regulations 1994. Otter is listed on Schedule 2 of the Conservation Regulations 1994. The Conservation (Natural Habitats, &c.)

Amendment (Scotland) Regulations 2007 enhanced this protection. Current Legislation means that otters and their shelters are fully protected in Scotland. In summary it is illegal to:

- Deliberately or recklessly kill, injure or take (capture) an otter;
- Deliberately or recklessly disturb or harass an otter;
- Damage, destroy or obstruct access to a breeding site or resting place of an otter (i.e. an otter shelter).

3.5 Surveying for otter

1. Surveys for otter must be undertaken in all works areas containing suitable otter habitat, a maximum of 12 months[1] prior to the works commencing, (this includes site investigations), to ensure the availability of up-to-date information on shelter locations.
2. Surveys must extend for a minimum of 200 m beyond working areas, including access tracks.
3. Surveys must be carried out by suitably qualified and experienced ecologists and will identify whether any active holts or places of shelter are likely to be affected by the works. Normally work within 30 m of a non-breeding shelter is regarded as likely to cause otter disturbance and will therefore require to be covered by a licence from SNH. However, works generating high noise / vibration levels (such as pile driving or blasting) can cause disturbance to non-breeding sites up to 100 m. Any work within 200 m of a breeding otter holt / shelter should also be regarded as capable of causing disturbance.
4. Appropriate monitoring (e.g. the use of suitable camera traps) should be undertaken where required to determine if any holt / place of shelter is being used for breeding. Camera trap monitoring may also require a Licence from SNH.
5. Active shelters will be classified as:
    - **Holt:** Underground or other fully enclosed structure (can range from enlarged rabbit holes and cavities amongst tree roots to rock piles and man made structures).
    - **Place of Shelter:** Can be either a Couch / Lie-up - an above ground semi-enclosed resting place (*e.g*. under overhanging river banks / tree root plates); or Hover – a nest-like structures (0.3 -1 m in diameter) constructed from nearby vegetation or a depression in a stick pile or under a windblown tree.

3.6 Review of Otter Survey

Once an otter survey has been carried out, the ecologist /Ecological Clerk of Works (EcoW) should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

[1] Note: Information from any previous surveys (e.g. surveys carried out to provide data for Environmental Impact Assessment (EIA) or other Assessments) can be a useful guide to otter activity in an area, particularly if holts were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing.

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / ECoW.

Relevant site documentation and project information sources should be updated with new and amended information on otter constraints as it is produced, with changes communicated to appropriate staff immediately.

3.7 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb otters in their place of shelter or to destroy / exclude any holt. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any holt / place of shelter that may be affected (See Figure 1):

Avoidance

This is the preferred option for active holts / places of shelter identified within 30 m of works (100 m for high noise / vibration activities) or 200 m for confirmed breeding sites or. Protection zones of either 30 m, 100 m or 200 m should be marked and signed on the ground with appropriate material to restrict work access.

Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited outwith the protection zone. If otter disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

Disturbance

For any works required within 30 m of active holts / places of shelter (or 200 m for confirmed breeding sites), and for high noise / vibration activities such as pile driving or blasting within 100 m of holts / places of shelter, a Licence from SNH will be required (either Individual or Project).

Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance will be minimised and holts protected, for example through screening of works and modifying protection zones.

If a Project Licence is in place, and a breeding holt will be disturbed, a Method Statement must be submitted to SNH for written approval in accordance with Part 2 of this document, prior to any works commencing.

Destruction

Destruction of holts / other places of shelter should only be undertaken as a last resort. For destruction of active holts / places of shelter a Licence will be required from SNH (either Individual or Project) Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance will be minimised and individuals protected.

The plan should include monitoring to ensure breeding is not taking place and provision for the creation of an artificial holt if required. Any holt / place of shelter subject to works under Licence will be monitored

during and after those works. If a Project Licence is in place, a Method Statement must be submitted to SNH in accordance with Part 2 of this document for written approval prior to any works commencing.

3.8 Mitigation Measures

3.8.1 General Mitigation

1. All works close to waterbodies and watercourses showing signs of regular use by otters should not take place at night or within 2 hours of sunset / sunrise, if possible.
2. Where works close to waterbodies and watercourses are required at night, lighting should be directed away from riparian areas.
3. All works close to water courses and waterbodies must follow best practice measures to ensure their protection against pollution, silting and erosion.
4. Any temporarily exposed pipe system should be capped when staff are off site to prevent otters from gaining access.
5. All exposed trenches and holes should be provided with mammal exit ramps e.g. wooden planks or earth ramps when Contractors are off site.
6. An emergency procedure should be implemented by site workers if otter / otter shelters are unexpectedly encountered. All work within 30 m (100 m for high noise/vibration activities) or 200 m for breeding sites should cease until a suitably qualified and experienced ecologist has inspected the site and determined the appropriate course of action.
7. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH if required).

3.8.2 Monitoring and Reporting

8. The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to otter is delivered.
9. Reports will be submitted to SNH as required by the relevant Licence.

3.9 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 40 days) to ensure the licence is in place prior to any work commencing.

3.10 Project Licence

An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable otter offences.

For example, multiple instances of disturbance to a number of otter places of shelter over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency

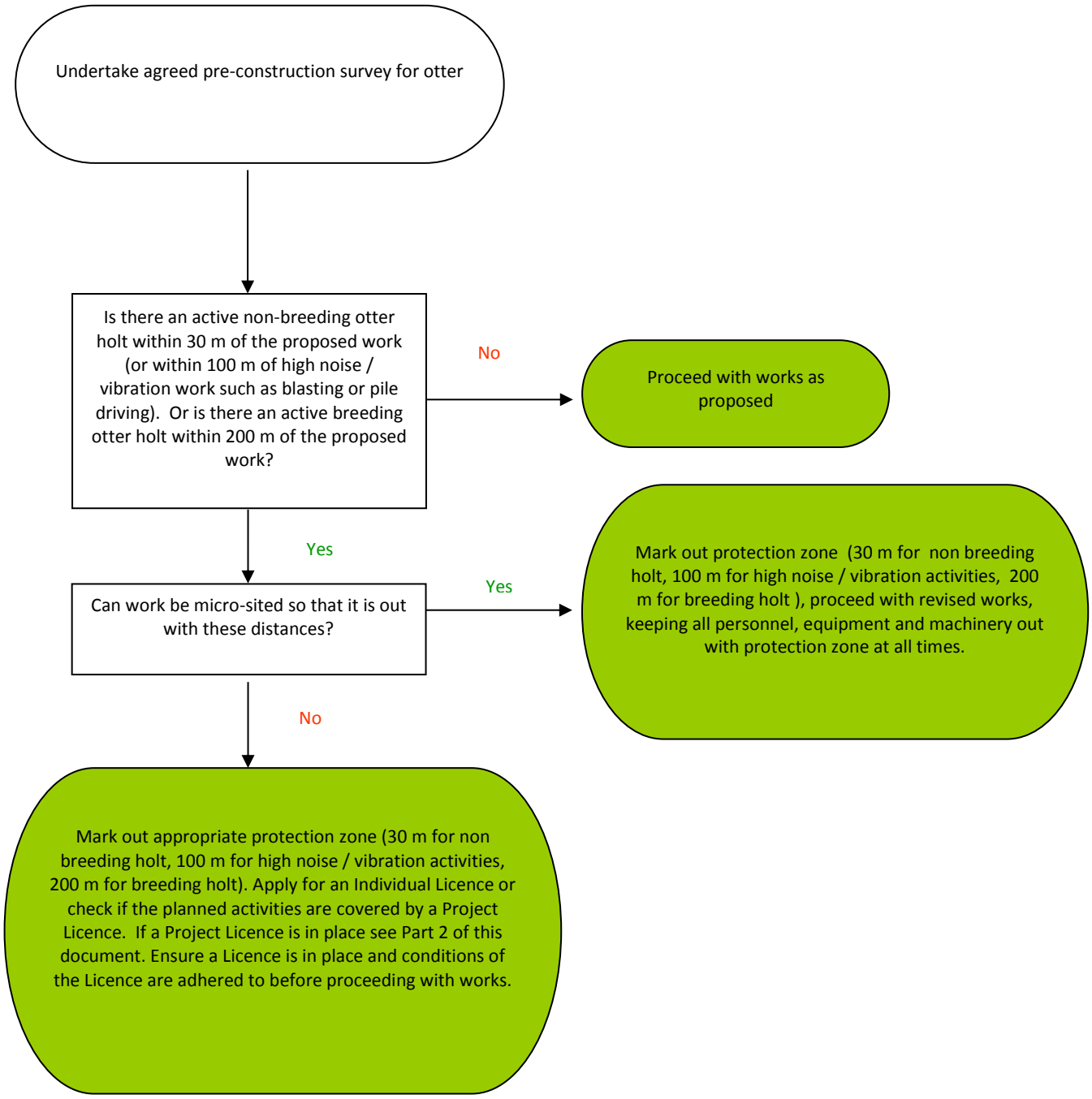
across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-development surveys within 12 months of the planned project start date, and pre-construction surveys within 3 weeks of works commencing. Any Project Licence application will need to be accompanied by the Mitigation Plan and procedures for otter included in Parts 1 and 2 of this SPP

3.11 Individual Licence

For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable otter offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing.

Further guidance and details of how to apply for an otter Licence can be found on the SNH website (https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing).

Otter Mitigation Decision Tree



4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (insert Licence number) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor*'s responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

4.1 Works Allowed under the Project Licence

Under the Project Licence there is a general presumption against works being carried out which could disturb otters in their place of shelter, or to destroy / exclude any holt unless it can clearly be demonstrated that either it is inactive (*i.e.* through monitoring) or that there is no alternative solution against Project timescales and requirements.

4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved by SNH prior to any works commencing:

a. Destruction of a holt at any time of year.
b. Disturbance to a breeding holt at any time of year.
c. Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

Proposed mitigation works should be agreed with SNH.

4.3 Activities not requiring additional SNH approval

The following works may be carried out under this SPP and / or specific Method Statements without the prior approval of SNH, using the prescribed methodologies:

4.3.1 Disturbance / Destruction of places of shelter at any time of year

The following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing:

Disturbance to a non-breeding holt / place of shelter at any time of year

i. Appropriate monitoring will be undertaken to ensure the place of shelter is not being used for breeding.

ii. The Agent or their representative will check, prior to works each morning, that suitable access / egress between the holt / place of shelter and a watercourse is maintained. A check will also be made of the works area to check no otter is present within construction plant / materials.

iii. Works can commence once the Agent or their representative is satisfied that no otter is present within the works area.

iv. The Agent or their representative will set up a suitable protection zone as far from the holt/place of shelter as is reasonably practicable to prevent damage and minimise disturbance.

v. The Agent or their representative will monitor the works to ensure compliance with the licence conditions.

vi. The emergency procedure detailed will be implemented if an otter is found during works.

Destruction of a place of shelter at any time of year

i. Appropriate monitoring will be undertaken to ensure the place of shelter is not being used for breeding.

ii. The Agent or their representative will check to ensure that the place of shelter is not being used immediately prior to its destruction.

vii. If it can be determined that the place of shelter has not been used recently, no exclusion will be required prior to destruction.

viii. The Agent or their representative will monitor the destruction works to ensure compliance with the licence.

ix. The emergency procedure will be implemented if an otter is found during the works.

x. A report will be sent to SNH detailing the destruction works undertaken (in line with the reporting process outlined above).

5 Revision History

No	Overview of Amendment and Text affected	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-709 (Rev 1.00)	1.00	Richard Baldwin
02	Updated links and replaced references to badger with otter. Other minor formatting issues corrected.	TG-NET-ENV-503 (Rev 1.00)	1.01	Richard Baldwin

Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

<insert species record reference>

<insert date>

Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for ***<insert details of works>*** to be completed under ***<insert licence details>***. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition ***<insert No.>*** of the above Licence states that a ***<insert species>*** Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect ***<insert species>***. Therefore, no works which would *<insert licensed activity>* ***<insert species>*** shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- ***<insert licence details>***, SNH
- Species Protection Plan (SPP): ***<insert SPP No. and title>*** Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

Licensable Works

Introduction

<Insert details>

Baseline Description

<Insert description, including photographs / location plan>

Table 1: Summary of Data

Reference	Easting	Northing	Date recorded	Description	Date works exclusion zone demarcated & distance

Survey Summary

<Insert details>

Description of the Proposed Licensable Works

<Insert details>

Works Duration

<Insert details>

Consideration of Alternatives

<Insert details>

Impact Assessment

<Insert details>

Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

<insert details of methodology>

During works:

<insert details of methodology>

<Insert Contractor's name>

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of *Contractor's* Representative:..... Date ..../ /

Print name in full: .....

Scottish & Southern Electricity Networks

TG-NET-ENV-504

Safety, Health and Environment

Red Squirrel Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Project Manager
Checked by	Alistair Watson	Environmental Advisor
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 Part 1: General Protection Plan 4

4 Part 2: Project Licence Protection Plan 10

5 Revision History 12

Appendix A Project Licence Method Statement Template 13

1 Introduction

Red squirrel (*Scirius vulgaris*) is afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures, for the protection of red squirrels and their shelters, during construction works on Scottish Hydro Electric Transmission (SHE Transmission) projects. The Plan contains two parts and details the procedures that must be followed where there is potential for red squirrel to be present (Part 1), and where a Project Licence for red squirrel has been issued by Scottish Natural Heritage (SNH) Licensing Team to cover the project (Part 2).

1.1 Part 1: General Protection Plan

This Part applies to all projects where red squirrel may be present. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of red squirrel. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing.

1.2 Part 2: Project Licence Protection Plan

This Part is provided to Contractors in addition to Part 1, for large projects where a Project Licence has been issued by SNH to cover the work, and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require an additional Method Statement to be submitted to SNH Licensing Team for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence, to provide approved guidance and methodologies for carrying out work.

2 References

The documents detailed in Table 2.1 – Miscellaneous Documents below, should be used in conjunction with thius document

Table 2.1- Miscellaneous Documents

Title
Wildlife and Countryside Act 1981 (as amended)
The Nature Conservation (Scotland) Act 2004
Wildlife and Natural Environment (WANE) [Scotland] Act 2011
https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide

3 Part 1: General Protection Plan

3.1 Background

Red squirrels are rodents with a widespread distribution in Scotland, although as they are predominately woodland animals they are largely absent from the Scottish islands (with the exception of Arran) and the far North West. They are currently under pressure, particularly in southern areas, due to a number of factors including competition from the non-native grey squirrel (*Scirius carolinensis*), disease (squirrel pox virus – SQPV), and habitat loss and fragmentation. Grey squirrels are not protected by law, and it is an offence to release them into the wild if caught.

Red squirrels are largely solitary, not strictly territorial, and generally arboreal, spending up to 70% of the time in the tree canopy. Densities generally vary from 1 per hectare, to 1 per 10 hectares of suitable habitat. They obtain most of their food from seeds or fruits from trees, although they are opportunistic. They build dense spherical nest structures called dreys, which are generally about 30cm in diameter and consist of an outer layer of twigs often with leaves still attached with an inner layer of softer materials such as moss and/or leaves. Dreys tend to be in the forks or against the trunks of trees such as spruce (*Picea abies*), Scots pine (*Pinus sylvestris*) or oak (*Quercus* spp.). Squirrels can also use holes in trees, nest boxes and other cavities as dreys. Several dreys may be in used at the same time, and it can take less than a day for a new drey to be built.

Red squirrels have two peak breeding seasons, the first litters being born between February and April with a second litter from May to August. The exact timing is however dependent on food availability and weather. In winter red squirrels do not hibernate, but are less active particularly in bad weather (high winds, heavy rain and cold). In summer, they have two periods of peak activity; one in the early morning and one in the evening, whereas in winter this shifts to one main activity peak earlier in the day.

Signs of red squirrel:

- Feeding signs – stripped cones or cleanly split nuts often in piles on tree stumps.
- Squirrel prints and tracks – characteristic squirrel tracks show the hind feet (with five toes) in front of the forefeet (four toes), in hops of less than 1 meter. Hind feet are 35mm wide and 40mm long.
- Squirrel shelters - dreys

It is not possible to distinguish between field signs of red and grey squirrels in the field therefore visual surveys, cameras and/or hair tubes (with appropriate biosecurity measures in place), may be required in areas where the two species are present. Red squirrels can vary in colour and there can be confusion with grey squirrels; adult grey squirrels are much larger and lack ear tufts.

3.2 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Species Protection Plan where red squirrel may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with this Species Protection Plan. The responsibility for applying for any licence, including a

project wide licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

3.3 Legislation

Red squirrel is afforded full protection under Schedule 5 of the Wildlife and Countryside Act 1981, (as amended), most recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011. This makes it an offence to kill, injure or take a red squirrel or to intentionally or recklessly[1] damage, destroy or obstruct access to any place used for shelter or for breeding. Disturbance to this species in its drey also constitutes an offence.

SNH can grant licences to enable certain activities that would otherwise be an offence, to be carried out in relation to red squirrels and their dreys, subject to the following:

a) That undertaking the conduct authorised by the licence will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit; and

b) That there is no other satisfactory solution.

In granting a licence SNH has to take into account the consequences for red squirrels at a local population level, to assist this assessment SNH will need to see maps of the area of operations and also surrounding areas of suitable red squirrel habitat.

3.4 Surveying for Red Squirrel

1. Surveys for red squirrel must be undertaken in all works areas containing suitable red squirrel habitat, a maximum of 12 months[2] prior to works commencing, (this includes site investigations). As squirrels can rapidly build new dreys, pre-felling surveys a maximum of 3 weeks prior to works commencing, must also be undertaken to ensure the availability of up-to-date information on squirrel drey locations.
2. Surveys must extend for a minimum of 50 m beyond working areas, including access tracks.
3. All drey trees must be marked to permit easy identification.
4. All dreys found must be assumed to be red squirrel, unless definitive evidence exists that they are grey squirrel only.
5. Surveys must be carried out by suitably qualified and experienced Ecologists and must identify whether any squirrel dreys are likely to be affected by the works.

If works during the breeding season (February to September inclusive) cannot be avoided, and dreys may be disturbed by works, it may also be important to establish if dreys are being used for breeding. The non-

[1] Reckless acts would include disregard of mitigation aimed at protecting red squirrels, resulting in killing, injuring and/or disturbance of any red squirrel or red squirrel resting place.
[2] Note: Information from any previous surveys (e.g. surveys carried out to provide data for EIA or other Assessments) can be a useful guide to red squirrel activity in an area, particularly if dreys were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing. Pre-felling surveys a maximum of 3 weeks prior to works are recommended.

invasive method must be used in the first instance: Visual observation and camera surveillance from the ground, for a period of three days used to establish if the drey is in regular use. If regular use is established the drey must be assumed to be being used for breeding purposes. Where this type of drey monitoring is not practical for example in situations of poor visibility it is recognised that more invasive methods may be required, if this situation arises SNH licensing team must be contacted for advice on whether a survey licence will be required: licensing@snh.gov.uk.

3.5 Review of Red Squirrel Survey

Once a red squirrel survey has been carried out, the Ecologist / Ecological Clerk of Works (ECoW) must review the survey results, apply the mitigation hierarchy outlined below and decide if a licence is required from SNH (either Individual or Project) for the works.

If required, licences (individual or project), must be obtained by SNH prior to any works commencing.

Construction teams should be advised of existing / new constraints, together with mitigation / compensation, and licensing requirements by the Ecologist / ECoW.

Relevant site documentation and project information sources should be updated with new and amended information on red squirrel constraints as it is produced, with changes communicated to appropriate staff immediately.

3.6 Mitigation Hierarchy

There should be a general presumption against works being carried out which will disturb red squirrels in their drey, or which will require the destruction of any red squirrel drey. A hierarchical approach to minimise the works impact on red squirrel should be established as follows:

Avoidance

This is the preferred option. Appropriately sized protection zones must be marked and signed on the ground by the Ecologist / ECoW, with appropriate material, around all squirrel dreys identified during the pre-works surveys. The breeding season (February to September inclusive) is the most sensitive time for disturbance, during this time a 50m radius protection zone must be established around all squirrel dreys. Out with the breeding season, a protection zone of one tree from the drey tree (or 5 metres radius - whichever is lesser) must be established. For high noise / vibration activities (pile driving or blasting) a 100m radius protection zone around drey trees must be established at any time of year.

All works personnel, machinery, vehicles and storage of materials must be restricted from entering protection zones. Protection zones must be maintained until all works are completed. Site staff must be briefed of their purpose through a Toolbox Talk by the Ecologist / ECoW. If red squirrel disturbance can be avoided in this way, there is no need to obtain a licence from SNH for the works.

Disturbance

If works within protection zones boundaries cannot be avoided, a Licence for disturbance from SNH will be required. For small scale projects the licence may be specific to the site, for larger scale works a Project Licence may be appropriate.

Individual licence applications for disturbance must be accompanied by a Mitigation Plan which outlines how the disturbance will be minimised, and dreys protected from damage, for example through screening of works and modifying protection zones.

If a Project Licence is in place, and a drey being used in the breeding season will be disturbed, a Method Statement must be submitted to SNH for written approval in accordance with Part 2 of this document, prior to any works commencing. The Method Statement must state how works will be carried out in a way which ensures no abandonment of young.

Destruction

Destruction of dreys must only be undertaken as a last resort and requires a Licence from SNH. Individual Licence applications to SNH must be accompanied by a Mitigation / Compensation Plan which outlines how disturbance will be minimised and individual squirrels protected from injury, and may include provision for the creation of an artificial drey if appropriate. If destruction of a drey during the breeding season is required, the plan should include details of non-invasive monitoring which will take place to ensure breeding is not taking place prior to any drey destruction.

Any drey subject to works under Licence must be monitored during and after those works.

3.7 Mitigation Measures

3.7.1 General Mitigation

1. An emergency procedure will be implemented by site workers if squirrel dreys are encountered. All work within 5 m (non-breeding season) or 50 m (breeding season) will cease, and the ECoW will inspect the site and define mitigation (if required) in line with this SPP.
2. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH Licensing Team if required).

3.7.2 Monitoring and Reporting

3. The Ecologist / ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to red squirrel is delivered.
4. Reports will be submitted to SNH as required by the relevant Licence.

3.8 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 40 days) to ensure the licence is in place prior to any work commencing.

3.9 Project Licence

An SNH Project Licence is likely to be the most appropriate form of licence for any large scale and / or long running project, in red squirrel areas. For example, where multiple instances of disturbance to a number of red squirrel dreys is anticipated over several months / years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-construction survey within 12 months and three weeks of the planned project start date.

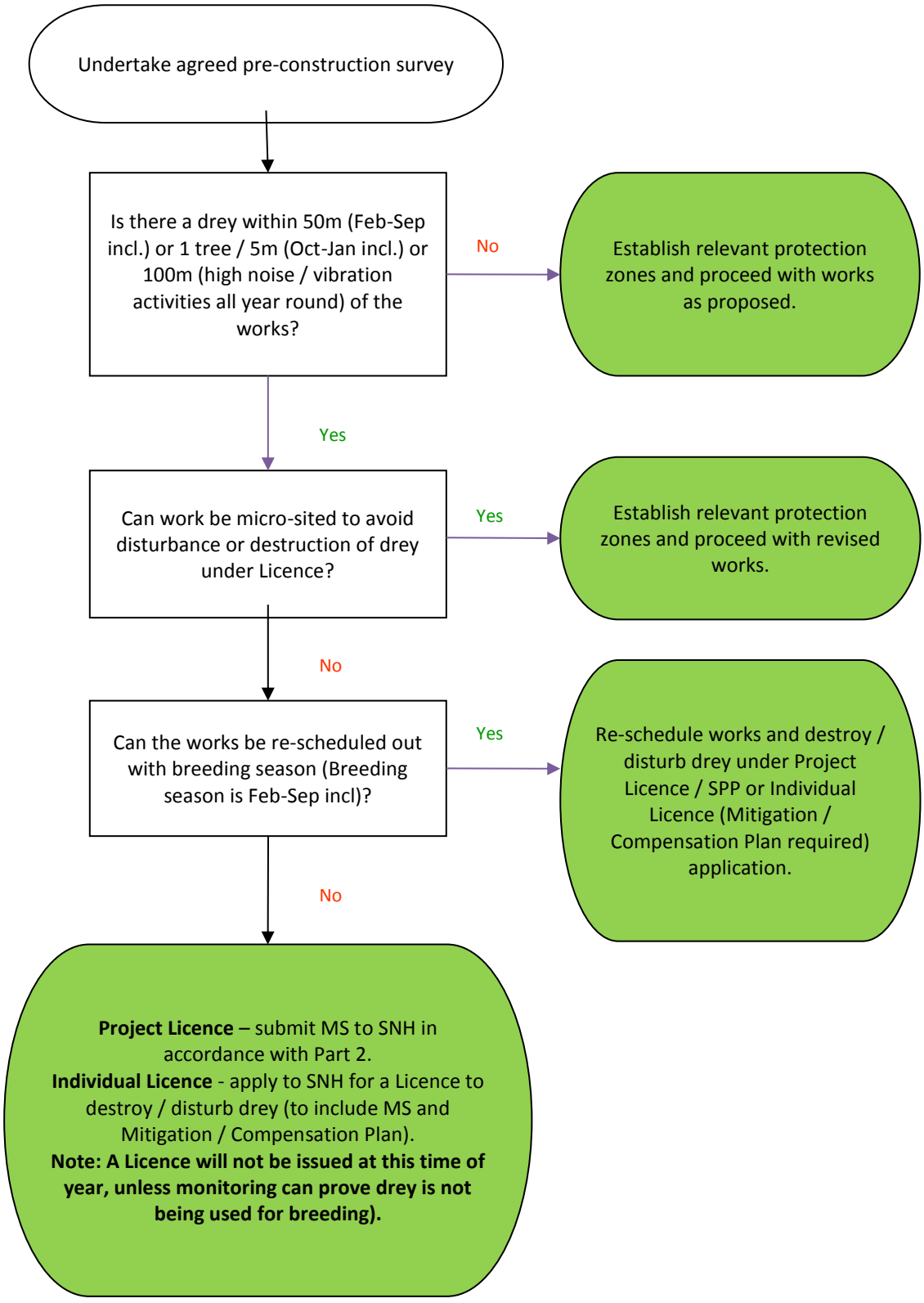
Any Project Licence application will need to be accompanied by a red squirrel survey carried out within 12 months of the proposed works start date, and procedures for red squirrel included in Parts 1 and 2 of this SPP.

3.10 Individual Licence

For small scale projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable red squirrel offences an Individual SNH Licence is most likely to be appropriate. All licence applications must be accompanied by a red squirrel survey carried out within 12 months of the proposed works start date, and a mitigation / compensation plan.

Further guidance and details of how to apply for a red squirrel Licence can be found on the SNH website https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/red-squirrels-and-licensing.

Red Squirrel Mitigation Decision Tree



4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (insert Licence number) and its conditions.

Mitigation activities permitted under Project Licence are included in this Part of the SPP (section A). More disruptive activities, listed in Section B below, will require a specific Method Statement to be submitted to SNH Licensing Team for approval, prior to works commencing (see Appendix A). It is the *Contractor*'s responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

In advance of, and during construction at any location where there is the potential for red squirrel to be present, it is **essential** that this plan is followed.

4.1 Works Allowed under this SSP

The following works may be carried out under this SPP without further approval from SNH, using the prescribed methodologies:

1. **Disturbance to red squirrel dreys out with the breeding season (October to January inclusive)**

   Red squirrel dreys must not be damaged or destroyed, but protected from potential damage by setting up a modified protection zone (size determined by the site Ecologist / ECoW). Protection zones must be clearly marked on the ground and signed, and must exclude all works personnel, machinery, vehicle and storage. The protection zone must be maintained until all works are finished.

   A licence return must be sent to SNH licensing team detailing all disturbance works under the Project Licence.

2. **Destruction of red squirrel dreys out with the breeding season (October to January inclusive)**

   Destruction of squirrel dreys must only be undertaken as a last resort. Prior to a drey being destroyed, the Ecologist / ECoW must satisfy themselves that no squirrel is present within the structure. Dreys must be destroyed in a controlled manner to ensure no injury or killing of animals. All works must be overseen by an experienced Ecologist / ECoW.

   A licence return must be sent to SNH Licensing team detailing all drey destruction works carried out under the Survey Licence.

4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved in writing by SNH licensing team prior to any works commencing:

a. Disturbance or destruction of a drey during the breeding season.
b. Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions. The methodology used should be based on the following:

A. Destruction or disturbance to a drey within the breeding season (February to September inclusive)

a. There must be a presumption against disturbance or destruction of a squirrel drey during the breeding season, if unavoidable this work requires that a detailed Method Statement is agreed in writing with SNH Licensing Team prior to works commencing.

b. Non-invasive survey methods must be used to establish if the drey is in regular use. An experienced and qualified Ecologist / ECoW must use visual observation and video surveillance from the ground for a period of three days of daytime observations, to establish if the squirrel drey is in regular use. If the drey is in regular use it must be assumed that it is being used for breeding purposes.

c. If the survey establishes that there is no regular use by squirrel, destruction of the shelter can be carried out as for during the non-breeding season.

d. Dreys being used for breeding must not be destroyed or disturbed and no works carried out within 50 m of the structure, until the site Ecologist / ECoW has confirmed that dependent young are no longer present. The young begin leaving the drey at *c.* 7 weeks and are weaned at 8-10 weeks old.

e. Once completion of breeding has been confirmed through monitoring, and the site Ecologist / ECoW has satisfied themselves that no squirrel are present within the structure, the drey can be destroyed in a controlled manner to ensure no injury or killing of animals.

f. A licence return must be sent to SNH Licensing team detailing all drey destruction works carried out under the Project Licence.

4.3 SNH Survey Licence

The Ecologist / ECoW must obtain a survey licence from SNH licensing team prior to using the following invasive survey methods:

a. Where squirrel dreys are not clearly visible from the ground, and the Ecologist / ECoW needs to establish whether they are being used for breeding (i.e. non-invasive methods as described above cannot be used), camera traps mounted on adjacent trees may be employed (under survey licence from SNH) as an alternative in suitable weather conditions. Camera survey must be carried out for at least three consecutive days. The ECoW / Ecologist must be confident that this method is appropriate for detecting use at the given location.

b. Where the above survey methods are inappropriate, inspection of squirrel dreys may be undertaken by tree climbing or cherry picker and endoscopic inspection (under survey Licence from SNH) to confirm the presence/absence of young squirrels.

5 Revision History

No	Overview of Amendment and Text affected	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-710 (Rev 1.00)	1.00	Richard Baldwin
02	Author change, typos corrected and web links updated	TG-NET-ENV-504 (Rev 1.00)	1.01	Richard Baldwin

Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

<insert species record reference>

<insert date>

Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for ***<insert details of works>*** to be completed under ***<insert licence details>***. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition ***<insert No.>*** of the above Licence states that a ***<insert species>*** Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect ***<insert species>***. Therefore, no works which would *<insert licensed activity>* ***<insert species>*** shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- ***<insert licence details>***, SNH
- Species Protection Plan (SPP): ***<insert SPP No. and title>*** Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

Licensable Works

Introduction

<Insert details>

Baseline Description

<Insert description, including photographs / location plan>

Table 1: Summary of Data

Reference	Easting	Northing	Date recorded	Description	Date works exclusion zone demarcated & distance

Survey Summary

<Insert details>

Description of the Proposed Licensable Works

<Insert details>

Works Duration

<Insert details>

Consideration of Alternatives

<Insert details>

Impact Assessment

<Insert details>

Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

<insert details of methodology>

During works:

<insert details of methodology>

<Insert Contractor's name>

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of *Contractor's* Representative:..... Date .... / /

Print name in full: .....

Scottish & Southern Electricity Networks
TRANSMISSION

TG-NET-ENV-505

Safety, Health and Environment

Bird Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Net Gain Manager
Checked by	Alistair Watson	Consents and Environment Manager
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 Responsibilities 3

4 Legislation 3

5 Protection Plan 4

6 Revision History 9

Appendix A Summary Guidance on Species Specific Disturbance Distances 10

Appendix B Protected Species Risk Assessment Template 14

1 Introduction

Construction works have the potential to negatively impact on breeding birds as a result of either direct destruction of nests or disturbance which may result in breeding failure. In addition, some particularly sensitive species are liable to disturbance out with the breeding season.

This SPP outlines the procedures that must be followed where there is a potential for breeding birds to be affected. It explains the responsibilities of Scottish Hydro Electric Transmission (SHE Transmission) and its *Contractors*, the legislative protection for birds, and the measures required to minimise impacts on birds and thereby the risk of criminal offences being committed.

2 References

The documents detailed in Table 2.1 - Miscellaneous Documents, below should be used in conjunction with this document

Table 2.1 - Miscellaneous Documents

Title
Wildlife and Countryside Act 1981 (as amended)
The Nature Conservation (Scotland) Act 2004.
https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/birds-and-licensing

3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this plan and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the plan.

4 Legislation

4.1 All wild birds

All wild birds are protected by law under the Wildlife and Countryside Act (WCA) 1981 (as amended). Recent and significant changes have been made to the protection of wild birds in Scotland by The Nature Conservation (Scotland) Act 2004.

It is an offence to intentionally or recklessly[1]:

[1] Reckless acts would include disregard of mitigation aimed at protecting birds, resulting in killing, injury, and/or disturbance of birds or their nests.

- kill or injure any wild bird
- capture or keep [alive or dead] any wild bird
- destroy or take the egg of any wild bird
- sell or advertise for sale any wild bird or its eggs
- destroy, damage, interfere with, take or obstruct the use of the nest of any wild bird while it is in use or being built

4.2 Schedule 1 birds

Additional protection is given to rare breeding birds listed under Schedule 1 of the WCA. It is an offence to intentionally or recklessly;

- Disturb any Schedule 1 species while they are nest building, or at a nest containing eggs or young
- Disturb the dependent young of such birds

Also with specific reference to capercaillie the Act makes it an offence to:

- Intentionally or recklessly disturb capercaillie at lekking sites.

4.3 Schedule 1A and A1 birds

Further protection is given to birds listed on Schedule 1A and A1 of the Act, making it an offence at any time of year to:

- Harass a white-tailed eagle, golden eagle, hen harrier and red kite (1A); and
- Damage a nest of a white-tailed eagle or golden eagle (A1)

At present it is not possible to obtain a derogation to disturb Schedule 1 breeding birds or destroy nests of any wild breeding birds for the purposes of development. However, the control of certain species is licensable in a restricted number of circumstances such as for reasons of public health and safety. A licensing system is also in place for surveying protected species if a disturbance offence is possible.

Further advice is available on the Scottish National Heritage (SNH) website: https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/birds-and-licensing.

5 Protection Plan

In advance of construction at any location where breeding birds may be present, it is **essential** that this plan is followed.

5.1 Pre-construction/dismantling surveys and data collation

1. Pre-construction / dismantling surveys for breeding birds will be completed a maximum of 12 months prior to start of any works in a particular area, and at an appropriate time of year, to ensure availability of up-to-date information to inform any mitigation measures required.
2. Surveys will be carried out by suitably experienced ecologists / ornithologists using methods agreed with SNH under Survey Licences where required.
3. Pre-construction / dismantling surveys will:
   - include up to 1000 m either side of Limits of Deviation (LOD's) / boundaries for substation construction areas and access tracks; and
   - be undertaken in accordance with SNH's Guidance on Assessing the Impact of Overhead Power Line Proposals on Birds for overhead lines
4. Relevant local recorders/field workers, e.g. raptor workers, will be contacted at the pre-construction phase for recent records of sensitive species that might be affected.

5.2 Review of works and impact assessment

1. The Ecological Clerk of Works (ECoW) will review whether construction activities are likely to affect breeding birds and, if so, what mitigation options are available. A hierarchical approach to mitigation will be applied to any occupied bird habitat that may be affected under the Project works, as detailed in the "General mitigation" section below. Priority will be given to assessing and mitigating impacts to species listed on Schedule 1.
2. Construction teams will be advised of existing / new constraints together with mitigation options by the ECoW.
3. Project Geo-databases and / or relevant site documentation, e.g. Environmental Management Plans (EMP's), will be updated with new and amended information as it is produced, with changes communicated to appropriate staff as required.

5.3 General Mitigation

1. This SPP is designed to provide the Contractor and Ecological Clerk of Works (ECoW) with an approved methodology for protecting breeding birds.
2. The ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to breeding birds is delivered.
3. A hierarchical approach to mitigation of Programme / Avoid / Risk Assess will be applied to any birds that may be affected under the Project works.
   - Where practicable, works will be programmed out with breeding season see https://www.nature.scot/bird-breeding-season-dates-scotland for information

on breeding seasons for areas likely to contain numerous breeding sites (e.g. forestry areas).

- For key specially protected or sensitive species, appropriate protection zones (see table in Appendix A) will be established upon confirmation of nest building / breeding taking place. Protection zones will also be set out by a suitably qualified ECoW for all breeding birds and those species whose roost sites are also protected i.e. red kite and hen harrier. No works will be carried out within these zones whilst birds are:
  - building or using their nest
  - still dependent on the nest site, or
  - present at roost sites. The ECoW will advise when it is safe for works to be carried out
- During the breeding season (or whilst birds are roosting at other times of year) where programme critical works must be carried out within the protection zones, the ECoW will carry out a Protected Species Risk Assessment (Appendix B) to assess whether disturbance can be avoided during the works. Considerations will include the species involved, local topography, natural screening, type of works and existing levels of human activity, *e.g.* farming, forestry and habitation.

4. The protection zone may then be reduced if it can be demonstrated, and agreed by a Specialist Adviser and / or SNH as required, that works will not cause disturbance.
5. Monitoring will be undertaken by the ECoW or Specialist Adviser, where appropriate, to ensure no disturbance is caused.
6. An emergency procedure will be implemented by site workers if breeding birds are encountered. All work within 50 m (non-scheduled species) or the relevant maximum protection distance for species listed in Appendix A will immediately cease, and the ECoW will inspect the site and define any mitigation in line with this SPP.
7. In exceptional cases, standard mitigation measures (as outlined above) may be insufficient. In such scenarios, mitigation will be determined on a case- specific basis. No construction works would be undertaken within the protection zone until mitigation has been agreed (in consultation with SNH if required).

5.4 Specific Mitigation

1. <u>Dissuasion Techniques</u>

   Dissuasion techniques may be used to make areas less attractive to nesting birds or birds returning back to a previous nesting location (dissuasion will not be carried out where there is potential to harass Schedule 1A species, or interfere with / damage a Schedule A1 nest). Dissuasion may include felling of trees / clearance of scrub prior to the breeding season commencing or placement of bird scarers / frightening devices.

Should any bird nesting attempts be found within the footprint of construction, an appropriate protection zone will be marked around the nest. A suitably qualified ecologist will then ensure that works do not affect any nest, bird, eggs or young at this location, through micro-siting or re-programming of works as per the general mitigation outlined in this SPP.

Habitat management

a) Scrub clearance / felling / strimming may be used to discourage birds nesting prior to the start of the breeding season in suitable areas. This method has a dual purpose in also in dissuading reptiles / small mammals. For strimming a sward is cut to a height of 2-5cm depending upon vegetation type and ground conditions and this can be achieved by hand strimmers or mechanical means depending upon the ground conditions. The advantage of this method is that the vegetation can be cleared in advance of the works and in slow growing areas, i.e. heath, there is a potential for the site to remain free of constraints for a longer period of time. The ECoW will advise on the potential for other ground nesting species to occupy these areas; in such instances, scaring may be appropriate in conjunction with the management of sward height.

b) Clearance of habitat will be undertaken out with the breeding season; scarers will be placed no later than 10 days before construction commences. Weekly walkover checks by a suitably licenced and experienced ecologist shall then be undertaken to ensure that the mitigation measures are being effective.

Active dissuasion / disturbance

c) At sites where there will be a high level of human activity, noise and possible vibration from construction activities this should dissuade some nesting activities ; and

d) Areas identified to be at risk of nesting birds will be identified and disturbance levels at these locations will be increased. Sites will be visited regularly to dissuade birds from nesting (this may include tower climbing on overhead line projects).

e) Several types of bird scarer/ frightening device can be used, and are detailed below. The use of each should be determined by the ECoW.

f) Hawkeyes are probably the most effective of the bird scarers that have been used on the previous projects. A small number of these have been effective in deterring birds from nesting within construction areas. These will be deployed prior to the start of the breeding season and moved around the compound to stop the birds becoming accustomed to them.

g) Ticker tape can be used in more sheltered areas and can work well however they can be difficult to attach to poles/canes and work best on fencing such as that for the compounds.

h) Scarecrows can be constructed using old PPE and are a cheap way to supplement the Hawkeyes.

i) Once deployed, scarers will be kept on site for a period sufficient to minimize the risk of birds settling on site during the works.

j) As construction commences, suitable nesting sites within the construction footprint will normally be reduced. The frequency of ongoing checks will then be decided by the ECoW on a site by site basis.

2. Removing Disused Bird Nests

The objective of this mitigation is to provide specific guidelines for the protection of birds and their nesting places before and during construction works, but also to facilitate the removal of old or disused nests where required for construction or maintenance works, such as:

k) in substations where birds have nested on equipment causing a fire risk;

l) in order to allow dismantling of redundant towers; or

m) where the presence of a nest interferes with construction, maintenance or upgrading of overhead transmission lines.

Not specially protected birds

n) It is an offence to remove any birds nest while it is being built or in use and it is an offence to take, destroy or possess the egg of a wild bird.

o) If a bird nest is to be removed then it **must** be shown to be disused.

p) Before a nest of any species is removed, where there is any doubt as to whether the nest is in use or not, it will be monitored by the ECoW over a period of a week. Direct observations of nests will be made on the 1st, 3rd and 5th days as well as monitoring from suitable vantage points and where necessary with camera traps. The nest will be removed only when there is clear evidence that the nest is disused and no eggs are present.

q) Should eggs be found, the nest will not be moved until a licence has been obtained from SNH for the taking of the eggs.

Schedule 1 species

r) For white-tailed eagle and golden eagle (Schedule A1) it is an offence to remove or damage a nest at any time, regardless of whether it is currently in use.

s) The disused nests of any other Schedule 1 or Schedule A1 species needing to be removed will be subject to an assessment and agreed with SNH. The assessment will detail the needs case for removal, bird species involved, monitoring, information about the nest and clarification of whether it is in habitual use, habitat and any further nests within the area associated with that bird. Nest monitoring will be undertaken by a suitably licensed and experienced ecologist and / or Specialist Adviser.

6 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-718 (Rev 1.00)	1.00	Richard Baldwin
02	Weblinks updated	TG-PS-LT-718 (Rev 1.00)	1.01	Richard Baldwin
03	Weblinks checked and updated where required.	TG-NET-ENV-505(Rev 1.01)	2.00	Richard Baldwin
04				

Appendix A Summary Guidance on Species Specific Disturbance Distances

Note: the protection zone distances given here are indicative - specific distances will vary depending on individual sites and will require expert advice informed by information provided in Ruddock & Whitfield (2007).

Table A.1 – Protection Zone Distances

Species	Min-Max Protection Zone (m) (3,10,14)	Indicative Protection Zone dates	Notes
Black grouse	300 - 500	March – May (2)	Males lek mainly around dawn and dusk and therefore the presence of a lek would not necessarily represent a constraint. In terms of disturbance, avoid the two hours after sunrise and two hours before sunset.
Barn owl	50 - 100	Mid Feb - June (1) (see notes)	The period of mid Feb-June has been given to emphasise the fact that Barn Owls can begin nesting earlier than many other species and if eggs were laid in mid to late March the young would have left the nest by the end of June. Where barn owls are nesting in sites with a relatively high current level of human disturbance it may be possible to reduce the offset distance further.
Black-throated diver	500 - 750	April – Sept (see notes) (1)	This nesting season is slightly longer than that given in Currie and Elliott (1997) and includes the pre-egg-laying period when the birds arrive at the breeding lochs in April. Note that adults often remain at the lochs until September (some young may not fledge until September) and can arrive in March (2,4).
Capercaillie	500 – 750	March - August (1)	Capercaillie lekking takes place sporadically from January onwards increasing into late winter and peaking in spring. Males lek mainly around dawn and dusk and therefore the presence of a lek would not necessarily represent a constraint. In terms of disturbance, between the times of two hours after sunrise and two hours before sunset are best avoided. Eggs are laid usually from mid-April to early May and young fledge by mid-June to late July (1,4).
Crested tit	50 - 100	April - mid July (3)	The nesting period for this species is variable, being affected by factors such as spring temperatures, altitude and incidence of second broods (although these are rare in Scotland). The period given allows for this variability but generally chicks will have fledged by early June (1, 2, 4, 6).
Common crossbill	100 - 150	Feb - May (3)	It should be noted that this represents a typical peak nesting period but that the species can effectively nest all year round depending on the abundance of cone crops.
Scottish crossbill	100 - 150	Feb - May (1), (3)	The breeding season can occasionally be later than this with eggs recorded into June which could mean young not leaving the nest until early August, assuming a late June laying date and an incubation and fledging period of 13 days and 21 days respectively (1). Typically however young would have fledged before the end of June (1 & 4).

Species	Min-Max Protection Zone (m) (3,10,14)	Indicative Protection Zone dates	Notes
Golden Eagle	750 - 1000	All year round	Golden eagles are present in their breeding territories all year round. Nest building takes place from autumn to late winter with mating occurring between January and April (mainly March). For non-breeding roosts the buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid disturbance.
Goldeneye	100 - 300	April - July (2)	The young of goldeneye leave the nest soon after hatching (in May) and are taken to the water by the female. They can often be taken a considerable distance from the nest site to the rearing area by the female (1, 2, 4).
Goshawk	300 - 500	April-July (1), (3) (see notes)	This does not include the pre-egg-laying period with birds occupying their territories from March. Most young fledge in July and are independent at about 70 days (approximately one month after fledging) (1, 4).
Greenshank	300 - 400	April-July	Eggs are laid from late April to late May with the average around mid-May in Scotland. Incubation period is around 24 days and chicks fledge at between 25 and 31 days old (7).
Golden Plover	200 - 400	April - July (1)	In Northern Scotland the first eggs are laid from mid-April but up to 2-3 weeks later. .
Hen Harrier	500 - 750	All year round (1), (8) (see notes)	The species is not fully migratory in Scotland and birds can be seen on breeding grounds in almost any month, although generally the return is in March. The first egg is usually laid between late April and mid-May but sometimes earlier. Early failures can see the replacement clutch not complete until mid-June. Non-breeding roosts are important in pair formation and the 750 m buffer should be maintained as a minimum 1 hour before and 1 hour after sunset and sunrise respectively to avoid disturbance. Sudden noisy works should also be avoided at these times.
Honey Buzzard	500 - 600	Mid May-Sept (1), (4)	Birds usually arrive on breeding grounds in mid- to late-May. Eggs are laid in June to July with incubation lasting up to 37 days and the fledging period 40-44 days, meaning young usually fledge in September. Young return to the nest for food until they are about 55 days old and become independent from 75-100 days (1, 4).
Kingfisher	50 - 100	April - July (1) (see notes)	The breeding season of kingfisher is prolonged by multiple broods (normally 1-2 in Britain). Incubation is 19-21 days and the fledging period 23-27 days with young independent within a few days (1).
Merlin	300 - 500	April - July (1)	Adults return to breeding sites in April (but sometimes earlier) with peak egg laying late May to early June in Scotland. Incubation is 28-32 days and fledging period 25-27 days, becoming independent two to four weeks later. This means young birds will often still be dependent on their parents for food in August (1, 10).
Osprey	500 - 750	March - August (2)	Birds arrive at the nest site in late March/early April with eggs typically laid from mid-April to mid-May, although they can be laid in early April. Incubation takes five to six weeks (35-43 days) and fledging 50-55 days, young being dependent for a further 10-20 days at least. Early nesters would therefore fledge in July with later birds fledging in August with young possibly still being dependent in early September (1,11,12).

Species	Min-Max Protection Zone (m) (3,10,14)	Indicative Protection Zone dates	Notes
Peregrine	500 - 750	March - June (1) (2)	Return to breeding areas in March to early May. Eggs are laid from mid-March to May. Incubation is 29-32 days per egg (clutch size 3-4 with an interval of 2-3 days between laying but hatching nearly synchronous) and fledging period is 35-42 days with young being dependent for at least two months. Late nesters could therefore fledge in July and still be dependent on their parents for food into September whereas early nesters could have fledged young in May (1,10).
Red Kite	150 - 300	March - August (1) (2) (9) See notes	Most British birds return to their breeding sites in March and lay during the first three weeks of April (Scottish birds on average towards the end of this period) but there is considerable variation with laying possible between late March and early May. Incubation is 31-32 days and fledging period is around eight weeks. Newly fledged young are dependent on their parents for several weeks and remain close to the nest. Late attempts could see young fledged in early August and not become dependent until early September (9). For non-breeding roosts the 300 m buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid disturbance.
Red-backed Shrike	150	May - mid July (1)	Post fledging dependence is long in this species with young being dependent on parents for about 40 days (1).
Red-throated Diver	500 - 750	Apr - Aug (1) (2)	Birds usually return to their breeding lochs in April with peak egg laying from late May to early June (occasionally later). Incubation lasts around 27 days and fledging occurs after 34-48 days meaning most young fledge in August but occasionally into September. Pre-fledging movement of chicks to other nearby lochs occasionally occurs (1,2,4).
Redwing	50 - 100	Late April - August (1) (2) (4)	This species has a long nesting season due to the fact that it commonly has two broods in a year. Eggs are laid from early May to mid-July (occasionally earlier). Incubation is for 12-13 days and fledging takes around ten days with young dependent for a further two weeks. Young are usually fledged by early August (1, 4).
Short-eared owl	300 - 500	March - July (1) (2)	Eggs are laid from mid- to late-March to July with incubation taking 24-29 days and fledging 24-27 days with a period of post fledging dependence lasting several weeks. Late broods would therefore not fledge until August and early nesters could have chicks in the nest by mid-April (1,2).
White-tailed Eagle	500 - 750	All year round (14) See notes	The Ruddock & Whitfield report indicates 500-750 m buffer for the breeding season. Draft forestry guidance advocates 250 m for most activities near roosts out with the breeding season, it should be noted that roosts of immatures can be all year. For non-breeding roosts the buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid disturbance.

References:

(1) Birds of the Western Palaearctic

Vols I-V, VII, VIII (1977-1994)

(2) Gilbert et al. (1998)

(3) Currie & Elliott (1997)

(4) Batten et al. (1990)

(5) Shawyer (1998)

(6) Perrins (1979)

(7) Nethersole-Thompson & Nethersole-Thompson (1979)

(8) Watson (1977)

(9) Carter (2001)

(10) Petty (1998)

(11) Dennis et al. (2004)

(12) Poole (1989)

(13) Watson (1997)

(14) Ruddock & Whitfield (2007)

Appendix B Protected Species Risk Assessment Template

<Project name> : Protected Species Risk Assessment

<Title including record ID and location>

Scope of Work

This method statement is applicable for *<insert details of works to be undertaken>*. The work comprises of:

Location and Access/Egress

<Insert details including map / plan>

Description of species, distance from planned works and ground conditions

Reference Number	BNGR letters	OS Grid reference	Place	Description	Distance from project works	Predicted project impact

<Insert details>

Programme of Works

The following works are planned within the buffer distance:

<Insert details including timing and duration>

Planned Equipment and Manpower

The operation will be carried out by the following personnel and using the following equipment:

<Insert details>

Risk Assessment/ Supervision of Work

<Insert details of baseline conditions including topography, proximity to works, existing disturbance levels, mitigation measures and operational controls, likely levels of disturbance from works and summary of risk rating (Low / Medium / High)>

Scottish & Southern Electricity Networks

TG-NET-ENV-506

Safety, Health and Environment

Water Vole Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Project Manager
Checked by	Alistair Watson	Environmental Advisor
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 Part 1: General Protection Plan 3

4 Part 2: Project Licence Protection Plan 10

5 Revision History 11

Appendix A Project Licence Method Statement Template 12

1 Introduction

This Protection Plan provides guidance and agreed procedures for the protection of water voles and their shelters during construction works on Scottish Hydro Electric Transmission (SHE Transmission) projects. The Plan contains two parts and details the procedures that must be followed where there is potential for water vole to be present (Part 1), and where a Project Licence for water vole has been issued by Scottish Natural Heritage to cover the project (Part 2):

1.1 Part 1: General Protection Plan

This Part applies to all projects where water vole may be present. Part 1 outlines the responsibilities of SHE Transmission and the *Contractor* regarding protection of water vole. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

1.2 Part 2: Project Licence Protection Plan

This is provided to *Contractors* in addition to Part 1 for large projects where a Project Licence has been issued by Scottish Natural Heritage (SNH) to cover the work and identifies those activities and mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

2 References

The documents detailed in Table 2.1 – Miscellaneous Documents below, should be used in conjunction with this document.

Table 2.1- Miscellaneous Documents

Title
Wildlife and Natural Environment (WANE) [Scotland] Act 2011
Wildlife and Countryside Act 1981 (as amended)
www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide

3 Part 1: General Protection Plan

3.1 Background

Water voles (*Arvicola amphibius*) are rat sized members of the rodent family which are found in habitats closely associated with waterways such as rivers and canals as well as upland areas of bog. In Scotland, they

are absent from the most of the islands and are under serious predation pressure from American mink (*Neovison vison*), which together with habitat loss have resulted in massive losses. They usually have black fur in Scotland as opposed to the brown form found in England and Wales and have a short hairy tail, small eyes, a stout body with a chubby face. As suggested by the name they swim frequently and are often first noticed as they noisily 'plop' into water. Water voles predominately eat sedges and rushes although they have been known to predate on fish and invertebrates. Tormentil (*Potentilla erecta*) is a favoured plant in upland areas.

Water voles do not hibernate, but are less active during the period October to Mid-March. Females actively defend exclusive territories particularly during the May – August breeding season, during which they have up to 5 litters. Males have not been shown to defend territories and have larger home ranges. In upland areas colonies are small and discrete with high levels of colony extinction and colonisation within a widely dispersed metapopulation.

Water vole colonies are generally found in habitats with the following characteristics:

- Watercourses with banks covered in tall grass or sedge vegetation and scrub tends to be avoided.
- Wet areas in uplands (up to 1000 m asl) often some distance away from 'typical' riparian habitats.

Signs of Water Vole:

1. Latrines – home ranges are marked by latrines near nests, burrows and where they enter or leave water. Faeces are characteristically 'tic-tac' shaped about 12mm long and 4mm wide.

1. Prints and tracks – water vole footprints are star shaped with four toes on the forefeet and five on the hindfeet. 4 – 9 cm broad paths though vegetation near water can also be an indication of water vole activity.

2. Feeding remains / feeding stations – although these can be confused with other species, neat piles of grasses, sedges or reeds about 10 cm long cut cleanly at a 45 angle can be evidence of water voles.

3. Water vole burrows – normally entrances have a diameter of between 4 and 8 cm and can be either above or below the water level along banks of watercourses. They are generally found within 2 – 5 m of the waters edge. but may be in places relatively far away from running water particularly in upland areas.

3.2 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Protection Plan where water vole may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

3.3 Legislation

Water vole is listed in Schedule 5 of the Wildlife and Countryside Act 1981, as amended, mostly recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011. This legislation makes it an offence to recklessly[1]:

- Damage or destroy or obstruct access to, any structure or place which any water vole uses for shelter or protection.
- Disturb a water vole while it is occupying a structure or place which it uses for shelter or protection.

This legislation means that water vole habitat is fully protected in Scotland. The WANE Act permits derogation of disturbance and/or destruction of water vole places of shelter by SNH for development purposes. SNH can grant licences to enable certain activities that would otherwise be an offence, to be carried out in relation to water voles and their burrows, subject to the following:

a) that undertaking the conduct authorised by the Licence will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit; and
b) that there is no other satisfactory solution.

In granting a licence SNH has to take into account the consequences for water vole at a local population level, to assist this assessment SNH will need to see maps of the area of operations and also surrounding areas of suitable water vole habitat.

3.4 Surveying for Water Vole

1. Initial survey for water vole must be undertaken in all works areas containing suitable water vole habitat, a maximum of 12 months[2] prior to the works commencing (this includes site investigations) to allow for pre-planning. In areas where water vole are identified, additional pre-works survey must be carried out a maximum of 2 months prior to works commencing to ensure the availability of up-to-date information.
   Survey must be carried out during the active season - between 1 April and 31 October (lowlands) and 1 May and 30 September (uplands) and ideally during the months of June, July or August.

2. Surveys must extend for a minimum of 10 m beyond working areas, including access tracks.

3. Surveys must be carried out by suitably qualified and experienced ecologists and will identify whether any water voles or places of shelter are likely to be affected by the works.

[1] Reckless acts would include not having or disregarding a mitigation plan aimed at protecting water vole resulting in damage, destruction or disturbance of any water vole place of shelter, or carrying out an activity which would result in an offence where the presence of water vole was foreknown.

[2] Note: Information from any previous surveys (e.g. surveys carried out to provide data for EIA or other Assessments) can be a useful guide to water vole activity in an area, particularly if burrows were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing.

4. Appropriate monitoring (e.g. the use of suitable camera traps) should be undertaken where required to determine if any place of shelter is being occupied.

3.5 Review of Water Vole Survey

Once a water vole survey has been carried out, the ecologist / ECoW should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / Ecological Clerk of Works (ECoW).

Relevant site documentation and project information sources should be updated with new and amended information on water vole constraints as it is produced, with changes communicated to appropriate staff immediately.

3.6 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb water voles in their burrows or to destroy an occupied burrow. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any burrow that may be affected by works (See Figure 1):

Avoidance

This is the preferred option for occupied burrows identified within 10 metres of works. A protection zone of 10metres should be marked and signed on the ground around each burrow or group or burrows with appropriate material to restrict work access.

All works personnel, machinery, vehicles and storage of materials must be restricted from entering protection zones. Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited outwith the protection zone. If water vole disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

Disturbance

For works within 10 metres of occupied burrows which cannot be avoided, a Licence for disturbance from SNH will be required (either Individual or Project).

Individual Licence applications to SNH should be accompanied by a Species Protection Plan which outlines how disturbance will be minimised and burrows protected, for example through screening of works and modifying protection zones.

If a Project Licence is in place, the methodology detailed in Part 2 of this document must be followed.

Displacement of water vole and destruction of burrows

In some instances, displacement of water vole for example by close strimming around burrows, followed by destruction of burrows may be necessary to allow works to go ahead. This work will always require a licence for disturbance and burrow destruction from SNH (either individual or project). These actions must only be undertaken as a last resort and when there is no alternative. This methodology is only likely to be effective if

proposed displacement distances are less than 50 metres, and only acceptable where an experienced ecologist has confirmed that there is suitable alternative habitat for water vole burrows within 50 meters of the original burrow location. Displacement work and destruction of burrows will not be licensed during the inactive or breeding periods. Suitable times for displacement work to be carried out is as follows: late February to early April (lowlands) and late March and April (uplands). Individual Licence applications to SNH must be accompanied by a Species Protection Plan which outlines timings of works, how impacts to watervole will be minimised, individuals protected, and loss of burrows compensated for.

If a Project Licence is in place, a Method Statement must be submitted to SNH in accordance with Part 2 of this document for written approval prior to any works commencing.

Any water vole place of shelter subject to works under a Licence must be monitored during and after those works.

Live trapping and translocation of water vole, and destruction of burrows.

This is a last resort action and a justification will be required as to why there is no alternative to translocation. This work will need significant pre-planning, and the identification of a receptor site for displaced animals. If this situation is likely to arise SNH licensing team should be contacted at the earliest opportunity to discuss timings, methodologies and licensing. This work will require an individual licence from SNH.

3.7 Mitigation Measures

3.7.1 General Mitigation

1. The ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to water vole is delivered.

2. All works in proximity to waterbodies / watercourses must follow measures outlined in the project environmental information and Contractors Environmental Management Plan (EMP) to ensure their protection against pollution, silting and erosion.

3. An emergency procedure will be implemented by site workers if signs of water vole (e.g. latrines or animals) are encountered. All work within 10 m will cease, and the ECoW will inspect the site and define mitigation (if required) in line with this SPP.

4. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. In such a scenario, works will be halted whilst mitigation is determined on a case specific basis under consultation with SNH

3.7.2 Monitoring and Reporting

1. The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to water vole is delivered.

2. Reports will be submitted to SNH as required by the relevant Licence.

3.8 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 30 days) to ensure the licence is in place prior to any work commencing.

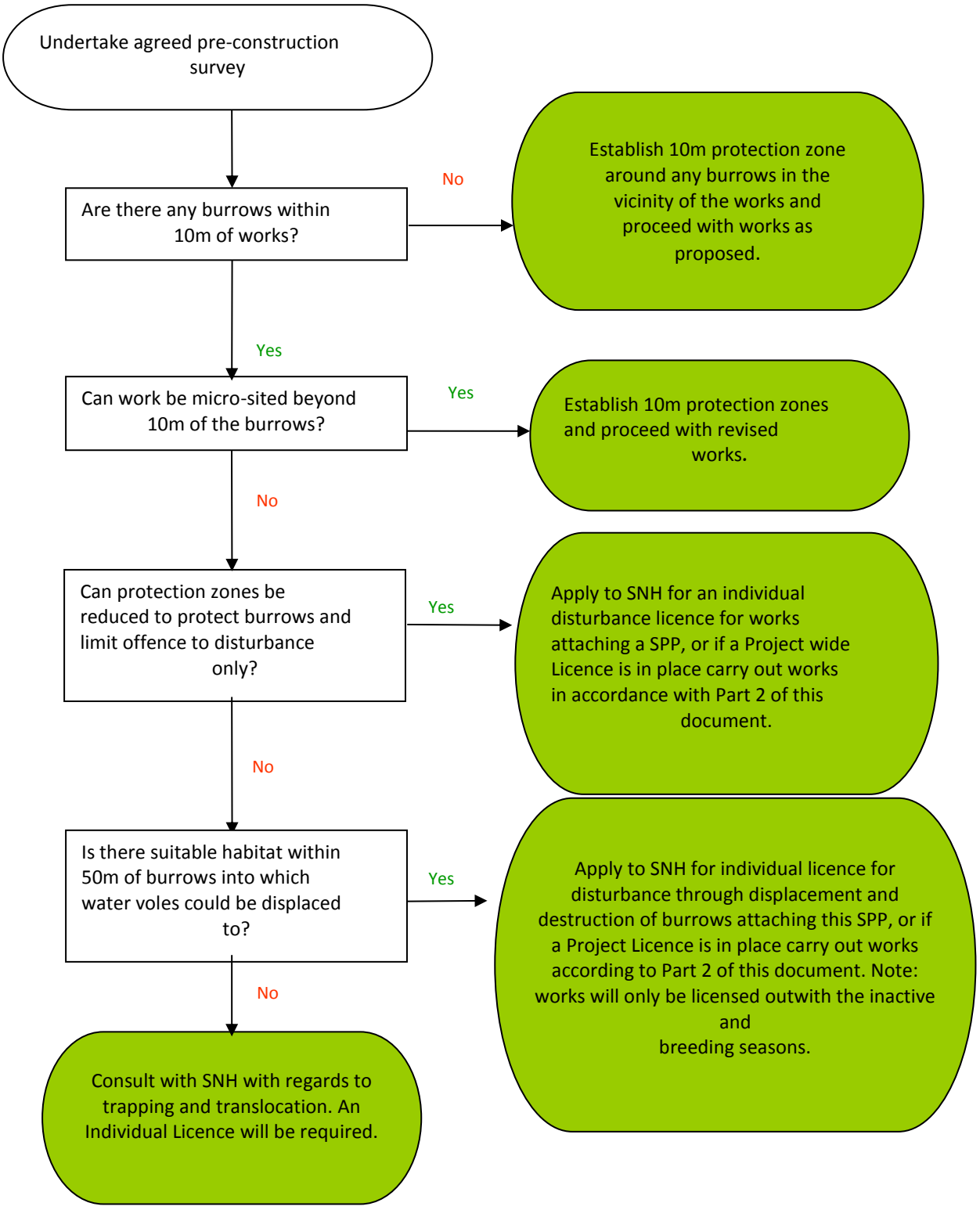
3.9 Project Licence

An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable water vole offences. For example, multiple instances of disturbance to a number of water vole shelters over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-construction survey within 12 months of the planned project start date, and additional pre-construction survey within 2 months of works commencing, in areas where water voles have been found to be present. Any Project Licence application will need to be accompanied by a Mitigation / Compensation Plan and procedures for water vole included in Parts 1 and 2 of this SPP.

3.10 Individual Licence

For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable water vole offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement / Mitigation Plan and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing. Further guidance and details of how to apply for a water vole licence can be found on the SNH website https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/water-voles-and-licensing.

Watervole Decision Tree



4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (insert Licence number) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

In advance of, and during construction at any location where there is the potential for a water vole to be present, it is **essential** that this plan is followed:

4.1 Works Allowed under the Project Licence

The following works may be carried out under this SPP without further approval from SNH, using the prescribed methodologies:

Disturbance to water voles in their places of shelter

a. In situations where it is not possible to maintain a 10 m protection zone around a water vole burrow / place of shelter to avoid disturbance (*e.g*. upgrade of an existing track or watercourse crossing; or construction of temporary track or watercourse crossing), but it is possible to establish a smaller protection zone (no less than 5m in radius) which will prevent damage or destruction of the burrows. The ECoW must mark out the reduced protection zone on the ground using appropriate marking materials and signage and ensure that it remains in place for the duration of the adjacent works.

b. The ECoW must undertake a Toolbox Talk with all contractors before the start of works to raise awareness of the presence of water vole, locations of, and restrictions posed by protection zones and any required mitigation.

c. During the construction works the ECoW must ensure that no plant and/or work personnel enter the protection zone.

d. All construction works within a 10 m radius of water vole places of shelter must usually be completed within 1 day. Working methods must be adopted to reduce any unnecessary disturbance including the following:

· No parking of any plant or other vehicles.

· No site compounds or welfare facilities.
· No use of static plant and/or generators.
· Artificial lighting, if required, is to directed away from water vole habitat and riparian habitats in general.
· No potential activities that may result in pollution, *e.g*. re-fuelling, will be allowed within the protection zone. Silt control measures will be agreed prior to works with the ECoW to ensure no adverse impact on water vole habitat.

e. Use of any constructed tracks will not be subject to any subsequent restrictions on use.

4.2 Activities requiring an SNH Approved Method Statement

The following works require a Method Statement to be approved in writing by SNH licensing team before works can commence:

1.Displacement of water vole and destruction of burrows. Please note these activities will only be licensed to take place at the following times: late February to early April (lowlands) or late March and April (uplands) to avoid inactive and breeding periods.

2.Translocation, live trapping and destruction of burrows. Please note these activities will only be licensed to take place during March and April to avoid inactive and breeding periods.

.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the Contractor / Named Agent for all submissions.

Proposed mitigation works should be agreed with SNH.

5 Revision History

No	Overview of Amendment and Text affected	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-719 (Rev 1.00)	1.00	Richard Baldwin
02	Weblinks updated, typos corrected and decision tree corrected	TG-NET-ENV-506 (Rev 1.00)	1.01	Richard Baldwin

Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

<insert species record reference>

<insert date>

Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for ***<insert details of works>*** to be completed under ***<insert licence details>***. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition ***<insert No.>*** of the above Licence states that a ***<insert species>*** Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect ***<insert species>***. Therefore, no works which would *<insert licensed activity>* ***<insert species>*** shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- ***<insert licence details>***, SNH
- Species Protection Plan (SPP): ***<insert SPP No. and title>*** Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

Licensable Works

Introduction

<Insert details>

Baseline Description

<Insert description, including photographs / location plan>

Table 1: Summary of Data

Reference	Easting	Northing	Date recorded	Description	Date works exclusion zone demarcated & distance

Survey Summary

<Insert details>

Description of the Proposed Licensable Works

<Insert details>

Works Duration

<Insert details>

Consideration of Alternatives

<Insert details>

Impact Assessment

<Insert details>

Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

<insert details of methodology>

During works:

<insert details of methodology>

<Insert Contractor's name>

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of *Contractor's* Representative:..... Date .... / /

Print name in full: .....

Scottish & Southern Electricity Networks

TG-NET-ENV-507

Safety, Health and Environment

Wildcat Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Project Manager
Checked by	Alistair Watson	Environmental Advisor
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 General Protection Plan 3

4 Revision History 8

1 Introduction

Wildcat is a European Protected Species and is afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures for the protection of wildcats and their shelters during construction works on Scottish Hydro Electric (SHE) Transmission projects.

2 References

The documents detailed in Table 2.1 below, should be used in conjunction with this document

Table 2.1- Miscellaneous Documents

Title
Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive).
Conservation (Natural Habitats &c.) Regulations1994
Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007
https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/wildcats-and-licensing
https://www.nature.scot/plants-animals-and-fungi/mammals/land-mammals/wildcats

3 General Protection Plan

3.1 Introduction

This Species Protection Plan applies to all projects where wildcat may be present. It outlines the responsibilities of SHE Transmission and the Contractor regarding protection of wildcat. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

3.2 Background

Wildcats are a member of the felidae family with a population restricted to marginal areas predominantly in northern Scotland, in essence north of the Highland Boundary Fault. In the 19th century wildcats were heavily hunted and persecuted, this combined with habitat loss reduced their numbers dramatically. It is now estimated that approximately 400 wildcats remain in Scotland, although estimates do vary.

Domestic tabby cat strongly resemble wildcat, however they are smaller and less robust. Wildcats can easily hybridise with feral and domestic cats making it difficult to confidently identify wildcats. One diagnostic feature of a wildcat is the thick, bushy tail with black rings and a black blunt tip. Wildcats also have distinct

stripes on their flanks that are less broken or spotty than on tabby cats and hybrid cats (see Kitchener *et al.* 2005 for details[1]). They also do not have white paws.

Wildcats are solitary animals that occupy their own exclusive home range, however the exclusive home range of a male wildcat my overlap with the territories of one or a number of female wildcats. These home ranges can be very large, up to 18 km^2, but can also be much smaller depending on the density of their prey - primarily rabbits and other small mammals. Male home ranges are usually larger than female home ranges.

Wildcats are an exclusively carnivorous species. They usually inhabit woodland areas but due to the lack of suitable habitat in the UK can also be found using more open habitats such as moorland or rough grazing. Wildcats have a number of dens throughout their home range that they have access to. These dens are usually among rocks and boulders and rocky cairns on hillsides and can also be in abandoned fox earths, badger setts and rabbit burrows as well as among tree roots. Females use different dens to give birth and rear kittens than they do to shelter in.

Wildcats breed predominantly between January and March and give birth to their young between April and May, however they can breed at any time during the year. The female is the sole provider for the kittens bringing live prey to the den from when they are 3 weeks old and she will stop producing milk at 6-7 weeks. The young usually leave their mothers and become independent at around 5-6 months old. Signs of wildcat include (although these can indistinguishable from feral and hybrid cats);

- Feeding signs – prey remains may be left inside or outside of dens
- Wildcat tracks and scats – wildcats may mark their home range on prominent features such as trees and boulders on tracks by spraying urine or leaving scats.
- Claw marks – wildcats scratch the bark of trees to mark their home range
- Places of shelter – dens are usually marked my urine sprays or scats.

Due to their nocturnal activity it can be difficult to confirm the presence of wildcats at suspected dens, and to be sure that the individual is a pure wildcat, therefore camera traps may be required to positively identify a wildcat and confirm its presence in the area.

3.3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Species Protection Plan where wildcat may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with this Species Protection Plan. The responsibility for applying for any licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

[1] *Kitchener AC, Yamaguchi N, Ward J and Macdonald DW. 2005. A diagnosis for the Scottish wildcat (Felis silvestris): a tool for conservation for a critically endangered felid. Animal Conservation (8): 223-237.*

3.4 Legislation

Wildcat is a European Protected Species (EPS) protected under Annex II and IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive). The Habitats Directive is transposed in Scottish law by the Conservation (Natural Habitats &c.) Regulations 1994. Wildcat is listed on Schedule 2 of the Conservation Regulations 1994. The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007 enhanced this protection. Current Legislation means that wildcat and their shelters are fully protected in Scotland. Guidance on the protection given to wildcat and their shelters is available on the Scottish Natural Heritage (SNH) website https://www.nature.scot/plants-animals-and-fungi/mammals/land-mammals/wildcats

In summary, it is illegal to:

- Deliberately or recklessly[1] kill, injure or take (capture) a wildcat;
- Deliberately or recklessly disturb or harass a wildcat; and
- Damage, destroy or obstruct access to a breeding site or resting place of a wildcat (*i.e.* a wildcat shelter).

Licences may be granted for certain purposes that would otherwise be illegal / cause an offence; such licences for development work must be applied for from SNH, licences may be granted for imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment. Further information on licensing and wildcats can be found on the SNH website https://www.nature.scot/professional-advice

3.5 Surveying for Wildcat

1. Surveys for wildcat must be undertaken in all works areas containing suitable wildcat habitat, a maximum of 12 months[2] prior to works commencing, (this includes site investigations).

2. Surveys must extend for a minimum of 200 m beyond working areas, including access tracks.

3. Surveys must be carried out by suitably qualified and experienced ecologists and must identify whether any wildcat and/or their places of shelter are likely to be affected by the works.

4. If wildcats are known to be in the area or evidence of wildcat is found during the initial survey this should alert surveyors and staff to the need for general mitigation measures. Where mammal dens or places of

[1] *Reckless acts would include not having or disregarding a mitigation plan aimed at protecting wildcat resulting in killing, injury, and/or disturbance of any wildcat or wildcat place of shelter, or carrying out an activity which would result in an offence where the presence of wildcat was foreknown.*

[2] *Note: Information from any previous surveys (e.g. surveys carried out to provide data for* Environmental Impact Assessment (EIA) *or other Assessments) can be a useful guide to wildcat activity in an area, particularly if dens were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing. surveys a maximum of 3 weeks prior to works are recommended.*

shelter are found during protected mammal surveys, unless the area can be avoided more detailed survey will likely be required to identify which species are using the den. This will usually involve the use of trail cameras at possible dens for a minimum of 1 month and / or DNA testing of scat or hairs found at the possible den site. If evidence of use by wildcat is established the structure must be assumed to be a den. Paired camera traps are normally required to adequately capture images of the pelage, which are crucial for correct identification of wildcats. The ecologist or EcoW should consult SNH Licensing Team regarding appropriate camera trapping methodology and a licence for disturbance will be required for any camera trapping. If possible wildcat scats or tracks are found away from possible den sites, use of trail camera could be useful to establish which species left them, but the priority should be on identification of potential wildcat dens.

5. It is important to note that some intrusive surveys may require a Licence from SNH.

3.6 Review of Wildcat Survey

Once a wildcat survey has been carried out, the ecologist / ECoW must review the survey results, apply the mitigation hierarchy outlined below and decide if a licence is required from SNH for the works. If required, a licence must be obtained from SNH prior to any works commencing. Construction teams should be advised of existing / new constraints, together with mitigation / compensation, and licensing requirements by the ecologist / ECoW. Relevant site documentation and project information sources should be updated with new and amended information on wildcat constraints as it is produced, with changes communicated to appropriate staff immediately.

3.7 Mitigation Hierarchy

There should be a general presumption against works being carried out which will disturb wildcat in their den, or which will require the destruction of any wildcat den. A hierarchical approach to minimise the impact on wildcat should be established as follows:

Avoidance

This is the preferred option. Appropriately sized protection zones must be marked and signed on the ground by the ecologist / EcoW, with appropriate material, around all wildcat dens identified during the pre-works surveys. A 200 m radius protection zone must be established around all wildcat dens at any time of year.

All works personnel, machinery, vehicles and storage of materials must be restricted from entering protection zones. Protection zones must be maintained until all works are completed. Site staff must be briefed of their purpose through a Toolbox Talk by the ecologist / EcoW. If wildcat disturbance can be avoided in this way, there is no need to obtain a licence from SNH for the works.

Disturbance

If works within protection zones cannot be avoided, a Licence for disturbance from SNH will always be required.

Individual licence applications for disturbance must be accompanied by a Mitigation Plan which outlines how the disturbance will be minimised, and dens protected from damage, for example through screening of works and modifying protection zones.

Wildcat are currently in unfavourable conservation status in Scotland therefore it is unlikely that a licence will be issued by SNH for wildcat den destruction.

3.8 Mitigation Measures

3.8.1 General Mitigation – in all wildcat areas (i.e. where no specific signs found during surveys but known to be locally present)

1. Any temporarily exposed pipe system should be capped when staff are off site to prevent wildcats from gaining access and becoming trapped.

2. All exposed trenches and holes should be provided with mammal exit ramps e.g. wooden planks or earth ramps when Contractors are off site.

3. An emergency procedure will be implemented by site workers if wildcat dens are encountered. All work within 200 m will cease, and the ECoW will inspect the site and define mitigation (if required) in line with this SPP.

4. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (with consultation with SNH Licensing Team if required).

3.8.2 Mitigation where a wildcat den is subject to disturbance (under license)

Site specific conditions will be required but may include, protection zones, timing, limits on hours of operation, lighting, noise.

Monitoring and Reporting

1. The Ecologist / Ecological Clerk of Works (EcoW) will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to wildcats is delivered.

2. Reports will be submitted to SNH as required by the relevant Licence..

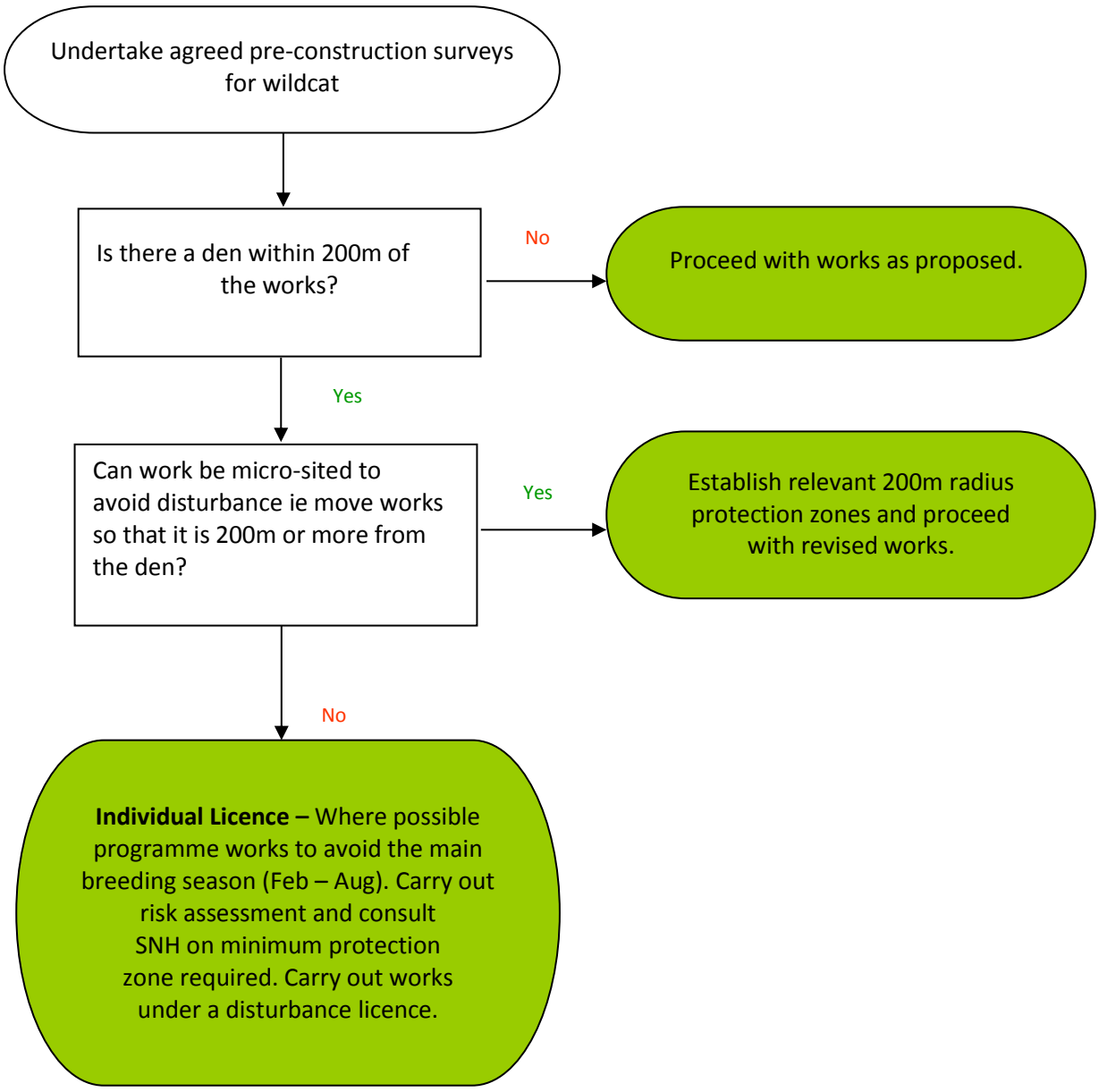
3.9 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 30 days) to ensure the licence is in place prior to any work commencing.

4 Revision History

No	Overview of Amendment and Text affected	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-720 (Rev 1.00)	1.00	Richard Baldwin
02	Update to wildcat signs section	TG-NET-ENV-507 (Rev 1.00)	1.01	Richard Baldwin
03	Reworded introduction. Update to weblinks and typo changes. Changes to decision tree.	TG-NET-ENV-507 (Rev 1.01)	1.02	Richard Baldwin

Wildcat Mitigation Decision Tree



Scottish & Southern Electricity Networks

TG-NET-ENV-508

Safety, Health and Environment

Pine marten Species Protection Plan

	Name	Title
Author	Francis Williams	Environmental Project Manager
Checked by	Alistair Watson	Environmental Advisor
Approved by	Richard Baldwin	Head of Environment

Contents

1 Introduction 3

2 References 3

3 Part 1: General Protection Plan 4

4 Part 2: Project Licence Protection Plan 10

Appendix A Project Licence Method Statement Template 12

Scottish & Southern Electricity Networks

1 Introduction

Pine marten (*Martes martes*) is listed in Schedule 5 of the Wildlife and Countryside Act 1981, as amended, most recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011 and is afforded a high level of protection in Scotland. This Species Protection Plan provides guidance and agreed procedures, for the protection of pine marten and their shelters, during construction works on Scottish Hydro Electric (SHE) Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for pine marten to be present (Part 1), and where a Project Licence for pine marten has been issued by Scottish Natural Heritage (SNH) Licensing Team to cover the project (Part 2).

1.1 Part 1: General Protection Plan

This Part applies to all projects where pine marten may be present. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of pinemarten. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

1.2 Part 2: Project Licence Protection Plan

This Part is provided to *Contractors* in addition to Part 1, for large projects where a Project Licence has been issued by SNH to cover the work, and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require an additional Method Statement to be submitted to SNH Licensing Team for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence, to provide approved guidance and methodologies for carrying out work.

2 References

The documents detailed in Table 2.1 below, should be used in conjunction with this document.

Table 2.1- Miscellaneous Documents

Title
Wildlife and Countryside Act 1981
Wildlife and Natural Environment (WANE) [Scotland] Act 2011
https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/pine-martens-and-licensing

3 Part 1: General Protection Plan

3.1 Background

Pine martens are a member of the mustelid family with a population distributed throughout northern Scotland extending down to the northern boundary of the central belt and including a number of the islands including Mull and Skye. There is also a population in Dumfries and Galloway. Following the dramatic reduction in numbers of pine martens in the 19th century they are currently undergoing resurgence due in part to the legal protection they are afforded under the Wildlife and Countryside Act 1981.

Pine martens are solitary territorial animals. Although the edges of territories may overlap slightly, separate individuals are rarely found in close proximity to each other. They generally inhabit woodland or scrubby areas as they require a large amount of cover, and spend much of their time in the canopy. Pine martens are omnivorous, consuming a diet consisting of a wide variety of animals (predominantly small mammals) as well as berries and nuts allowing them to be active all year round. Both male and female pine martens have large territories of up to 8 km2 for females and 20 km2 for males. Due to the size of their territories pine martens have a number of dens (resting places) throughout their territory. They also make breeding nests, which can either be within rocks, in hollowed out trees or in bird nests / squirrel dreys. Increasing pine martens use human habitation such as attics, sheds and other farm buildings for both places of shelter and breeding dens.

Pine marten have two stages to their breeding behaviour with mating taking place in July – August but with the implantation of the fertilised egg delayed until February - March. The young are then born 1 month later and remain with the mother for approximately 12 weeks. Pine martens are mainly active at night and dawn/dusk times, although can also be seen during the day.

Signs of Pine marten:

- Pine marten prints and tracks – five toed slightly cat like footprints only of significant use in areas with snow cover. Tracks on the edge of territories are often marked with scat which can vary considerably in size and shape depending on contents.

- Pine marten shelters or dens can be either on the ground in rocky crevices or in elevated tree cavities, abandoned bird nests or owl boxes.

- Pine marten scat – is 4 – 12 cm long and 0.8 – 1.8 cm in diameter with often a narrow and twisted appearance. The scats may have a musky smell likened to Parma Violets, although this can vary and DNA analysis can be required to confirm identification.

Due to their nocturnal activity it can be difficult to confirm the presence of pine martens at suspected dens, therefore camera traps may be required to positively identify a pine marten and confirm its presence in the area.

3.2 .Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Species Protection Plan where Pine marten may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor

compliance with this Species Protection Plan. The responsibility for applying for any licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

3.3 Legislation

Pine marten is afforded full protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), most recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011. This makes it an offence to kill, injure or take a pine marten or to intentionally or recklessly[1] damage, destroy or obstruct access to any place used for shelter or for breeding. Disturbance to this species in any place used for shelter or breeding also constitutes an offence.

SNH can grant licences to enable certain activities that would otherwise be an offence, to be carried out in relation to pine martens and their places of shelter, subject to the following:

a) That undertaking the conduct authorised by the licence will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit; and

b) That there is no other satisfactory solution.

In granting a licence SNH has to take into account the consequences for pine martens at a local population level, to assist this assessment SNH will need to see maps of the area of operations and also surrounding areas of suitable pine marten habitat.

3.4 Surveying for pine marten

1.Surveys for pine marten must be undertaken in all works areas containing suitable pine marten habitat, a maximum of 12 months[2] prior to works commencing, (this includes site investigations), to ensure availability of up to date information on place of shelter locations.

2. Surveys must extend for a minimum of 100 m beyond working areas, including access tracks.

3. All dens must be marked to permit easy identification.

4. Surveys must be carried out by suitably qualified and experienced ecologists and must identify whether any pine martens and/or their places of shelter are likely to be affected by the works.

[1] Reckless acts would include disregard of mitigation aimed at protecting pine martens, resulting in killing, injuring and/or disturbance of any pine marten or pine marten resting place.

[2] Note: Information from any previous surveys (e.g. surveys carried out to provide data for Environmental Impact Assessment (EIA or other Assessments)
can be a useful guide to pine marten activity in an area, particularly if dens were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing. Pre-felling surveys a maximum of 3 weeks prior to works are recommended.

If works during the breeding season (March to August inclusive) cannot be avoided, and breeding dens may be disturbed by works, it may also be important to establish if these dens are being used for breeding. The non- invasive method as follows must be used in the first instance: Visual observation and camera surveillance from the ground, for a period of a minimum of 14 consecutive days prior to works commencing, used to establish if the breeding den is in regular use. If regular use is established the den must be assumed to be being used for breeding purposes.

3.5 Review of pine marten Survey

Once a pine marten survey has been carried out, the ecologist / Ecological Clerk of Works (EcoW) must review the survey results, apply the mitigation hierarchy outlined below and decide if a licence is required from SNH (either Individual or Project) for the works.

If required, licences (individual or project), must be obtained by SNH prior to any works commencing.

Construction teams should be advised of existing / new constraints, together with mitigation / compensation, and licensing requirements by the ecologist / ECoW.

Relevant site documentation and project information sources should be updated with new and amended information on pine marten constraints as it is produced, with changes communicated to appropriate staff immediately.

3.6 Mitigation Hierarchy

There should be a general presumption against works being carried out which will disturb pine martens in their den, or which will require the destruction of any pine marten den. A hierarchical approach to minimise the works impact on pine marten should be established as follows:

Avoidance

This is the preferred option. Appropriately sized protection zones must be marked and signed on the ground by the ecologist / EcoW, with appropriate material, around all pine marten dens identified during the pre-works surveys. The breeding season (March to June inclusive) is the most sensitive time for disturbance, during this time a 100m radius protection zone must be established around all pine marten dens. Out with the breeding season, a protection zone of 30 metres radius must be established. For high noise / vibration activities (pile driving or blasting) a 100m radius protection zone around pine marten dens must be established at any time of year.
All works personnel, machinery, vehicles and storage of materials must be restricted from entering protection zones. Protection zones must be maintained until all works are completed. Site staff must be briefed of their purpose through a Toolbox Talk by the ecologist / EcoW. If pine marten disturbance can be avoided in this way, there is no need to obtain a licence from SNH for the works.

Disturbance

If works within protection zones boundaries cannot be avoided, a Licence for disturbance from SNH will be required. For small scale projects the licence may be specific to the site, for larger scale works a Project Licence may be appropriate.

Individual licence applications for disturbance must be accompanied by a Mitigation Plan which outlines how the disturbance will be minimised, and dens protected from damage, for example through screening of works and modifying protection zones.
If a Project Licence is in place, and a den being used in the breeding season will be disturbed, a Method Statement must be submitted to SNH for written approval in accordance with Part 2 of this document, prior to any works commencing. The Method Statement must state how works will be carried out in a way which ensures no abandonment of young.

Destruction
Destruction of dens must only be undertaken as a last resort and requires a Licence from SNH. Individual Licence applications to SNH must be accompanied by a Mitigation / Compensation Plan which outlines how disturbance will be minimised and individual pine martens protected from injury, and may include provision for the creation of an artificial den if appropriate. If destruction of a den during the breeding season is required, the plan should include details of non-invasive monitoring which will take place to ensure breeding is not taking place prior to any den destruction.
Any den subject to works under Licence must be monitored during and after those works.

3.7 Mitigation Measures

3.7.1 General Mitigation

1.An emergency procedure will be implemented by site workers if pine marten dens are encountered. All work within 30 m (non-breeding season) or 100 m (breeding season) will cease, and the ECoW will inspect the site and define mitigation (if required) in line with this SPP.

2. Any temporarily exposed pipe system to be capped when contractors are off site to prevent pine marten from gaining access. Similarly, all exposed trenches and holes must be provided with mammal exit ramps when contractors are off site (i.e. at night time).

3. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH Licensing Team if required).

3.7.2 Monitoring and Reporting

5. The Ecologist / ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to Pine martens is delivered.

6. Reports will be submitted to SNH as required by the relevant Licence.

3.8 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 30 days) to ensure the licence is in place prior to any work commencing.

3.9 Project Licence

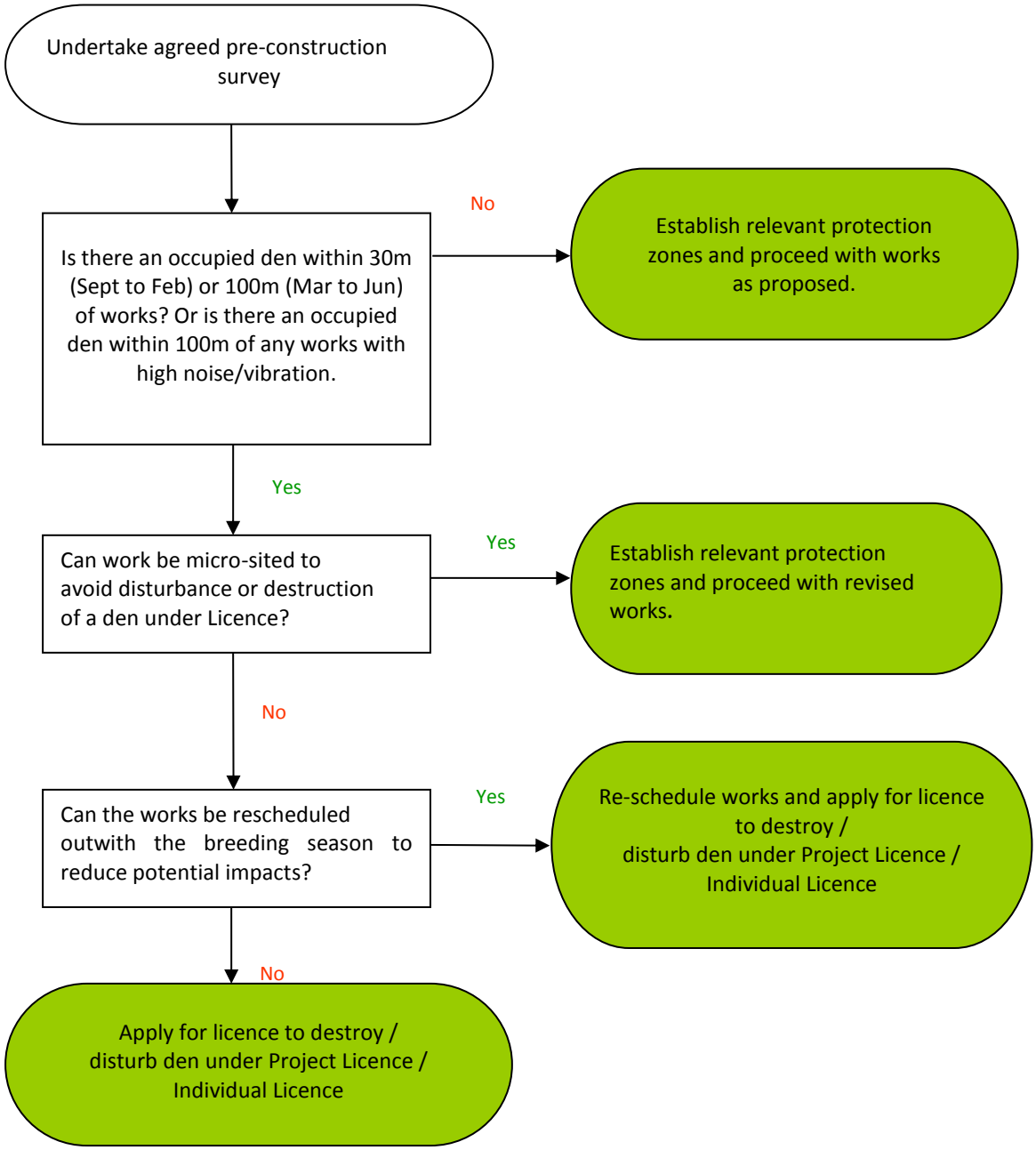
An SNH Project Licence is likely to be the most appropriate form of licence for any large scale and / or long running project, in pine marten areas. For example, where multiple instances of disturbance to a number of pine marten resting places is anticipated over several months / years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-construction survey within 12 months and three weeks of the planned project start date.

Any Project Licence application will need to be accompanied by a Mitigation / Compensation Plan, and procedures for pine marten included in Parts 1 and 2 of this SPP.

3.10 Individual Licence

For small scale projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable pine marten offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Mitigation Plan and should be sent sufficiently in advance of the project start date to ensure the licence is in place prior to work commencing. Further guidance and details of how to apply for a pine marten Licence can be found on the SNH website https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/pine-martens-and-licensing.

Pine marten Mitigation Decision Tree



4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with Part 1 of this document, the Project Licence (insert Licence number) and its conditions.

Mitigation activities permitted under Project Licence are included in this Part of the SPP (section A). More disruptive activities, listed in Section B below, will require a specific Method Statement to be submitted to SNH Licensing Team for approval, prior to works commencing (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

In advance of, and during construction at any location where there is the potential for pine marten to be present, it is **essential** that this plan is followed:

A. Works allowed under the project licence without further approval from SNH Licensing Team

The following works may be carried out under this SPP without further approval from SNH, using the prescribed methodologies:

1. Disturbance to a den or place of shelter out with the breeding season. This includes ground and aerial dens, whether occupied, or unoccupied and located within known pine marten territory.

Methodology:

Pine marten dens must not be damaged or destroyed, but protected from potential damage by setting up a modified protection zone (size determined by the site ecologist / EcoW). Protection zones must be clearly marked on the ground and signed, and must exclude all works personnel, machinery, vehicle and storage. The protection zone must be maintained until all works are finished. Works will be undertaken in as short a period as possible to minimise the level of disturbance. A project licence return must be sent to SNH licensing team detailing all disturbance works under the Project Licence.

a. Before works commence, the ECoW will:

- Attend the site in order to check whether pine marten is present or not. If pine marten is present, then works may need to be delayed until the ECoW is satisfied suitable access / egress away from the place of shelter is safeguarded. If no pine marten is present, works can proceed.

- Brief the site personnel, including contractors and subcontractors, regarding the presence of the pine marten dens and the protected status of pine marten, their dens and the conditions

of this Species Protection Plan, which allows for felling and construction within 30 m of the den

.

- Describe the actual den and state that no machinery must drive over it or if it is in a tree the den tree must not be cut down.

b. The den should be clearly marked with a blue tipped stick adjacent to the hole. For an aerial den the tree will be marked with a thick band of blue tape around the trunk.

c. For felling operations, the whole area within the 30 m protection zone, excepting the den tree itself, may be felled using a harvester.

d. Works within 30 m of the den will be undertaken within 1 day wherever possible. Where works take longer, the ECoW will carry out a pre-works check each morning for pine marten presence.

B. Activities requiring an SNH Approved Method Statement Prior to Works Commencing

The following activities require a formal Method Statement to be submitted and approved in writing by SNH licensing team prior to any works commencing:

a. Temporary or permanent exclusion or destruction of a den.

b. Any works within 100m of a breeding den during the breeding season.

c. Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

5 Revision History

No	Overview of Amendment and Text affected	Previous Document	Revision	Authorisation
01	Transfer to new template and Nomenclature	TG-PS-LT-721 (Rev 1.00)	1.00	Richard Baldwin
02	Typos, formatting and references to other species removed.	TG-NET-ENV-508 (Rev 1.00)	1.01	Richard Baldwin

Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

<insert species record reference>

<insert date>

Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for ***<insert details of works>*** to be completed under ***<insert licence details>***. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition ***<insert No.>*** of the above Licence states that a ***<insert species>*** Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect ***<insert species>***. Therefore, no works which would *<insert licensed activity>* ***<insert species>*** shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- ***<insert licence details>***, SNH
- Species Protection Plan (SPP): ***<insert SPP No. and title>*** Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

Licensable Works

Introduction

<Insert details>

Baseline Description

<Insert description, including photographs / location plan>

Table 1: Summary of Data

Reference	Easting	Northing	Date recorded	Description	Date works exclusion zone demarcated & distance

Survey Summary

<Insert details>

Description of the Proposed Licensable Works

<Insert details>

Works Duration

<Insert details>

Consideration of Alternatives

<Insert details>

Impact Assessment

<Insert details>

Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

<insert details of methodology>

During works:

<insert details of methodology>

<Insert Contractor's name>

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of *Contractor's* Representative:..... Date ..../ /

Print name in full: .....

All method statements must be submitted to, and agreed in writing by, SNH licensing team:
licensing@snh.gov.uk
Telephone 01463725364

Scottish & Southern Electricity Networks

Scottish & Southern Electricity Networks
TRANSMISSION

APPENDIX P. SSEN TRANSMISSION'S PATHWAY TO 2030 PROJECTS

SSEN Transmission's Pathway to 2030 projects:

Why are these projects needed and how has this need been assessed

Introduction

SSEN Transmission's Pathway to 2030 projects are part of a major upgrade of the electricity transmission network across Great Britain (GB) that are required to help deliver UK and Scottish Government climate change and energy security targets. In simple terms, these projects are required to connect homegrown, low carbon renewable electricity generation and transport that power to areas of demand across the country, building a cleaner, more secure and affordable energy system for homes and businesses across Great Britain.

This paper sets out some of the policies and targets that have been set by the UK and Scottish Government that are driving the need for investment in new clean power and the electricity transmission network that is required to enable this. It also explains the electricity network planning processes that have established the need for these Pathway to 2030 network reinforcements.

HM Government

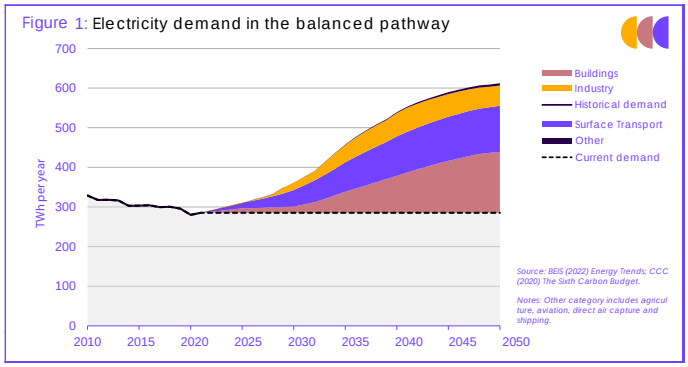
Scottish Government
Riaghaltas na h-Alba

Net zero and renewable targets

The UK and Scottish Government have committed to deliver net zero emissions by 2050 and 2045 respectively.

To put into context the scale of the challenge in delivering these legally binding net zero targets, the Climate Change Committee - an independent, statutory body which advises the UK and devolved governments on their emissions reduction targets - forecast in its 'Delivering a reliable decarbonised power system' report[1], that electricity demand will double by 2050.

Figure 1: Electricity demand in the balanced pathway



This is as a result of forecast changes in electricity use across the UK, for example, through the electrification of transport and heating.

Meeting these net zero targets and associated increases in electricity demand will require significant and unprecedented investment in new low carbon electricity generation and the enabling electricity network infrastructure across GB that is required to connect and transport this power from generation source to areas of demand across the country. Further investment is also required to replace the generation capacity lost due to the planned closure of fossil fuel powered electricity generation power stations.

To maintain progress towards delivering these net zero commitments, the UK and Scottish Government have also set a number of interim targets. This includes the UK Government's target of 50GW of offshore wind by 2030 and a target to fully decarbonise the electricity system by 2035.

The Scottish Government, in its Draft Energy Strategy and Just Transition Plan[2], has set a new target for an additional 20GW of new low carbon renewable electricity generation by 2030, including 12GW of new onshore wind. The Scottish Government has also consulted on increasing its current offshore wind target of 11GW by 2030, with its final Energy Strategy and Just Transition Plan expected by summer 2024.

There is currently around 14GW of offshore wind across the UK and in Scotland, there is currently around 13GW of low carbon renewable generation. To meet the UK Government's 2030 offshore wind target, we need to more than treble what is currently connected and to meet the Scottish Government's 2030 renewable target, we need to more than double what is currently connected. With the current electricity transmission system already at full capacity in many places across GB, particularly throughout the north of Scotland, over £10bn in new electricity transmission network infrastructure, in the north of Scotland alone, is required to deliver these Government targets.

[1]https://www.theccc.org.uk/wp-content/uploads/2023/03/Delivering-a-reliable-decarbonised-power-system.pdf
[2]https://www.gov.scot/publications/draft-energy-strategy-transition-plan/

Scottish & Southern Electricity Networks
TRANSMISSION

SSEN Transmission's Pathway to 2030 projects:

Why are these projects needed and how has this need been assessed

Energy Security

As well as delivering net zero and renewable targets, there is also a requirement to secure the country's future security of supply and reduce our dependence on volatile and often expensive global wholesale energy markets.

The British Energy Security Strategy

In April 2022, the UK Government published its British Energy Security Strategy (BESS)[3]. This set out the UK Government's plans to secure the country's future energy independence by reducing dependence on, and price exposure to, volatile global wholesale gas markets.

This will be achieved by accelerating the deployment of homegrown and affordable low carbon electricity generation, together with accelerating the enabling electricity network infrastructure required to connect and transport this power.

UK Government
British Energy Security Strategy
April 2022

"This plan comes in light of rising global energy prices, provoked by surging demand after the pandemic as well as Russia's invasion of Ukraine. This will be central to weaning Britain off expensive fossil fuels, which are subject to volatile gas prices set by international markets we are unable to control, and boosting our diverse sources of homegrown energy for greater energy security in the long-term.

Accelerating our domestic supply of clean and affordable electricity also requires accelerating the connecting network infrastructure to support it."

The BESS included the UK Government's increased ambition for offshore wind of 50GW by 2030, up from its previous 40GW target. Around 11GW of this target will be met from new offshore wind in Scottish waters granted seabed leases in January 2022 by Crown Estate Scotland through the ScotWind leasing round[4].

Pathway to 2030 Holistic Network Design

To enable the connection of the UK Government's 50GW of offshore wind by 2030 target, the independent GB Electricity System Operator, National Grid ESO (the ESO) – which is responsible for balancing electricity supply and demand across GB and oversees the coordination of electricity transmission network system planning processes - was tasked by the UK Government with developing what is known as the 'Pathway to 2030 Holistic Network Design' (the HND)[5].

The HND, which was developed in collaboration with the three GB Transmission Owners[6], is a single, integrated coordinated plan that sets out the onshore and offshore electricity transmission infrastructure required, across GB, to deliver this UK Government target. The HND confirmed the requirement for all of SSEN Transmission's Pathway to 2030 projects.

National Grid ESO
Pathway to 2030 Holistic Network Design
July 2022

"The Pathway to 2030 Holistic Network Design (HND) is a major step for Great Britain in delivering cheap, clean energy from offshore wind.

It sets out a single, integrated design that supports the large-scale delivery of electricity generated from offshore wind, taking power to where it's needed across Great Britain

The HND provides a recommended offshore and onshore design for a 2030 electricity network, that facilitates the Government's ambition for 50GW of offshore wind by 2030."

The ESO's assessment also considered the proposed technology choices, which includes a combination of overhead and subsea electricity network investments. Upon completion, the HND was then endorsed by both the UK and Scottish Government as meeting the Terms of Reference for the Offshore Transmission Network Review.

[3]https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy
[4]https://www.crownestatescotland.com/scotlands-property/offshore-wind/scotwind-leasing-round
[5]https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design/hnd
[6]SSEN Transmission, SP Transmission and National Grid Electricity Transmission

Scottish & Southern Electricity Networks
TRANSMISSION

Accelerated Strategic Transmission Investment

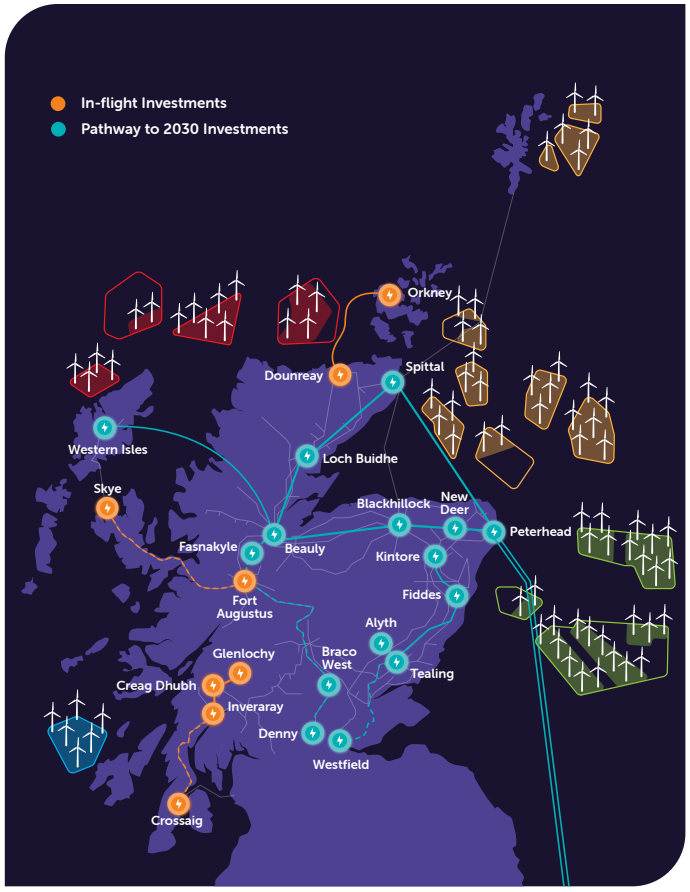
Following the publication of the HND, in December 2022, the independent GB energy regulator, Ofgem, approved the need for these projects as part of its Accelerated Strategic Transmission Investment (ASTI)[7] framework decision, again as a GB-wide programme of investments. Ofgem's decision included approval for all of SSEN Transmission's Pathway to 2030 projects. It also set out the regulatory framework under which these projects will be taken forward.

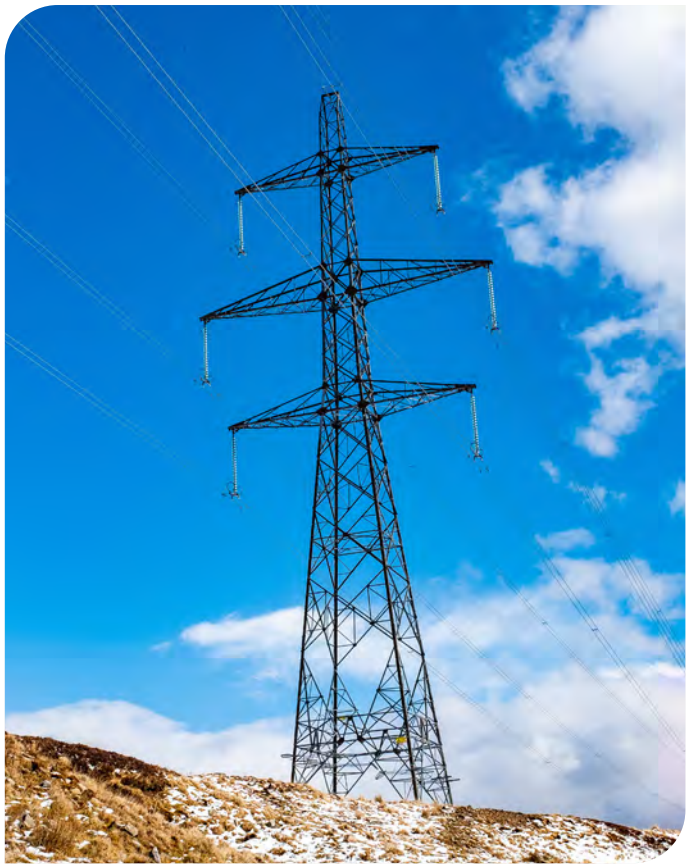
Ofgem
Decision on accelerating onshore electricity transmission investment

"The British Energy Security Strategy set out the Government's ambition to connect up to 50GW of offshore generation to the electricity network by 2030. Facilitating this ambition will require significant reinforcements to the onshore electricity transmission network and a change to the current regulatory framework in order to accelerate delivery of large projects.

In August 2022 we consulted on how Ofgem could support the accelerated delivery of the strategic electricity transmission network upgrades needed to meet the Government's 2030 renewable electricity generation ambitions.

This document contains our decision to introduce a new Accelerated Strategic Transmission Investment (ASTI) framework. We set out the initial list of ASTI projects, our decision on exempting strategic projects from competition, the new process for assessing and funding ASTI projects and the range of measures we are introducing to protect consumers against additional risks that changing the process brings."





[7]https://www.ofgem.gov.uk/publications/decision-accelerating-onshore-electricity-transmission-investment

Further background to GB electricity transmission network system planning processes

In this section, we further explain the system planning processes, overseen by the independent ESO, which establish the need for new electricity transmission network infrastructure. These processes involve extensive analysis and power system studies to establish both the drivers for network investments and the identification of which network upgrades should be taken forward.publication.

Future Energy Scenarios

This considers future electricity trends, set out annually in the ESO's Future Energy Scenarios (FES)[8] publication. The FES sets out scenarios for future electricity generation and demand, broken down regionally across GB, and considers all energy technologies.

nationalgridESO

Electricity Ten Year Statement

The outputs from the FES are then considered against the existing electricity network, including planned reinforcements, to identify both generation and demand constraints on pre-defined electricity transmission system boundaries. This process, the Electricity Ten Year Statement (ETYS)[9], is important to identify where there are 'bottlenecks' on the transmission system that require intervention to address those constraints that would otherwise prevent the transportation of electricity generation to meet local and wider demands.

Where such a bottleneck exists, the ESO is required to intervene to balance the system by reducing generator output behind the bottleneck and increasing it on the other side. The costs incurred in doing this are ultimately passed to electricity consumers.

Networks Options Assessment

To address those bottlenecks, the three GB electricity Transmission Owners submit a range of potential network reinforcements designed to alleviate such constraints to the ESO. This involves multiple options, often to address the same network constraints, which are then analysed and assessed on a GB wide basis to establish which reinforcement investments are deemed economical and required. This process, known as the Networks Options Assessment (NOA)[10], makes recommendations as to which investments Transmission Owners should take forward to alleviate current and forecast constraints across those pre-defined transmission system boundaries. This includes the proposed technology solution, for example, overhead line or subsea link. The outcome of the 2022 NOA refresh has informed the strategic network reinforcements set out in the ESO's Pathway to 2030 Holistic Network Design.

Conclusion

In conclusion, the need for SSEN Transmission's Pathway to 2030 electricity transmission network reinforcements, which form part of a major upgrade of the electricity transmission system across Great Britain, are underpinned by UK and Scottish Government energy policies and associated targets.

The independent ESO has assessed the need for these projects as required and made recommendations that they proceed, including the proposed technology choice, through its Pathway to 2030 Holistic Network Design. And the independent GB energy regulator, Ofgem, has approved the regulatory need for these projects through its Accelerated Strategic Transmission Investment (ASTI) framework.

For SSEN Transmission, the need for these reinforcements is clear. What we need to do now is develop this critical national infrastructure as sensitively as possible, in a way which seeks to minimise and mitigate community and environmental impacts and maximise local and national economic opportunities and jobs.

[8]https://www.nationalgrideso.com/future-energy/future-energy-scenarios
[9]https://www.nationalgrideso.com/research-and-publications/electricity-ten-year-statement-etys
[10]https://www.nationalgrideso.com/research-and-publications/network-options-assessment-noa