TECHNICAL APPENDIX 9.4

Outline Species Protection Plans

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Clashindarroch II Wind Farm EIA Report

Chapter 9 Technical Appendix:

9.4 Outline Species Protection Plans

December 2019

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1. INTRODUCTION

1.1 Purpose of this Document

1.1.1 This document sets out the proposed approach to avoid / minimise impacts on certain mammal species during construction of the Clashindarroch II wind farm (the 'proposed development') in the form of outline Species Protection Plans (SPPs). The following species occur within the proposed development area and may be at risk of impacts during tree felling and construction works:

- Badger (*Meles meles*);
- Bats (all species);
- Otter (*Lutra lutra*);
- Pine marten (*Martes martes*);
- Red squirrel (*Sciurus vulgaris*); and
- Wildcat (*Felis silvestris*).

1.1.2 All of the above species are legally protected in Scotland, under various statutes, and there is a requirement to ensure that all works required to construct the proposed development, including tree felling and clearance, proceed lawfully with respect to this legislation.

1.1.3 There is the potential for the use of the area by protected species to change with time. Therefore, information from pre-construction surveys and any ongoing and future monitoring in Clashindarroch Forest will be taken into account prior to the SPPs being finalised and implemented. It is also possible that other protected species, not listed above, could occur within the proposed development area in the future (e.g. water vole, *Arvicola amphibius*). Specific pre-construction surveys and protection measures may be required for these species should evidence of their presence be found.

1.1.4 This document provides outline SPPs which would be developed into detailed documents in advance of the commencement of works (i.e. prior to any tree felling related to wind farm construction and following the proposed pre-works surveys).

1.1.5 A separate protection plan document has been produced for birds (see Technical Appendix 8.4).

1.2 Relevant Legislation & Guidance

1.2.1 The relevant aspects of the following legislation has been considered in preparing this document:

- EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora);
- The Conservation (Natural Habitats &c.) Regulations 1994 (as amended) ('The Habitats Regulations');
- Wildlife and Countryside Act 1981 (as amended) (the 'WCA');
- Nature Conservation (Scotland) Act 2004;
- Wildlife and Natural Environment (Scotland) Act 2011; and

- The Protection of Badgers Act 1992 (as amended).

1.2.2 The proposed approach and measures outlined in the SPPs is based on current best practice guidance, including consideration of the following publications:

- European Protected Species, Development sites and the planning system: interim guidance for local authorities on licensing arrangements (Scottish Executive, 2001);
- Scottish Natural Heritage (SNH) Standing Advice Notes for protected species;[1]
- SNH (2019) Good Practice during Wind Farm Construction.
- Forest Commission Scotland (2006). FCS Guidance Note 33: Forest operations and red squirrels in Scottish forests - the law and good practice;
- Forest Commission Scotland (2007). FCS Guidance Note 34: Forest operations and European protected species in Scottish forests - implications of legal changes from February 2007;
- Forest Commission Scotland (2009). FCS Guidance Note 35a: Forest operations and bats in Scotland;
- Forest Commission Scotland (2009). FCS Guidance Note 35c: Forest operations and otters in Scotland;
- Forest Commission Scotland (2009). FCS Guidance Note 35d: Forest operations and wildcats in Scotland; and
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines, (3rd edn.). Bat Conservation Trust, London.

1.2.3 The approach to the protection of wildcat, as outlined in this document, is also partly based on the draft risk-matrix guidance developed by Scottish Wildcat Action (SWA), as noted in the Clashindarroch Forest Draft LMP 2019[2], which builds on the existing forestry guidance (FCS Guidance Note 35d).

1.3 Consultation

1.3.1 This document has been prepared in consultation with Scottish Natural Heritage (SNH) and Forestry and Land Scotland (FLS) prior to it being submitted with the EIA report.

1.3.2 It is intended that following completion of the pre-works surveys and ahead of works for the proposed wind farm commencing (this includes tree felling operations) detailed versions of the SPPs will be provided for review and comment by SNH.

1.4 Summary of Relevant Legal Protections

1.4.1 The information provided here is primarily derived from the SNH website[1]. The original legislation should be referred to for definitive guidance. Copies of the original,

[1]Available from: [https://www.nature.scot/professional-advice/planning-and-development/advice-planners-and-developers/planning-and-development-protected-animals]. Accessed October 2019.
[2]Available from: [https://forestryandland.gov.scot/images/corporate/design-plans/moray-aberdeenshire/clashindarroch-land-management-plan-draft.pdf]. Accessed November 2019.

i.e. as enacted, and revised versions of all UK and Scottish Government legislation are available online from http://www.legislation.gov.uk.

European Protected Species (EPS)

1.4.2 Bats, otter and wildcat are listed on Annex IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the 'Habitats Directive') as species of community interest in need of strict protection. The Habitats Directive is transposed into Scottish law by the Conservation (Natural Habitats &c.) Regulations 1994 (as amended), also known as the 'Habitats Regulations'. The relevant Habitats Directive Annex IV species are referred to as European Protected Species and are listed on Schedule 2 of the Habitats Regulations.

1.4.3 For the relevant EPS it is an offence under the Habitats Regulations (as amended in Scotland) to deliberately or recklessly:

- capture, injure or kill such an animal;
- harass an animal or group of animals;
- disturb an animal while it is occupying a structure or place used for shelter or protection;
- disturb an animal while it is rearing or otherwise caring for its young;
- obstruct access to a breeding site or resting place, or otherwise deny an animal use of a breeding site or resting place;
- disturb an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
- disturb an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young; and
- disturb an animal while it is migrating or hibernating.

1.4.4 It is also an offence of strict liability to damage or destroy a breeding site or resting place of such an animal. These sites and places are protected even when the animal is not current present. For example, roost sites that bats use only during the summer months are protected at other times of the year.

Schedule 5 Species

1.4.5 Red squirrel and pine marten are legally protected in Scotland through the Wildlife & Countryside Act (1981, as amended by the Nature Conservation Scotland Act 2004). Both species are listed on Schedule 5 of the Wildlife & Countryside Act. For any species listed on Schedule 5 it is an offence to intentionally or recklessly:

- kill, injure or take a red squirrel or pine marten;
- damage, destroy or obstruct access to a drey / nest / den or any other structure or place which a red squirrel or pine marten uses for shelter or protection; and
- disturb a red squirrel or pine marten when it is occupying a structure or place for shelter or protection.

1.4.6 This means that if a red squirrel or pine marten could be affected in these ways by development works, and no action is taken to prevent it, an offence may be committed.

Badger

1.4.7 Badgers are legally protected under the Protection of Badgers Act 1992 (as amended by the Wildlife and Natural Environment (Scotland) Act 2011).

1.4.8 The 1992 Act defines a badger sett as "any structure or place which displays signs indicating current use by a badger". Offences under the Act include:

- wilfully taking, injuring or killing a badger;
- cruelty to a badger; and
- intentional or reckless interference with a badger sett.

1.4.9 Interfering with a badger sett includes:

- damaging or destroying a sett or any part of it;
- obstructing access to a sett; and
- disturbing a badger while it is in a sett.

EPS Development Licencing

1.4.10 Works that would, or could, result in an offence being committed under the Habitats Regulations can only be lawfully undertaken if there is a derogation licence in place. The issuing of such licences is a responsibility of SNH. EPS development licences can only be granted if the requirements of the following Habitats Regulations legal 'tests' are met:

- The purpose of the licence must be for preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature;
- A licence cannot be granted unless there is no satisfactory alternative; and
- That the action authorised must not be detrimental to the maintenance of the population at a favourable conservation status in their natural range.

1.4.11 As well as providing sufficient evidence to inform a detailed consideration of the above tests, the licence application will also need to be supported by a suitably detailed and current survey report and a species protection plan, which will set out the proposed mitigation required in each case.

1.4.12 If a licence is granted it is likely to include a set of conditions, relating to the implementation of the agreed protection plan, which must be strictly adhered to in order for the works under the licence to proceed lawfully. This may include restrictions on the timing of works to avoid more sensitive periods, such as the breeding season.

1.4.13 Depending on the circumstances it may not be possible for the third test (i.e. in relation to maintenance of the favourable conservation status of the species) to be met in all cases. Therefore SNH would not be able to issue a derogation licence and

the proposed works will have to be delayed or modified. In the context of the proposed development this potential outcome is most relevant in relation to wildcat.

Non-EPS Licencing

1.4.14 SNH is also the authority that issues licenses for development related activities that could affect Schedule 5 species (i.e. in this case red squirrels and pine marten). Licenses can only be issued if the proposed activity will contribute to significant social, economic or environmental benefit; there is no satisfactory alternative; and there is no significant negative impact on the conservation status of the species.

1.4.15 Similarly to EPS, an application for a licence will need to be supported by a current survey report and a protection plan detailing the measures that will be followed to avoid a significant adverse effect on the species.

1.4.16 In relation to badgers and their setts a licence may be required if planned works could result in disturbance or destruction of a badger sett. Similarly to other protected species SNH can issue licences, providing certain conditions are met, to allow works to proceed that would otherwise be unlawful under the Protection of Badgers Act.

1.4.17 As with other protected species, suitable supporting information will need to be provided with the application for a licence. Measures to protect badgers during temporary or permanent sett exclusions will have to follow best practice and be implemented by suitably experienced ecologists.

1.4.18 In relation to licencing for badger, red squirrel and pine marten, there may be conditions placed on the licence by SNH that restricts the timing of works to avoid the more sensitive periods such as the breeding season (i.e. when pregnant females or their dependant young may be present and particularly vulnerable to impacts from the proposed works).

1.5 National and Local Conservation Status

1.5.1 Table 9.4.1 provides a summary of the conservation and statutory designations applicable to each species / taxon and a summary of the local status (i.e. in the context of the proposed development area) of the key species considered in this document. Further information and discussion on local status and the potential effects of the proposed development are provided in Chapter 9.

Table 9.4.1: Summary of the Conservation Status of Protected Species relevant to the Proposed Development Area

Species / Taxon	Key Conservation and Statutory Designations	Summary of Proposed Development Area Presence / Status
Badger	• IUCN Red List criteria 'Least Concern' [i] • Conservation Status, Scotland: Not assessed [ii] • Bern Convention Appendix 3 [iii] • Protection of Badgers Act 1992 (as amended)	Limited evidence of badger presence within the proposed wind turbine area. Habitat quality is generally sub-optimal in this area. There are no setts at risk of damage from works within the proposed wind turbine area but disturbance from felling operations is possible. Badgers and their setts could also be at risk from any groundworks on or near the existing main access route (see Confidential Annex for further details). The proposed development area supports a population of local importance.

Species / Taxon	Key Conservation and Statutory Designations	Summary of Proposed Development Area Presence / Status
Bats (all native species)	• IUCN Red List criteria (relevant species) 'Least Concern', Scotland [i] • Conservation Status, Scotland: 'Favourable' (all relevant species) [ii] • UK BAP Priority Species [iv] • Scottish Biodiversity List [v] • Bern Convention Appendices 2 & 3 [iii] • Convention on Migratory Species Appendix 2 & EUROBATS Annex I [vi] • Habitats Directive Annex IV [vii] • Habitats Regulations Schedule 2 [viii]	Relatively low levels of bat activity recorded at the proposed wind turbine locations (or analogous habitat types post-felling), bat activity dominated by common and soprano pipistrelle. Foraging habitat quality is comparatively poor away from forest edges and riparian corridors. Roosting habitat quality is poor within the wind turbine locations. One non-breeding common pipistrelle roost site (used by <5 bats) is within c. 200m of the nearest proposed wind turbine. No known roost sites would be directly impacted by the proposed development. The proposed development area supports populations of local importance.
Otter	• IUCN Red List criteria 'Least Concern', Scotland [i] • Conservation Status, Scotland: 'Favourable' [ii] • UK BAP Priority Species [iv] • Scottish Biodiversity List [v] • Bern Convention Appendix 2 [iii] • Habitats Directive Annex II - non-priority species & Annex IV [vii] • Habitats Regulations Schedule 2 [viii]	Limited evidence of presence on some of the larger watercourses within the proposed development area. No known breeding sites of resting places at risk of destruction or disturbance. However, the baseline could change as there is suitable habitat and potentially suitable resting place features within or near to the proposed development area. The proposed development area supports a population of local importance.
Pine marten	• IUCN Red List criteria 'Least Concern', Scotland [i] • Conservation Status, Scotland: 'Favourable' [ii] • Bern Convention Appendix 3 [iii] • Habitats Directive Annex V [vii] • Habitats Regulations Schedule 4 [viii] • WCA Schedule 5 [x] • UK BAP Priority Species [iv] • Scottish Biodiversity List [v]	Evidence of the presence of pine marten is extensive across much of the proposed development area although habitat quality is variable. Based on mean territory sizes for lowland coniferous woodland habitats the proposed development area (i.e. 500m buffer around the proposed wind turbines) could support 3-4 pine martens. No confirmed dens or other places of shelter have been recorded within 250m of the proposed development but there are abundant potentially suitable features within the area. The proposed development area supports a population of regional importance.
Red squirrel	• IUCN Red List criteria 'Near Threatened', Scotland [i] • UK BAP Priority Species [iv] • Scottish Biodiversity List [v] • Bern Convention Appendix 3 [iii] • WCA Schedule 5 [ix]	Evidence of the presence of red squirrel is found across much of the proposed development area although habitat quality varies in relation to conifer plantation age class and species composition. A high proportion of the areas that require to be felled are currently of poor-moderate quality for red squirrel. The proposed development area supports a population of local importance.
Wildcat	• IUCN Red List criteria 'Critically Endangered', Scotland [i] • Conservation Status, Scotland: 'Bad' [ii] • UK BAP Priority Species [iv] • Scottish Biodiversity List [v] • Bern Convention Appendix 2 [iii] • Habitats Directive Annex IV [vii] • Habitats Regulations Schedule 2 [viii]	The proposed development area overlaps partially with the territories of several wildcats / wildcat hybrids, potentially up to 5 individuals. Areas of windthrow, old brash piles and log stacks located in the less disturbed parts of the area may provide suitable resting places. No confirmed wildcat breeding site or resting place have been found within c. 250m of the proposed wind turbines. The proposed development area and wider forest supports a population of national importance.

i. International Union for Conservation of Nature (2001). IUCN Red List Categories and Criteria: Version 3.1. IUCN, Gland and Cambridge: IUCN Species Survival Commission.

ii. UK Conservation Status is derived from the 3rd UK Habitats Directive Report (JNCC, 2013). This report considered the conservation status of all terrestrial and marine species listed under Annexes II, IV and V of the

EC Habitats Directive present within the UK.

iii. *The Bern Convention on the Conservation of European Wildlife and Natural Habitats (or Bern Convention), is a binding international legal instrument in Europe. The Convention came into force on 1 June 1982.*

iv. *The UK List of Priority Species and Habitats was published in 2007 after adoption by the Governments of all four UK administrations as part of the UK contribution to the Convention on Biological Diversity (1992). The 'UK Post-2010 Biodiversity Framework' succeeded the UK BAP in 2012 and set out the strategy for England, Wales, Scotland and Northern Ireland, and the UK as a whole, to meet internationally agreed biodiversity targets. However the 2007 UK BAP priority species and habitats remain relevant in the nature conservation / biodiversity policies.*

v. *The Scottish Biodiversity List is a list of flora, fauna and habitats considered by the Scottish Ministers to be of principal importance for biodiversity conservation. The publication of the Scottish Biodiversity List satisfies the requirements of Section 2(4) of The Nature Conservation (Scotland) Act 2004.*

vi. *The Convention on the Conservation of Migratory Species of Wild Animals, also known as the Convention on Migratory Species (CMS) or the Bonn Convention, is an international agreement that aims to conserve migratory species within their migratory ranges. The Agreement was signed in 1979 in Bonn, Germany. The Agreement on the Conservation of Populations of European Bats (EUROBATS) was established under the CMS and came into force in 1994.*

vii. *EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora).*

viii. *The Conservation (Natural Habitats &c.) Regulations 1994 (as amended) ('The Habitats Regulations').*

ix. *The Wildlife & Countryside Act 1981 (as amended).*

1.6 Breeding Ecology, Protection Zones & Sensitive Periods

1.6.1 Table 9.4.2 (overleaf) provides a summary of the relevant aspects of the breeding ecology of the species considered in this document along with the distances and periods when the species and their resting places (in this context 'resting places' is used as a collective term for all places of shelter including breeding sites) are considered to be particularly vulnerable to impacts from felling or construction works. This information is provided for general guidance only. Specific mitigation requirements will need to be considered by a suitably experienced ecologist on a case-by-case basis.

Table 9.4.2: Summary of Ecology, Impact Vulnerability, Zones and Periods of High Sensitivity

Species / Taxon	Key Aspects of Species Ecology	Impact Vulnerability	Protection Zones / Periods of Increased Sensitivity
Badger	Badgers form territorial social groups and typically excavate setts in suitable, well-drained sandy soils within woodland, scrub or near to hedges. Locations near to good foraging habitat (e.g. lowland farmland and suburban parkland areas) are preferred. Setts can also be found in open ground, boulder piles and rock cavities. Sett densities are comparatively low in upland areas with heather moorland. The main breeding season is December to June inclusive. Mating is most likely to occur in February (implantation of the embryo is then delayed), pregnancy from December to February, birth of a litter of 3 on average in February with the cubs emerging for the first time in April and weaned by May-June.	• Tree felling / construction works • Noise • Vibration • Lighting • Road traffic	• Protection zones around setts: a minimum of 50m from sett entrances (100m for piling or blasting). • Where the required protection zone is not achievable, a licence from SNH will be required before works can proceed. • The main breeding season is December to June inclusive. Licences to exclude or disturb badger setts do not normally allow works during this period.
Bats	Bats have a relatively low reproductive rate (breeding females typically have one pup per year, rarely twins) and are relatively long-lived for their size. Bats mate in the autumn or winter. Gestation is then delayed and lasts between 40 to 70 days, depending on the species, with births occurring from late June to early August. Bats use roosts for shelter, mating and breeding. They will move between different roost sites depending on their ecological and physiological requirements at different times of the year. Bats can roost in a wide variety of natural and artificial structures including features associated with trees (e.g. bark slabs, cavities formed by damage or decay or woodpeckers) and a wide range of suitable voids or crevices associated with buildings. They may also use underground sites such as caves and mines, typically during the winter. During the pregnancy-birth-rearing period female bats typically form nursery colonies which can number several hundred bats or more, depending on the species. Roosts used during this period are often occupied for many years and potentially many decades in relation to some buildings. The loss of such maternity roosts can be catastrophic for the local population.	• Tree felling • Lighting	• Roost protection zone requirements will vary depending on the specific circumstances, but typically not less than 50m. • Where the required protection zone is not achievable, a licence from SNH will be required before works can proceed. • The main active period is April to October. • Breeding females and their young are particularly vulnerable during May to July. Licences to exclude or disturb maternity roost sites do not normally allow works during this period. • Hibernation occurs between November and March.
Otter	Otters are mostly solitary and nocturnally active (particularly inland populations) and are typically associated with freshwater and coastal habitats but they can be present some distance away from water (e.g. when moving between watersheds or when foraging for amphibians in the spring). Adult females are highly territorial and defend large home ranges that are overlapped by one or more males. Adult females can breed at any time of the year. They typically have a single litter of 2-3 cubs, pregnancy lasts for c. 60 days and the cubs are independent at c. 10 months. Otter holts are underground shelters (e.g. natural hole, old mammal burrow) that can also be used for breeding. They are difficult to locate as otters may not leave any obvious external evidence of their presence (this is particularly the case with breeding holts). Otters may also use above-ground shelters, with some degree of cover, often referred to as 'couches'. Their dependence on water, and fish / amphibian prey, means that otters are particularly vulnerable to aquatic pollution.	• Tree felling / construction works • Noise • Vibration • Lighting • Road traffic • Aquatic pollution	• For breeding sites the protection zone should be at least 200m. May be reduced to 100m depending on the nature of the works, topography and natural screening. • For non-breeding sites the protection zone should be at least 50m. • Where the required protection zone is not achievable, a licence from SNH will be required before works can proceed. Licences to destroy or disturb breeding sites do not normally cover the period of active use. • Breeding can occur at any time of year.

Species / Taxon	Key Aspects of Species Ecology	Impact Vulnerability	Protection Zones / Periods of Increased Sensitivity
Pine marten	Pine martens are associated with woodland, including conifer plantations. However, in Scotland they also use open areas, away from woodland, particularly in the north and west of the country. Pine marten dens are usually hollow trees, among rocks or in disused bird nests or squirrel dreys. In some parts of Scotland, pine martens can use suitable enclosed spaces in the roofs of buildings as dens. Typically pine martens will have a large number of dens within their territory. Pine martens are mostly active between dusk and dawn but can also be active during the day in summer. Mating can occur between June-August and births usually occur in late March-April with a mean litter size of 3. Natal dens are occupied for 50-60 days and then the litter is often moved by the mother to another site. The young emerge from the den for the first time at 7-8 weeks of age.	• Tree felling / construction works • Noise • Vibration • Lighting • Road traffic	• For non-breeding dens the protection zone should be at least 50m. • For breeding dens the protection zone should be at least 100m. • Where the required protection zone is not achievable, a licence from SNH will be required before works can proceed. Licences to exclude or disturb breeding sites do not normally allow works when the site is in use. • The main breeding season is March-June inclusive.
Red squirrel	Within their current range in Scotland the red squirrel is present in both conifer and broadleaved woodland, as well as in mixed forests and parks and gardens. Woodlands with mixtures of tree species provide a more reliable year-to-year food supply. Sitka spruce (*Picea sitchensis*), the dominant tree species in Clashindarroch, typically supports a lower density of red squirrels than forests with a wider range of conifer species. Red squirrels create dreys (nests) that they use for shelter and breeding. Typically they build dreys in trees that are at least 15 years old. A single red squirrel may have several dreys that they use within its home range at any one time. They can build a new drey in a few days. Breeding mostly occurs between February and September with two peaks in spring and summer depending on food availability. Gestation lasts for 36-42 days, average litter size is 3. Lactation occurs for 50-70 days. The young begin to venture outside their drey at 8-10 weeks old. Red squirrels do no hibernate during winter.	• Tree felling • Noise • Lighting • Road traffic	• For dreys during the non-breeding season (October to January inclusive) the protection zone should be at least one trees distance or 5m. • During the breeding season the protection zone should be at least 100m. • Where the required protection zone is not achievable, a licence from SNH will be required before works can proceed. Licences to destroy or disturb dreys do not normally allow works during the breeding season. • The main breeding season is February to September inclusive.
Wildcat	Scottish wildcats are associated with native woodland, the margins of woodland and rough grassland and upland habitats. Wildcats are mostly active during the night and crepuscular periods, occasionally during the day in areas that are not disturbed by people. They are active year round and do not hibernate. Wildcats use a wide variety of natural features as den sites, also using dense cover as 'above ground' shelter, such as gorse and juniper thickets as well as areas of windthrow in conifer plantations. Dens can be located in boulder piles, brash piles, under tree roots and in old fox earths and badger setts, also artificial structures such as disused and undisturbed farm buildings. They require a range of dens within their large territories. Females will have specific sites that they use to give birth and raise young, free from disturbance and near to a reliable food supply. Adult wildcats are solitary for most of the year. Mating occurs during January to March. Kittens are born between April and May, not venturing outside of the natal den for about 5 weeks. The mother may move them around to different den sites, often in close proximity, every few weeks during and after this initial period. The average litter size is 3 to 5 and the female raises the kittens on her own. Young wildcats stay with their mother for up to 6 months.	• Tree felling / construction works • Noise • Vibration • Lighting • Road traffic	• All wildcat resting places should have a minimum 200m wide protection zone. • Where the required protection zone is not achievable, a licence from SNH will be required before works can proceed. Due to the conservation status of the species licences to destroy or disturb wildcat dens may not be issued depending on the specific circumstances. • The main breeding season is March to August inclusive (i.e. includes the main gestation, birth and kitten-rearing period). Kittens are usually born in April/May, the young are weaned at two months. • The greatest risk of harm is disturbance during the lactation period (i.e. when the kittens are confined to the den and totally dependent on their mother), and shortly after weaning.

2. OUTLINE SPPS – FELLING & CONSTRUCTION

2.1 Introduction

2.1.1 The purpose of the outline SPPs is to set out how the potential effects on protected species arising from the construction of the proposed development will be avoided / minimised so that the works can proceed lawfully and following best practice. Measures to address the potential long-term effects from the operation of the wind farm are covered within Chapter 9 and in the outline HMP (see Technical Appendix 9.6) with respect to wildcat.

2.1.2 The potential impacts on protected species from the proposed development, which have been fully considered and assessed within the EIA Report (see Chapter 9), are summarised as follows:

- Felling – tree felling and clearance operations in advance of construction could result in the loss or disturbance to resting places, habitat fragmentation, the temporary disturbance to protected species and their displacement from supporting habitats.
- Construction – borrow pit operations, earthworks, presence of construction workers, lighting and machinery etc. could be a source of disturbance resulting in temporary obstruction or displacement from supporting habitats / resting places.
- Decommissioning – similarly to the construction phase, there is the potential for disturbance to arise from the dismantling of wind turbines, removal / covering of old bases and access tracks resulting in temporary displacement from supporting habitats / resting places.

2.1.3 The measures proposed in the outline SPPs will be subject to further review and consultation with SNH before any works (including tree felling) occur. This is to ensure that any relevant information that emerges, subsequent to the EIA-Report being submitted, is taken into consideration and that the proposed measures follow current best-practice.

2.1.4 The proposed tree felling is entirely within a conifer plantation that is managed, primarily, on a commercial rotation. The tree felling for the proposed development brings forward the date when the trees would have been felled under the FLS felling plan. It is therefore important that the SPPs are consistent with FLS practice with respect to the safeguarding of sensitive and legally protected species during forest felling operations. The approach proposed avoid / minimise the risk of impacts on protected species during tree felling have been adapted from FCS (Forestry Commission Scotland, now known as Scottish Forestry) Guidance notes listed in Section 1.2.

2.1.5 The decommissioning of the proposed development is anticipated to occur 25 years after the wind farm becomes operational. There is the potential for what is currently considered to be best practice to change over this period. It is also possible that the range of species that need to be considered will be different. It is therefore proposed that the methods of the pre-decommissioning surveys for protected species and the proposed SPPs (or equivalent as required at that time) would be reviewed, in consultation with the relevant authorities, not more than 12 months before decommissioning works are due to commence.

2.2 Ecological Clerk of Works

2.2.1 A suitably experienced and qualified Ecological Clerk of Works (ECoW) will be appointed by the applicant for the duration of the pre-works, construction and site restoration phases. The appointment of the individual(s) covering the ECoW role will be agreed in advance in consultation with SNH. The ECoW will have authority to immediately halt any works that have the potential to affect protected species or that would contravene the ecological / environmental commitments.

2.2.2 The ECoW will have responsibility for checking that the SPP measures, as set out in this document, are properly implemented and adhered to. Also that the potential presence of protected species is regularly monitored during the works and that appropriate action is taken should any breeding sites/resting places be at risk of disturbance (e.g. sites not previously identified during the pre-works surveys).

2.2.3 The ECoW will provide monthly reports on the progress of the works in relation to the implementation of the environmental protection measures (including measures under the SPP) and a final report at the end of the construction and site restoration works. Copies of these reports will be provided to SNH.

2.3 Pre-felling / Pre-construction Surveys

Introduction

2.3.1 A detailed survey method statement will be developed, discussed and agreed with SNH well in advance of any felling or construction works commencing for the proposed development (i.e. at least 12 months in advance). All methods will follow current best practice and surveys will be completed by suitably experienced ecologists with valid protected species survey licences as required.

2.3.2 The surveys will be completed at the appropriate time of year and not more than 8 months prior to the commencement of felling / construction.

2.3.3 Should construction works follow on immediately from the tree felling and site clearance (i.e. within 8 months) then the need for a further pre-construction survey will be reviewed and determined by the ECoW. If works are delayed more than 8 months after tree clearance then a pre-construction survey will be completed.

2.3.4 The results of the pre-felling / pre-construction surveys will be provided to SNH and the local planning authority.

Initial Walkover Survey

2.3.5 A staged approach will be taken with an initial desk-based review (ensuring that available information on all relevant protected species is collated for the area from all relevant sources) followed by walkover and site assessment followed by more intensive surveys, as required.

2.3.6 The initial survey and assessment will include a walkover by a suitably experienced ecologist to assess habitat quality, search for field signs and identify and describe potential resting places (i.e. all types of potential shelter used by the relevant species). This initial walkover survey and assessment will be completed within appropriate buffer zones from the outer limits of the proposed works as follows:

- Minimum of 50m – bats, pine marten, red squirrel;

- Minimum 250m (felling, normal construction) – badger, otter, wildcat; and
- Minimum of 500m (piling and blasting) – badger, otter, wildcat.

2.3.7 Areas of impenetrable thicket plantation or very steep ground, which cannot be fully accessed by the surveyor, will be surveyed as thoroughly as possible form the perimeter. A risk-based assessment would be made on the likelihood, based on the available evidence and quality of the habitats present, that the area could provide opportunities for protected species to use as a resting place.

2.3.8 Should any evidence of any protected species be found and/or features that are suitable as resting places then this will trigger the need for more detailed surveys to be carried out.

2.3.9 As some species, such as wildcat, tend not to leave obvious evidence of their presence at resting places a precautionary approach will be followed. It will be assumed that any suitable features are resting places until sufficient monitoring has been completed to make an informed judgement. What is considered sufficient monitoring will be set out within the survey method statement and agreed in advance with SNH.

Detailed Surveys / Monitoring

2.3.10 Depending on the findings from the initial walkover, this could trigger the need for more detailed surveys to determine the use and status of any potential or confirmed resting places. The most appropriate and effective methods will vary according to the focal species. All surveyors will be experienced in the survey methods and ecology of the species and will hold valid SNH survey licences where applicable.

2.3.11 For example, this may include monitoring of any potential otter holts or couches with automated wildlife trail cameras, or observing a potential wildcat or pine marten den using a thermal imaging scope from a suitable hide located away from the feature.

2.3.12 For wildcat camera trapping surveys, a standardised system of pelage scoring (Kitchener *et al.* 2005[3]) will be used to categorise animals as wildcats, hybrids or feral/domestic cats. When assessing any images a pelage score of 14 will be used as a precautionary threshold for cats that require to be protected (this covers all wildcats and high quality hybrids). SWA will also be consulted in case the animal can be identified as having been previously live-trapped and its genetic status already determined.

2.3.13 Particularly in relation to wildcat, consideration will also be given to novel methods to improve survey effectiveness. For example, the use of specially trained and carefully controlled dogs to help locate wildcat dens.

2.4 General Measures

Pre-felling / Pre-construction Induction

2.4.1 Prior to any personnel working within the felling or construction area they will be fully briefed by the ECoW on the potential for protected species to be present in the area,

[3] Kitchener, A.C., Yamaguchi, N., Ward, J.M. and Macdonald, D.W. (2005). A diagnosis for the Scottish wildcat: a tool for conservation action for a critically-endangered felid. Animal Conservation 8: 223-237.

their status and legal protection, relevant details of the SPPs and what actions they need to take should any protected species or their signs be encountered during their work.

Felling / Works Timing and Extents

2.4.2 The extent of advanced tree felling required for the construction of the wind farm will be kept to the minimum necessary.

2.4.3 Existing tree and scrub cover along all riparian zones within the proposed felling areas will be retained where possible. This is to minimise potential effects on wildcat movement corridors through the wind farm area. This will be discussed and agreed with the ECoW prior to any felling commencing.

2.4.4 Where possible, tree felling and site clearance for the proposed development would be programmed outside of the main wildcat breeding season, which is March to August inclusive (i.e. includes the main gestation, birth and kitten-rearing period). By timing felling outside of this more sensitive period it will help to minimise potential disturbance effects from the construction of the proposed development on the wildcat population generally and would also avoid the risk of direct effects on any active breeding sites. This timing would also help to ensure that potential impacts on the majority of nesting birds are also minimised.

2.4.5 Where it is not possible to restrict felling outside of this period (e.g. due to an increased risk of other environmental impacts from concentrating felling into the remaining part of the year) then the appropriate approach would be followed, as detailed in the SPP.

2.4.6 Irrespective of the time of year that it is carried out, felling can present a risk to wildcat dens and other resting places. Therefore, suitably detailed pre-works surveys would be undertaken (as set out in Section 2.3 above) and appropriate protection measures would be implemented, depending on the findings of those surveys, following the approach outlined in Section 2.9. below.

2.5 Badger - Outline Protection Measures

2.5.1 Measures to minimise impacts on badgers will follow the standard mitigation hierarchy of avoidance, mitigation and compensation:

Impact Avoidance

- Where possible micro-site the development and construction methods to avoid damage or disturbance to setts and to avoid disturbance of badgers;
- Establish appropriate protection zones around any setts near to works, a minimum of 50m from sett entrances (100m for piling, rock pecking or blasting);
- Felling / construction works will be restricted to daylight hours only (avoiding dusk / dawn periods);
- Trees will be felled away from badger setts and will avoid blocking badger paths;
- Vehicle speed restrictions of <15 mph on site will be strictly imposed;
- Use of security lighting will be kept to the minimum necessary and will be directed away from any setts or important badger commuting routes in the vicinity;

- Generators will be turned off at night; and
- Any exposed pipes or deep excavations that badgers could be trapped in will be covered overnight and exit ramps will be provided in the excavations.

Mitigation / Compensation

2.5.2 If it is not possible to avoid works within the protections zones outlined above then it will be necessary to request a development licence from SNH. Licences are not normally granted for works during the badger breeding season (December to June inclusive).

2.5.3 Any licence application will be supported by a suitably detailed survey report and assessment by an ecologist. The assessment will consider the potential impacts on the social group affected along with a best practice approach during the works. The required mitigation will vary depending on the type and scale of the proposed works and the associated impacts.

2.5.4 A licence to cover the disturbance or destruction of a sett will only be issued if there are alternative suitable setts for badgers to use within the same territory. If there are no alternative setts available, an artificial sett will need be provided. However, this is considered the least preferred option if alternative approaches are available to avoid sett loss.

2.6 Bats - Outline Protection Measures

Impact Avoidance

- Where possible micro-site the development and construction methods to avoid damage or disturbance to roost sites and to avoid disturbance to bats;
- Establish appropriate protection zones around any roost sites near to works (i.e. a minimum of 50m); and
- Use of security lighting will be kept to the minimum necessary and will be directed away from any roost site or important bat commuting routes in the vicinity.

Mitigation / Compensation

2.6.1 If it is not possible to avoid works within the protections zones outlined above then it will be necessary to request a development licence from SNH. Licences are not issued to cover works affecting a maternity roost site during the breeding season.

2.6.2 Any licence application will be supported by a suitably detailed survey report and assessment by an ecologist. The assessment will consider the potential impacts on the roost affected along with a best practice approach during the works. The required mitigation will vary depending on the type and scale of the proposed works and the associated impacts.

2.6.3 Compensatory measures are unlikely to be necessary unless a roost has to be destroyed or bats temporarily or permanently excluded from the roost site. Should this be required it will have to be fully justified (i.e. there are no suitable alternatives) and a plan will have to be agreed with SNH to ensure that appropriate alternative roosting opportunities (e.g. bat boxes) are provided as compensation for roost loss before the works commence.

2.7 Otter - Outline Protection Measures

Impact Avoidance

- Where possible micro-site the development and construction methods to avoid damage or disturbance to otter holts or couches;
- Establish appropriate protection zones around any resting places near to works, a minimum of 50m from non-breeding sites and 200m for breeding holts;
- Felling / construction works will be restricted to daylight hours only (avoiding dusk / dawn periods);
- Trees will be felled away from otter resting places and will avoid blocking or damaging watercourses;
- Vehicle speed restrictions of <15 mph on site will be strictly imposed;
- Use of security lighting will be kept to the minimum necessary and will be directed away from any resting places or important otter habitats in the vicinity;
- Generators will be turned off at night; and
- Any exposed pipes or deep excavations that otters could be trapped in will be covered overnight and exit ramps will be provided in the excavations.

Mitigation / Compensation

2.7.1 If it is not possible to avoid works within the protections zones outlined above then it will be necessary to request a development licence from SNH. Licences are not normally granted for works affecting a breeding site while it is in use.

2.7.2 Any licence application will be supported by a suitably detailed survey report and assessment by an ecologist. The assessment will consider the potential impacts the otter population affected along with a best practice approach during the works. The required mitigation will vary depending on the type and scale of the proposed works and the associated impacts.

2.7.3 A licence to cover the disturbance or destruction of an otter resting place will only be issued if there are suitable alternative sites for otter to use within the same territory. If there are no alternative sites available, an artificial holt(s) will need be provided.

2.8 Red squirrel - Outline Protection Measures

Impact Avoidance

- Where possible micro-site the development and construction methods to avoid damage or disturbance to red squirrel dreys;
- Establish appropriate protection zones around any dreys near to works;
- For dreys during the non-breeding season (October to January inclusive) the protection zone should be at least one trees distance or 5m. During the breeding season the protection zone should be at least 100m; and
- Vehicle speed restrictions of <15 mph on site will be strictly imposed.

Mitigation / Compensation

2.8.1 If it is not possible to avoid works within the protections zones outlined above then it will be necessary to request a development licence from SNH. Licences are not normally granted for works affecting red squirrel dreys during the breeding season.

2.8.2 Any licence application will be supported by a suitably detailed survey report and assessment by an ecologist. The assessment will consider the potential impacts the red squirrel population along with a best practice approach during the works. The required mitigation will vary depending on the type and scale of the proposed works and the associated impacts.

2.9 Wildcat - Outline Protection Measures

Felling / Works Timing

2.9.1 Where possible, tree felling and site clearance will be programmed outside of the main wildcat breeding season, which is defined as March to August inclusive (including the main gestation, birth and kitten-rearing period). This is consistent with the risk-based approach recommended by SWA (outlined in the Clashindarroch Forest draft LMP) which identifies clear-felling in areas where wildcat are known to be present as a 'high risk' activity during the breeding season (March to June inclusive) and moderate risk at other times of year.

Log Stacks, Brash etc.

2.9.2 Log stacks, brash piles and root plates will be removed from the felling areas (i.e. minimum of 250m from the wind farm) during or immediately following felling. This is to ensure that any potentially suitable wildcat den features created by the felling process near to construction areas are not left for any period undisturbed and then potentially used by a wildcat. This will also reduce the risk, although considered unlikely, that such features could be occupied by a female with young, which would be at risk of killing or injury should these materials be left in place and removed at a later time.

2.9.3 Logs, brash and root plates will be used to create wildcat den features, in suitable locations away from the wind farm (>500 m), to be agreed with FLS in advance (see Section 4.4).

Risk of Killing / Injury / Disturbance to Wildcat

2.9.4 The following measures will be implemented during felling, site clearance and construction to minimise the risk of killing or injuring wildcats during vehicle movements and felling/clearance works:

- Felling will be restricted to daylight hours only (avoiding dusk / dawn periods);
- Vehicle speed restrictions of <15 mph on site will be strictly imposed;
- Log stacks, brash piles and root plates will removed from the felling areas (i.e. minimum of 250m from the wind farm) during or immediately following felling;
- Use of artificial lighting will be kept to the minimum necessary for human safety;
- Generators will be turned off at night; and
- Any exposed pipes or deep excavations that wildcats could be trapped in will be covered overnight and exit ramps will be provided in the excavations.

2.9.5 Restricting felling works to outside of the breeding season will also reduce the potential impact on wildcat.

2.9.6 FLS have committed to balancing felling for the proposed wind farm against other felling planned for the same period elsewhere within Clashindarroch Forest. No other felling operations will occur elsewhere within the forest at the same time as felling within the wind farm area. This will help to avoid potential cumulative disturbance effects on the same individual wildcat territories.

2.9.7 Artificial lighting may be required during the felling works, such as vehicle and plant headlights and warning lights. Restricting works to daylight hours will help to minimise any potential impacts on wildcat from artificial lighting.

Breeding Sites / Resting Places - Disturbance

2.9.8 No felling will be carried out within 250m of any potential wildcat resting place (i.e. including all features that could provide suitable enclosed denning or above ground shelter) until sufficient monitoring has been carried out to determine that the site is not a resting place. What constitutes sufficient monitoring will be agreed in advance with SNH though consultation on the survey method statement.

2.9.9 If the monitoring evidence confirms, or indicates, that the feature is in use as a resting place then altering the felling / construction plan will be considered so that any impact on the site can be avoided. Where that is not possible SNH will be consulted on the appropriate course of action, whether an EPS derogation licence could be granted and under what circumstances. This assessment will have to be made on a case-by-case basis. If the evidence from monitoring is sufficiently convincing to conclude that the site is not in current use[4], depending on the circumstances and if disturbance cannot be avoided, an EPS derogation licence will be sought. This will require a detailed assessment of the potential impacts on the wildcat population and details of the proposed mitigation in the form of a site-specific protection plan. However, due to the unfavourable conservation status of the species SNH have advised that they may not be in a position to permit the disturbance of any wildcat resting place irrespective of the proposed mitigation.

2.9.10 Evidence from data currently available indicates that the proposed wind farm area is unlikely to be used by a female while giving birth and raising her young. However, if the resting place is confirmed or suspected to be used by a breeding female then a protection zone will be established, at least 200m around the site, and no felling or other work will be carried out in that zone until SNH has been consulted on the monitoring evidence and the appropriate course of action.

Breeding Sites / Resting Places - Destruction

2.9.11 If the felling / construction plans cannot be altered to avoid destruction of a wildcat resting place then SNH will be consulted on whether, under the specific circumstances, an EPS derogation licence could be granted. This will require an assessment of the impact on the wildcat population and details of the proposed mitigation in the form of a site-specific protection plan. For example, mitigation could include the creation of at least three features suitable as wildcat resting places in suitable locations in the surrounding area (i.e. adjacent to suitable habitat, >500m

[4] It is important to note that a proven wildcat resting place is legally protected whether it is in current use or not.

from the wind farm). However, due to the unfavourable conservation status of the species SNH have advised that they may not be in a position to permit the destruction of any wildcat resting place irrespective of the proposed mitigation.

2.9.12 For confirmed or suspected breeding sites the only course of action will be to establish a protection zone (at least 200m wide, surrounding the site). No felling or other work will be carried out until SNH has been consulted on the monitoring evidence and the potential options for mitigation. This assessment will have to be made on a case-by-case basis.

2.10 Watching Brief / Works Supervision

2.10.1 There will be a watching brief in place during the felling and construction works to help ensure that the relevant SPP measures are correctly and consistently applied and also to react to any new evidence of protected species that may be found during the felling and construction phases. This will be the responsibility the appointed ECoW.

3. WIND FARM OPERATION

3.1 Introduction

3.1.1 The proposed HMP (see Technical Appendix 9.6) is intended to offset the potential long-term effects of the operation of the wind farm on wildcat. The following measures are proposed to reduce, where possible, potential disturbance effects for wildcat and other relevant protected species.

3.2 Disturbance due to Wind Farm Operation and Maintenance

3.2.1 All site operation and maintenance work will be restricted to daylight hours.

3.2.2 The <15 mph speed limit will also apply to all wind farm vehicles during the operational phase of the proposed development.

3.2.3 Pre-works surveys (see section 2.3) will be completed in advance of any significant maintenance and repair work (e.g. replacement of turbine blades), which has the potential to disturb protected species present in the surrounding area. The applicable measures set out for the construction phase (see section 2.5) will be followed.

3.3 Disturbance related to Public Access

3.3.1 The new access tracks (c. 11 km in total) constructed for the wind farm could result in an increase in activity by people (e.g. dog walkers, horse riders, cyclists) within this part of Clashindarroch Forest. The potential for this to occur to the extent that it could result in disturbance to badger, otter, pine marten or wildcat is considered to be low. However, such activity, particularly affecting any wildcats using this part of the forest for shelter during the daytime, could potentially increase beyond a threshold that becomes significant. Evidence of this potential effect would be subject to monitoring during the operational phase of the wind farm (see Section 2.10)

3.3.2 If required to reduce an effect identified through monitoring, measures could be taken to encourage of use of specific walking and cycling routes within the forest. The routes could be designed to avoid areas that wildcat are known to favour.

3.4 Monitoring

3.4.1 A wildcat monitoring programme will be implemented during the operational phase of the proposed development. A detailed monitoring plan will be developed in consultation with SNH, SWA and FLS in advance of works commencing on the proposed development. The main objectives will be to determine the extent to which wildcat behaviour has been influenced by the presence of the wind farm, inform decisions on any changes to wind farm operational mitigation and to assess the development and effectiveness of the habitat enhancement measures proposed under the HMP. This is likely to include systematic camera trapping and could also include support for satellite tracking studies of wildcats to further improve knowledge of the use of Clashindarroch Forest by wildcat.

3.5 Wind Farm Decommissioning

3.5.1 The wind farm would be decommissioned at the end of its life (typically 25-years). During this process there is the potential for disturbance to wildcat, and other protected species. Pre-works survey and the relevant SPP measures proposed for the construction phase (see Sections 2.3 and 2.5) will apply to the decommissioning works. However, these measures will be reviewed, in advance of the decommissioning, in order to take into account the results of monitoring during the operation of the wind farm, advances in best practice approaches to mitigate impacts on protected species that will have emerged since the wind farm was constructed.