

Bird Species Protection Plan



TG-NET-ENV-505	Bird Species Protection Plan		Applies to	
			Distribution	Transmission Ü
Revision: 1.01	Classification: Internal	Issue Date: May 2018	Review Date: May 2022	

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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 outwith the breeding season.

This Species Protection Plan (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

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.

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It is an offence to intentionally or recklessly¹:

- 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.

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.

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>.

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

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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.

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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 outwith 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:
 1. building or using their nest,
 2. still dependent on the nest site, or
 3. 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. Dissuasion Techniques

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

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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 trimmers 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 outwith 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

- a) 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
- b) 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).
- c) Several types of bird scarer/ frightening device can be used, and are detailed below. The use of each should be determined by the ECoW.
- d) 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.
- e) 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.
- f) Scarecrows can be constructed using old PPE and are a cheap way to supplement the Hawkeyes.

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

- a) in substations where birds have nested on equipment causing a fire risk;
- b) in order to allow dismantling of redundant towers; or
- c) where the presence of a nest interferes with construction, maintenance or upgrading of overhead transmission lines.

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Not specially protected birds

- a) 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.
- b) If a bird nest is to be removed, then it must be shown to be disused.
- c) 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.
- d) 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

- a) 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.
- b) 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 Amendment and Text affected	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-NET-ENV-505 (Rev 1.00)	1.01	Richard Baldwin

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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 2

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).
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).

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Species	Min-Max Protection Zone (m) (3,10,14)	Indicative Protection Zone dates	Notes
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).
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.

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Species	Min-Max Protection Zone (m) (3,10,14)	Indicative Protection Zone dates	Notes
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 outwith 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 Palearctic 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)

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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)>