BREEDING BIRDS ANTUR AELHAEARN

Introduction

This report presents the findings of a breeding bird survey of the Antur Aelhaearn proposed windfarm site.

The report sets out the scope of the study, the field work methodology and the survey results. It also provides a brief evaluation of the findings.

Scope of Study

The objective of the study was to determine the use of the application site by breeding birds and assess their sensitivity to the proposals.

The scope of the study for birds was determined following a preliminary site reconnaissance. and a review of the potential impacts of wind farm development on bird populations. Two primary pieces of specific guidance informed the scoping process. These were the review of the literature relating to birds and wind turbines (Langston and Pullan, 2003, conducted for the EU Convention on the Conservation of European Wildlife and Natural Habitats) and the guidance developed by Scottish Natural Heritage (SNH).

The above guidance agree that there are three main potential effects of wind turbines on bird populations. These are:

- Collision risk;
- Direct loss of habitat due to infrastructure and construction; and
- Indirect loss of habitat or feeding opportunities due to disturbance, either during construction or the operational stage.

The breeding bird survey carried out at Antur Aelhaearn addresses the last two of these in particular. SNH guidelines set out the species to be considered in terms of legislative status, e.g. Annex 1 of the EU Birds Directive or the importance of the site in terms of regional or national populations. A criterion of greater than 1% of the regional or national population of a species is suggested as a threshold which would trigger the assessment of impacts on the species. In addition, the SNH guidance notes the importance of migratory species.

Langston and Pullan (2003) list bird species or groups which are considered to be sensitive to and at risk of adverse effects from the development of wind farms. In particular, these include raptors, waterfowl and waders. The scope of the study was therefore to assess the use of the application site and the immediate surrounding area by sensitive species during the summer period (April to July). The study sought to gain an understanding of sensitive species' use of the land in terms of habitats present and land management.

Spatial Scope

The spatial scope of the study focussed almost exclusively on the current application boundary. Birds were also recorded in the vicinity of the application boundary, where these appeared relevant or of conservation importance.

Surveys

Detailed field survey for breeding birds was conducted within the application site.

Breeding bird surveys were conducted on the following dates:

- 15th April 2012
- 23rd May 2012 and
- 16th June 2012

A single survey methodology was employed in order to gauge the summer bird interest. This was a 'walkover survey' technique, based on the Brown and Shepherd (1993) methodology. Details of this are provided below.

Breeding Bird Survey

The Brown and Shepherd (1993) methodology was adopted for the breeding bird survey, as described above. Whilst this survey is specifically designed to record breeding waders, it is also suitable for other target species, such as arable birds, and ground nesting birds of prey. The methodology requires a minimum of two visits to a site, the first visit during the period early April to mid May, with the second visit between mid May to late June. Whilst the methodology states that the surveys should be carried out between 08.30 and 18.00 BST, breeding snipe are best recorded during the early morning (or after dark).

The site was divided into approximately 500m x 500m quadrats, and each area was visited for the same amount of time. The observer covered the survey area so that he passed within 100m of all points of the site. All birds were recorded, using standard BTO symbols on a relevant scale map. The behaviour of individual birds was also recorded, where appropriate. Birds are said to be breeding if they are observed displaying or singing, adults are repeatedly alarm calling, nests, eggs or young are located, distraction displays are seen and/or territorial disputes are seen.

Three visits were made to the application site to record breeding birds. These took place once in April, once in May and once in June. Particular emphasis was put on recording breeding waders, birds of prey, owls and wildfowl. The whole area of the site was walked and all birds using the application site or flying over were recorded, and their locations were noted. The weather on each survey occasion was bright and warm (though misty in April) On each occasion, there was a 3-4 wind speed.

Description of Baseline Conditions

General Description

This area of Gwynedd is largely characterised by sheep and cattle-grazed agricultural land, medium-sized coniferous forestry and more unimproved land. The last includes purple moor-grass rough pasture and high hills dominated by slatey scree. The proposed site is 2.5km inland.

Use by Birds

General use by Birds
Breeding bird survey of the Antur Aelhaearn proposal produced very few records of birds. Buzzard (*Buteo buteo*) were recorded in the eastern half of the site and north of the site in June. Low numbers of gulls, herring (*Larus argentatus*), lesser black-backed (*Larus fuscus*) and (more rarely) great black-backed (*Larus marinus*) were recorded in each month flying over the site (particularly over the hill at Moelfre). Low numbers of passerines were recorded throughout the site, with a higher concentration in the east. Records in the east included at least two skylark (*Alauda arvensis*) in the May visit, with singles in April and June. Meadow pipit (*Anthus pratensis*) were common in this eastern area (in line with the more unimproved habitat here). A single cuckoo (*Cuculus canorus*) was recorded just east of the application boundary, during the May visit (from young plantation forestry in this area). A high number of wheatear (*Oenanthe oenanthe*) were present in a marshy field in the east of the site in April. Whilst most of these were undoubtedly passage birds, a male and female wheatear were recorded west of Moelfre Bach in the June visit, indicating that they had bred in one of the stone walls here. Swallow (*Hirundo rustica*) were associated with the farm buildings. A single whitethroat (*Sylvia communis*) was recorded singing just north of the site during the May visit.

Waders
No waders were recorded on any of the visits. The habitat in the east of the site, and outside the eastern boundary is suitable for breeding waders (curlew and snipe in particular). However, the lack of any records means that no breeding waders are using the site.

Raptors
Buzzards were recorded in the east of the site, as detailed above. A single red kite (*Milvus milvus*) was recorded north east of the site (west of Cae'r wrach) during th eJune visit. A male hen harrier (*Circus cyaneus*) was hunting low over the young plantation forestry immediately outside the site boundary during the May visit. This bird was recorded flying south to north. No other birds of prey were recorded.

Others
A pair of chough (*Pyrrhocorax pyrrhocorax*) were recorded feeding on the site during the June visit. These were seen twice during the morning (presumably the same birds).

Legislative Requirements.

Birds of European-wide importance are listed under Annex 1 of the Birds Directive (1992), which makes it an offence to deliberately kill, capture or disturb these species. Sustainable areas of habitats supporting these species are eligible for designation as Special Protection Areas.

Under the Wildlife and Countryside Act (1981) it is an offence to:

(a) Kill, injure or take any wild bird
(b) Take damage or destroy the nest of any wild bird while that nest is in use or being built or
(c) Take or destroy an egg of any wild bird.

In addition species listed in Schedule 1 of the Wildlife and Countryside Act (1981) are protected by special penalties.

Three of the species recorded are on Annex 1 of the Birds Directive. These are red kite, hen harrier and chough. These three species are also on Schedule 1 of the Wildlife and Countryside Act (1981).

Birds of Conservation Concern

The Royal Society for the Protection of Birds Wales (2010) lists Birds of Conservation Concern, which fall into three categories: red list (species of high concern), amber list (species of medium concern) and green list (species of lower concern). Species are placed on these lists broadly based on the percentage decline of breeding populations in the recent past.

The species of Conservation Concern recorded in the application site are listed in the table below

Species	**Level of Concern**
Hen harrier	Red
Herring gull	Red
Great black-backed gull	Red
Cuckoo	Red
Red kite	Amber
Skylark	Amber
Swallow	Amber
Meadow pipit	Amber
Wheatear	Amber
Whitethroat	Amber
Chough	Amber

Sensitive Receptors

Based on the records above and using the SNH guidance and the list provided in Langston and Pullan (2003), it is unlikely that any of the species recorded would be considered as sensitive to wind farm development. The records of red kite and hen harrier are both off site, and even if occasional use was made of the site by these

species, the numbers involved would not be significant. This is also the case for chough and the small numbers of gulls recorded. The smaller passerines, e.g. skylark, meadow pipit, wheatear and whitethroat are not considered to be sensitive species either in terms of collision risk or disturbance.

Conclusions

Three breeding bird surveys were carried out at a proposed windfarm site at Antur Aelhaearn. Surveys were carried out in April, May and June. Survey methodology followed that for Brown and Shepherd survey (a 'walkover' method) suited to birds of open habitats. The surveys revealed that the site is used by a small range of bird species. Although a number of species recorded are covered by legislation and are listed under RSPB red and amber lists, the numbers involved at the site (combined with their activity) are not considered significant.

References

Langston, R.H.W. and Pullan, J.D. 2003. Windfarms and Birds: An analysis of the effects of windfarms on birds, and guidance on environmental assessment criteria and site selection issues. Birdlife International.

Scottish Natural Heritage. 2005. Survey methods for use in assessing the impacts of onshore windfarms on bird communities. Scottish Natural Heritage.