

Appendix 8A.3

NPWS Recommended Methodology for Assessing the Impacts of Wind Farms on Breeding Hen Harrier.

NPWS RECOMMENDED METHODOLOGY FOR ASSESSMENT OF IMPACTS OF PROPOSED WINDFARMS ON BREEDING HEN HARRIER WITHIN THE KNOWN RANGE OF THE SPECIES IN IRELAND

Of the two main threats to Hen Harriers from windfarms (collision and displacement), the possibility of indirect habitat loss, or displacement, if birds avoid a windfarm area is seen as the most immediate issue. Research to improve assessments of collision risk is ongoing in other countries; the proportion of the breeding population at risk from windfarms that have planning permission at present is small. Other proposed windfarms, within areas of importance for Hen Harrier, should be subject to Environmental Impact Assessment.

RELEVANT SPECIES

Although these recommendations focus on the Hen Harrier as the species of concern, breeding Short-eared Owl may possibly occur at some sites, in which case an assessment of site importance should be made using the same methodology, at times of day appropriate to the species.

ASSESSMENT OF SITE IMPORTANCE

Nine upland areas have been identified by Dúchas as being of national importance for Hen Harrier. All areas of heath/bog habitats within the indicative boundaries of these areas lie within 5 km of known nest sites located during the 1998-2000 survey, *i.e.* within the normal foraging range of the male of each pair. Any proposed development, which may have impacts on such habitats, should be subject to a detailed survey, to determine Hen Harrier usage for hunting (foraging).

Important aspects to be considered in an assessment are:

The numbers and breeding success of Hen Harriers that may forage in the area, ideally within 5 km of the proposed development site,

The time spent by Hen Harriers in all parts of the site,

The cumulative impact of other windfarms in the area that have been granted planning permission,

Spatial variation in an area's importance to foraging Hen Harriers when:

either occupancy or breeding success are below normal, fire, overgrazing or turbary temporarily reduce the vegetation cover and hence its value to foraging birds, nest locations change from year to year.

METHODS

Survey of breeding occupancy

An appropriate survey in good weather conditions, with at least two visits in April of breeding pairs within 5 km of the site from outer turbines and a second series of visits in July to determine breeding success, would be necessary to interpret results from foraging observations. In years with a run of poor weather during April and May, an intermediate series of observations may be required in June to confirm occupancy by breeding pairs or locate late arriving pairs. Useful information is given in Gilbert *et al.* (1998).

Methodology should be detailed giving dates of survey, map of area searched, and habitat types searched. Results should not include detailed nest locations in public documents (*e.g.* EIS), but should include minimum distance from the development site.

Data on the number and distance from the site of breeding pairs recorded in the 1998-2000 survey (Norriss *et al.* 2002), and in subsequent years where available, can be provided by Dúchas (contact dnorriss@duchas.ie).

Survey of proposed development site

Description of survey area:

The assessment area should include a strip at least 500m beyond the outermost turbines. A habitat map of the study area should be produced based on the habitat categories listed in Appendix 1. A more detailed habitat map (for example using the classification in Fossitt (2000)) may be appropriate in some cases.

Use of the site:

Madders' (2002) methodology, using timed watches from fixed vantage points (VPs), suits well and can be adapted to local circumstances; those aspects of his procedures relevant to Hen Harriers are summarised below. The objective is to estimate the amount of time birds spend foraging per unit area of the site.

Two 3-hour watches per VP per month are recommended for the duration of the breeding season (April – July). A gap of at least one hour between watches is advised.

Restrict observations to 0700-2000 hours and suspend observations during periods of poor visibility and rain.

Select the minimum number of VPs consistent with complete coverage of the site. VPs should be outside the site where feasible, or located so as to avoid disturbance within the site, but within 1 km of the ground being observed. Choose inconspicuous locations, well away from nests, to minimise impact on the birds.

Foraging Harriers usually fly within 10 m of the ground and characteristically change direction and height abruptly when searching for prey. Record duration of observation and activity of any Harriers observed according to habitat category.

Map the area of each habitat visible from each VP, either in the field, from photographs or using a GIS. If there is area overlap from different VPs, observation areas should be summed when calculating overall observation rates/unit area. Because fields of view can change substantially with even minor changes in VP location, exact relocation using a GPS and perhaps an inconspicuous marker on the ground is recommended if more than one observer is involved.

The Report should include a summary of the sections of the site used by foraging Hen Harriers, broken down by broad habitat category.

If successful breeding is demonstrated in or close to a site, then VP observations should be continued into August to identify areas used by recently fledged juveniles prior to dispersal.

References

- Fossitt, J. A. (2000) A Guide to Habitats in Ireland. Heritage Council. Kilkenny.
- Gilbert, G., Gibbons, D.W. and Evans, J. (1998) Bird Monitoring Methods – a manual of techniques for key UK species. RSPB, Sandy.
- Madders, M. (2002) Method statement for Vantage Point watches. In: Survey methods to assess windfarm impacts on upland bird communities. Scottish Natural Heritage.
- Norriss, D.W., Marsh, J., McMahon, D. and Oliver, G.A. (2002) A national survey of breeding Hen Harriers *Circus cyaneus* in Ireland 1998-2000. Irish Birds 7: 1-10.