Review of Documents Relating to Ornithological Interests at Oweninny Wind Farm Phase 3

Introduction

An Bord Pleanála appointed Blackstaff Ecology Ltd to critically review Chapter 8 – Ornithology – of the Environmental Impact Assessment Report (EIAR) produced by Tobin Consulting Engineers and responses to requests for further information relating to the construction of Phase 3 of the Oweninny Wind Farm near Bangor Erris, Co Mayo. It is also required to review the content and rationale of the Natura Impact Statement for the development. The review also addresses matters of concern raised by the Board in an email and other submissions that may be relevant to the preparation of the Inspector's report.

Statement of Authority

This short report has been prepared by Dr Brian Sutton BSc PhD CEnv MCIEEM and Cormac Loughran CEnv MCIEEM MSc, Director of Blackstaff Ecology Ltd.

Brian was awarded a PhD in Environmental Science by the University of Ulster. Prior to working at Blackstaff Ecology, he worked as a member of the Habitat Survey Team of the Environment and Heritage Service (now the Northern Ireland Environment Agency) for two years. Following this, he worked as a consultant ecologist for AECOM Ltd for 15 years, carrying out habitat, bird and mammal surveys for a wide range of governmental and private clients. He has produced numerous EcIAs and PEAs, both during his time at AECOM and for Blackstaff Ecology. He has carried out HRA, both at Screening and Appropriate Assessment/Natura Impact Statement level, for numerous schemes, at a range of scales, from small private developments to major infrastructure projects. He has also prepared Strategic Environmental Assessments for a number of government plans. Brian has been a Principal Ecologist at Blackstaff Ecology for the past eight years.

Cormac Loughran, a Chartered Environmentalist (CEnv), and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Cormac has worked professionally as a Consultant Ecologist for the past twenty years. He holds an MSc (Distinction) in Environmental Management from the University of Ulster, and has extensive experience in a broad range of flora and fauna surveys. He has undertaken and coordinated the Ecological Impact Assessments for numerous infrastructure developments; including over 20 windfarms across Ireland.

Review of Documents

A review of the following documents related to the project was carried out:

- Chapter 8 Ornithology of the EIAR for the scheme;
 - Response to Request for Further Information. EIAR Addendum
 - Appendix 8.2 Collision Risk Modelling Report;
 - o (Addendum) CRM for species rarely observed within collision risk airspace;
- Revised Natura Impact Statement for the scheme; and
- Written submissions.

These documents have been reviewed in the light of guidance provided by the following authorities:

- EPA (2022) Guidelines on the information to be contained in Environmental Impact Assessment Reports;
- EC (2018) Managing Natura 2000 Sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC;
- EC92021) Assessment of plans and projects in relation to Natura 2000 sites. Methodological guidance on Article 6(3) and 6(4) of the Habitats Directive 92/43/EC; and
- CIEEM (2019) Ecological Impact Assessment Checklist.

Review of Chapter 8 – Ornithology

Introduction

The Introduction outlines clearly the objectives of the ornithological study of the site and notes the requirement for the scheme to be evaluated for its potential impacts on Natura sites.

Statement of Authority

The EIAR and NIS have been produced by suitably qualified ecologists from Tobin Consulting Engineers and associated entities.

Phases of the Development

This section outlines clearly the main activities and processes involved in the construction and operational phases of the scheme. The section mentions the activities associated with future decommissioning of the site. However, Chapter 3.2 of the NIS states that the proposed development will include the decommissioning and removal of 21 no existing Bellacorick Wind Farm wind turbines (including tower sections, nacelle, hub and rotor blades. There is no mention or indication in Chapter 8 that this is an integral part of the scheme and the decommissioning of these turbines and potential effects on ornithological interests are not mentioned elsewhere.

Study Area

The study area is adequately described.

Zone of Influence

The zone of influence concept is clearly described and Zones of Influence (ZoIs) assigned to ornithological receptors follow accepted guidance.

Methodology

The legislation and guidance considered are comprehensive and appropriate. Consultation with DCH and G provided the level of detail required for the EIAR but a response from NPWS was received after submission of the EIAR. Comments from NPWS will be addressed within this review.

The desk study identifies sources of information that may influence the ornithological assessment of the site. The section mentions a review of all NPWS site synopses for designated sites within the Zol of the proposed development. However, the NPWS Conservation Plan¹ for /Nephin Complex SPA (NPWS 2005) may not have been fully considered. The Conservation Plan clearly lists peregrine (and Greenland white-fronted goose) as a reason for designation of the SPA and includes generalised conservation objectives for the species; this species is not included in NPWS designation document as

¹ DEHLG (2006) National Parks and Wildlife Service Conservation Plan for 2006-2011. Owenduff/Nephin Complex cSAC and SPA. Site codes 534 and 4098 Co Mayo

a qualifying interest of the SPA. This apparent contradiction may be resolved by reference to the Statutory Instrument (SI) under which the SPA has been designated. The SI lists only merlin and golden plover as reasons for designation. The Standard Data Form issued to the EC also lists peregrine and Greenland whitefront and does not differentiate between them and the two designation species.

Conservation objectives for the four listed species are included in NPWS 2005 and are consistent with the requirements of Articles 6(3) and 6(4) of the Habitats Directive. Greenland whitefront and peregrine should be treated in a similar manner to the designation species to avoid potential conflicts in interpretation of NPWS guidance and to ensure compliance with the Directive. In the absence of definitive guidance, an approach used elsewhere may be relevant. JNCC (UK) differentiates between Annex II species that are a primary reason for site selection and Annex II species that are present as a qualifying feature but are not a primary reason for site selection. In the latter case, effects on species are considered in a similar manner to primary selection species.

The criteria for identification of target species for consideration follow established guidance.

Field surveys carried out for the EIAR were comprehensive and covered all the species and species groups with the potential for effects arising from the scheme. Survey methods were tailored for each group and followed published guidelines. Vantage point (VP) locations provided wide coverage of the site and were adequate in number (seven) for this extensive site. VP methodology followed accepted methodology; the modification in breeding season VP timing to accommodate the breeding season of target species was justified and appears reasoned. The total time dedicated to VP watches follows accepted guidelines.

Collision risk modelling (CRM) methodology was based on accepted SNH guidance. However, thresholds are introduced that restrict CRM to species with more than three flights or at least ten individuals at collision risk height. NPWS questions the validity of this approach and there seems to be little value in omitting these species from the calculations. These thresholds are reviewed and CRM carried out for these species in the addendum to the CRM report.

No limitations of the data accumulated through surveys are identified. However, there is some uncertainty over the status of merlin, a Birds Directive Annex I species, on the site. Section 8.7 states that there is a possible breeding status onsite, but was not confirmed. The presence of breeding merlin site in close proximity to a turbine would potentially result in its abandonment. Limitations are also introduced into the data by restricting the species considered for CRM and by ignoring the potential effects on the designation features of the /Nephin Complex SPA.

The approach to assessing potential effects on key avian receptors (KARs) follows accepted NRA guidance and methodology.

Existing Environment

A comprehensive list of protected sites within the established Zone of Influence (ZoI) of the scheme is provided.

Table 8-8 Designated Sites describes potential pathways for effect on designation features of those sites. For the /Nephin Complex SPA, the core foraging ranges of golden plover and merlin are noted. However, the wider areas over which golden plover, in particular, may range during the breeding season are not mentioned. Issues over foraging ranges are addressed in the EIAR Addendum. The assertion that the distance from the SPA precludes effects on both of these species and that there is no source-pathway-receptor link between the SPA and the proposed development cannot be upheld.

Greenland whitefront and peregrine, both of which are described in NPWS (2005) as reasons for designation of the SPA, are not mentioned in Table 8-8.

Linkages between three SPAs and the proposed development site are established, based on surface water pathways. No linkages were identified with a further twelve SPAs and six national sites.

National Biodiversity Data Centre ornithological data for the site are reported in full.

Use of the Bird Sensitivity to Wind Energy Mapping Tool provides a useful insight into the potential for impacts on bird receptors.

A comprehensive list of target species encountered at the site is provided, with appropriate details of records of key and secondary target species. The assertion that golden plover records in the late breeding season likely relate to birds on migration or failed breeders from elsewhere is speculative. Most young birds have fledged by mid-September and records from late September may therefore include birds from local breeding sites, including the Owenduff/Nephin Complex SPA. Young birds and adults typically aggregate at this time of year and form the small flocks similar to those noted at the site. Table 8-12 applies appropriate sensitivity values to key avian receptors.

Potential Effects

Effects on sites designated for their avian interest are assessed. Twelve SPAs are identified within the ZoI of the scheme, although earlier 15 SPAs were identified in Table 8-8. The section includes Owenduff/Nephin Complex SPA in the list of sites that have no potential for significant effects from the scheme. However, it is shown above that there is a potential for golden plover from this site to occur within the wind farm area. The golden plover population of the SPA occurs at low densities (compared with other Irish sites) and is numerically restricted. Any effects on a low numbers of individual from this population may be significant because of the small population size of the SPA. Any effects on the SPA population should be viewed in the context of a declining SPA population.² The SPA should therefore be included in in list of sites for which there is a potential for significant impacts and an Appropriate Assessment/Natura impact Statement produced for the site. The Owenduff/Nephin Complex SPA is screened in for further assessment in the EIAR Addendum and is considered in the updated NIS for the scheme.

SACs are mentioned for the first time as having potential for effects arising from the scheme (page 8-71); they were not identified in Table 8-8 as designated sites within a potential ZoI of the scheme. Table 8-8 provides evidence of source-pathway-receptor linkages between the proposed scheme and designated conservation sites. References to SAC in Table 8-8 are presumed to be typos. It is not clear why Lough Dahybaun SAC (designated for slender naiad), River Moy SAC (designated for white-clawed crayfish, fish species, otter and a range of habitat types) and Owenduff/Nephin Complex SAC (designated for a range of habitat types, Atlantic salmon, otter and two plant species) have been selected for AA of effects on ornithological features.

Potential effects on target bird species arising from the construction phase of the scheme are listed, described and assessed for their significance. Effects arising from habitat loss and fragmentation and from displacement arising from disturbance are assessed and appropriately evaluated for their significance.

² Suddaby, D. and O'Brien, C. (2020) A survey of breeding Golden Plover within the Owenduff/Nephin Complex SPA, County Mayo. *Irish Wildlife Manuals*, No. 120. National Parks and Wildlife Service, Department of Culture Heritage and the Gaeltacht, Ireland

Potential effects on target bird species arising during the operational phase of the scheme are assessed. Factors affecting collision risk are described and risk for each species is described based on CRM methodology. Collision risk calculations are based on accepted methodology; however the assessment of significance of risk is at times conceptually flawed. In the absence of local population estimates for a species, it national population is used to estimate significance. It is clear that a particular mortality percentage of the national population cannot be used as a surrogate for effects on a local population. If significance of effect is based on whether a scheme incurs a 1% loss ³ to the national population it is unlikely that any scheme would ever reach that threshold for any species. A large effect on a local population may not be detectable at a national level due to dilution effects. The test of significance used is therefore redundant. A more detailed critique of the methodology is provided by NPWS in their letter to the Board dated 22.06.23. An attempt should be made to assess the size of the population on which the scheme has the potential for effects. The potential increase in mortality arising from collisions, tabulated in Tables 8-15, 8-16 and 8-20 is thus largely irrelevant in the context of potential effects of the Oweninny scheme. The methodology is reviewed in the EIAR Addendum.

Cumulative Effects

Operational and proposed wind farms in the immediate vicinity of the proposed scheme are identified.

This section does not consider in any detail the potential for cumulative effects on bird species. A range of bird species of conservation concern have been shown to have reduced breeding densities within 0.5km of wind farms (Pearce-Higgins *et al* 2010). Local effects of a wind farm on breeding density may not be significant, but where a number of wind farms in close proximity to each other occupy significant areas of habitat that are capable of supporting a species of conservation concern, there may be significant impacts at a local population level. In the present case, snipe is presumed to be a probable breeder at a number of locations within the site (page 8-49). Table 8-13 (Assessing the Potential Impact on Local Avian Communities form Habitat Loss and Fragmentation Associated with Construction Activities) notes that the proposed infrastructure is a small proportion (4%) of the site. However, a much larger proportion of the site would be unavailable to breeding snipe because of the likely displacement effect of turbine locations. The table also notes that the species is widespread in Ireland, but does not mention that the species declined by 78% between 1980 and 2018⁴. Similar potential breeding habitats are present within other local wind farms and the cumulative effect on this species arising from displacement may therefore be of local significance.

Mitigation Measures

Standard mitigation measures are suggested.

No compensatory measures for lost habitats are proposed and there are no proposals to encourage the emerging approach of biodiversity net gain (CIEEM 2024).⁵

Bird Monitoring Programme

A bird monitoring scheme appropriate to the scheme is proposed.

³ Pearce-Higgins, J.W., Stephen, L., Langston, R.H.W., Bainbridge, I.P. and Bullman, R. (2010) The distribution of breeding birds around upland wind farms *Journal of Applied Ecology* 46, 6, 1323 1331.

⁴ Gilbert, G., Stanbury, A. and Lewis, L. (2021) Birds of Conservation Concern in Ireland 4: 2020-2026.*Irish Birds* 43:1-22

⁵ CIEEM (2024) Biodiversity Net Gain in Ireland. Briefing Paper. CIEEM Ireland Policy Group

Residual Effects

It cannot be stated definitively that "the proposed avoidance and mitigation measures (as outlined above) associated with the KAR will ensure that all avifauna species are protected." There will clearly be some adverse effects on bird species as a result of displacement, and, potentially, collision mortality. However, it is likely that the conclusion that "significant residual effects on KARs with regards to direct habitat loss, displacement or collision risk are not anticipated" is generally appropriate.

Review of Response to Request for Further Information. EIAR Addendum

Following Board responses to the EIAR the addendum was produced as requested.

Site Layout Plan

The expanded site layout plan requested by the Board is provided in Appendix 1 of the Addendum.

Appropriate Assessment Screening

The exclusion of the Owenbeg/Nephin Complex SPA from the requirement for further assessment is reconsidered and is screened in for inclusion in the Natura Impact Statement for the site.

Ornithology

The applicant appears to be addressing the concerns of DAU over the use of arbitrary thresholds and inserts a paragraph in section 8.8.3.2.1 of the EIAR dealing with a 1% threshold for consideration of whether an impact is significant or not. It is not clear how this paragraph addresses the concern of DAU that national population numbers are used rather than a population that is relevant to the scheme/area. The purpose of the DAU intervention with regard to arbitrary thresholds is to question the validity of thresholds for inclusion in CRM, I,e the exclusion of species for which there are fewer than three flights or flights of fewer than ten individuals through the surveyed area. It is not clear how this paragraph clarifies the issue.

The application of CRM to golden plover is considered in paragraph 8.8.3.2.1.2 of the EIAR and the original paragraph is replaced with new text. It is stated that the golden plover recorded at the site refer almost entirely to wintering birds. However, birds recorded in late September potentially include locally breeding birds and their fledged young and cannot therefore with certainty be described as non-breeding birds. Indeed, in Table C.2 of the revised CRM, collision risk for other species is differentiated for the breeding season (April-September) and the non-breeding season (October-March).

The Addendum recognises the difficulties involved in assessing the size of the population of golden plover that would be relevant in any discussion of the significance of collision risk. Using the limited data available the applicant provides a reasonable argument that the overall risk to the local, i.e. county, wintering population of golden plover is not significant. However, this can only apply to the wintering population of the species, for which IWeBS counts are likely to be most complete. Possible impacts on the much smaller, though not quantified, breeding population, which may include the September birds at the site, are not considered.

The concern over thresholds for inclusion in CRM are addressed and collision risk for all target and secondary species is calculated. The calculated risk for these species is within expected limits.

Review of Appendix 8.2 Collision Risk Modelling Report

Methods

This section reviews the Band CRM. This section reviews the Band *et al* (2007) CRM that is the standard methodology for assessing collision risk at wind farms. CRM calculations are worked for species with three or fewer flights or fewer than ten individuals. The rationale for this discrimination is based on a perception that there will be a negligible risk of collision for these species; an actual working of collision risk would avoid this subjective approach. However, time spent within the risk airspace is a relevant factor, which may not be determined by the number of actual flights. There seems little value in not producing collision risk for those species that are of conservation significance but fall below the imposed thresholds.

Merlin is one of the species that does not have a worked CRM calculation. NPWS note that flight lines illustrated in Appendix 8.1 are truncated, a likely result of the low detectability of this species. The methodology used for some species involves extrapolation of flightlines; this approach would provide more realistic values for merlin flight duration for entry into the CRM.

Results

The vantage point (VP) survey hours upon which calculations are based are as recommended in Scottish Natural Heritage guidance. Six species were the subject of CRM calculations and collision risk derived from CRM calculations and based on VP records appear to be within an expected range.

CRM is a useful tool for establishing collision risk for species that use a site regularly but may not detect risks to species that use a site infrequently, which is likely to be the case during the breeding season for golden plover. Breeding golden plover typically forage in the immediate vicinity of the nesting territory during the incubation period but may forage further afield once eggs have hatched. The potential period during which distant flights to foraging areas is thus curtailed during the earlier part of the breeding cycle, reducing the likelihood of birds from the Owenbeg/Nephin Complex SPA visiting distant sites. The relatively small numbers of birds breeding in the SPA means that any mortality associated with a wind farm may have a significant impact on the SPA population. The small numbers of birds likely to be involved and the reduced time during which there is a potential for flights to distant foraging areas suggest that there will be relatively low detectability of those birds from the Owenbeg/Nephin population that may (or may not) use the Oweninny site during the breeding season. Additional analysis may be necessary to complement CRM. The suitability of the site as a foraging area for golden plover should be assessed⁶. There is a strong association of this species with short vegetation. Much of the site supports rank heather and tall grasses, and there are frequent areas of bare peat; these habitats are likely to be of low attraction for feeding golden plover. The extent of suitable foraging habitat should be assessed to give an indication of the potential attractiveness of the site for foraging golden plover. The species is frequently associated with dense populations of tipulids, which require a wet substrate for their larval stages. An analysis of the suitability of the site for foraging golden plover should consider these factors when assessing the potential for collision at the site. Further potential surveys include observation of breeding birds in

⁶ Percival, S.M. (2003) Birds and Wind Farms in Ireland: A Review of Potential Issues and Impact Assessment.

their territories; these may determine the direction in which birds leave on foraging flights and may indicate the location of favoured feeding areas.

Review of the Addendum to the CRM for species rarely observed within collision risk airspace

The applicant has carried out CRM for those target and secondary species which had previously been discounted because of their relatively infrequent occurrence. CRM estimates of risk for these species appear to be within expected ranges.

Review of the Revised NIS for the Scheme

The original NIS for the scheme has been modified to include a re-assessment of the potential effects of the scheme on the designation features of the Owenbeg/Naphin Complex SPA.

Introduction

The Introduction clearly sets out the basis for the Appropriate Assessment (AA) process and outlines the qualifications of ecologists who produced the report.

The Appropriate Assessment Process

The legislative requirements of the Habitats Directive are described in detail and the guidance used in preparation of the report is listed. The stages of the AA process are described and the rationale for sequential progression through the various stages is outlined. A comprehensive list of information sources relevant to the assessment is provided. The surveys carried out by Tobin to provide information used in the AA are comprehensive and appropriate.

Description of the Proposed Development

The location of the proposed development is described and a comprehensive overview of the proposed development is provided. A plan (Figure 3-2) shows the location of proposed infrastructure within the site and in part fulfils the request from the Board in a letter dated 24.04.24 for a site layout plan.

Description of the Existing Environment

The desktop survey and field surveys used to inform the AA are noted. These follow standard methodologies generally applied to wind farm schemes.

Stage 1 – Screening for Appropriate Assessment

This section identifies those Natura sites considered to have a potential for effects arising from the scheme, comprising nine SACs and four SPAs. However, rather confusingly, a total of 17 SPAs are then listed as having been considered for assessment. Of these, Lough Dahybaun SAC, Owenduff/Nephin Beg SAC, Owenduff/Nephin Complex SPA, River Moy SAC, Lough Conn and Lough Cullin SPA, Killala Bay/Moy Estuary SPA and Blacksod Bay/Broad Haven SPA are considered to require a Stage 2 assessment, based on the outcome of the Stage 1 Appropriate Assessment.

The Stage 1 AA Screening report is included as Appendix 1 of the NIS and is reviewed here. The report describes the AA process, legislative context, guidance and methodologies used to inform the screening exercice. Construction phase activities are described in some detail, providing a basis for an understanding of the potential effects on ecological receptors arising from those activities. Operational and decommissioning stage activities are outlined. The local hydrological environment is

described in some detail and habitats within the site boundary are described. Bird survey results are summarised.

Section 5 of the Screening report comprises the actual Screening assessment. The section identifies and describes in adequate detail the potential impacts of the scheme during construction and operation of the wind farm. Collision risk is correctly identified as one of the main impacts to be considered. The source-pathway-receptor model of assessing the potential for an activity to have an effect on an ecological feature is described and is used to identify Natura sites that have the potential to experience an effect. The potential for effects is assessed for 24 Natura sites that have been identified as within the likely zone of influence of the scheme. Three SACs and three SPAS were screened in as having a potential for likely significant effects from the scheme, principally through hydrological connections between the Natura sites and the scheme, and are therefore subject to a Stage 2 assessment.

Stage 2 – Natura Impact Assessment

This section assesses each Natura site that has been screened in for potential significant effects. Potential effects on the aquatic features of Lough Dahybaun SAC, Owenbeg/Nephin Complex SAC and River Moy SAC, and avian features of Owenduff/Nephin Complex SPA, Lough Conn and Lough Cullin SPA, Killala Bay/My Estuary SPA and Blacksod Bay/Broad Haven SPA are identified, principally through their hydrological connections to the proposed scheme.

The principal ornithological concern is identified as the potential collision risk for the golden plover and merlin designation features of the Owenduff/Nephin Complex SPA. The risk to merlin is discounted due to the low frequency of the species observed during vantage point watches and the typically low level of foraging flights. It is noted that two of the four recorded breeding season flights occurred at collision risk height. A probable breeding territory was identified immediately to the west of the site. Breeding season records are more likely to refer to birds associated with this territory rather than birds from the SPA since the site is near the limit of the typical foraging range of the species for the SPA population. It should be noted that the species can be difficult to observe, particularly at significant distances, due to its small size, characteristically low, contour-hugging, fast flight and dark colouration against often dark bog vegetation, which may lead to some under-recording.

It is recognised that records of golden plover occur late in the breeding season and there is therefore a potential collision risk for birds from the SPA breeding population. The attractiveness of the site to foraging golden plovers is likely to be limited as suitable foraging habitat is described as being limited in size and condition. Disturbance of foraging merlin and golden plover is a secondary potential impact on the species.

Evaluation of Potential Adverse Effects on Owenduff/Nephin Complex SPA.

In the absence of site-specific conservation objectives for Owenduff/Nephin Complex SPA, the conservation objectives of Connemara Bog Complex are reasonably used as a surrogate in as far as they apply to the designation features of both protected sites. Table 6-8 includes a reference to potential breeding of merlin in the vicinity of the site and to potential breeding of golden plover within the vicinity of the site; these birds are not the subject of the NIS. Merlin nesting distribution is strongly territorial but only the immediate vicinity of the nest site is defended and hunting territories are not exclusive. However, since the site is near the likely limits of the foraging area used by the SPA merlin population the presence of a likely nest site immediately to the west of the site boundary suggests that breeding season records most likely refer to these birds rather than birds from the SPA population.

Table 6-8 states that the collision risk model concluded that the potential for collision risk with the turbines for golden plover will be negligible and the identified populations within he Proposed Development and the SPA are not connected. This lack of connectivity cannot be definitively illustrated, and it is possible that birds recorded late in the breeding season include dispersing birds from the SPA population; juvenile birds generally leave breeding areas in October-November (Cramp and Simmons 1982)⁷. There is therefore a potential collision risk for golden plover from the SPA population. Marginally increased mortality from within a small population may have a significant impact on the viability of that population. A combination of consideration of the distance from the SPA breeding grounds, likely truncated time available for adult birds to visit distant foraging areas due to preferential foraging close to the nest site during the egg stage, the likelihood that post-breeding dispersion would be preferentially to higher quality foraging habitats and the restricted availability of such habitats at the proposed wind farm site would suggest that the site is relatively unattractive to the species should be considered as factors mitigating against the likely significance of effects on the SPA population. If it can be definitively shown that the site is unattractive as a foraging site for golden plover this would reduce the likelihood of increased collision risk to the species.

Other Natura sites

Distances from, pathway type and avian community makeup suggest that the assessment of likely low significance of potential effects on other Natura sites considered is reasonable. It should be noted that Greenland white-fronted goose, a designation species of the Lough Conn and Lough Cullin SPA, 11km distant from the proposed wind farm site, is also a species of concern for the Owenduff/Nephin Complex SPA and the species is capable of significant commuting flights between feeding and roosting sites. However, the lack of records at the site for this species is likely to realistically reflect its status at the site.

Mitigation Measures

Standard mitigation measures directed at pollution control are proposed, together with measures to ensure minimal effects on otter and to manage invasive plant species. The assessment that these measures will be adequate to ensure that there will be no significant effect on the six Natura sites under consideration is justified.

It is suggested that pre-works surveys should be carried out to establish whether there are breeding merlin or golden plover at the proposed wind farm site. While this represents good practice, these would be outside the scope of the NIS since, with declining populations, any breeding birds are unlikely to consist of overspill from the SPA populations.

The conclusion that there will be no significant effect on merlin and golden plover arising from disturbance effects is justified.

Analysis of Potential In-Combination Effects

It is further justifiably concluded that there will be no in-combination effects with other schemes on the assessed Natura sites.

Conclusion

The conclusion that there will be no significant adverse effects alone or in combination with any other plans or projects on Lough Dahybaun SAC, River Moy SAC, Owenduff/Nephin Complex SAC, Lough Conn and Lough Cullin SPA, Killala Bay/Moy Estuary SPA and Blacksod Bay/ Broad Haven SPA appears justified. It is also likely that, if shown that the site is unattractive as a foraging area for golden plover,

⁷ Cramp, S. and Simmons, K.E.L. (eds) (1982) The Birds of the Western Palaearctic Vol III

there will also be no significant adverse effects on the Owenduff/Nephin Complex SPA. In the presence of likely locally breeding merlin, it is likely that breeding season records refer to these birds rather than birds from the SPA population.

Review of Responses to Written Submissions

NPWS responses to the EIAR are addressed above and include a revision of the potential effects on the Owenduff/Nephin Complex SPA and a reconsideration of the scope of the NIS for the scheme.

This review is based on the Tobi Oweninny Wind Farm Phase 3 Response to Submissions.

Biodiversity

The applicant responded to written submissions from five individuals or groups, of which two refer to concerns over impacts on bird species. Responses agree that there is a potential for impacts on some bird species but assert that with proposed mitigation measures impacts will not be significant. Responses are consistent with the text of the EIAR.

Appropriate Assessment Screening and Natura Impact Statement

The applicant responded to written submissions from four individuals, groups or bodies, of which three included issues regarding birds.

The applicant provides robust responses to the submission of Peter Sweetman and Associates. However, the assertion that "complete, precise and definitive findings are provided justifying the appraisal for potential likely significant effects on European sites" cannot be upheld in the absence of an Stage 2 appraisal of the potential effects on the designation features of the Owenduff/Nephin Complex SPA. There is sufficient uncertainty with regard to potential effects on the SPA features for it to be screened in for a Stage 2 appraisal. This criticism is recognised and addressed in the revised NIS reviewed above. The applicant provides a reasonable argument that presentation of best practice measures within the mitigation section of the NIS sets the background for the mitigation that is then described. It is also reasonable to argue that the precise location of some measures will depend on local conditions at the time of a particular activity. The applicant asserts that the Surface Water Management Plan is not the sole factor relied on for conclusions within the NIS and is therefore not contrary to Sweetman v Bord Pleanála; this is a difference of opinion which may require resolution. In rebuttal of Rob Deane's concerns, the applicant states that European site sensitivities as per the Natura Standard Data Forms (NSDF) are considered. However, there is no reference in the NIS to Greenland white-fronted goose and peregrine, both of which are listed alongside merlin and golden plover in the NSDF for Owenduff/Nephin Complex SPA.

Issues arising from responses to DHLGH Development Application Unit are addressed above.