

**Public Inquiry**

**into five proposals**

**for wind turbine generating stations and**

**the**

**132kv Llandinam connection, known as**

**Conjoined Wind Farm Inquiry (Powys)**

**Proof of Evidence**

**on Curlew in relation to Llandinam**

**Windfarm**

**of Siân Whitehead BSc (Hons), DPhil**

**Natural Resources Wales**

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## 1. Introduction

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- 1.1 I am Dr Siân Carolyn Whitehead. I am the Terrestrial and Freshwater Ornithologist in the Terrestrial Ecosystems Group of Natural Resources Wales (NRW), formerly the Countryside Council for Wales (CCW), based in Bangor.
- 1.2 As Terrestrial and Freshwater Ornithologist I undertake and commission terrestrial & freshwater ornithological research and survey projects, provide scientific advice and guidance within NRW and to external partners, and represent NRW at relevant Wales and UK fora.
- 1.3 I have held this position since November 1997; for the first four years of that period, marine and coastal ornithology was also within my remit until a second ornithologist was appointed to the group, and our work areas split. Prior to working with CCW (now NRW), I spent three years working as a Research Biologist with the Royal Society for the Protection of Birds (studying ecology of chough, *Pyrhocorax pyrrhocorax*).
- 1.4 I have a BSc honours degree in Zoology from the University of Manchester, and a DPhil for research into foraging behaviour and habitat use in European Starlings *Sturnus vulgaris* from the University of Oxford.

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## 2. Scope of this evidence

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- 2.1 My evidence will address the potential impact that the proposed Llandinam Windfarm repowering etc development, referred to hereafter as the Project, if carried out would have on breeding Eurasian Curlew *Numenius arquata*.
- 2.2 I will consider the works proposed by the applicant and will comment upon whether those works will have no adverse effect on the population status of curlews, as contended by the Applicant.

- 2.3 I will give evidence to the effect that the Project could have an adverse impact on breeding curlew, and as such will be contrary to legislative and policy requirements pertaining to the species.

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### 3. Legislative and policy context

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- 3.1 Regulation 9A(1) and Regulation 9A(3) of the Conservation of Habitats and Species (Amendment) Regulations 2012 [CD/CON/003/LEG/002], requires the appropriate authority (the Secretary of State in England and the Welsh Ministers in Wales) and the nature conservation bodies to take such steps in the exercise of their functions as they consider appropriate *‘to secure the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version) (‘the Birds Directive’)*. Article 2 of this Directive places a duty on Member States *‘to maintain the population of the species at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking accounts of economic and recreational requirements...’*
- 3.2 Section 40 of the Natural Environment and Rural Communities Act 2006 [CD/CON/003/LEG/005] sets out a duty to conserve biodiversity: *‘Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving those functions’* and the Act defines *‘Public Authority’* as
- a) a Minister of the Crown:
  - b) the Welsh Assembly Government (formerly the National Assembly for Wales);
  - c) a public body (including a government department, a local authority and a local planning authority);
  - d) a person holding an office –

- (i) under the Crown,
  - (ii) created or continued in existence by a public general Act, or
  - (iii) the remuneration in respect of which is paid out of money provided by Parliament;
- e) a statutory undertaker.

Section 42 of the Act goes on to identify those living organisms and types of habitat which in the Welsh Government's opinion are of principal importance for the purpose of conserving biodiversity in Wales, and curlew is included on that list. As such there is a duty on all Public Authorities, as defined under Section 40 of the Act, to take such steps as appear to be reasonably practical to further the conservation of curlew or promote the taking by others of such steps.

- 3.3 Schedule 9 of the Electricity Act 1989 concerns the preservation of amenity in relation to proposals falling within the Act. It requires regard to be had to the desirability of (*inter alia*) preserving fauna and it requires reasonable mitigation of any effect which such proposals would have on such fauna.
- 3.4 There is therefore a clear statutory requirement, underpinned by European legislation, to secure, maintain and re-establish suitable habitat for breeding curlew, and to ensure that, in consenting any plans or projects, due regard is given to the avoidance of adverse impacts on the species.
- 3.5 This duty is translated into planning policy through Overarching National Policy Statement (NPS) for Energy (EN1) [CD/CON/003/PLA/003], Planning Policy Wales (PPW) [Document Reference CD/CON/003/PLA/010] and Technical Advice Note (TAN) 5 Planning and Nature Conservation [CD/CON/003/PLA/011].
- 3.6 Although NPS EN1 sets out the national policy for energy proposals to be considered by the Major Infrastructure Planning Unit of the Planning Inspectorate, it is also a material consideration when considering energy proposals that are to be considered by other consenting regimes.

- 3.7 Paragraph 5.3.17 advises that protection should be given to habitats and species of principal importance for the conservation of biodiversity and that the determining body '*should ensure that these species and habitats are protected from the adverse effects of development by using requirements or planning obligations*'.
- 3.8 Paragraph 5.3.18 addresses mitigation, which should be included as an integral part of the proposed development, and states that the applicant should demonstrate in particular
- *During construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, and*
  - *Opportunities will be taken to enhance existing habitats, and where practicable, to create new habitats of value .....*
- 3.9 PPW states that '*The planning system has an important part to play in meeting biodiversity objectives by promoting approaches to development which create new opportunities to enhance biodiversity, prevent biodiversity losses, or compensate for losses where damage is unavoidable.*' (para 5.2.8). It goes on to state '*Biodiversity and landscape considerations must be taken into account in determining individual applications and contributing to the implementation of specific projects. The effect of a development proposal on the wildlife or landscape of any area can be a material consideration. In such instances and in the interests of achieving sustainable development it is important to balance conservation objectives with the wider economic needs of local businesses and communities. Where development does occur it is important to ensure that **all reasonable steps** are taken to safeguard or enhance the environmental quality of land.*' (Para, 5.5.1) (My emphasis)
- 3.10 TAN5 reiterates the important role that planning has in meeting biodiversity objectives and states that the development control process is a critical stage in delivering the protection and enhancement of nature conservation required by PPW. It suggests a number of ways that can help achieve these objectives, including

- Adopting the five point approach to decision making – information, avoidance, mitigation, compensation and new benefits; and
- Securing necessary measures to protect, enhance, mitigate and compensate through planning conditions and obligations.

Section 4.6 refers to the use of planning conditions which can

- Avoid adverse impacts or remove the likelihood of adverse impacts occurring

by for example restricting development to particular seasons and requiring appropriate management and maintenance.

As well as avoiding adverse effects Paragraphs 4.6.4 and 4.7.2 outline how conditions and planning obligations can deliver positive benefits to biodiversity, such as habitat enhancement and monitoring systems.

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#### **4. Status of curlew**

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4.1 The curlew has a wide international distribution, breeding across Europe, from the UK through north-western Europe and Scandinavia into Russia and Siberia. Although it remains common in many parts of its range, declines have been reported in several key populations with a moderately rapid global decline estimated. Previously categorized as Declining on the International Union for Conservation of Nature (IUCN) Red list at European level, and a Category 2 Species of European Conservation Concern (SPEC 2) (BirdLife International 2004) [CD/CON/003/ORN/028], the species' status has since been changed to Near Threatened (Birdlife International 2013)[CD/CON/003/ORN/056], raising it to a higher priority SPEC 1 status. This 'red-listing' is a means of readily identifying those species for which conservation measures are most urgently needed to halt and reverse the identified population declines.

4.2 Within the UK, curlew declined by 44% between 1995-2010 (Risely *et al* 2012) [CD/CON/003/ORN/038], with a more severe decline of 54% over the same time

period in Wales. These figures are derived from the annual Breeding Bird Survey (<http://www.bto.org/volunteer-surveys/bbs>), which provides trend estimates for certain bird species, based on annual random sample surveys across their range. Because of its SPEC status, moderate declines in its breeding and wintering populations over 25 years, and the international importance of UK populations, curlew is currently amber-listed on Birds of Conservation Concern in the UK (BoCC; Eaton *et al* 2009) [CD/CON/003/ORN/029], which places it as a species of medium priority for conservation action across the UK. The more severe decline in the Welsh breeding population has warranted its red-listing in Birds of Conservation Concern in Wales (Johnstone *et al* 2010) [CD/CON/003/ORN/013]. This means that curlew is a high priority for conservation action in Wales; without such action it is likely that the population will continue to decline to the point of its extinction in Wales.

- 4.3 Breeding curlew are threatened by changes in land-use, including loss and fragmentation of moorland habitat due to afforestation and loss of marginal grassland due to agricultural intensification and improvement. Predation can also impact on breeding success (Birdlife International 2004) (CD/CON/003/ORN/028). Recent published evidence of disturbance impacts of wind turbines (see Proof of Evidence of Dr James Pearce-Higgins) means that these declines may be further exacerbated by losses arising from windfarm-associated displacement.

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## **5. Details of the objection**

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### ***Importance of the curlew population in the Project area***

- 5.1 Baseline surveys for the Llandinam application and adjacent wind farm applications at Llaithddu and Hirddywel, undertaken collectively between 2006 and 2013 established up to 6 curlew territories which may be affected by these three applications. Of these 6 territories, surveys undertaken in 2008 identified five occupied territories within the Llandinam boundary or sufficiently close to its boundary that they may be impacted by the scheme.

- 5.2 Survey data presented in the Supplementary Environmental Information (SEI) of July 2013 in support of the application, reported on survey results of that breeding season, and recorded one breeding pair within the boundary of the application site.
- 5.3 The most recent national survey of breeding curlew in Wales was conducted in 2006 (Johnstone et al 2007) [CD/CON/003/ORN/035], which estimated a Welsh population of 1,099 pairs. Risely et al. (2012) [CD/CON/003/ORN/038] reported a subsequent national decline of over 54% between 1995-2010. This rate of decline equates to a 4% decline p.a. which, if applied to an estimated population of 1099 pairs in 2006, results in a Welsh population estimate of 824 pairs in 2013.
- 5.4 Given the background decline of breeding curlew in Wales, it is not unreasonable to expect a decline to be observed on the application site, as suggested by the 2013 data. However, it is not possible to infer trends from just one data point and any predictions of future population size at this site could only be speculative. The fact is that there remain breeding curlew on the site, and the possibility remains that in future years, with appropriate management in place, we may see additional pairs attempting to breed, as have been regularly seen in other recent years. The parlous state of curlew, and our legal and policy obligations are such that we should be taking all reasonable measures to avoid adverse impacts to breeding curlew in Wales. As such, we should be taking reasonable measures to prevent additional adverse impact on the population at Llandinam.

### ***Impact of the development***

- 5.5 Assuming a worst case scenario of just one breeding pair of curlew now left at Llandinam, it is not possible to argue that the loss of that pair would be significant in terms of impacts on the Welsh population. If breeding numbers had remained stable at 5 pairs, this would equate to just over 0.5% of the extrapolated Welsh population.
- 5.6 However, in the absence of adequate mitigation to address construction impacts and any residual operation impacts, there is a serious risk that the remaining

breeding pair of curlew (and all or some of any additional pairs that may attempt to breed in future years) will be lost from the site.

- 5.7 Such an impact, when viewed in isolation at Llandinam, is not significant in terms of the current estimated national (Wales) curlew population. However, when viewed cumulatively across Wales, if just one pair of curlew is lost from each proposed windfarm site that is known to support breeding curlew (there are currently at least 14 such proposed or consented developments in mid Wales alone), this equates to more than 1% of the Welsh population. The actual impact is likely to be greater as there may be the potential loss of more than one pair at some sites, and we can expect new windfarm applications in Wales in the future, some of which may be coincident with breeding curlew. In these circumstances it is my view that it is important to put in place mitigation to prevent or minimise such losses wherever there is potential for displacement.

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## **6. Possible mitigation measures**

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- 6.1 The Proofs of Evidence of Dr James Pearce-Higgins, and of Roger Matthews address issues relating to the Breeding Birds Protection Plan (BBPP) and Habitat Management Plan (HMP) currently being offered by the Applicant.
- 6.2 Adoption of a satisfactory BBPP and HMP through conditions attached to any consent that the Minister is minded to grant will ensure that due regard is given to the conservation of curlew as a species of biodiversity importance, and to the preservation and maintenance of its habitat, while also permitting the development to proceed in its proposed form.

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## 7. Conclusions

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- 7.1 Curlew have undergone significant population declines at the Welsh, UK and global scale. Domestic and European legislation places a duty on the UK and Wales to give due regard to the conservation of the species, and to prevent deterioration of its habitat.
- 7.2 The species' decline can be attributed to a range of factors. Recent published research indicates that disturbance (primarily during construction) from wind farms can result in reduced breeding density of curlew and, as such, should be regarded as an additional pressure that may contribute to the species' decline.
- 7.3 Although the predicted impact of the application on the Welsh population of breeding curlew is unlikely to be significant, such insignificant impacts may contribute to a significant impact on the Welsh population, when multiplied across all proposed and consented windfarms in Wales.
- 7.4 The potential for such impacts may be mitigated for through the adoption of a detailed Breeding Birds Protection Plan to avoid construction impacts, and an adequate Habitat Management Plan, to secure optimal conditions for breeding curlew in the longer term.