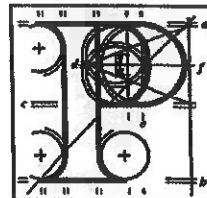


**Our Case Number: ABP-309770-21**



**An  
Bord  
Pleanála**

Development Applications Unit  
The Manager  
Development Applications Unit (DAU)  
Government Offices  
Newtown Road  
Co. Wexford  
Y35 AP90

**Date: 19 May 2021**

**Re: Proposed development of up to 15 wind turbines with a tip height of up to 175 metres and laying of approximately 26km of underground electricity cabling to facilitate the connection to the national grid, and all associated site development works  
Townlands of Camagh, Carlanstown, Coole, Clonrobert, Clonsura, Doon, Monktown, Mullagh, Newcastle and other townlands, Co. Westmeath**

Dear Sir / Madam,

An Bord Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

The Board will revert to you in due course in respect of this matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of Westmeath County Council and at the offices of An Bord Pleanála when they have been processed by the Board.

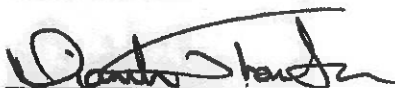
More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: [www.pleanala.ie](http://www.pleanala.ie).

If you have any queries in the meantime please contact the undersigned officer of the Board. Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

<b>Tel</b>	<b>Tel</b>	<b>(01) 858 8100</b>
<b>Glaao Áitiúil</b>	<b>LoCall</b>	<b>1890 275 175</b>
<b>Facs</b>	<b>Fax</b>	<b>(01) 872 2684</b>
<b>Láithreán Gréasáin</b>	<b>Website</b>	<b><a href="http://www.pleanala.ie">www.pleanala.ie</a></b>
<b>Ríomhphost</b>	<b>Email</b>	<b><a href="mailto:bord@pleanala.ie">bord@pleanala.ie</a></b>

<b>64 Sráid Maoilbhríde</b>	<b>64 Marlborough Street</b>
<b>Baile Átha Cliath 1</b>	<b>Dublin 1</b>
<b>D01 V902</b>	<b>D01 V902</b>

Yours faithfully,



Niamh Thornton  
Executive Officer  
Direct Line: 01-8737247

PA09

Tel  
Glao Áitiúil  
Facs  
Láithreán Gréasáin  
Ríomhphost

Tel  
LoCall  
Fax  
Website  
Email

(01) 858 8100  
1890 275 175  
(01) 872 2684  
[www.pleanala.ie](http://www.pleanala.ie)  
[bord@pleanala.ie](mailto:bord@pleanala.ie)

64 Sráid Macilbhríde  
Baile Átha Cliath 1  
D01 V902

64 Marlborough Street  
Dublin 1  
D01 V902

## Niamh Thornton

---

**From:** SIDS  
**Sent:** Tuesday 18 May 2021 08:35  
**To:** Niamh Thornton  
**Subject:** FW: Your Ref: ABP-309770-21 Our Ref: SID-WM-2021-04  
**Attachments:** ABP-309770-21.pdf

---

**From:** Manager DAU <Manager.DAU@housing.gov.ie>  
**Sent:** Monday 17 May 2021 16:08  
**To:** SIDS <sids@pleanala.ie>  
**Subject:** Your Ref: ABP-309770-21 Our Ref: SID-WM-2021-04

A Chara,

Attached please find the Nature Conservation observations/recommendations of the Department in relation to the aforementioned Strategic Infrastructure Development application.

Can you please confirm receipt of same?

Kind Regards,  
Sinéad

—  
Sinéad O' Brien  
Executive Officer

—  
Aonad na nIarratas ar Fhorbairt  
*Development Applications Unit*  
Oifigi an Rialtais  
*Government Offices*  
Bóthar an Bhaile Nua, Loch Garman, Contae Loch Garman Y35 AP90  
Newtown Road, Wexford, County Wexford Y35 AP90  
—

\*\*\*\*\*

Is faoi rún agus chun úsáide an té nó an aonán atá luaite leis, a sheoltar an ríomhphost seo agus aon comhad atá nasctha leis. Má bhfuair tú an ríomhphost seo trí earráid, déan teagmháil le bhainisteoir an chórais.

Deimhnítear leis an bhfo-nóta seo freisin go bhfuil an teachtaireacht ríomhphoist seo scuabtha le bogearraí frithvíorais chun víorais ríomhaire a aimsiú.

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An Roinn Turasóireachta, Cultúir,  
Ealaíon, Gaeltachta, Spóirt agus Meán  
Department of Tourism, Culture,  
Arts, Gaeltacht, Sport and Media

Your Ref: **ABP-309770-21**

Our Ref: **SID-WM-2021-04**

*(Please quote in all related correspondence)*

17 May 2021

The Secretary  
An Bord Pleanála  
64 Marlboro Street  
Dublin 1  
D01 V902

Via email: [sids@pleanala.ie](mailto:sids@pleanala.ie)

**Proposed Strategic Infrastructure Development (SID):** SID application by Coole Windfarm Ltd. for a 15 turbine windfarm and associated works at Coole and other Townlands, County. Westmeath.

A chara,

I refer to correspondence received in connection with the above.

Outlined below are Nature Conservation observations/recommendations co-ordinated by the Development Applications Unit.

### **Nature Conservation**

These observations raise matters in relation to the Screening for Appropriate Assessment (AA), Natura Impact Statement (NIS) and Environmental Impact Assessment (EIAR). Reference is also made to a number of accompanying environmental and ecological reports with the application.

It is noted that the proposed wind farm development site is located upstream and in proximity to a number of designated Natura 2000 sites (European sites) and Natural Heritage Areas, with the potential to significantly impact on these European and the nationally important nature conservation sites. Please see the site synopses at [www.npws.ie](http://www.npws.ie) for the description of the sites.

The Department notes that the proposed windfarm is applying for an operational life of 30 years. The Department issued observations with respect to the grid connection planning application reference 20/6121 on 25<sup>th</sup> June 2020 which was related to the previously approved application ABP Reference: PL25M.300686.



## **1. Matters relating to Appropriate Assessment (AA):**

### **1.1 Data and Surveys:**

The Department acknowledges the surveys that have been carried out in preparing the NIS. However, the Department notes that the proposed development site was divided into two sections for the purposes of field surveys. The Northern section was surveyed from 2015 to 2017 and the South and East sections were surveyed from 2018 to 2020. The Department notes that the Ornithological Vantage Point (VP) 4 that covers the northern section of the proposed development site was not surveyed between 2018 and 2020. In addition, the aquatic survey carried out in 2016 has not been updated.

### **1.2 Screening for AA:**

The Department is concerned about the rationale and procedure used in screening for AA, on Page 9 which states, *"Where there is no potential for significant effects on individual Qualifying Interests or Special Conservation Interests (QI or SCI), this is identified in the table and these features are not considered further in the AA Screening Report (AASR) or Natura Impact Statement (NIS)."* The approach taken in screening out certain Qualifying Interest (QI) habitats and species and Special Conservation Interest (SCI) species and habitats is not recommended. Once a conclusion has been reached that certain sites screen-in for AA, all the QI and SCI habitats and species for these sites should be taken forward to stage 2 and an assessment carried out.

The Department notes that the screening for AA states, *"No potential for significant effect on sites that are located outside the 15km buffer were identified."* In addition, where migration routes may be potentially affected, Special Protection Areas (SPAs) beyond 15km should be included.

The Department is also concerned about the scientific rationale used for excluding SPAs in the screening for AA. The screening for AA references, McGuinness et al., 2015<sup>1</sup> and Scottish Natural Heritage (SNH) guidance<sup>2</sup>. While the Department acknowledges there is limited guidance available on connectivity between SPA sites, the limitations of the SNH guidance in assessing connectivity between SPAs, in terms of species foraging ranges during breeding and wintering seasons, should be acknowledged. The SNH guidance covers selected species only, in a Scottish context and may need to be adapted for use in the Irish context. Furthermore, this guidance does not include information on migratory routes which should be included in any assessment of impacts. Mc Guinness et al., 2015 uses data which relates to selected species only. The limitations of this guidance with respect to the age of the data and the selected species should be acknowledged. The screening for AA should be reassessed with respect to the SCIs for the European sites in

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<sup>1</sup> Mc Guinness, S., Muldoon, C., Tierney, N., Cummins, S., Murray, A., Egan, S. & Crowe, O. (2015). Bird Sensitivity Mapping for Wind Energy Developments and Associated Infrastructure in the Republic of Ireland. BirdWatch Ireland, Kilcoole, Wicklow.

<sup>2</sup> Assessing Connectivity with Special Protection Areas (SPAs) Scottish Natural Heritage Guidance (Version 3 – June 2016)



proximity to the proposed development. And while the SNH provides guidance on Whooper Swan (*Cygnus Cygnus*) and Greenland White-fronted goose (*Anser albifrons flavirostris*), it does not provide foraging and core breeding ranges for all of the listed SCIs within the SPAs, in the vicinity of the proposed development.

The assessment with respect to the Lough Iron SPA relies on the core foraging range as set out in the SNH guidance and McGuinness et al. (2015) to exclude Greenland White-fronted Goose from the zone of sensitivity for this proposed development. While the zone of sensitivity for this species is 600m, this does not allow for an assessment of the movements between wintering sites in the Irish context.

The Department notes the screening for AA has stated that the proposed development is not within an identifiable migration route. Detailed scientific evidence should be provided with regard to this statement.

#### 1.3 NIS:

As already outlined, the Department does not recommend the approach taken in screening out certain QI/SCI species and habitats. As a result of the screening for AA process undertaken in screening out certain SCI species, for example, for Lough Iron SPA (Site Code 004046); Whooper Swan (*Cygnus cygnus*) [A038], Wigeon (*Anas penelope*) [A050], Teal (*Anas crecca*) [A052], Shoveler (*Anas clypeata*) [A056], Coot (*Fulica atra*) [A125], Golden Plover (*Pluvialis apricaria*) [A140] and Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] have been excluded from stage 2 AA. The Department is also concerned about the impacts that may potentially arise with respect to Lough Kinale and Derragh Lough SPA (Site Code 004061), Lough Sheelin SPA (Site Code 004065), Glen Lough SPA (Site Code 004045) and Garriskil Bog SPA (Site Code 004102). The Department is therefore of the view that the NIS is deficient in not assessing all the QI/SCI for sites which have been screened in for AA.

The Department would also like to highlight that SCI species cannot be excluded from assessment if the 'Wetland and Waterbirds [A999]' habitat has been screened in for AA. The Department notes on page 3 of the NIS that incorrect QIs have been listed for Lough Ennell Special Area of Conservation (SAC) (Site code 000685).

##### 1.3.1 Site Description:

The Department notes that the proposed development site is located mainly on an area of cutaway peat and conifer plantation. The Department notes that the NIS states that the proposed development has been designed to be "as far from watercourses as possible." The Department notes that a number of turbines are proposed to be located in close proximity to a number of prominent watercourses i.e. the River Glore and River Inny which in turn flow downstream to Lough Derravarragh. The Department also notes that a number of watercourse crossings are proposed in the site itself and along the grid connection with the potential to significantly affect European Sites.



It is unclear from the EIAR and NIS if peat harvesting will continue or whether the commercial peat area will be rehabilitated during the operational lifespan of this proposed development. Clarification is required in this respect.

#### **1.3.2 Surveys:**

As outlined already, the Department would like to highlight the need for ecological survey data to describe the current situation in relation to the environmental baseline. In particular, the Department is of the view that the aquatic surveys undertaken in June 2016 are not fit for purpose and need to be updated.

With respect to flight activity, reliance has been placed on vantage point (VP) surveys. The Department notes that data provided should be up to date for each VP location. The Department notes there is a gap in the view shed of the three VP locations (VP3, 4 & 5) and that nocturnal bird surveys were not conducted to assess movements between SPAs to assess migratory routes.

The Department notes the breeding raptor survey duration of effort is not standardised with respect to vantage point watches. The duration of VP watches should be consistent and in accordance with the methodology and guidelines used.

The Department acknowledges the waterfowl surveys which were undertaken which were above the requirements of the SNH 2017 guidance<sup>3</sup>. In relation to Lough Iron, the monthly surveys, focused on Greenland White-fronted goose. The Department is concerned that the conclusion of the screening for AA has excluded this species from further assessment in the NIS given the recorded observations of flights through the proposed development site.

#### **1.3.3 Desktop Study Results:**

The Department notes the 'Desktop Study Results' for each of the identified European Sites. Deterioration in surface water quality, collision and bird disturbance is identified as a potential impact from the proposed development. The Department would like to highlight the requirement to assess all the identified impacts on each QI and SCI, in view of the conservation objectives, of the European sites. The Department recommends where Site Specific Conservation Objectives (SSCOs) are available that these are detailed in the desktop study assessment with links to the relevant SSCO provided.

The Department is concerned about potential impacts on bird species that utilise the SPAs in the vicinity of the proposed development. Sufficient scientific survey information is required to adequately assess the movements of species between SPA sites and also on migratory routes. Barrier effects can only be assessed following detailed surveys across all day and night periods.

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<sup>3</sup> Recommended bird survey methods to inform impact assessment of onshore wind farms, SNH (2017), V2.



#### 1.3.4 EPA River Catchments and Watercourses:

The Department would like to highlight that Rivers Inny and Glere are listed as "At Risk" by the Environmental Protection Agency (EPA) in the immediate vicinity of the proposed development. The Department recommends an assessment of data from water source sampling locations, in view of the conservation objectives, to determine if the existing mitigation used by the peat harvesting operation and the proposed mitigation for the proposed development will be effective in avoiding or reducing impacts to European Sites. Lough Derravarragh SPA has seen a decline in the SCI species using this lake, therefore a detailed assessment of the water quality parameters is required in the River Inny and Lough Derravarragh SPA<sup>4</sup> in order to assess the in-combination effects.

#### 1.3.5 Ecological Survey Results:

The Department acknowledges the detailed habitat survey information provided, however clarification is requested about the habitat identified as PB1 on page 34 of the NIS and whether this habitat equates to Annex I habitat.

The Department would also like to highlight recent research on Ground Water Dependent Terrestrial Ecosystems (GWDTE) (Regan et al., 2019<sup>5</sup>) which indicates that raised bogs are not 'isolated hydrological entities' but rather ambient hydrogeological conditions can result in significant, direct hydrological connections between the peatland and the groundwater. This means that the effects of marginal drainage works around raised bogs can extend to 900 metres into the bog and impact significantly on the surface acrotelm. The impacts on Garriskil Bog and Scragh Bog from the proposed grid connection should also be assessed in this context.

#### 1.3.6 SCI Species:

The Department notes the results of the bird surveys with respect to SCI species and would like to highlight the exclusion of SCI species Greenland white-fronted goose in the AA mitigation.

##### 1.3.6.1 Whooper swan:

The Department notes that no evidence of roosting was recorded within 1km of the proposed development site. The Department recommends clarification regarding the scientific evidence for the statement on page 58 of the NIS that "*the development site does not lie on a migratory corridor for whooper swan*". The Department notes the collision risk is indicated as one Whooper swan per 7 years which would equate to approximately 4 Whooper swans over the operational lifespan of the wind farm. The assessment should also include impacts on family groups. While a single mortality may be considered insignificant, mortality of the adults within a family group, may be significant. Mitigation is not presented

<sup>4</sup> <https://www.npws.ie/protected-sites/spa/004043>

<sup>5</sup> Regan, S., Flynn, R., Gill, L., Naughton, O., Johnston, P., 2019. Impacts of groundwater drainage on peatland subsidence and its ecological implications on an Atlantic raised bog. Water Resources Research. <https://doi.org/10.1029/2019WR024937>.



with respect to disturbance to Whooper swan or in the event of increased mortality being observed during the monitoring period of the operational phase. The 'mitigation by design' for Whooper swan references '*avoiding effects*' and '*disturbance to nesting birds*'. Whooper swan are a wintering species to Ireland and breed in Iceland. The mitigation should detail timing of operations along the grid connection route, to avoid disturbance to SCI species and include appropriate mitigation to avoid or reduce collision mortality. The Department recommends recent research published on collision risk mitigation (May *et al.*, 2020) for specific bird species<sup>6</sup>.

#### 1.3.6.2 Assessment of potential effects and associated mitigation:

The Department is concerned about the impacts on SCI species from this proposed development due to the proximity to a number of SPA sites. Specifically, the Department is concerned about the lack of nocturnal surveys e.g. using radar and other research techniques which can include satellite tracking and assessment of colour ring observations between sites.

In addition, the Department is concerned about the impacts from lighting on SCI species and other non SCI bird species which should be included in the assessment of potential effects, including effects on migratory species. Specifically in relation to Chapter 14 of the EIAR, aviation lighting design should consider best practice guidance, such as the recently published NatureScot (formerly Scottish Natural Heritage) Information Note on the '*Effects of Aviation Obstruction Lighting on Birds at Wind Turbines, Communication Towers and Other Structures*'<sup>7</sup>. A number of mitigation options exist and these are listed in this guidance and must be considered in relation to the proposed development.

#### 1.3.6.3 Mitigation:

The Department notes that 'Mitigation by Design, Mitigation during Construction, Operation and Decommissioning' is outlined generally for whooper swan and for deterioration of water quality. Mitigation measures should be clear and specific for each identified impact on each QI and SCI. They must be based on a sound scientific understanding of the habitats or species within the affected European sites and designed to ensure they can be effectively implemented.

The Department recommends that mitigation is clearly outlined for each of the identified QI habitats and species identified under 'Deterioration of Water Quality' i.e. Section 5.2.3. Furthermore, construction phase mitigation presented e.g. Section 5.2.2.3 relates to EIAR mitigation and not specifically how it will avoid impacts on QI or SCI species and habitats.

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<sup>6</sup> May R, Nygård T, Falkdalen U, Åström J, Hamre Ø, Stokke BG. Paint it black: Efficacy of increased wind turbine rotor blade visibility to reduce avian fatalities. *Ecol Evol.* 2020; 00:1–9. <https://doi.org/10.1002/ece3.6592>

<sup>7</sup> Information note - The Effect of Aviation Obstruction Lighting on Birds at Wind Turbines, Communication Towers and Other Structures | NatureScot



The Department recommends in 'Construction Phase Drainage Management' that all mitigation measures, for example, vegetation filters and locations of silt fences should be specified on maps. With respect to 'Hydrocarbons and Waste Material' and 'Concrete Pouring', the use of terms e.g. '*Wherever possible*' or '*It is anticipated*' should be removed. Specific detail and certainty underpins the NIS, the AA process, there should be no uncertainty surrounding the implementation of a mitigation measure in an NIS. Furthermore, the Department highlights that piled foundations are indicated as '*likely*' to be required for all turbines with exception of T 5 and T 15. This should be clarified.

The NIS provides a list of water quality monitoring parameters as '*likely*' to be used in section 5.2.3.5, all of which should be included in the monitoring programme.

Mitigation for the Decommissioning phase, Section 5.2.4.1 is limited to describing the turbine decommissioning. Rehabilitation of the development site following decommissioning has not been described.

#### 1.3.6.4 Assessment of Residual Adverse Effects:

The Department notes the assessment of the 'Targets' and 'Attributes' for the QI habitats presented in Table 6-1 page 71 of the NIS, however as outlined already, an analysis of data from water source sampling locations within and downstream of the proposed development site is recommended in the NIS, in view of the SSCOs, to determine if the mitigation measures will be effective in avoiding or reducing impacts to European sites. For example, the SSCO document<sup>8</sup> for QI habitat [3140] states the following:

*"Attribute: Water quality nutrients, Target - Maintain the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species. Notes: For Lake Habitat 3140 is typically associated with high water quality, as demonstrated by naturally low dissolved nutrients....., annual average TP concentration should be  $\leq 10\mu\text{TP}$ , average annual total ammonia concentration should be  $\leq 0.04\text{mg/l N}$  and annual 95<sup>th</sup> percentile for total ammonia should be  $\leq 0.09\text{mg/l N}$ ."*

The mitigation measures presented in the NIS should be designed so that the targets for the SSCO for each QI/SCI will not be exceeded during the construction and operational phases of the proposed development.

With respect to Lough Derravarragh SPA which is hydrologically connected to the proposed development site within the foraging and commuting range of Whooper swan, further assessment is recommended in terms of the movement of species and associated flight paths.

The Department notes the assessment for Lough Iron SPA has only considered the SCI habitat [A999] in the NIS and has not assessed the potential for likely significant impacts on Greenland white-fronted goose. It is noted that Greenland white-fronted geese were observed on two occasions flying through the proposed development site. The observed

<sup>8</sup> [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000688.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000688.pdf)



data shows that Greenland white-fronted geese do move outside of the core foraging range stated in the SNH guidance, in the context of the Irish landscape. Any potential loss of Greenland white-fronted geese can be considered significant given the long term decreasing trend for this wintering species Burke et al. (2018)<sup>9</sup> and impacts on family groups from mortalities. The Department is concerned with regard to the lacunae in the assessment of the nocturnal migratory routes for this species, specifically.

#### 1.3.6.5 Invasive Species:

A linear infrastructure project such as the grid connection of the proposed project provides an opportunity for invasive species to spread over long distances. Any control or management of invasive species required should be undertaken in accordance with the two recent Transport Infrastructure Ireland (TII) publications 'The Management of Invasive Alien Plant Species on National Roads – Standard' and 'The Management of Invasive Alien Plant Species on National Roads – Technical Guidance'<sup>10</sup>. Removal of Knotweed species off site should adhere to the strict licensing requirements under Regulation 49 of the European Communities (Birds and Natural Habitats Regulations 2011, as amended. The disposal facility should also be specified in the NIS.

#### 1.3.6.6 In combination Effects:

The Department would like to highlight the Westmeath County Development Plan 2021-2027 Natura 2000 sites' policy objective CPO 12.6, *"Ensure that any plan or project that could have a significant adverse impact (either by themselves or in combination with other plans and projects) upon the conservation objectives of any Natura 2000 Site or would result in the deterioration of any habitat or any species reliant on that habitat will not be permitted. Footnote: Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place."*

The Department notes the inclusion of the Further Information request relating to the planning application for the grid connection, planning reference 20/6121, which has been included in the in-combination effects assessment. The Department issued detailed observations with regard to the proposed grid connection at the time of the application.

The Department recommends the inclusion of a map highlighting the location of all other projects which have been included in the in-combination assessment. An assessment of the potential barrier effects to SCI species, in combination with all the other projects, should also be carried out. In addition, an assessment of the existing peat harvesting at the development site should be included in the in-combination assessment, in view of the conservation objectives of the European sites.

<sup>9</sup> Estimates of waterbird numbers wintering in Ireland 2011/12-2015/16. Irish Birds 11:1-12 (2018)

<sup>10</sup> TII (2020) The Management of Invasive Alien Plant Species on National Roads – Standard GE-ENV-01104 December 2020 6 TII (2020) and The Management of Invasive Alien Plant Species on National Roads – Technical Guidance <https://www.tiipublications.ie/library/GE-ENV-01105-01.pdf>



## **2.0 Matters relating to Environmental Impact Assessment Report (EIAR):**

### **2.1 Project Description:**

The Department notes that the EIAR states that it assesses the potential for peat extraction on the site to continue and indicates in the event that peat extraction ceases that a site rehabilitation plan will be required to encourage re-vegetation of bare peat areas and creation of small wetland areas. The Department recommends that the rehabilitation plan should be assessed in conjunction with the EIAR for this proposed development. The peat harvesting activities, in the Department's view, have not been sufficiently addressed in the NIS and EIAR in the context of the interactions with the proposed development.

### **2.2 Surveys:**

In addition, to the observations with respect to surveys and data already outlined in the NIS, the Department recommends that the methodologies and timings used in the bird surveys for the grid connection route should be clarified. The Department acknowledges that a car based bat survey was conducted along the grid connection route however the rationale should be provided for using a single survey visit methodology.

### **2.3 Peat stability:**

The Department notes that the peat depths varied between 0 and 7.8m with an average depth of 3.2m with angle of slope varying between 1-3°. The 'Geotechnical and Peat Stability' report states that T1, T3, T4, T10, T11, T12 & T13 are located in areas which have a higher construction risk. The Department notes these correspond to areas where significant peat depths are recorded i.e. between 5m-8m depth. In addition T1, T3 & T4 are close to the River Glor and Inny and associated features including Lough Bane proposed Natural Heritage Area (pNHA) (Site Code 001721). The Department is concerned about the potential impacts from the siting of a turbine with regard to the drainage impacts on this pNHA.

The Department notes that the geotechnical report states on page 21 that, "*Peat strength at sites of known peat failures (assuming undrained loading failure) are generally very low, for example the undrained shear strength at the Derrybrien failure (AGEC, 2004) as derived from back-analysis, was estimated at 2.5kPa. The recorded undrained strength at Coole is significantly greater than the lower bound values for Derrybrien indicating that there is no close correlation to the peat conditions at the Derrybrien site and that there is significantly less likelihood of failure on the Coole site.*" The Department is concerned about this statement in view of the peat depths and slope angles at the following proposed turbine locations; T1, T2, T3, T9, T10, T12 and T13, where the peat depths vary from 4m to 6.6m. The slope angles at each of these proposed locations are 2° except for T9 and T13 which are greater i.e. 3°. The geotechnical report should be updated in light of information from recent landslide events in Leitrim<sup>11</sup> and Donegal. The factors that have been used to determine that the proposed development has an acceptable margin of safety and 'low risk'

<sup>11</sup> <https://www.npws.ie/news/shass-mountain-peat-landslide-report-published>



may need to be revised, as the recent landslides occurred on a very low slopes between 1-4°. While the existing drainage within the proposed development site may reduce instability of the peat, pathways exist where rapid increase in water pore pressure can cause the peat to become unstable, therefore the Department is concerned that there is a potential high risk of failure at the Coole Wind farm site.

#### 2.4 Carbon benefit analysis:

The Department notes that the total estimated volume of peat and overburden to be excavated is 97,980m<sup>3</sup>. The calculation on CO<sub>2</sub> losses from the proposed development, Table 10-10, estimates an expected loss of 156,138 tonnes of CO<sub>2</sub> equivalent, over the 30 year lifespan. The calculation model allows for two choices with respect to the habitat type, 'Acid Bog' or 'Fen'. Cutover peat areas will emit increased carbon via air and water compared to intact peat lands. The model calculations are based on the development footprint and not on the whole development site. Calculations should include scenarios where peat harvesting continues in combination with the proposed development and where rehabilitation is undertaken in combination with the proposed development. Noting the peat depths within the proposed development site which vary between 0-7.8m, the model should include an assessment of the carbon savings from rehabilitating the whole development site in conjunction with the carbon savings, which are acknowledged over the lifetime of the development.

#### 2.5 Fauna:

##### 2.5.1 Mammals:

With respect to the map presented on page 6-56, clarification is required with regard to the location of the Otter (*Lutra lutra*) spraint, the legend colours are similar and it appears data is missing for the 2013 survey.

Badger (*Meles meles*) activity has been identified within the proposed development site. The Department recommends clarification with regard to identifying the main sett location.

In relation to assessment of potential effects on Otter and Badger, it is noted that pre-commencement surveys are proposed as mitigation. The Department notes that these additional surveys for Otter are proposed prior to commencement of works in the context of the requirements of Regulation 51 of the EC (Birds and Natural Habitats) Regulations, 2011 (as amended). The Department underlines the need to ensure that the requirements of Regulation 51 are met in full so that the strict regime of protection afforded this species is ensured.

The Department acknowledges the detailed bat survey and impact assessment prepared by Woodrow Sustainable Solutions Ltd. The Department notes that 31,065 bat passes were recorded during the surveys and notes that the bat impact assessment identifies Common and Soprano pipistrelle and Leisler's bat at highest risk of collision and/or barotrauma. Three turbine locations are identified as having the potential to cause significant impacts on Common and Soprano pipistrelle at a local level. Similarly, Nathusius' pipistrelle are listed



as medium risk and significant impacts at a local level. The Department notes that Leisler's bat is at higher risk around turbines T5 and T7.

The Department acknowledges the mitigation proposed in the bat survey report and impact assessment report and recommends implementing these in full. The Department acknowledges that recent published guidance has been used to determine the survey design however new survey research<sup>12</sup> on patterns of bat activity in upland wind farms indicates it is more appropriate to use 30 day survey periods with static automated detectors, in each season, and in different weather conditions to reduce sampling bias and to accurately determine when the curtailment mitigation is required during the operational phase of the proposed development. Curtailment mitigation should be based on the peak activity times within each season at each turbine location.

Bat species (and Otter) are protected under the Wildlife Act, 1976, and are subject to a regime of strict protection pursuant to the requirements of the Habitats Directive (92/43/EEC) as transposed in Irish law in Regulation 51 of the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended).

The Department recommends the following measures are put in place to mitigate impacts to all bat species in the proposed development site and along the proposed grid connection route:

1. Bat surveys in the proposed development site should be carried out over a number of additional dates prior to the commencement of the development, potential bat roosts should be reassessed over a number of dates, recorded, marked and examined at height for bat presence, under licence from the National Parks and Wildlife Service section of this Department. The survey should be carried out in accordance with the Bat Tree Habitat Key and companion volume, BTHK 2020, available for free download at [http://battreehabitatkey.co.uk/?page\\_id=43](http://battreehabitatkey.co.uk/?page_id=43). A report on this survey, including details of potential roost features found to be submitted to the planning authority and the National Parks and Wildlife Service prior to the commencement of the development.
2. Any roosts identified, are protected under the provisions of Regulation 51 of the European Communities (Birds and Natural Habitats) Regulations 2011-2015. Therefore, damage/disturbance to any such roosts must be avoided in the first instance. While the Minister may grant a derogation licence under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011-2015, a licence can only be granted once a number of strict criteria have been met (see Regulation 54). Applications for derogation licences can be made in writing, including survey results and proposed mitigation measures, to the Wildlife Licensing Unit of the National Parks and Wildlife Service.
3. Replacement planting of trees and hedgerows should include a mix of age classes of trees of native species to ensure a similar structure to the removed hedgerows is replaced. A specific condition, as stated in the EIAR, should be included prohibiting any

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<sup>12</sup> <https://cieem.net/resource/cieem-webinar-patterns-of-bat-activity-at-upland-windfarms-implications-for-sampling-and-mitigation/>



removal of any trees or vegetation including conifer trees in the plantation; between the 1<sup>st</sup> March to 31<sup>st</sup> August of any year for the duration of the construction phase for the purposes of protecting nesting bird species and bat species recorded during the surveys.

#### 2.5.2 Birds:

The Department is concerned about the impacts on bird species. A wide range of species have been recorded using the proposed development site and are at risk of collision or displacement. As outlined earlier, surveys should be up to date. The Department notes that breeding Woodcock (*Scolopax rusticola*) surveys took place in 2016 and 2017. These surveys are considered now to be out of date.

With respect to Common Buzzard (*Buteo buteo*) 134 flights were recorded at collision height during 2015-2017 and 41 flights during 2018-2020. It is noted that Buzzard was assigned confirmed breeding status. Survey data indicates significant activity at the proposed location of turbine T15. The Department notes the collision risk analysis for Buzzard (2.68 collisions per year) has assessed the risk across all seasons. The collision risk assessment should include an assessment during the breeding season specifically.

Furthermore, for Lapwing (*Vanellus vanellus*), a red listed Birds of Conservation Concern in Ireland (BoCCI) species, the collision risk analysis should be undertaken with respect to the breeding season as well as the wintering season.

Survey data is insufficient with regard to red listed BoCCI<sup>13</sup>, for example, Meadow pipit (*Anthus pratensis*) but also including other species, such as amber listed Skylark (*Alauda arvensis*). Loss of habitat surrounding T15 will result in the loss of habitat for Meadow pipit and Skylark. Impacts associated with Meadow pipit will also impact on Cuckoo (*Cuculus canorus*).

Golden plover (*Pluvialis apricaria*) were found to have the highest predicted annual mortality rates of all the species recorded during the surveys. The predicted collision risk for Golden plover was 34 collisions per year which equates to approximately 1,020 over the lifetime of the operational phase, which is half of the estimated County population of this Annex I listed species. Declines of >20% are evident in golden plover in recent years, Burke et al. (2018). The Department advises that the large and rapid decline in the golden plover numbers as well as the cumulative collision risk in combination with other wind farms should be taken into account when assessing the significance of collision impacts on local populations.

Similarly, for Peregrine falcon (*Falco peregrinus*), an Annex I listed species, the collision risk is estimated at ) 0.127 collisions per year which equates to four individuals over the 30 year span of the proposed project which is considered a significant impact on the local breeding population, in the Department's view.

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<sup>13</sup> Birds of Conservation Concern in Ireland 4: 2020–2026 Irish Birds 43: 1–22 (2021)



### **3.0 Biodiversity Net Loss:**

The National Biodiversity Action Plan 2017- 2021 aims to conserve and restore Ireland's biodiversity. A key objective of this Plan is to achieve no net contribution to biodiversity loss arising from development projects occurring within the lifetime of the plan. Accordingly, the application should outline how this project will avoid a net loss of biodiversity noting the potential impacts on local and migratory bird species from the operational phase of the proposed development.

### **4.0 Conclusion:**

The Department would like to highlight that the conclusions of any Appropriate Assessment must be certain, with the assessment based on the best available scientific evidence and containing no lacunae. In relation to the current proposal, it is the view of this Department that it is not possible, based on the information currently available and lacunae in the screening for AA, NIS and EIAR, to exclude the likelihood of negative implications of the project for the conservation objectives of the European sites and biodiversity in general.

You are requested to send any further communications to this Department's Development Applications Unit (DAU) at the following address:

The Manager  
Development Applications Unit (DAU)  
Government Offices  
Newtown Road  
Wexford  
Y35 AP90

Is mise le meas,

Simon Dolan  
Development Applications Unit