An Bord Pleanála

Inspector's Report

ABP-312748-22

Development	Construction of one 4.2MW wind turbine with an overall tip height of up to 150 metres, turbine foundation, hardstanding and assembly area, site entrance and access track, on-site 20kV substation and underground electrical cable, and all associated site development and ancillary works
Location	Kilcash, Co. Roscommon
Planning Authority	Roscommon County Council
Planning Authority Reg. Ref.	21/221
Applicant(s)	Natural Forces Renewable Energy Ltd.
Type of Application	Permission
Planning Authority Decision	Refuse Permission
Type of Appeal	First Party v Refusal of Permission
Appellant(s)	Natural Forces Renewable Energy Ltd.
Observer(s)	1. Peter Sweetman

Date of Site Inspection	27th May 2022
Inspector	Anthony Kelly

1.0 Site Location and Description

The site is located approx. 3.5km west of Knockcroghery village and approx. 5.5km south of Roscommon town in south central Co. Roscommon.

The proposed turbine is to be located within a field approx. 530 metres north of the local road serving the site. There is an existing private access lane off the local road which serves a farmyard, and which is to be extended to serve the proposed turbine. The area around the proposed turbine is agricultural in nature with fields to all directions. The wider area is in a localised upland area and ground levels rise gently from the public road to the proposed turbine location and in a westerly direction. Existing wind turbines are visible to the south west from the site.

The site has an area of 4.1 hectares.

2.0 Proposed Development

Permission is sought for:

- one 4.2MW wind turbine with an overall tip height of up to 150 metres,
- wind turbine foundation, hardstanding, and assembly area,
- site entrance and access track,
- on-site 20kV substation and underground electrical cable, and,
- all associated site works.

In addition to standard planning application plans and particulars the application was accompanied by:

- An ‘Environmental and Planning Report’ (E&PR) prepared by Rowan Engineering Consultants Ltd. (Rowan) dated April 2021. A number of appendices were submitted with this.
- An ‘Environmental Impact Assessment – Screening Report’ prepared by Rowan dated April 2021.

The applicant is described as a 'private independent power producer that delivers renewable energy projects in partnership with local communities in line with the Terms and Conditions of the Irish Governments Renewable Energy Support Scheme' (RESS). A 30-year project lifespan is cited, and construction would take 6-8 months.

The approx. 80 metres high tower would likely be a hybrid tower assembled from precast concrete segments and a steel section, painted grey. The overall tip height would be up to 150 metres. Rotor blades are made of glass-fibre reinforced plastic, balsa wood, and foam with a blade diameter of 138 metres. The proposed 20kV substation has a floor area of 53sqm and a height of 5.063 metres. The external walls are to be rendered and there is a slate roof.

The E&PR, in section 2.1, includes in the project description for the planning application, 'a c.2km grid connection will Tee into the existing overhead line that connects Skrine wind farm which to the existing [sic] Roscommon 38kV substation and all associated ancillary activities'. However, section 3.1.3 states that 'Whilst the grid connection has been accounted for in the development of the assessments, it will be subject to a Section 5 application … and on this basis, has not been included within the red line boundary for the proposed Project'. Given the provisions of section 3.1.3, and the exclusion of the grid connection from the development description as per the public notices, I do not consider that connection to the grid forms part of the planning application. The applicant states that the exact grid connection detail would only become clear when ESB are undertaking their detailed design review of the grid connection works. The applicant provides an indicative grid connection route from the proposed on-site substation via overground cable, keying into an existing line from Skrine wind farm, and terminating at Roscommon 38kV substation.

Further information was sought by the planning authority on 23rd June 2021. A further information response was received on 10th November, 2021. (Revised significant further information public notices were received on 17th November, 2021). The further information response contained a Natura Impact Statement (NIS) and response to issues raised by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, as well as responses to issues raised in relation to hydrology and hydrogeology, roads, the lifespan of the proposed development, and electromagnetic interference.

3.0 Planning Authority Decision

Decision

Roscommon Co. Co. refused permission for two reasons:

1. The Planning Authority in undertaking an Appropriate Assessment has concluded that the submitted Natura Impact Statement has insufficiently assessed the impacts of the proposed development on the Golden Plover (an Annex I Species) and the Whooper Swan (an Annex II Species) in light of conservation objectives including information with regard to migratory routes and flight lines and having regard to the proximity of two Natura 2000 sites – Lough Ree SPA (Site Code 004064), and the River Suck Callows SPA (Site Code 004097). Having regard to the foregoing and as set out in the Planning Authority's concluding statement in the Stage 2 Appropriate Assessment, it is considered that it has not been sufficiently demonstrated that adverse effects on the integrity of Natura 2000 sites including the aforementioned species and their habitats, arising from the proposed development can be excluded. On the basis of information presented to date, it is considered that the proposed development has the potential to materially contravene Policy 7.1 of the Roscommon County Development Plan 2014-2020, which seeks to 'protect proposed and designated Natural Heritage Areas, Special Protection Areas and Special Areas of Conservation'. The proposed development would therefore be contrary to the proper planning and sustainable development of the area.
2. In the absence of a full hydrogeological assessment being carried out to determine potential route(s) where contaminants could migrate from site in the event of a discharge, accidental or otherwise, the Planning Authority is not satisfied that the nature and extent of mitigation measures detailed in submitted documentation are sufficient, would be successful nor represent good practice. In the absence of a full hydrogeological assessment, it has not been demonstrated that the proposed development would not adversely impact groundwaters in an area of extreme vulnerability. Accordingly, the proposed development has the potential to be prejudicial to public health and would be contrary to the proper planning and sustainable development of the area.

Planning Authority Reports

The first planning authority Planning Report includes, inter alia, a brief site and development description, a detailed outline of the policy context, and a summary of issues raised in the observations received. It summarises reports and information submitted in support of the application and a detailed assessment of these was carried out. The proposed development is considered to be consistent with the policy context and would be 'visually tolerable in a landscape that is not attributed with exceptional visual quality'. The report accepts that an environmental impact assessment report (EIAR) is not required, though it outlines concern in relation to both appropriate assessment (AA) and biodiversity. The planning authority also carried out its own AA screening which concluded 'the likelihood of significant impacts on, and adverse impacts to the integrity of the Natura 2000 network cannot be ruled out and as such, a Stage 2 Appropriate Assessment is required'. This conclusion related specifically to special conservation interest (SCI) species in SPAs. The Planning Report recommended further information be sought on (i) issues raised by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media submission, (ii) hydrology and hydrogeology, (iii) haul routes and construction traffic, (iv) clarity on the 'life expectancy' of the proposed development, and, (v) the potential for electromagnetic interference.

The second planning authority Planning Report and AA is based on the further information response. In its conclusion, the report considers the proposed turbine 'is generally compliant with and the principle acceptable at a strategic policy level', though hydrology and hydrogeological concerns, and the potential impacts on designated bird species, are 'site specific issues which remain unsatisfactorily addressed'. The planning authority notes that it is precluded from requesting a clarification of further information because of statutory time constraints. Permission was refused for the two reasons set out above.

Other Technical Reports

Environment Section – No report was received on foot of the original submission, but a report was prepared on foot of the further information response as follows.

The proposed development is in close proximity to a number of dolines (Inspector's note – natural enclosed depressions found in karst landscapes). These features

increase the potential risk of contamination from activities carried out close to them. The applicant could not predict the distance or depth that any potential contaminant could travel so any accidental discharges would be difficult to mitigate. The applicant gives details of construction and operation prevention measures. Given the site vulnerability and geology a full hydrogeological assessment is required to determine potential routes for contaminants, which would ultimately affect any remediation measures.

The proposal, should it be required, to pump waters from foundation to the roadside drain is not in accordance with good practice.

The presence of golden plover on site requires further monitoring and examination of site usage. The Environment Department has grave concerns over the suitability of the site.

Prescribed Bodies

Irish Aviation Authority (IAA) – A report was received on foot of the original planning application. In the event of consent being granted the applicant should be conditioned to contact the IAA to agree (i) an aeronautical obstacle warning light scheme, and (ii) provide as-constructed coordinates and ground and tip height elevations.

Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media –

A report was received on foot of the original planning application as follows.

Archaeology – Due to the scale of the proposed development, the National Monuments Service recommends that pre-development testing, as set out in the report, should be carried out as further information to enable the department and planning authority formulate an informed recommendation prior to a decision.

Nature Conservation – Appropriate Assessment (AA) – The site visit was carried out on 4th February 2021 with the primary objective of mapping habitats and determining evidence of protected species. This is outside the appropriate time of year for a habitat field survey, as acknowledged in the submitted AA Screening Report. Wintering bird surveys were undertaken over a single winter period, 2020/21. Full details of these should be included in the screening. Guidance on bird surveys recommends a

minimum of two years covering all times of the year. The screening is inadequate in this respect.

The AA screening does not reference the article 12 and 17 reports under the Birds and Habitats Directives and does not include a species status assessment for relevant species of conservation interest (SCI). The screening has omitted the Four Roads Turlough Special Area of Conservation (SAC) and Special Protection Area (SPA). The department is concerned about the rationale and process used in the screening, specifically the identification of potential impacts on SCI species in the surrounding SPAs including assessment of barrier, collision mortality, and lighting impacts. The screening has not assessed all the elements of the project, specifically an in-combination assessment of other wind farm projects.

Nature Conservation – Ecological Impact Assessment (EcIA) – The department is concerned about the level of detail and surveys carried out to inform the EcIA. Bat and birds are specifically referenced.

It is not possible, based on information available, to exclude the likelihood of negative implications for the conservation objectives of European sites. The absence of detailed information in relation to the EcIA means potential impacts cannot be excluded or appropriate mitigation be proposed.

Despite the content of the department's report, no further submission was received on foot of the further information response.

Third Party Observations/Submissions

It appears that 116 no. submissions were received by the planning authority on foot of the planning application, with one of these subsequently withdrawn. The majority of submissions were from residents of the local area with some from outside the county (approx. 11 no). There were also submissions from Mote Park Conservation Group, Kilcash Wind Turbine Action Group (KWTAG), Peter Sweetman and on behalf of Wild Irish Defence CLG, as well as from one TD and two county councillors. Redacted and non-redacted copies of the submissions were forwarded by the planning authority to the Board.

The main points made in the submissions can be collectively summarised as follows:

Application

- The TD's submission noted that the application was not validated for twelve days after lodgement, which limited residents' time to make submissions. An extension to the submission period was requested
- Photomontages fail to give a good representation / selective/deficient viewpoint
- Inadequate public consultation prior to submission / extent of engagement is disputed
- Concern with RESS scheme / no information on community involvement / this is not a community project / community classification is wholly misrepresented / little or no support for the project in the area / it is a developer-led project not a community-led project / no community member involved in Knockcroghery Sustainable Energy Community apart from the landowner
- Landowners' addresses are incorrect/incomplete/misleading
- Issues with the visibility of the site notice
- Biased conclusion to the Visual Impact Assessment (VIA) / deficient VIA
- Deficient AA and EIA Screening Reports
- No Flood Risk Assessment
- The edge/blade of the turbine is approx. 550 metres to the nearest house, so the nearest house to the turbine is not 616 metres / the draft guidelines refer to the curtilage of any residential property and not the household
- The submitted maps do not show all development

Biodiversity/Ecology/Landscape

- AA is mandatory and once a NIS is required an EIAR will be found to be necessary / the AA screening report did not adequately examine the hydraulic connection to Lough Ree SAC and SPA and a NIS is required
- Detailed survey requirements as per tables 1 and 2 in the Roscommon Renewable Energy Strategy 2014-2020 have not been carried out
- No assessment of the indicative grid connection route

- Total volume of soil to be removed has not been quantified
- Impact on wildlife (multiple species referenced) / bird strike / interference with flight paths / no bat derogation licence applied for
- Scenic area / wrong place for a turbine / destroy views / out of character / impact on scenic view 19 of the Roscommon County Development Plan 2014 / contrary to objectives 7.37 and 7.40 of the plan / more suitable locations / impact on long distance views
- Impact on the karst landscape
- Concern about the conclusion of the ecological report
- Research shows a decrease in Irish bird populations adjacent to turbines
- Light pollution / additional industrial-type development in a rural area

Residential Amenity

- Overlooking and nuisance / wrong place for a turbine / shadowing.
- Noise from existing turbines / psychological and physical impact / visual impact / shadow flicker / air pressure disturbance / impact on bored wells
- 500 metres setback distance is out-dated / too close to houses / Wind Energy Guidelines 2006 are outdated / set backs as per the Westmeath County Development Plan should be adopted
- Devaluation of property
- Negative impact on the community

Miscellaneous

- A full archaeological assessment is required / impact on existing archaeological sites
- Exacerbation of medical conditions of local residents / wide variety of health implications including general and mental health / adverse health effects from living in proximity to turbines
- Blade failure / unacceptable risk to residents, horse riders, and walkers
- Affect tourism

- The turbines are of no value to the community
- Excessive numbers of wind turbines and wind farms / combined impact with existing turbines in terms of noise
- Previous planning application refusal (P.A. Reg. Ref. 05/463) / impact on future planning applications for houses in the area / cited experiences of living beside wind farms
- Potential for impact on telecommunications, TV, emergency services, broadband etc.
- Concern about the viability of a single turbine and that it is only a test application for further development / requirement for applicant to show viability
- The in-combination effect with the existing two-turbine wind farm was dismissed in the EIA screening report. Combined, they are almost double the relevant EIAR threshold. Without completion of an EIAR it can only be considered project splitting / there are other planned wind farms within 10km / cumulative impact of turbines
- A hydrogeological study is required / proximity to sinkhole / reference to the impact on Lough Funshinagh when natural drainage paths were damaged
- The Air Corps use the area as a flight path / in the flight path of the Emergency Aeromedical Service helicopter
- Too close to a residential road / proposed haul route is not suitable / suitability of the local road network
- Depopulation of the area
- Impact of the proposed substation
- Energy from turbines is expensive as opposed to natural gas. They are expensive to build, have a limited lifespan, and materials used are not Irish
- The proposed site should be physically marked out to ensure it does not deviate from the maps
- Negative impact on local business
- Impact on future plans of affected landowners

Two additional submissions were received on foot of the re-advertised public notices from (1) KWTAG, and (2) Brendan Naughton, Farbreagues, Knockcroghery. KWTAG considers that the further information response does not adequately address the further information request and the application should be refused. Brendan Naughton, whose house would be closest to the proposed turbine as stated in the original submission, considers that the submitted NIS bird surveys are inaccurate and incomplete.

4.0 Planning History

There has been no previous relevant planning application on the site/field of the current proposed development.

Pre-application consultation took place under P.A. Reg. Ref. PP 3667. A copy of the planning authority's record of this is attached to the file.

Skrine Wind Farm has been referenced in the application documentation. This is located approx. 2.2km south west of the proposed turbine. Relevant planning applications are:

P.A. Reg. Ref. 04/103 / ABP Reg. Ref. PL20.208733 – Permission was granted in 2005 for three wind turbine generators, one meteorological tower, one substation and substation compound and associated site access roads.

P.A. Reg. Ref. 10/3002 – An extension of duration for 04/103 / PL20. 208733 was granted in 2010.

5.0 Policy Context

Climate Action Plan 2021 – Securing Our Future

The Climate Action Plan 2021 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. Among the

most important measures in the plan is to increase the proportion of renewable electricity to up to 80% by 2030.

Project Ireland 2040 National Planning Framework (NPF)

The NPF is a high level strategic plan to shape the future growth and development of the country to 2040. It will be focused on delivering 10 National Strategic Outcomes (NSOs). NSO 8 is 'Transition to a Low Carbon and Climate Resilient Society' and it is expanded upon on page 147 of the NPF. There is a national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. 'This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand'.

National Policy Objective (NPO) 55 states 'Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050'.

Wind Energy Development Guidelines for Planning Authorities (2006)

The guidelines provide advice on wind energy development in terms of the development plan and development management processes. Guidance is given on matters such as noise, shadow flicker, natural heritage, archaeology, architectural heritage, ground conditions, aircraft safety, and windtake. Chapter 6 provides guidance on siting and design of wind energy development in the landscape. This includes advice on spatial extent and scale, cumulative effect, layout, and height of turbines.

Draft Revised Wind Energy Development Guidelines (2019)

These provide for an update and review of the 2006 guidelines.

Northern & Western Regional Assembly Regional Spatial & Economic Strategy (RSES) 2020-2032

A relevant section of the RSES is 'Renewable Energy and Low Carbon Future' (pages 162-167). This includes policies supportive of renewable energy developments e.g. Regional Policy Objective (RPO) 4.17.

Roscommon County Development Plan 2022-2028

Although the County Development Plan 2014-2020 was the plan in place at the time Roscommon Co. Co. made the decision on the planning application and was also in place when the first party appeal was made, the plan now in place, and therefore under which the decision will be made by the Board, is the County Development Plan 2022-2028. The Plan was adopted on 8th March 2022 and came into effect on 19th April 2022.

Chapter 8 (Climate Action, Energy and Environment) of Volume I is relevant to the planning application and is supportive of appropriate renewable energy development.

The plan also contains a Renewable Energy Strategy (RES) as a separate document. This supports and underpins the core strategy and policy objectives of the plan. The primary aim of the RES is 'to ensure that the county continues to address climate change through facilitating appropriately located renewable energy developments and through supporting energy efficiency in all sectors of the economy'.

Wind energy is specifically considered in section 6.5. 'Having regard to the geographical location and the nature of the underlying geology of Roscommon, it is recognised that wind energy development currently offers one of the most viable vehicles for renewable energy production in the county'. Following 'an intensive sieve analysis process', the county has been divided into three different areas/categories: Most Favoured, Less Favoured, and Not Favoured, for wind energy development potential. Figure 7 (Areas Suitable for Wind Development) shows that the proposed turbine location is a 'Most Favoured' area i.e. wind farm development will be considered favourably, subject to compliance with all necessary siting and design standards.

Roscommon County Development Plan 2014-2020

Though it is no longer in effect, the planning authority's first reason for refusal includes reference to Policy 7.1 of the 2014-2020 plan. It is set out here for clarity.

Policy 7.1 – Protect proposed and designated Natural Heritage Areas, Special Protection Areas and Special Areas of Conservation.

In addition, multiple submissions referred to the following objectives of the plan:

Objective 7.37 – Seek to minimize visual impacts on areas categorized within the Co. Roscommon Landscape Character Assessment including "moderate value", "high value", "very high value" and with special emphasis on areas classified as "exceptional value" and where deemed necessary, require the use of visual impact assessment where proposed development may have significant effect on such designated areas.

Objective 7.40 – Seek to protect important views and prospects in the rural landscape and visual linkage between established landmarks, landscape features and views in urban areas.

Natural Heritage Designations

The closest Natura 2000 site is Lough Ree SAC (site code 000440) approx. 4.4km to the north east of the proposed wind turbine. Its boundary is also that of Lough Ree pNHA (site code 000440).

EIA Screening

The relevant class for EIA is Schedule 5, Part 2 (3) (Energy Industry) (i) – 'Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts', of the Planning & Development Regulations, 2001 (as amended). The EIA Screening Report submitted with the application concluded, after considering the proposed development in the context of schedule 7 of the Regulations, that 'the proposed Project does not have the potential to have significant effects on the environment and it is recommended that an EIAR is not required'. The planning authority's first Planning Report states that 'it is accepted that a sub-threshold EIAR is not required'.

The proposed development comprises a single turbine. The output is cited in the public notices as 4.2MW. As the relevant thresholds of Schedule 5 are not met or exceeded, an EIAR is not mandatory for this development. I consider the number of turbines is the more significant of the two separate issues set out in Part 2 (3)(i). Turbines can be visible over significant areas whereas the energy generated is generally accommodated by subterranean or, as anticipated in this case overground, cabling, and therefore has a more limited environmental impact. One turbine comprises only 20% of the total number of turbines that would require a mandatory EIAR. The electrical output is also below the relevant threshold.

Notwithstanding, to ascertain whether this sub-threshold development may potentially require an EIAR there are four main considerations as a preliminary examination:

1. Is the size or nature of the proposed development exceptional in the context of the existing environment?

The site and surrounding area is rural in nature and generally comprises agricultural land with some one off-housing in the general vicinity (the applicant states there are 17 no. houses within a 1km radius of the site). The closest house is stated as being approx. 616 metres to the north west.

Of note in terms of the existing environment are the two existing wind turbines approx. 2.2km to the south west which are visible from the proposed site. Wind turbines are becoming an increasingly more common sight and wind energy development is promoted in national policy. I do not consider that a single turbine, with two other turbines in the wider vicinity, could be considered exceptional in the context of the existing environment.

2. Would the development result in the production of any significant waste, or result in significant emissions of pollutants?

The development would not involve the use, storage, handling, or production of any substance that would be harmful to human health or the environment. It would not produce solid waste, release pollutants or any hazardous, toxic, or noxious substances. It would not result in discharge of pollutants to ground or surface waters.

There is broad high level policy support for development of the type proposed. It would result in the production of renewable energy and help reduce reliance on fossil fuels.

I do not consider the development would result in the production of waste or result in significant emission of pollutants.

3. Is the proposed development located on, in, adjoining or have the potential to impact on an ecologically sensitive site or location?

There are a number of heritage areas in the wider vicinity of the proposed site but the nearest is Lough Ree SAC and Lough Ree pNHA approx. 4.4km to the north east of the proposed wind turbine.

An Ecological Impact Assessment (EcIA) was submitted with the planning application, and biodiversity is considered in section 7 (Biodiversity) of this inspector's report. The EcIA considers that habitat at the proposed site is of local importance higher value on account of the diversity and associated fauna. However, overall, the proposed development would not be likely to have a significant adverse impact on biodiversity on site or in the immediate vicinity.

Notwithstanding, given the planning authority's first reason for refusal, AA is a significant issue with the proposed development. I consider that issues specific to AA are different and separate to those of the more general biodiversity of the area, notwithstanding the obvious overlap. I have carried out an AA of the proposed development (section 8.0 of this report) and concluded that it has not been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of Lough Ree SPA, River Suck Callows SPA, Lough Croan Turlough SPA, or Four Roads Turlough SPA, in view of the sites conservation objectives.

However, I consider the issue of impact on European sites can be considered within the AA process and outside of an EIAR.

4. Does the proposed development have the potential to affect other significant environmental sensitivities in the area?

As well as AA, another issue cited in the planning authority's decision is the impact of the proposed development on hydrogeology. This is addressed in section 7 (Second Reason for Refusal – Hydrogeology) of this inspector's report. This is a normal area of consideration in planning assessments, and I do not consider that it is such that a

sub-threshold EIAR is warranted. Adequate detail has been submitted through the course of the application to consider this issue adequately.

In addition, certain other aspects of the proposed development are considered in detail in section 7 of this inspector's report, but no other significant environmental sensitivities are considered to be relevant. The proposed development, while it would have a substantial visual impact given its size, is relatively limited in terms of land take etc., and it is fully contained within an agricultural field of no particular significant ecological value.

Conclusion

Apart from consideration of AA which can be addressed within that process, having regard to the nature and scale of the proposed development and the absence of significant environmental sensitivity in the vicinity, there is no real likelihood of significant effects on the environment arising from the proposed development. The need for an EIAR can, therefore, be excluded at this stage.

Project splitting, as referenced in some submissions received by the planning authority, does not occur. Project splitting refers to an attempt to avoid obligations to prepare an EIAR. The proposed development is clearly separate from the Skrine wind farm development given, for example, the time of making the respective applications (seventeen years apart), and separation distance. I consider the application to be a stand-alone application and this EIA screening demonstrates it does not require an EIAR.

Grid Connection

The applicant considers that a suitable grid connection route would be from the site to the existing line of the Skrine wind farm to the west and terminating at the existing Roscommon 38kV substation. It is anticipated to be an overground cable. However, the exact grid connection route and methodology would only become apparent when the ESB are undertaking their detailed design review. The applicant states the grid connection will be subject to a section 5 application but 'it has been accounted for in the development of the assessments'.

As the proposed development does not require an EIAR, I do not consider the O'Grianna Judgement a matter for this planning application.

6.0 **The Appeal**

Grounds of Appeal

The main points made can be summarised as follows:

- The turbine selected for the site is an Enercon E138 on an 81 metres tower with an overall tip height of 149.38 metres.

Appeal Response to Refusal Reason 1

- The considerations within the reason for refusal were dealt with as part of the further information response. The specific points in the reason for refusal are set out again in appendix D by EirEco Environmental Consultants supported by Flynn Furney Environmental Consultants.
- In relation to matters raised in the department's submission:
  - The classification of the habitat was not constrained by the date of the site visit and does not represent a limitation to establishing the ecological value of the site. Details of bird survey methodologies and a statement of authority were provided in the NIS submitted as further information. No specific data request was submitted to National Parks & Wildlife Service (NPWS).
  - The Article 12 National Summary Report 2008-2012 is the latest available and presents a national status assessment for the various species. Wintering population of golden plover is given as 99,870 and 88,580 for lapwing. Consideration of the species national status was assessed under section 2.2.3 of the NIS using more recent estimates. As no annex I listed habitats or annex II listed species are present on site or potentially impacted, Article 12 reporting is not relevant.
  - Four Roads Turlough SAC and SPA are considered in the NIS.
  - Other than the two wind turbines approx. 2km to the south west, there are none other, existing or proposed, sufficiently close to give rise to a potential in-combination effect.

- Undertaken bat surveys followed acceptable methodologies. The bat survey concluded the site offers low habitat suitability for bats due to its exposed location and poor connectivity. The assessment of impacts on birds is based on survey works which is ongoing until March 2022. It considers the open grassland nature of the site and the likely breeding species. Mitigation addresses likely impacts. The site has been very quiet in terms of wildfowl and waders throughout the winter season surveys until January when three whooper swans were identified travelling through the 500 metres buffer and a flock of 120 no. golden plover were recorded circling the site. The AA screening report and NIS addresses the issue of commuting and migratory routes for SCI species of wetland and European sites.

<u>Appeal Response to Refusal Reason 2</u>

- The Council's concerns are misplaced. Appropriate mitigation is included to ensure avoidance of significant negative impact on the surrounding area and hydrogeology. A full hydrological assessment would not provide any more certainty of the potential routes for contaminants due to the site's karst nature. The most reliable way to ensure that the proposed development would not adversely affect groundwaters is to remove and reduce the risk of spillage of contaminants as much as possible and the most stringent management controls possible are included to avoid contaminant release. A detailed environmental management plan will be prepared. Control measures include:
    - Construction mitigation e.g. all onsite refuelling within a designated refuelling section, storage of fuel or chemicals in bunded mobile units, welfare facilities will not be emptied onsite, erection of silt fences, certain construction practices to be employed during concrete pours.

      The closest karst features (enclosed depressions) are approx. 60 metres and 90 metres, respectively, to the north west (up-gradient) and east (cross-gradient). This would ensure any surface water run-off would not be towards these features. Runoff is also believed to be minimal as it is limited to the turbine foundation and extension to the existing access route.

- Operational phase – The proposed turbine is a direct drive generator, a gearless system, which eliminates the need for lubrication or risk of leakage from a gearbox. Any components requiring liquid lubrication will be serviced within the confines of the nacelle and the base of the turbine will be bunded. The 20kV substation contains all its components internally. There will be no lubrication or oil fills undertaken around or within the container.

- The existing turbines to the south west are on a similar if not slightly more vulnerable landscape than that proposed. Condition 12 of the Council's decision under 04/103 required submission of a detailed hydrogeological report prior to commencement of development. Certain mitigation measures were included in the applicant's response to the third-party appeal. Condition 6 of the Board's grant included details of the service road, surface water generation, drainage, ground conditions, slope stability, and a works programme to be agreed with the planning authority. The proposed mitigation measures are considered to be equally thorough and rigorous.

Appendix A – EirEco Environmental Consultants response to the department's submission.

Appendix B – A description of the site location, layout, project etc.

Appendix C – A description of community benefits.

Appendix D – The planning framework/policy context.

Appendix E – Construction refuelling and storage equipment.

Appendix F – A 'Preliminary Construction & Environmental Management Plan' prepared by the applicant and dated 10th October 2021.

Appendix G – Specification for access roads and construction site areas for an E-138 turbine.

Planning Authority Response

None received.

Observations

One observation was received from Peter Sweetman, Shangri La, Newtown, Bantry, Co. Cork. The observation can be summarised as follows:

- This is an invalid application. There is no definitive design of the project as it has an overall tip height of up to 150 metres. An invalid application must be returned to the applicant. There is no legal decision to appeal.

Further Responses

None sought.

7.0 Planning Assessment

Having examined the application details and all other documentation on file and inspected the site, and having regard to relevant local/regional/national policies and guidance, I consider that the main issues in this appeal are as follows:

- First Reason for Refusal – Appropriate Assessment (AA)
- Second Reason for Refusal – Hydrogeology
- Landscape and Visual Impact
- Biodiversity
- General Residential Amenity
- Archaeology
- Turbine Type

First Reason for Refusal – Appropriate Assessment (AA)

The planning authority's first reason for refusal considers that the submitted NIS has insufficiently assessed the impacts of the proposed development on golden plover and whooper swan in light of conservation objectives, and it has not been sufficiently demonstrated that adverse effects on the integrity of Natura 2000 sites can be

excluded. The reason states that ‘On the basis of information presented to date’, the proposed development has the potential to materially contravene policy 7.1 of the Roscommon County Development Plan 2014-2020, and it would therefore be contrary to the proper planning and sustainable development of the area.

AA

The issue of AA is considered in detail in section 8 of this inspector’s report. This concludes that it has not been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of Lough Ree SPA, River Suck Callows SPA, Lough Croan Turlough SPA, or Four Roads Turlough SPA, in view of the sites conservation objectives, for reasons including an inadequate duration of bird surveys which has resulted in a deficit of information, the absence of commentary on a number of relevant SCI species, and an inadequate consideration of flight or commuting paths.

Material Contravention

Notwithstanding the issue of AA, the reason for refusal states that the proposed development has the ‘potential’ to materially contravene policy 7.1 of the, now replaced, 2014 County Development Plan. I note the planning authority does not consider that it ‘would’ materially contravene the plan. The policy refers to protection of NHAs, SPAs, and SACs, and it is not, in my view, sufficiently specific so as to justify the use of the term ‘contravene materially’ in terms of normal planning practice. The Board should not, therefore, consider itself constrained by section 37(2) of the Planning & Development Act, 2000 (as amened).

Conclusion

Having regard to the detailed consideration of AA in section 8 of this inspector’s report, I consider that the planning authority’s first reason for refusal is generally reasonable and I recommend planning permission be refused on this basis.

Second Reason for Refusal – Hydrogeology

The planning authority sought further information on hydrogeology as item 2 of the further information request. Among other issues, consultation with a hydrogeologist was recommended ‘to develop a risk assessment and methodology to prevent/reduce

the risk of runoff or discharges from construction works to ground waters' which should be furnished as part of a detailed report.

The response stated that a detailed hydrological and hydrogeological report would not inform the project further. 'If a release to ground were to occur site investigation or desktop studies could not predict the distance or depth contaminants may travel due to the nature of karst features. Preferential flow paths in the form of dissolved bedrock may exist throughout the formation which would not be consistent and be unpredictable. The most reliable way of ensuring no risk to groundwater is to remove the risk of a release occurring'. Control measures to be contained in an environmental management plan were outlined in the further information response e.g. designated refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over and not emptied on-site, silt fencing, and concrete pouring in dry weather. The closest karst features are stated to be approximately 60 metres and 90 metres from the proposed turbine. One is up-gradient of the site, and the other is at gradient. Surface water run-off would not be towards the depressions. It is stated that there is a very low risk of polluting discharge during operation as the turbine is a direct drive generator.

The planning authority's Environment Section prepared a report on the further information response and considered that, notwithstanding the applicant's response, a full hydrogeological assessment was required. The second reason for refusal was based on this report.

In the grounds of appeal the applicant considers that the planning authority's concerns in relation to a full hydrogeological assessment are misplaced. Such an assessment would not provide any more certainty of potential routes where contaminants could migrate from as site investigation works 'would be ineffective and unreliable in karst conditions due to the extremely heterogenous nature of karst geology'.

Having considered both the planning authority's position and the applicant's grounds of appeal, I agree with the applicant that a full hydrogeological assessment is unlikely to be able to give certainty to the potential route of contaminants that may be released, given the nature of the geology. In addition, the permitted Skrine wind turbines are located in an area of a slightly higher groundwater vulnerability, the duration of the proposed works is relatively short, the extent of intrusive groundworks is relatively

limited, there are no surface watercourses, and there is a reasonable separation distance to existing surface karst features. The gradient between the site and karst features is also noted.

Having regard to the foregoing, I consider that the inclusion of the second reason for refusal is not warranted, and I recommend its removal. Notwithstanding, robust mitigation measures should be applied to the construction and operation phases to prevent, as far as possible, any contaminant discharge, should permission be granted.

Landscape and Visual Impact

Landscape and visual impact is an issue for consideration in development of the type proposed and was a consistent issue raised in the submissions received by the planning authority.

A 'Landscape and Visual Impact Assessment' (LVIA), prepared by Macroworks and dated April 2021, was submitted as appendix 6 of the E&PR. It 'describes the landscape context of the proposed turbine and assesses its likely landscape and visual impacts on the receiving environment'. Landscape impact relates to the effects of a development on a landscape as a resource in its own right, whereas visual impact relates to effects on specific views and the general visual amenity experienced by people. A photomontages booklet was also submitted, again prepared by Macroworks and dated April 2021.

The applicant's LVIA is based on the 2014-2020 Roscommon County Development Plan. The site was located within Landscape Character Area (LCA) 33 – 'Skrine Hill and Limestone Pavement'. It is described on pages 107-108 of the LCA document. It is of 'high' landscape value (as opposed to exceptional, very high, or moderate) 'for its unusual geology' (page 41 of the LCA). In terms of 'character type' it is considered to be 'hills and uplands' (page 39). Scenic view V19 (page 137) is noted. (This is approx. 900metres – 1km south west of the proposed turbine). The LVIA also notes the landscape values of the five other LCAs within the study area (two being 'very high', two 'high', and one 'moderate').

Under the current 2022-2028 Roscommon County Development Plan the site remains in LCA 33. It is described on pages 98-99 of the LCA document. It is effectively the

same as the previous plan. Its character type remains the same and scenic view 19 is again included. The landscape values of the other five LCAs remain unchanged.

The LVIA considers both the central and wider study area to be of medium landscape sensitivity and the magnitude of the landscape impact is considered to be medium-low within 1km, reducing to low and negligible thereafter. The overall landscape impact significance is considered by the LVIA to be moderate-slight within approx 1km, and slight-imperceptible within the remainder of the study area. Moderate is an effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends, and slight is an effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Eight viewshed reference points (VRPs) were selected for studying the visual impact of the proposed development based on specific criteria. Photomontages have been submitted to illustrate the impacts from the various VRPs. A VRP from the local road approx. 650 metres to the north west in Farbreagues was not included in the LVIA. I consider a VRP from this location would have been of value. A tabular analysis and assessment of visual receptor sensitivity at each VRP is set out in table 1.6 of the LVIA. Each VRP is individually described and considered. The significance of visual impact of the proposed development ranges from moderate (VRPs 1 and 2) to imperceptible (VRPs 7 and 8). The cumulative impact with the two existing turbines approx. 2.2km to the south west is considered to be low. In terms of the overall significance of the impact, the LVIA states the proposed single turbine 'is not considered to give rise to any significant landscape and visual impacts'.

The planning authority's Planning Report, while acknowledging that the construction of a wind turbine would create a substantial and notable feature and accepting that the landscape would be altered to a degree, considered that the proposed turbine would be 'visually tolerable on a landscape that is not attributed with exceptional visual quality' and would not 'represent an excessive visual feature in the landscape …' The report also notes that the visual acceptance of a wind turbine is subjective and that they are becoming increasingly familiar in the landscape. The planning application was not refused on a landscape or visual impact basis.

The applicant considers that the landscape impact would be moderate-slight within approx. 1km of the proposed development, with slight or imperceptible landscape impact thereafter. I consider this conclusion is reasonable.

In terms of visual impact, I agree with the planning authority that development of the type proposed can have a significant visual impact on the areas from which it would be visible. Scenic view 19 of the County Development Plan 2022-2028 is of particular relevance in terms of visual impact. The VIA considers the proposed turbine would have a 'moderate' visual impact from scenic view 19 (VP 2), which I consider to be understated. I consider the visual impact should be more accurately considered as 'substantial-moderate'. However, notwithstanding the designation of VP2 as a 'scenic view' in a generally easterly direction, on inspection, the full extent of the available vista was only visible for a short stretch of relatively narrow local road. There is no stopping area or viewing area provided at this location.

In considering visual impact, the planning authority's wind energy strategy is critical. The strategy states, 'Following an intensive sieve analysis process and consideration of the landscape of County Roscommon, areas within the county have been designated as being "Most Favoured", "Less Favoured" and "Not Favoured" for wind energy development potential (see Map 7). In this approach constraints and resources were identified, and areas suitable for wind energy development were identified based on the presence or absence of these. This approach enables a structured and consistent identification of viable wind energy resources and ensures the protection of the environmental and landscape assets of the county from inappropriate development'. The site is located within a 'Most Favoured' area. Most favoured is defined as 'Wind farm development will be considered favourably, subject to compliance with all necessary siting and design standards', with due regard to listed views and prospects and objective NH 10.26 (protection of important views and prospects).

The 'Key Recommendation' for LCA 33 in the Landscape Character Assessment document is 'Applications for development within this area should be accompanied by a visual impact statement recognising the high value of open views across this landscape'. I consider this has been addressed by the LVIA. Section 3.5 of the Landscape Character Assessment document states, inter alia, 'The Renewable

Energy Strategy has been informed by the recommendations set out within this LCA regarding wind energy developments …'

I acknowledge the visual impact concerns expressed in the submissions received by the planning authority. However, having regard to the location of the proposed turbine in a 'Most Favoured' area of the county for wind energy development, the visible presence of existing wind turbines and telecommunications structures which also appear to be in LCA 33 and in a 'Most Favoured' area, and the policy framework for renewable energy development, I consider that the proposed development would not have such an adverse impact on landscape and visual amenity that permission for refusal is warranted on this basis. While scenic view 19 of the 2022-2028 County Development Plan is likely to be affected, this public view is only briefly available for road users travelling east on the narrow local road.

In conclusion, I consider that the proposed turbine would be acceptable in terms of landscape and visual impact.

Biodiversity

Biodiversity and ecological impact is an issue for consideration in development of the type proposed and was a consistent issue in the submissions received by the planning authority.

A brief 'Ecological Impact Assessment' (EcIA), prepared by EirEco Environmental Consultants and dated April 2021, was submitted as appendix 5 of the E&PR. It 'presents an overview of habitats and ecological sensitivities … and provides an assessment of the potential impacts … on the ecological environment'. The site was surveyed on 4th February 2021. Wintering bird surveys were undertaken over the winter period 2020/2021 within the study area (site plus 500 metres buffer). A description of the habitat and fauna is provided, including a summary of the wintering bird surveys. Overall, the site is rated as of local importance (high) ecological value. The EcIA considers there would be no discernible impact on the grassland habitat as a result of the proposed development. The site is likely to support breeding populations of hare though there is likely to be negligible impact on this species. There is a possibility of localised disturbance to ground nesting breeding bird species during construction e.g. skylark and meadow pipit, with a mitigation measure proposed i.e.

works taking place outside the bird breeding season. No other mitigation was considered necessary during the construction or operational phases.

The planning authority's further information request required the applicant to address all of the issues raised by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media . This included concern about the level of detail and surveys carried out to inform the EcIA, specifically the impact on bats and birds.

In response, the applicant submitted a 'Bat Survey Report' prepared, it appears, by Flynn Furney, dated October 2021, and an 'Ornithological Report 2020-2021' prepared by Flynn Furney dated 15th October 2021. The bat survey took place in late August and September 2021, within the 'recommended seasonal timeframe for active bat surveys'. Bat activity on site was considered 'low', and the site is of low habitat suitability for bats. The report concludes that the development 'is not considered likely to have any medium or long-term impacts on the local bat population'. The bird surveys for the ornithological report took place between October 2020 and October 2021 with the dates and survey types provided. Results of these are outlined and some species were discussed in more detail, however no overall conclusion was given.

While there is clearly a significant overlap, the planning authority did not refuse the planning application on the general grounds of biodiversity or ecological impact but rather on the specific grounds of AA. Notwithstanding, both areas are inter-related. I accept the general content of the submitted EcIA, and the bat survey submitted as part of the further information response. The issue of impact to birds has been set out in more detail in section 8 of this inspector's report which specifically considers special conservation interest species of the SPAs in the area such as whooper swan, golden plover, and lapwing. I do not consider the application contains sufficient information in relation to these protected species.

I consider the planning authority's approach to the overlapping issues of biodiversity and AA was appropriate i.e. a refusal of permission on AA grounds but not on the wider issue of biodiversity. In this regard I note the overall evaluation of the site and its location in a 'Most Favoured' area of the county for wind energy development.

General Residential Amenity

Impact on the residential amenity of property in the vicinity was a consistent issue raised in the submissions received by the planning authority. A variety of issues were raised and the most relevant of these are separately addressed in this section.

Noise

A 'Wind Turbine Noise Impact Assessment' prepared by Enfonic Ltd. and dated 7th April 2021, was submitted as appendix 8 of the E&PR.

The modelled turbine is an Enercon E138 which the applicant clarified in the grounds of appeal would be the turbine provided should permission be granted. An on-site noise survey does not appear to have been carried out to establish background noise. It is assumed that background noise is greater than 30dB i.e. limits of 45dB or 5dB above background during daytime and 43dB or 5dB above background at night time would apply. Computer modelling was prepared to 'quantify the cumulative noise levels associated with the operational phase of the proposed development together with the nearby Skrine Wind Farm'. 30 no. noise sensitive receptors (NSL) were identified. Predicted noise levels at the NSLs from the existing wind turbines at various wind speeds are set out in table 4 of the assessment, and the impact of both developments running concurrently are set out in table 5. The highest anticipated noise level of the proposed turbine in isolation is 33.5dBA at a 13 metres/second wind speed at NSL 1, approx. 720 metres to the south east. A cumulative maximum of 34.1dBA at a wind speed of 13 m/s is predicted at NSL 14 (approx. 1.6km to the south west of the proposed site). The assessment concludes that 'the addition of the candidate wind turbine will not cause the existing noise limit at any Noise Sensitive Location to be exceeded'.

Having regard to the content of the submitted assessment I consider that noise impact would not be a significant issue with the proposed turbine, either by itself or in combination with the existing turbines to the south west.

Shadow Flicker

A 'Shadow Flicker Report', prepared by the applicant and dated 2nd March 2021, was submitted as appendix 7 of the E&PR. This 'preliminary' report summarised the shadow calculation for an Enercon E-138 turbine. Appendix A contains results of the

shadow calculation for 469 no. receptors. Two maps of very limited value, given the scale, show the locations of the receptors, the vast majority of which (431 no.) would not be affected by shadow flicker. Worst-case scenarios are provided for in the results e.g. the sun is always shining, and the turbine is always operating.

Section 5.12 (Shadow Flicker) of the Wind Energy Development Guidelines (2006) recommends that 'that shadow flicker at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day'. The annual rate would be exceeded at six receptors, with the worst experienced being 63 hours 38 minutes at one receptor. The daily rate would be exceeded at nine receptors, with the worst experienced being 54 minutes at two receptors.

The applicant's report notes that a 'shadow shut off system has to be installed in the planned turbine, in order to meet the shadow requirements'. The guidelines note that this type of mitigation is appropriate, 'Where shadow flicker could be a problem, developers should … where appropriate take measures to prevent or ameliorate the potential effect, such as by turning off a particular turbine at certain times'. Notwithstanding the 500 metres distance referred to in the guidelines, I consider it good practice to require such a system to be installed, as is standard practice, should permission be granted for the proposed turbine.

The applicant has not taken into consideration the impact of the proposed turbine in combination with the existing turbines in terms of shadow flicker. An 'Environmental Report' was submitted with P.A. Reg. Ref. 04/103. Section 10 addressed shadow flicker and figure 10 'contains a map rendering the iso-lines of the Shadow Impact'. Although the shadow flicker assessment methodology was less advanced than current standards, the map is of interest. Despite the fact that three turbines were considered in figure 10 and only two are in-situ (it appears the middle turbine has not been constructed), the map shows that the 8 hours shadow per year isoline would extend approx. 700 metres east of the turbines. The 8 hours isoline would appear to overlap, very marginally, with the 'Hours per year, worst case 0,1 - <10,0' shading on the shadow map located at the end of appendix A of the current applicant's Shadow Flicker Report. No receptor appears to be located within the marginal overlap. Having regard to the content of figure 10, the construction of only two of the three turbines, the very marginal overlap and apparent absence of any receptor within it, and the relatively limited shadow flicker that would be experienced south west of the proposed turbine

as set out in appendix A, I consider that any 'in combination' shadow flicker that may be experienced by any residential receptor, would not be significant.

Therefore, while shadow flicker would occur to houses in the vicinity, I consider that it could be appropriately mitigated by condition, and there would be no significant adverse impact in combination with the existing turbines.

Health

The issue of impact on health was raised in a number of submissions received by the planning authority. General health is not a matter referenced in the Wind Energy Development Guidelines (2006) and the 2019 draft guidelines generally refer to health in the context of noise. Given the conclusion of the noise section, above, I do not consider this would have a significant undue adverse impact on the general area. I also note the mitigation measure that can be applied to shadow flicker.

I do not consider it reasonable to refuse permission for this wind turbine development on health grounds.

Proximity to Houses

The proximity of the proposed turbine to existing houses is referenced in some submissions. The closest house, according to the E&PR, is approx. 616 metres to the north west of the proposed turbine.

The Wind Energy Development Guidelines 2006 do not specify any required setback from houses or noise sensitive locations. Though section 6.18.1 of the Draft Revised Wind Energy Guidelines 2019 states, inter alia, 'a setback distance for visual amenity purposes of 4 times the tip height should apply between a wind turbine and the nearest point of the curtilage of any residential property in the vicinity of the proposed development, subject to a mandatory minimum setback of 500 metres', these are only draft guidelines and the 2006 guidelines remain the relevant guidance.

In conclusion, as it has been demonstrated that noise or shadow flicker would not be a significant concern, I consider that the proposed turbine would not be excessively close to existing houses.

Devaluation of Property

In general, there are many examples of wind turbines being granted permission in proximity to houses. For example, the existing Skrine Wind Farm is in a relatively

similar proximity to houses. The site, though located in a rural area, is subject to development potential as supported by the national policy framework and the area is within a 'Most Favoured' area for wind energy development potential in the Roscommon County Development Plan 2022-2028. Development such as this has been permitted, and will likely continue to be permitted, in rural areas.

Having regard to the policy framework and support for renewable energy development in rural areas, I do not consider that proposed development can reasonably be refused on the basis of a devaluation of property.

Roads and Traffic

The road network in the vicinity of the site is a normal rural network with relatively narrow roads and trees, hedgerows, and stone walls etc. along the roadsides.

Some detail on transport issues was submitted with the planning application. The workforce is expected to be approx. 2-20 no. people depending on the site activities. Section 3.7 of the E&PR states that maintenance of the development would be typically twice a year, with the development being monitored remotely on a day-to-day basis. The planning authority requested further information including that the applicant engaged with the Council's Roads Section and provide additional detail. A 'Road & Transportation Report', prepared by DRA Consulting Engineers and dated 2nd November 2021, was submitted as part of the further information response. A worst-case scenario for HGVs during construction is provided. Approximately 52 no. concrete truck deliveries, the peak number, would be required on the day of the turbine base construction. Various haul routes for construction materials and the turbine components are outlined. Following a detailed examination 'it was concluded that no works are required to the public road or private lands to accommodate turbine delivery'. A Construction Traffic Management Plan was attached as an appendix

I consider that the specific detail of the required haul route and any permits, consultations, operational requirements etc. is a matter for the developer and is outside the specific scope of this application.

I also consider that the 55 metres width of the proposed site entrance, and the extent of the associated hardstanding, is excessive for operational purposes and would detract from the amenity of the rural area. A revised operational phase site entrance should be required as part of any grant of permission, to include appropriate sightlines,

a reduction in the hardstanding, and retention of stone walls, unless the applicant can robustly justify the proposed entrance width and extent of hardstanding. The detail of this can be agreed with the planning authority.

I consider that the proposed works, in so far as they would affect local roads and traffic, would be normal for development of the type proposed and would not result in any significant adverse impact on the local area.

Conclusion

Having regard to the foregoing in terms of noise, shadow flicker, health, proximity to houses, devaluation of property, and roads and traffic, I do not consider that the proposed development would have such a significant undue adverse effect on general residential amenity that permission should be refused.

Archaeology

An 'Archaeological Assessment Report', prepared by Icon Archaeology and dated April 2021, was submitted as appendix 9 of the E&PR. There are four record of monuments and places (RMP) sites between 355 metres and 500 metres from the proposed turbine. An archaeological condition was recommended relating to the possibility of mitigation measures should archaeological remains be uncovered during the monitoring of the construction phase.

The planning authority's further information request required the applicant to address all of the issues raised by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, and this included archaeology. An 'Archaeological Test Excavation Report', prepared by Icon Archaeology, and dated September 2021, was submitted as part of the further information response. Four test excavations were carried out in August 2021 and no features or finds were noted in any of them. An archaeological mitigation measure was recommended.

Having regard to the foregoing, I do not consider there is any concern in relation to archaeology from the proposed development, subject to inclusion of a standard archaeology mitigation condition in any grant of permission.

Turbine Type

A common issue with development of the type proposed is the absence of a definitive turbine type and specific dimensions. That was originally the case with this planning application where the public notices referred to a turbine with an 'overall tip height of up to 150m'. This issue is referenced in the observation received by the Board on foot of the grounds of appeal.

However, section 1.2 of the applicant's appeal document states that 'For the avoidance of doubt, NFRE are seeking planning permission to erect a single wind turbine … the turbine selected for the site is an Enercon E138 on a 81m tower with an overall tip height of 149.38m …' I consider that this adequately identifies the turbine to be provided should permission be granted. The dimension meets that identified in the public notices, the turbine was used as the reference turbine in relevant assessments, and I do not consider that the public has been materially disenfranchised by the specific turbine only being confirmed in the grounds of appeal.

I do not consider that it is necessary to seek further information on this issue should the Board be of the opinion that the proposed development should be granted.

8.0 Appropriate Assessment (AA)

Appropriate Assessment (AA) Screening

Compliance with Article 6(3) of the Habitats Directive

The requirements of article 6(3) as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act, 2000 (as amended) are considered fully in this section.

Background on the Application

The applicant submitted an 'Appropriate Assessment Screening Report', prepared by EirEco Environmental Consultants and dated April 2021, as appendix 4 to the applicant's Environmental & Planning Report (E&PR). The screening report concluded that 'the proposed development presents no risk of giving rise to any significant or other impacts within any designated conservation areas or on any of the Qualifying

Interests or Special Conservation Interests of any SAC/SPA', and there was no requirement for a Stage 2 AA.

However, the planning authority carried out its own AA screening and considered that likely significant effects on the SCI species associated with several surrounding European sites could not be ruled out. Item 1 of the further information request referred to the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media's observation and required the applicant to submit a comprehensive response to the issues raised. A Natura Impact Statement (NIS) was submitted as part of the response.

Having regard to the documentation submitted with the application, and as part of the further information response, as well as submissions etc., I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development alone, or in combination with other plans and projects on European sites, for the purpose of AA screening.

Screening for Appropriate Assessment – Test of Likely Significant Effects

The project is not directly connected with or necessary to the management of a European site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).

The proposed development is examined in relation to any possible interaction with European sites designated Special Areas of Conservation (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European site(s).

Brief Description of the Development

The applicant provides a description of the project on page 6 of the AA screening report. In summary, the development comprises:

- one 4.2MW wind turbine with an overall tip height of up to 150 metres,
- wind turbine foundation, hardstanding, and assembly area,
- site entrance and access track,
- on-site 20kV substation and underground electrical cable, and,
- all associated site works.

The development site is described on pages 7 to 9 of the screening report. The habitat in the vicinity of the turbine consists of 'fields of improved agricultural grassland … sub-divided by stone walls …' An existing access laneway is to be extended and improved.

Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:

- habitat loss/fragmentation
- habitat/species disturbance/mortality (construction and/or operational)
- construction related – uncontrolled surface water/silt/construction related pollution.

Submissions and Observations

AA related issues were raised in a number of third party submissions. Among the issues raised were the requirement for a NIS, groundwater connectivity to Lough Ree SAC and SPA, and impact of the proposed turbine on SCI species.

The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media submitted an observation on the initial planning application. Notwithstanding, the department did not make a submission on foot of the further information response.

European Sites

The development site is not located in or adjacent to a European site. The closest European site is Lough Ree SAC (site code 000440) approx. 4.4km to the north east of the proposed wind turbine (as opposed to the overall site boundary).

European sites within a potential zone of interest (ZoI) of the proposed development must be evaluated on a case by case basis. Table 2 of the applicant's screening report identifies seven European sites within approx. 10km of the proposed development. Table 7 of the subsequent NIS identifies 16 no. European sites within approximately 15km (though the table title refers to a radius of approx. 10km). In my opinion, having regard to the nature of the proposed development, the relatively limited extent of intrusive construction activity, and the absence of any surface water features within or close to the proposed site, the ZoI would reasonably extend to 8km for SACs and

15km for SPAs; the wider radius for SPAs as a result of (i) the height and nature of the proposed wind turbine and, (ii) the SCI species for which the SPAs are designated.

Table 1: Summary Table of European Sites Within the Zone of Influence of the Proposed Development

European Site (Code)	**List of Qualifying Interests (QI)/Special Conservation Interests (SCI) (as per NPWS website)**	**Distance from Site Boundary of Proposed Development (km)**	**Connections (source, pathway, receptor)**
Lough Ree SAC (000440)	Natural eutrophic lakes with Magnopotamium or Hydrocharition-type vegetation [3150] Semi-natural dry grasslands and scrubland facies on calcareous substrates [6210] Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Alkaline fens [7230] Limestone pavements [8240] Bog woodland [91D0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior [91E0] Otter [1355]	4.4 to north east	Possible hydrogeological

Lough Ree SPA (004064)	Little grebe [A004] Whooper swan [A038] Wigeon [A050] Teal [A052] Mallard [A053] Shoveler [A056] Tufted duck [A061] Common scoter [A065] Goldeneye [A067] Coot [A125] Golden plover [A140] Lapwing [A142] Common tern [A193] Wetland and waterbirds [A999]	4.7 to north east	Air
Ballinturly Turlough SAC (000588)	Turloughs [3180]	5.1 to north west	Possible hydrogeological
Lough Funshinagh SAC (000611)	Turloughs [3180] Rivers with muddy banks with Chenopodion rubric p.p. and Bidention p.p. vegetation [3270]	5.3 to south	Possible hydrogeological
Lisduff Turlough SAC (000609)	Turloughs [3180]	5.9 to south west	Possible hydrogeological
River Suck Callows	Whooper swan [A038]	6.5 to west	Air

SPA [004097]	Wigeon [A050] Golden plover [A140] Lapwing [A142] Greenland white-fronted goose [A395] Wetland and waterbirds [A999]		
Lough Croan Turlough SAC (000610)	Turloughs [3180]	7.8 to south	Possible hydrogeological
Lough Croan Turlough SPA (004139)	Shoveler [A056] Golden plover [A140] Greenland white-fronted goose [A395] Wetland and waterbirds [A999}	7.8 to south	Air
Four Roads Turlough SPA (004140)	Golden plover [A140] Greenland white-fronted goose [A395] Wetland and waterbirds [A999)	8.1 to south west	Air

Identification of Likely Effects

The conservation objectives of the European sites are as follows:

- Lough Ree SAC – Conservation objectives are set out in the 'Conservation Objectives Series Lough Ree SAC 000440' document published by the NPWS. There are discrepancies between the QIs shown on the NPWS website and those included in the Conservation Objectives Series document i.e. active raised bogs and alluvial forests with … are not included in the document, while

'old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]' has been included. Of the eight habitats and species included in the document, four (natural eutrophic lakes, semi-natural dry grasslands, degraded raised bogs, and bog woodland) are to restore the favourable conservation condition of the habitats, and the remainder are to maintain the favourable conservation condition of the habitats and species, with the exception of old sessile oak woods whose status as a QI is currently under review.

- Lough Ree SPA – Generic conservation objectives are set out in the 'Conservation Objectives for Lough Ree SPA [004064]' NPWS document. The first is 'To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA'. The second is 'To maintain or restore the favourable conservation condition of the wetland habitat at Lough Ree SPA as a resource for the regularly occurring migratory waterbirds that utilise it'.
- Ballinturly Turlough SAC – As set out in the NPWS 'Conservation Objectives Series Ballinturly Turlough SAC 000588' document, the conservation objective is 'To maintain the favourable conservation condition of Turloughs in Ballinturly Turlough SAC …'
- Lough Funshinagh SAC – Conservation objectives are set out in the 'Conservation Objectives Series Lough Funshinagh SAC 000611' NPWS document. They are to maintain the favourable conservation condition of both habitats cited.
- Lisduff Turlough SAC – As set out in the NPWS 'Conservation Objectives Series Lisduff Turlough SAC 000609' document, the conservation objective is 'To maintain the favourable conservation condition of Turloughs in Lisduff Turlough SAC …'
- River Suck Callows SPA – Generic conservation objectives are set out in the 'Conservation Objectives for River Suck Callows SPA [004097]' NPWS document. The first is 'To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA'. The second is 'To maintain or restore the favourable conservation

condition of the wetland habitat at River Suck Callows SPA as a resource for the regularly occurring migratory waterbirds that utilise it'.

- Lough Croan Turlough SAC - As set out in the NPWS 'Conservation Objectives Series Lough Croan Turlough SAC 000610' document, the conservation objective is 'To restore the favourable conservation condition of Turloughs in Lough Croan Turlough SAC …'
- Lough Croan Turlough SPA – Generic conservation objectives are set out in the 'Conservation Objectives for Lough Croan Turlough SPA [004139]' NPWS document. The first is 'To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA'. The second is 'To maintain or restore the favourable conservation condition of the wetland habitat at Lough Croan Turlough SPA as a resource for the regularly-occurring migratory waterbirds that utilise it'.
- Four Roads Turlough SPA - Generic conservation objectives are set out in the 'Conservation Objectives for Four Roads Turlough SPA [004140]' NPWS document. The first is 'To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA'. The second is 'To maintain or restore the favourable conservation condition of the wetland habitat at Four Roads Turlough SPA as a resource for the regularly-occurring migratory waterbirds that utilise it'.

The applicant's AA screening report identified the European sites set out in table 1, above, except Lough Croan Turlough SAC and Four Roads Turlough SPA. The screening report briefly considered the potential for direct and indirect loss of habitats, disturbance to fauna, and impact on water quality, and concluded that there was no requirement to proceed to Stage 2 AA. Notwithstanding, the planning authority carried out its own AA screening and concluded that a Stage 2 AA, and submission of an NIS, was necessary.

The nine European sites that I consider to be within the initial potential ZoI of the proposed development are set out in table 1. Notwithstanding the initial inclusion of five SACs, I nonetheless consider that they can be excluded from further consideration at screening stage. The proposed development involves a relatively limited degree of construction activity and intrusion, and the site is located at a relatively high ground

level (approx. 115 metres above sea level according to page 12 of the NIS) compared to the five SACs. Therefore the development would not affect any groundwater level issues for turloughs or bogs. There is no hydrological link to Lough Ree, Lough Funshinagh, or the turloughs, and therefore there would be no pollution of surface waters affecting any of these waterbodies and the relevant QIs. Having regard to the foregoing, the nature of the proposed development, and the separation distances between the proposed site and the SACs, I consider the construction and operation of the proposed development would not be likely to give rise to significant effects on the QIs of the five SACs within 8km of the site and I therefore consider that they can be excluded from further consideration.

Although I consider the SACs can be excluded from further consideration, given the nature of the proposed development i.e. a wind turbine up to 150 metres in height, I consider that as a result of the relative proximity of SPAs and their particular SCIs, further consideration of the proposed development in this regard is warranted and a Stage 2 AA should be carried out. Issues of potential for interference with flight paths (e.g. bird strike) and displacement of birds from ex-situ feeding sites are matters to be further considered. These would occur during both construction and operational phases, but primarily operational.

The applicant's AA screening report failed to consider the potential for any in-combination effects.

Therefore, I consider that the applicant's AA screening report, as originally submitted, erred in not considering progress to Stage 2 AA was required.

Mitigation Measures

No measures designed or intended to avoid or reduce any harmful effects of the project on a European site have been relied upon in this screening exercise.

Screening Determination

Significant effects cannot be excluded, and Appropriate Assessment required

The proposed development was considered in light of the requirements of section 177U of the Planning & Development Act, 2000 (as amended). Having carried out screening for Appropriate Assessment of the project, I conclude that the project individually (or in combination with other plans or projects) could have a significant

effect on European sites Lough Ree SPA (site code 004064), River Suck Callows SPA (site code 004097), Lough Croan Turlough SPA (site code 004139), and Four Roads Turlough SPA (site code 004140), in view of the sites' Conservation Objectives, and Appropriate Assessment (and submission of a NIS) is therefore required.

Appropriate Assessment

The requirements of article 6(3) as related to appropriate assessment of a project under Part XAB, section 177V of the Planning & Development Act, 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:

- compliance with article 6(3) of the EU Habitats Directive
- the Natura Impact Statement (NIS) and associated documents
- appropriate assessment of implications of the proposed development on the integrity of each European site.

Compliance with Article 6(3) of the EU Habitats Directive

The Habitats Directive deals with the conservation of natural habitats and of wild fauna and flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.

The proposed development is not directly connected to or necessary for the management of any European site and therefore is subject to the provisions of article 6(3).

The Natura Impact Statement (NIS)

In response to the planning authority's further information request the applicant submitted a 'Natura Impact Statement' prepared by EirEco and dated November 2021. The report 'addresses the potential for the proposed project to give rise to significant impacts on the qualifying interests of these Natura 2000 sites and provides measures

to avoid such impacts where appropriate'. The NIS was also informed by bird surveys including an 'Ornithological Report' prepared by Flynn Furney. The NIS includes a description of the proposed development and the existing environment, European sites within a ZoI and conservation objectives, assessment of potential in-combination effects, mitigation measures, and a conclusion and final determination.

The NIS concludes 'that there will be no adverse effects on the integrity of any European site, as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard'.

Having reviewed the documentation, submissions etc., and as per the integrity test of tables 2, 3, 4, and 5, I am not satisfied that the information allows for a complete assessment of any adverse effects of the development, on the conservation objectives of the relevant European sites alone, or in combination with other plans and projects. The reasons for this are set out under the 'Integrity Test' section of this AA.

Appropriate Assessment of Implications of the Proposed Development

The following is a summary of the objective scientific assessment of the implications of the project on the SCI features of the European sites. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.

In my view the following sites should be subject to AA:

- Lough Ree SPA (site code 004064)
- River Suck Callows SPA (site code 004097)
- Lough Croan Turlough SPA (site code 004139)
- Four Roads Turlough SPA (site code 004140)

The sites and their relevant SCIs are set out in table 1 of this report.

Aspects of the Proposed Development that could affect Conservation Objectives

The applicant's NIS considered that there was potential for impacts on SCIs of SPAs as a result of (i) loss of foraging habitats, and (ii) interference with flight paths. The applicant's NIS outlines these in section 4.3 of the NIS. I agree that these are the two

issues that could affect the SCI species, interference with flight paths including issues such as bird strike.

Tables 2, 3, 4, and 5 summarise the AA and site integrity test for each SPA. This is based on the applicant's NIS and bird surveys, NPWS data, the Birdwatch Ireland website etc. The relevant conservation objectives for the four European sites have been examined and assessed with regard to the identified potential significant effects and all aspects of the project, alone and in-combination with other plans and projects. Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed, and clear, precise, and definitive conclusions reached in terms of adverse effects on the integrity of the European site.

Tables 2, 3, 4, and 5: Summary of Appropriate Assessment of implications of the proposed development on the integrity of European sites alone and in-combination with other plans and projects in view of the sites' conservation objectives

Table 2 – Lough Ree SPA [004064]					
Summary of key issues that could give rise to adverse effects: • **Loss of foraging habitats** • **Interference with flight paths (bird strike etc.)** **Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004064.pdf**					
Summary of Appropriate Assessment					
Special Conservation Interest (SCI) Feature	**Conservation objectives targets and attributes**	**Potential adverse effects**	**Mitigation measures**	**In-combination effects**	**Can adverse effects on integrity be excluded?**
Little grebe [A004]	To maintain or restore the favourable conservation condition of the bird species listed as an SCI for this SPA	Despite being an SCI of the SPA there is no reference to little grebe in the NIS. Birdwatch Ireland (BI) states that 'at some sites birds disperse from their inland breeding sites over the winter'.	N/A	N/A	N/A
Whooper swan [A038]	As above	The NIS states that four whooper swans were seen once in the non-breeding season flying over the southern edge of the buffer border (500 metres from site). Its flight path is still unclear, and it was also	Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects.	The NIS states that a single winter observation was made of four whooper swans flying over the site. This suggests the

		recorded at the lough/waterbody sites within 5km. The estimated wintering national population is 11,852 therefore numbers of ecological significance i.e. 1%, were not recorded. (BI states 14,467 whooper swans were recorded in RoI in 2020 in the five-year swan census). With a single year of surveys it is difficult to understand the connectivity between the site and supporting wetland habitat, according to the NIS. <u>Habitat –</u> Whooper swans regularly utilise grassland habitat outside the SPA though there was no evidence of foraging, feeding, or roosting on site. <u>Flight Path –</u> The small number and isolated observation in tandem with the open landscape and distance between key foraging and roosting areas suggest the site is not in a significant commuting/migratory corridor. Flight paths are likely to be random and influenced by wind, ground level disturbance etc. rather than any feature in the landscape (topographical or wetland features). The effect of displacement of flight path from a single turbine would be limited to a very narrow zone. The proposed turbine does	designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	No potential for significant negative in-combination effects is anticipated.	proposed turbine does not lie on a regularly used flight path and therefore the risk of collision is negligible. The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.

		not lie on a regular flight path and the risk of collision is negligible. The limited whooper swan observations have been disputed in submissions received by the planning authority which state that flocks of whooper swans use the area as a flight path.			
Wigeon [A050]	As above	Wigeon was recorded on every waterfowl survey during the non-breeding season on loughs/waterbodies within 5km though none were recorded within the site or 500 metres buffer area. The NIS considers the proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or indirect effects exist. Wigeon was not considered further in the NIS. BI states that the Icelandic breeding component of this population winters mostly in Ireland and western Britain.	As above.	As above.	The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Teal [A052]	As above	Teal was recorded on every waterfowl survey during the non-breeding season on loughs/waterbodies within 5km though none were recorded within the site or 500 metres buffer area. The NIS considers the proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or	As above.	As above.	As above.

		indirect effects exist. Teal was not considered further in the NIS. BI names Lough Ree as amongst the best wintering sites for teal. Small numbers breed throughout Ireland and numbers increase substantially after autumn and winter migration takes place.			
Mallard [A053]	As above	The NIS states mallard was noted several times using waterbodies within the site (3 metres radius ponds) and at lough sites during the non-breeding season (page 14), and during the breeding season females were seen regularly using the waterbodies within the site and flying into site to land (page 16). It appears mallards can use the ponds to roost given they were flushed from the site during dawn and dusk walkover surveys. Notwithstanding, page 19 states that mallards were not recorded in the non-breeding season. BI states there are resident and wintering populations, and they are common throughout Ireland.	As above.	As above.	As above.
Shoveler [A056]	As above	The NIS States that shoveler was recorded in the February surveys at loughs/waterbodies within 5km during the non-breeding season though none were recorded within the site or 500 metres buffer area. The NIS considers the	As above.	As above.	As above.

		proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or indirect effects exist. Shoveler was not considered further in the NIS. BI states shoveler comprises both resident and wintering populations. South Roscommon lakes are among the top wintering sites.			
Tufted duck [A061]	As above	Tufted duck was recorded on every waterfowl survey during the non-breeding season on loughs/waterbodies within 5km though none were recorded within the site or 500 metres buffer area. The NIS considers the proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or indirect effects exist. Tufted duck was not considered further in the NIS. BI states that there is a widespread resident population with numbers increasing in autumn and winter. Lough Ree is noted as an important wintering site.	As above.	As above.	As above.
Common scoter [A065]	As above	Despite being an SCI of the SPA there is no reference to common scoter in the NIS. BI states there are resident and wintering populations. There are small breeding populations in the west and north west but	N/A	N/A	N/A

		are almost entirely marine during the winter.			
Goldeneye [A067]	As above	Goldeneye was recorded on every waterfowl survey during the non-breeding season on loughs/waterbodies within 5km though none were recorded within the site or 500 metres buffer area. The NIS considers the proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or indirect effects exist. Goldeneye was not considered further in the NIS. BI states it is a wintering population.	Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Coot [A125]	As above	Coot was recorded on every waterfowl survey during the non-breeding season on loughs/waterbodies within 5km though none were recorded within the site or 500 metres buffer area. The NIS considers the proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or indirect effects exist. Coot was not considered further in the NIS. BI states there is a resident population augmented by a wintering population.	As above.	As above.	As above.

Golden plover [A140]	As above	12 no. golden plover were recorded flying through the western side of the site in October. > 120 no. were observed on site in January when a number of loughs were frozen. A January dawn survey noted golden plover arriving from a west north west direction, but their origin is unknown. There were 145 no. golden plover using the western side of the site in February. This suggests a strong foraging association, though not exclusive dependence on the site. They were also observed using the site in March and a large flock was observed on an April dawn survey flying over the site prior to landing in it. The NIS states there is a strong winter association with the site. The estimated wintering national population is 80,707 no. therefore numbers of ecological significance i.e. 1%, were not recorded (maximum was 145 no.). There were no observations in summer or of breeding activity. BI states there are summer visitors from France/Iberia and winter visitors from Iceland though possibly some remain year round. <u>Habitat –</u> The site is an ex-situ foraging area. Golden plover did not roost within the site. The proposed development, according to the NIS, is 'unlikely to result in	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	As above.	The NIS states in view of the limited extent of habitat loss and the overall availability of similar habitat, the proposed development is not at risk of affecting the wintering population of golden plover or affecting their conservation objectives within any European site. The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.

		a total abandonment of foraging in the vicinity of the site …' though some localised displacement (not expected to exceed 150 metres) would be expected. A considerable portion of grasslands within the landholding would remain available for foraging. Even a total abandonment of the site would not be expected to have any significant effect on population given the availability of similar grasslands in the landscape for foraging. The extent of habitat loss is considered insignificant. Flight Path – Despite a flock of 145 no. golden plover being observed, and the site/vicinity being used as an ex-situ foraging area, the species is not specifically referenced in this regard in the NIS.			
Lapwing [A142]	As above	Lapwing was recorded on one occasion in the non-breeding season using the site to forage giving a 'weak but potentially unknown association'. It was also recorded at the lough/waterbody sites within 5km. 160 no. lapwing were only recorded in a January dawn survey arriving from a west north west direction on the western side of the site buffer area and at no other time. The NIS states 'their potential association is unclear'. Frozen loughs may have brought the lapwing to the site as waterfowl	As above.	As above.	The NIS states in view of the limited extent of habitat loss and the overall availability of similar habitat, the proposed development is not at risk of affecting the wintering population of lapwing or affecting their conservation

		surveys did not record any lapwing in January. The estimated wintering national population is 69,823 no. therefore numbers of ecological significance i.e. 1%, were not recorded (maximum was 160 no.). BI states there is a mix of residents and winter and summer visitors. <u>Habitat –</u> The site is an ex-situ foraging area. Lapwing did not roost within the site. The proposed development, according to the NIS, is 'unlikely to result in a total abandonment of foraging in the vicinity of the site …' though some localised displacement (not expected to exceed 150 metres) would be expected. A considerable portion of grasslands within the landholding would remain available for foraging. Even a total abandonment of the site would not be expected to have any significant effect on population given the availability of similar grasslands in the landscape for foraging. The extent of habitat loss is considered insignificant. <u>Flight Path –</u> Despite a flock of 160 no. lapwing being observed, and the site/vicinity being used as an ex-situ foraging area, the species is not specifically referenced in this regard in the NIS.			objectives within any European site. The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.

Common tern [A193]	As above	Despite being an SCI of the SPA there is no reference to common tern in the NIS. BI states it is a summer visitor.	N/A	N/A	N/A
Wetland and waterbirds [A999]	To maintain or restore the favourable conservation condition of the wetland habitat at Lough Ree SPA as a resource for the regularly-occurring migratory waterbirds that use it	The NIS does not specifically refer to this SCI. However, there is no wetland habitat on, or adjacent to, the development site, and SCI waterbirds are addressed above.	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	There will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Overall conclusion: Integrity test Following consideration of the submitted Appropriate Assessment Screening Report and Stage 2 Natura Impact Statement, I am not able to ascertain with confidence that the project would not adversely affect the integrity of Lough Ree SPA in view of the conservation objectives of the site. I consider that reasonable scientific doubt remains as to the absence of such effects. The reasons for this are set out under the 'Integrity Test' section of this AA.					

Table 3 – River Suck Callows SPA [004097]

Summary of key issues that could give rise to adverse effects:

- **Loss of foraging habitats**
- **Interference with flight paths (bird strike etc.)**

Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004097.pdf

Summary of Appropriate Assessment

Special Conservation Interest (SCI) Feature	Conservation objectives targets and attributes	Potential adverse effects	Mitigation measures	In-combination effects	Can adverse effects on integrity be excluded?
Whooper swan [A038]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA	The NIS states that four whooper swans were seen once in the non-breeding season flying over the southern edge of the buffer border (500 metres from site). Its flight path is still unclear, and it was also recorded at the lough/waterbody sites within 5km. The estimated wintering national population is 11,852 therefore numbers of ecological significance i.e. 1%, were not recorded. (BI states 14,467 whooper swans were recorded in RoI in 2020 in the five-year swan census). With a single year of surveys it is difficult to understand the connectivity between the site and supporting wetland habitat, according to the NIS.	Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	The NIS states that a single winter observation was made of four whooper swans flying over the site. This suggests the proposed turbine does not lie on a regularly used flight path and therefore the risk of collision is negligible. The NIS concludes that there will be no adverse effects on the integrity of any European site as a

		Habitat – Whooper swans regularly utilise grassland habitat outside the SPA though there was no evidence of foraging, feeding or roosting on site. Flight Path – The small number and isolated observation in tandem with the open landscape and distance between key foraging and roosting areas suggest the site is not in a significant commuting/migratory corridor. Flight paths are likely to be random and influenced by wind, ground level disturbance etc. rather than any feature in the landscape (topographical or wetland features). The effect of displacement of flight path from a single turbine would be limited to a very narrow zone. The proposed turbine does not lie on a regular flight path and the risk of collision is negligible. The limited whooper swan observations have been disputed in submissions received by the planning authority which state that flocks of whooper swans use the area as a flight path.			result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Wigeon [A050]	As above	Wigeon was recorded on every waterfowl survey during the non-breeding season on loughs/waterbodies within 5km though none were recorded within the site or 500 metres buffer area. The NIS considers the proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or	As above.	As above.	The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination

		indirect effects exist. Wigeon was not considered further in the NIS. BI states that the Icelandic breeding component of this population winters mostly in Ireland and western Britain.			with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Golden plover [A140]	As above	12 no. golden plover were recorded flying through the western side of the site in October. > 120 no. were observed on site in January when a number of loughs were frozen. A January dawn survey noted golden plover arriving from a west north west direction, but their origin is unknown. There were 145 no. golden plover using the western side of the site in February. This suggests a strong foraging association, though not exclusive dependence on the site. They were also observed using the site in March and a large flock was observed on an April dawn survey flying over the site prior to landing in it. The NIS states there is a strong winter association with the site. The estimated wintering national population is 80,707 no. therefore numbers of ecological significance i.e. 1%, were not recorded (maximum was 145 no.). There were no observations in summer or of breeding activity. BI states there are summer visitors from France/Iberia and winter visitors from Iceland though possibly some remain year round.	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	As above.	The NIS states in view of the limited extent of habitat loss and the overall availability of similar habitat, the proposed development is not at risk of affecting the wintering population of golden plover or affecting their conservation objectives within any European site. The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and

		Habitat – The site is an ex-situ foraging area. Golden plover did not roost within the site. The proposed development, according to the NIS, is 'unlikely to result in a total abandonment of foraging in the vicinity of the site …' though some localised displacement (not expected to exceed 150 metres) would be expected. A considerable portion of grasslands within the landholding would remain available for foraging. Even a total abandonment of the site would not be expected to have any significant effect on population given the availability of similar grasslands in the landscape for foraging. The extent of habitat loss is considered insignificant. Flight Path – Despite a flock of 145 no. golden plover being observed, and the site/vicinity being used as an ex-situ foraging area, the species is not specifically referenced in this regard in the NIS.			that no reasonable scientific doubt remains in this regard.
Lapwing [A142]	As above	Lapwing was recorded on one occasion in the non-breeding season using the site to forage giving a 'weak but potentially unknown association'. It was also recorded at the lough/waterbody sites within 5km. 160 no. lapwing were only recorded in a January dawn survey arriving from a west north west direction on the western side of the site buffer area and at no other time. The NIS states 'their potential association is unclear'. Frozen loughs may have brought the lapwing to the site as waterfowl	As above.	As above.	The NIS states in view of the limited extent of habitat loss and the overall availability of similar habitat, the proposed development is not at risk of affecting the wintering population of lapwing or affecting

		surveys did not record any lapwing in January. The estimated wintering national population is 69,823 no. therefore numbers of ecological significance i.e. 1%, were not recorded (maximum was 160 no.). BI states there is a mix of residents and winter and summer visitors. <u>Habitat –</u> The site is an ex-situ foraging area. Lapwing did not roost within the site. The proposed development, according to the NIS, is 'unlikely to result in a total abandonment of foraging in the vicinity of the site …' though some localised displacement (not expected to exceed 150 metres) would be expected. A considerable portion of grasslands within the landholding would remain available for foraging. Even a total abandonment of the site would not be expected to have any significant effect on population given the availability of similar grasslands in the landscape for foraging. The extent of habitat loss is considered insignificant. <u>Flight Path –</u> Despite a flock of 160 no. lapwing being observed, and the site/vicinity being used as an ex-situ foraging area, the species is not specifically referenced in this regard in the NIS.			their conservation objectives within any European site. The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.

Greenland white-fronted goose [A395]	As above	Despite being an SCI of the SPA there is no reference to Greenland white-fronted goose in the NIS. BI states it is a scarce winter visitor with the River Suck in Co. Roscommon identified as one of the most important sites.	N/A	N/A	N/A
Wetland and waterbirds [A999]	To maintain or restore the favourable conservation condition of the wetland habitat at River Suck Callows SPA as a resource for the regularly-occurring migratory waterbirds that use it	The NIS does not specifically refer to this SCI. However, there is no wetland habitat on, or adjacent to, the development site, and SCI waterbirds are addressed above.	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	There will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Overall conclusion: Integrity test Following consideration of the submitted Appropriate Assessment Screening Report and Stage 2 Natura Impact Statement, I am not able to ascertain with confidence that the project would not adversely affect the integrity of River Suck Callows SPA in view of the conservation objectives of the site. I consider that reasonable scientific doubt remains as to the absence of such effects. The reasons for this are set out under the 'Integrity Test' section of this AA.					

Table 4 – Lough Croan Turlough SPA [004139]					
Summary of key issues that could give rise to adverse effects: • **Loss of foraging habitats** • **Interference with flight paths (bird strike etc.)** **Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004139.pdf**					
Summary of Appropriate Assessment					
Special Conservation Interest (SCI) Feature	**Conservation objectives targets and attributes**	**Potential adverse effects**	**Mitigation measures**	**In-combination effects**	**Can adverse effects on integrity be excluded?**
Shoveler [A056]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA	The NIS States that shoveler was recorded in the February surveys at loughs/waterbodies within 5km during the non-breeding season though none were recorded within the site or 500 metres buffer area. The NIS considers the proposed development has no potential to result in direct habitat loss, displacement, or barrier effects. No pathways for direct or indirect effects exist. Shoveler was not considered further in the NIS. BI states shoveler comprises both resident and wintering populations. South	Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt

		Roscommon lakes are among the top wintering sites.			remains in this regard.
Golden plover [A140]	As above	12 no. golden plover were recorded flying through the western side of the site in October. > 120 no. were observed on site in January when a number of loughs were frozen. A January dawn survey noted golden plover arriving from a west north west direction, but their origin is unknown. There were 145 no. golden plover using the western side of the site in February. This suggests a strong foraging association, though not exclusive dependence on the site. They were also observed using the site in March and a large flock was observed on an April dawn survey flying over the site prior to landing in it. The NIS states there is a strong winter association with the site. The estimated wintering national population is 80,707 no. therefore numbers of ecological significance i.e. 1%, were not recorded (maximum was 145 no.). There were no observations in summer or of breeding activity. BI states there are summer visitors from France/Iberia and winter visitors from Iceland though possibly some remain year round.	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	As above.	The NIS states in view of the limited extent of habitat loss and the overall availability of similar habitat, the proposed development is not at risk of affecting the wintering population of golden plover or affecting their conservation objectives within any European site. The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt

		Habitat – The site is an ex-situ foraging area. Golden plover did not roost within the site. The proposed development, according to the NIS, is 'unlikely to result in a total abandonment of foraging in the vicinity of the site …' though some localised displacement (not expected to exceed 150 metres) would be expected. A considerable portion of grasslands within the landholding would remain available for foraging. Even a total abandonment of the site would not be expected to have any significant effect on population given the availability of similar grasslands in the landscape for foraging. The extent of habitat loss is considered insignificant. Flight Path – Despite a flock of 145 no. golden plover being observed, and the site/vicinity being used as an ex-situ foraging area, the species is not specifically referenced in this regard in the NIS.			remains in this regard.
Greenland white-fronted goose [A395]	As above	Despite being an SCI of the SPA there is no reference to Greenland white-fronted goose in the NIS. BI states it is a scarce winter visitor with the River Suck in Co. Roscommon identified as one of the most important sites.	N/A	N/A	N/A

Wetland and waterbirds [A999]	To maintain or restore the favourable conservation condition of the wetland habitat at Lough Croan Turlough SPA as a resource for the regularly-occurring migratory waterbirds that use it	The NIS does not specifically refer to this SCI. However, there is no wetland habitat on, or adjacent to, the development site, and SCI waterbirds are addressed above.	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	There will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Overall conclusion: Integrity test Following consideration of the submitted Appropriate Assessment Screening Report and Stage 2 Natura Impact Statement, I am not able to ascertain with confidence that the project would not adversely affect the integrity of Lough Croan Turlough SPA in view of the conservation objectives of the site. I consider that reasonable scientific doubt remains as to the absence of such effects. The reasons for this are set out under the 'Integrity Test' section of this AA.					

Table 5 – Four Roads Turlough SPA [004140]					
Summary of key issues that could give rise to adverse effects: • **Loss of foraging habitats** • **Interference with flight paths (bird strike etc.)** **Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004140.pdf**					
Summary of Appropriate Assessment					
Special Conservation Interest (SCI) Feature	**Conservation objectives targets and attributes**	**Potential adverse effects**	**Mitigation measures**	**In-combination effects**	**Can adverse effects on integrity be excluded?**
Golden plover [A140]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA	12 no. golden plover were recorded flying through the western side of the site in October. > 120 no. were observed on site in January when a number of loughs were frozen. A January dawn survey noted golden plover arriving from a west north west direction, but their origin is unknown. There were 145 no. golden plover using the western side of the site in February. This suggests a strong foraging association, though not exclusive dependence on the site. They were also observed using the site in March and a large flock was observed on an April dawn survey flying over the site prior to landing in it. The NIS	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	The NIS states in view of the limited extent of habitat loss and the overall availability of similar habitat, the proposed development is not at risk of affecting the wintering population of golden plover or affecting their conservation

		states there is a strong winter association with the site. The estimated wintering national population is 80,707 no. therefore numbers of ecological significance i.e. 1%, were not recorded (maximum was 145 no.). There were no observations in summer or of breeding activity. BI states there are summer visitors from France/Iberia and winter visitors from Iceland though possibly some remain year round. <u>Habitat –</u> The site is an ex-situ foraging area. Golden plover did not roost within the site. The proposed development, according to the NIS, is 'unlikely to result in a total abandonment of foraging in the vicinity of the site …' though some localised displacement (not expected to exceed 150 metres) would be expected. A considerable portion of grasslands within the landholding would remain available for foraging. Even a total abandonment of the site would not be expected to have any significant effect on population given the availability of similar grasslands in the landscape for foraging. The extent of habitat loss is considered insignificant. <u>Flight Path –</u> Despite a flock of 145 no. golden plover being observed, and the	units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.		objectives within any European site. The NIS concludes that there will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.

		site/vicinity being used as an ex-situ foraging area, the species is not specifically referenced in this regard in the NIS.			
Greenland white-fronted goose [A395]	As above	Despite being an SCI of the SPA there is no reference to Greenland white-fronted goose in the NIS. BI states it is a scarce winter visitor with the River Suck in Co. Roscommon identified as one of the most important sites.	N/A	N/A	N/A
Wetland and waterbirds [A999]	To maintain or restore the favourable conservation condition of the wetland habitat at Lough Croan Turlough SPA as a resource for the regularly-occurring migratory waterbirds that use it	The NIS does not specifically refer to this SCI. However, there is no wetland habitat on, or adjacent to, the development site, and SCI waterbirds are addressed above.	The NIS states the principal risk arises from the potential loss of foraging habitat for golden plover and lapwing. This is considered to be of minor scale and therefore no mitigation is required. Though there are no surface water courses on site there are some small depressions that hold water. Specific construction phase measures have been developed and are set out in section 6 of the NIS e.g. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.	The NIS states that no plans or projects have been identified as posing a risk of giving rise to significant in-combination effects. No potential for significant negative in-combination effects is anticipated.	There will be no adverse effects on the integrity of any European site as a result of the proposed development, either individually or in combination with other plans and projects, and that no reasonable scientific doubt remains in this regard.
Overall conclusion: Integrity test					

Following consideration of the submitted Appropriate Assessment Screening Report and Stage 2 Natura Impact Statement, I am not able to ascertain with confidence that the project would not adversely affect the integrity of Four Roads Turlough SPA in view of the conservation objectives of the site. I consider that reasonable scientific doubt remains as to the absence of such effects. The reasons for this are set out under the 'Integrity Test' section of this AA.

Mitigation Measures

Mitigation measures are set out in section 6 of the applicant's NIS. These measures relate to 'potential impacts that may arise from the construction of the proposed wind turbine and access track on the surface water features …' and include those contained within tables 2-5 above, i.e. designated on-site refuelling area, storage of fuel/chemicals in mobile bunded units, welfare facilities to be changed over, silt fencing, concrete pours during dry weather.

No mitigation is considered by the applicant to be necessary for the operational phase of the proposed development.

I consider that the proposed mitigation measures relating to the construction phase generally comprise relatively standard, well proven good practice measures for construction works in the vicinity of watercourses.

In-Combination Effects

The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media cited an absence of any consideration of an in-combination assessment of other wind farm projects. Section 5 of the NIS states 'There are no projects or plans that have been identified as posing a risk of giving rise to significant in-combination effects on any European sites in the vicinity of the proposed wind turbine at Kilcash … no potential for significant negative in-combination effects are anticipated'. The Skrine wind farm was not specifically referenced and neither were two other wind farm developments within the county noted in submissions received by the planning authority: (i) an extension of duration (P.A. Reg. Ref. 21/3007) for two turbines up to 126 metres in height, originally permitted under P.A. Reg. Ref. 11/126, approx. 10km to the north, and (ii) the proposed 20 no. turbine Seven Hills wind farm approx. 11km to the south.

Although section 3.1.3 of the applicant's E&PR states that 'the grid connection has been accounted for in the development of the assessments', the submitted NIS makes no reference whatsoever to grid connection works. Though it does not form part of the planning application it can be considered part of the overall project. The grid connection method and route has not been established however the applicant has suggested an overground cable route from the proposed substation west keying into the existing Skrine wind farm line. The indicative route is across agricultural land. It does not appear that any waterway would be crossed and there are no European sites

in the vicinity of the proposed grid connection route. Having regard to the overground nature of the suggested grid connection, which would involve limited construction works, and the distance to the closest European sites, I do not consider the proposed grid connection as anticipated, would have any adverse impact on any European site.

Notwithstanding, in my opinion, as it cannot be determined on the basis of the information received to date that the subject development would not adversely affect European sites on its own, it cannot reasonably be determined that it would not give rise to in-combination effects.

Appeal Documentation

The planning authority's first reason for refusal is based on AA. Additional relevant documentation received by the Board in relation to this specific issue is limited. Pages 4 and 5 of the appeal document states 'A recent update from the ongoing surveys has confirmed the site has been very quiet in terms of wildfowl and waders throughout the winter season surveys until January when three Whooper Swan were identified travelling through the 500-meter buffer during the Vantage Point survey and a flock of 120 Golden Plover were recorded circling the site during the January walkover'. It is unclear if this 'recent update' is from January 2022, as the detail is very similar to that contained in the NIS relating to January 2021.

Notwithstanding, no relevant additional detail has been submitted with the appeal documentation further than that received by the planning authority.

Integrity Test

Following consideration of the submitted Appropriate Assessment Screening Report and Stage 2 Natura Impact Statement, I am not able to ascertain with confidence that the project would not adversely affect the integrity of Lough Ree SPA, River Suck Callows SPA, Lough Croan Turlough SPA, and Four Roads Turlough SPA in view of the conservation objectives of the sites. I consider that reasonable scientific doubt remains as to the absence of such effects. This is based on the following concerns:

- One of the concerns outlined by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media was that wintering bird surveys were only undertaken over a single winter whereas recommended guidance was a minimum of two years bird surveys covering all times of the year. The

department considered the AA screening report to be inadequate in this respect. The department was referring to Scottish Natural Heritage 'Recommended bird survey methods to inform impact assessment of onshore wind farms' (March 2017). Though it is only guidance, I consider it relevant given the relative proximity of SPAs to the east, west, and south. Table 1 of the NIS identifies the bird surveys taking place from 30th October 2020 to 14th October 2021.

Table 3 of the NIS acknowledges that, during the non-breeding season, golden plover has a 'strong association' with the site, lapwing has a 'weak but potentially unknown association', while the whooper swan flight path is still unclear. I note that, though whooper swan was not recorded feeding on site, they are commonly found grazing on grasslands. The vacuum of information in the absence of a two-year study is set out in the NIS relating to whooper swans; 'Within a single year of surveys it is difficult to understand the Whooper Swans connectivity between the proposed development site and any supporting wetland habitat for this species, therefore, the significance of the development site for this species is unclear' (page 17). Page 18 of the submitted Ornithological Report states 'there is potentially too little information to determine if there is a potential significant commuting/migratory corridor for bird species'.

- Throughout the NIS effectively no comment was made about four SCI species of European sites within the zone of influence (little grebe, common scoter, common tern, and Greenland white-fronted goose). While the NIS details non-SCI species, these SCI species were not referenced.
- Despite being SCI species for nearby European sites and reasonable size flocks being recorded on site; 145 no. golden plover and 160 no. lapwing, neither species was referred to in 'interference with flight paths for SCI species' (page 27 of the NIS) in the 'assessment of potential impacts on designated areas', while undesignated species such as cormorant were.
- Page 27 of the NIS suggests that the site does not represent a significant commuting corridor for any bird species. However, page 17 of the NIS states 'a large flock of Golden Plover were seen flying in a tight flock over the site, at

height, during a Dawn Survey prior to landing within the site'. There appears to be a contradiction between these two statements.

Having regard to the foregoing, I do not consider that adequate information has been presented in order for a robust AA to be carried out.

While not specifically a basis for refusal of permission, I also consider the submitted documentation to be deficient for the following reasons:

- The lack of coherence between the applicant's submitted AA screening report and NIS. The screening report conclusion considered there 'to be no requirement to proceed to Stage 2 Appropriate Assessment'. However, the NIS submitted as part of the further information response outlines two potential impacts (habitat loss and flight path). The NIS does not contain a revised screening report.
- The NIS contains, throughout, numerous references to bird and bat species which are neither Annex I species in the first instance e.g. buzzard, sparrowhawk, kestrel, cormorant, swallow, house martin, nor SCI/QI species relevant to any SPA/SAC within at least 15km e.g. hen harrier, bats.
- The inclusion of European sites in the NIS that were screened out from having any pathways between the source/development site and the receptor/European site e.g. tables 7 and 8.
- In relation to golden plover, page 17 of the NIS stated 'The maximum number of birds recorded from the winter season was 160 birds', when the maximum number was 145.
- Tables 3 and 4 of the NIS state that mallard was observed using the waterbodies on site and in the vicinity during both the breeding and non-breeding seasons. However, page 19 states 'Mallard were not recorded in the non-breeding season …'

Appropriate Assessment Conclusion

The proposed wind turbine development has been considered in light of the assessment requirements of sections 177U and 177V of the Planning & Development Act, 2000 (as amended).

Having carried out screening for AA of the project, it was concluded that it may have a significant effect on Lough Ree SPA (site code 004064), River Suck Callows SPA (site code 004097), Lough Croan Turlough SPA (site code 004139), and Four Roads Turlough SPA (site code 004140). Consequently, an AA was required of the implications of the project on the qualifying features of those sites in light of their conservation objectives.

Following AA, it has not been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of European site Nos. 004064, 004097, 004139, or 004140, in view of the sites Conservation Objectives.

This conclusion is based on the detail received by the Board:

- An inadequate duration of bird surveys which has resulted in a vacuum of information on the impact of the proposed development on SCI species for which the SPAs within the zone of influence of the proposed development are selected.
- The absence of any commentary or detail on a number of SCI species for which the SPAs within the zone of interest of the proposed development are selected.
- An inadequate consideration of SPI species in terms of interference with flight or commuting paths.

These result in:

- Reasonable scientific doubt as to the absence of adverse effects on the integrity of Lough Ree SPA.
- Reasonable scientific doubt as to the absence of adverse effects on the integrity of River Suck Callows SPA.
- Reasonable scientific doubt as to the absence of adverse effects on the integrity of Lough Croan SPA.
- Reasonable scientific doubt as to the absence of adverse effects on the integrity of Four Roads Turlough SPA.

9.0 **Recommendation**

I recommend that the planning application be refused for the following reasons and considerations.

10.0 **Reasons and Considerations**

1. The Board is not satisfied, on the basis of the submissions made in connection with the planning application and the appeal, that adequate information has been provided on the impact of the proposed wind turbine development on the special conservation interest species for which Lough Ree SPA (site code 004064), River Suck Callows SPA (site code 004097), Lough Croan Turlough SPA (site code 004139), and Four Roads Turlough SPA (site code 004140) have been selected. It is therefore considered that the Board is unable to ascertain, as required by Regulation 27(3) of the European Communities (Natural Habitats) Regulations, 1997, that the proposed development will not adversely affect the integrity of a European Site and it is considered that the proposed development would be contrary to the proper planning and sustainable development of the area.

Anthony Kelly
Planning Inspector
13th June 2022