MWP

Chapter 01 Introduction

Ballynisky Wind Farm

Ballynisky Green Energy Ltd.

December 2025

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1. Introduction

This **Environmental Impact Assessment Report (EIAR)** relates to a proposed wind energy development in Co. Limerick, named the Ballynisky Wind Farm, located approximately 9km north of Newcastle West and 6km west of Rathkeale (hereafter referred to as the 'site'). Development consent is being sought by Ballynisky Green Energy Ltd. (the Applicant) from Limerick City and County Council (LCCC) (the competent planning authority).

A full description of the proposed development and development lands of the proposed development is provided in **Chapter 03 Description of the Proposed Development** of this **EIAR**.

Malachy Walsh & Partners, MWP have been engaged by the Applicant to prepare an **EIAR** to accompany the planning application. The **EIAR** has been compiled in accordance with current legislation and best practice guidance and consists of a systematic analysis and assessment of the potential effects of the proposed development on the receiving environment. The intended purpose of the **EIAR** is to:

- Inform decision makers and the public of any possible environmental effects and impacts associated with the implementation of the proposal;
- Determine whether any identified impacts and associated effects could be significant; and
- Suggest mitigation measures for potential impacts where feasible.

This Chapter sets out the purpose and scope of the **EIAR**, the report structure, assessment topics, assessment authors and contributors, and assumptions which underlie the **EIAR**. It introduces the proposed development and outlines the site location, key elements of the proposed development and details the consultation undertaken with relevant stakeholders.

1.1 The Applicant

Ballynisky Green Energy Ltd. is seeking planning permission from LCCC to construct and operate a wind farm and associated grid infrastructure on lands at Ballynisky, Graigoor, Ballyegny More, Kilbradran, Ballysteen, Dunmoylan, Lisbane and Carrons near Coolcappa, Co. Limerick.

Ballynisky Green Energy Ltd. is part of a privately owned Irish energy group based in County Limerick, Ireland. The company has grown and diversified over the last twenty years, having significant expertise in the planning, construction and operation of renewable energy projects in Ireland and abroad. Since inception, the company has played a key role in the development of over 150 MW of renewable energy projects in Ireland, playing a significant role in further decarbonising the electricity market in this country.

The company has developed and installed a number of wind farm projects in County Limerick including the 2-turbine Carrons Wind Farm located west of the Ballynisky site and the 2-turbine Kilmeedy Wind Farm located east of Newcastle West.

1.2 Site Location & Brief Description

The site is located in the townlands of Ballynisky, Graigoor, Ballyegny More, Kilbradran, Ballysteen, Dunmoylan, Lisbane and Carrons approximately 9km north of Newcastle West and 6km west of Rathkeale, Co. Limerick (**Figure 1-1**). The site is rural in nature, with landcover comprising mainly agricultural land, farm holdings and residential dwellings in the vicinity of the development area.

Access to the site will be via the Local Road network. The R521 from Foynes to Newcastle West is located to the west of the site. The closest National primary road is the N21 located to the southeast of the site. The turbine delivery route will extend south-eastwards from Foynes along the N69 before turning off onto the local road network through Creeves Cross and onto the L1219 local road to the site location.

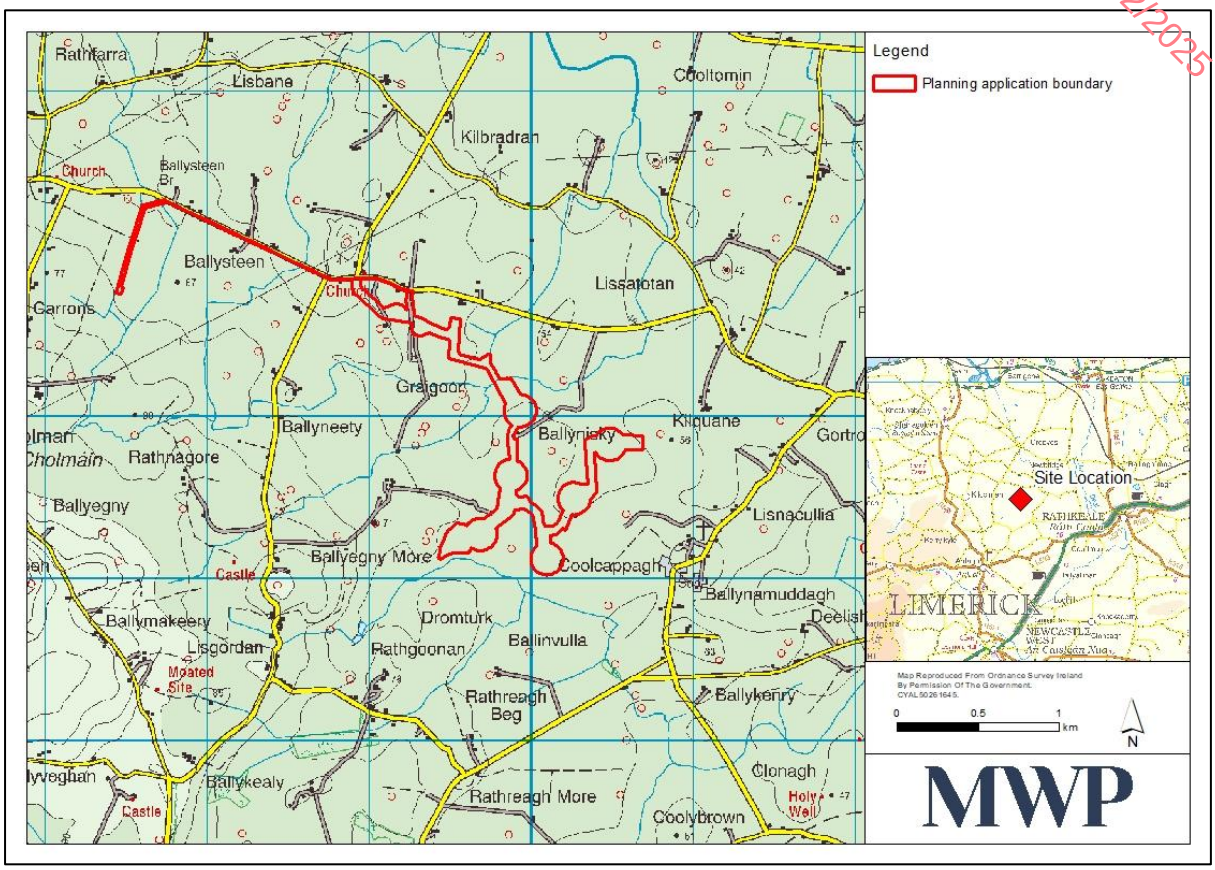


Figure 1-1: Proposed Wind Farm Location

1.3 Proposed Development Summary

The main components of the proposed development are as follows:

- Six (6) no. wind turbines, with a tip height of 158 metres, and all associated foundations and hard standing areas;
- Approximately 3.4km of internal access tracks, associated drainage and turning areas;
- On-site interconnecting electrical cabling;
- On-site electrical substation;
- Spoil Storage Areas;
- Grid Connection Option A: This option comprises of an underground cable route along the local road and adjacent lands to the existing substation at Carrons Wind Farm;
- Grid Connection Option B: Looping into an existing 38kV overhead line that transects the site before continuing to the 110kV substation in Rathkeale. This option would include connecting into the line and

running it underground to the 38kV substation proposed on site and back out to reconnect with the overhead line;

- A meteorological mast with a height of 90 metres;
- Temporary on-site construction compound; and
- All associated site development works.

1.4 Proposed Development Application Area

The planning application area spans a total of 43.02 hectares (ha), which contains the development footprint of the six (6) turbines, hardstands, access tracks, turning areas, drainage infrastructure, underground cable route, on-site substation, met mast and temporary construction compound (**Figure 1-2**).

It spans a number of property folios owned by private landowners and will be developed by agreement, and with the consent of, the relevant landowners.

It should be noted that the **EIAR** study area for different **EIAR** chapters differs to that of the planning application area as presented within the planning application drawings. **Figure 1-2** shows the proposed development site boundary and turbine delivery route. The **EIAR** takes account of the spatial limits of individual environmental components outside the proposed development boundary where an effect can be reasonably expected as described in the individual chapters. The study area for each individual chapter will be defined and illustrated where required in the individual chapters.

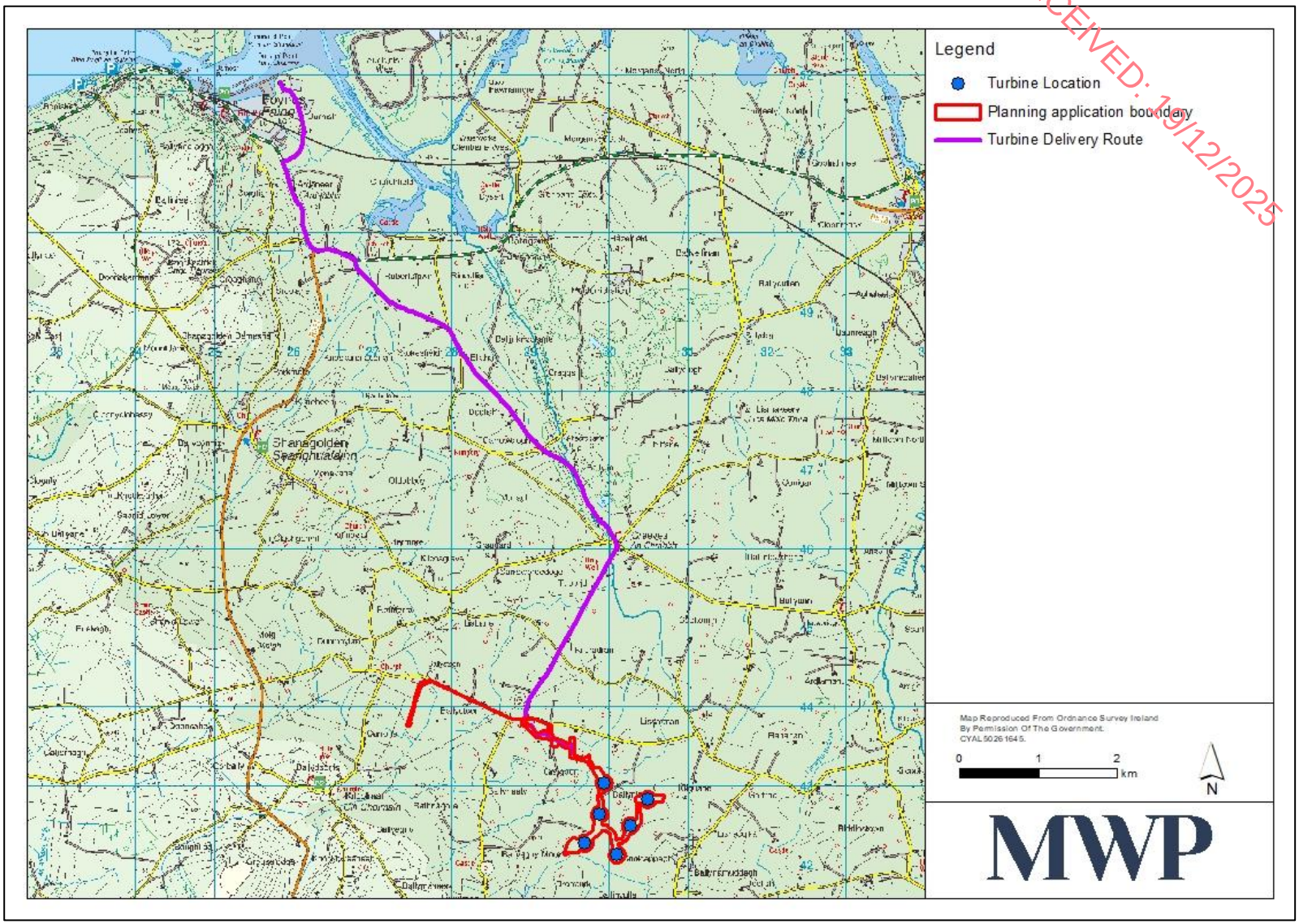


Figure 1-2: Proposed Development Application Area and Turbine Delivery Route

1.5 Methodology

1.5.1 Legislative Context

Environmental Impact Assessment (EIA) is the process of examining any potential likely significant environmental effects of a proposed development – from consideration of environmental aspects at design stage, through consultation and preparation of an **EIAR**, carrying out of consultations, examination of the **EIAR** and other information by a competent authority and the subsequent reasoned conclusion on the potential significant effects on the environment of the proposed development, and the decision as to whether the development should be permitted to proceed. An **EIAR** is a report or statement of the significant effects, if any, which the proposed development, if carried out, would have on the environment. It is prepared by a developer/planning applicant to inform the EIA process.

EIA in Ireland is governed by EIA Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment as amended by EIA Directive 2014/52/EU. The main goal of the EIA Directive is to ensure that projects which have the potential to have significant effects on the environment are subject to an assessment of their likely impacts, before consent is given by the relevant competent authority.

The EU EIA Directives have been transposed into Irish legislation primarily under the Planning and Development Act 2000 (as amended) and subsequent regulations, collectively cited as the Planning and Development Regulations 2001 to 2024. The Planning and Development Act 2024 was signed into law in October 2024, and will commence on a phased basis, eventually replace the Planning and Development Act 2000 (as amended).

The methodology recommended in the EPA Guidance Document '*Guidelines on the Information to be contained in Environmental Impact Reports*' (EPA, 2022), which is based on the 2014 EIA Directive, has been followed.

The environmental and planning considerations for proposed wind farm developments, as set out in the Limerick Development Plan (2022-2028), the Regional Spatial and Economic Strategy (RSES) for the Southern Region and the Mid-West Regional Planning Guidelines (2010-2022), have also been taken into account and adhered to where required.

1.5.2 EIA Methodology

The EIA process begins with Screening to determine whether EIA is required. This is then followed by Scoping and Consultation to identify the specialist studies required in the **EIAR**, where the need for an EIA has been 'screened in'. Where effects are considered to be unacceptable, they can be avoided or mitigated at the design stage.

1.5.2.1 Screening

The first step in the EIA process is 'Screening' which determines whether an EIA is required (EPA, 2022), and usually commences at the project design stage. The EIA Directive lists those projects that require a mandatory EIA (Annex I) and those projects for which an assessment must be undertaken to determine if they are probable to result in likely significant effects (Annex II).

Schedule 5 of the Planning and Development Regulations 2001 (as amended) transposes Annex I and Annex II of the EIA Directive into Irish law under Parts 1 and 2 of the Schedule, respectively. In Ireland, EIA is mandatory for development of a class set out in Schedule 5 of the Planning and Development Regulations 2001 (as amended), which exceeds a limit, quantity or threshold set for that class of development.

The proposed development is an application for a wind farm development comprising six (6) wind energy generators with an expected output of approximately 27MW.

Schedule 5 (Part 2) Sub-section 3(i) of the Planning & Development Regulations 2001, as amended, sets a mandatory threshold for **'Installations for the harnessing of wind power for energy production with more than 5 turbines or having a total output greater than 5 megawatts'.**

Therefore, the proposed development is over the mandatory threshold for EIA, therefore an **EIAR** is required.

1.5.2.2 Scoping

As it has been determined that an EIA is required, the next step is to 'scope' the content of the **EIAR**. Scoping considers the potential for likely significant effects throughout different phases of a proposed project to determine "*the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR*" (EPA, 2022).

As described in the 2022 EPA guidelines, "*the potential for likely significant effects throughout different phases of the proposed project, are considered as far as possible at scoping stage – whether they would individually require consent or not. These include, as relevant, site investigations, construction, commissioning and operation to eventual decommissioning. Scoping also considers the range of alternatives to be considered in an EIAR*" (EPA, 2022). The following was considered and consulted during the scoping phase:

- Preliminary environmental appraisal and project feasibility involving desk-top studies, review of available data for the general area of the site, site visits and field surveys;
- Pre-planning consultation with Limerick City and County Council;
- Limerick Development Plan 2022-2028;
- EPA '*Guidelines on Information to be contained in environmental impact assessment reports*', 2022;
- Project Type 33 [Installations for the harnessing of wind power for energy production (wind farms)] of EPA publications;
- Advice Notes for Preparing Environmental Impact Statements Draft September 2015;
- Directive 2011/92/EU on the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU;
- EU (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) (EIA Regulations 2018);
- Planning and Development Act, 2000, Part X, as amended, and Planning and Development Regulations, 2001, Part 10, as amended;
- IWEA (Irish Wind Energy Association), Best Practice Guidelines for The Irish Wind Energy Industry, 2012;
- The Department of Environment, Heritage and Local Government, Wind Farm Planning Guidelines 2006;
- Draft Revised Wind Energy Development Guidelines, DHPLG 2019;
- Scoping checklist set out in the European Commission's guidance document on EIA scoping (2017);
- Feedback from Statutory and Non-Statutory Consultations; and
- The experience of the Project Team.

Due regard was given to the Department of Environment, Heritage and Local Government (DEHLG) Wind Energy Planning Guidelines published in 2006 and the Draft Revised Guidelines published in 2019 which contain changes to the guidelines for noise, setback distances, shadow flicker and community consultation/dividend provision, but which have not yet come into force. Whilst the revisions contained in the proposed new guidelines are acknowledged in this Report, the proposed development is assessed against the current Guidelines in place. Further details are provided in the relevant chapters of this **EIAR**.

Based on all EIA scoping activities outlined above, a scoping exercise was undertaken and is detailed in the Scoping Analysis provided in **Volume III, Appendix 1A**.

Table 1-1 outlines the specific topic areas that have been identified for assessment and inclusion in this **EIAR** and the chapters of the **EIAR** where these topics have been addressed.

Table 1-1: EIAR Topic Areas and Relevant Chapters

Topic Area	Assessments & Studies Included in the EIAR	EIAR Chapter
Population/Human Health	Residential amenity (noise, traffic, air quality, visual effects, shadow flicker)	Chapters 5, 9, 10, 11, 12 & 14
	Health & safety	
Biodiversity	Habitat disruption	Chapters 6 & 7
	Protected flora and fauna	
	Invasive Species	
	Bat populations	
	Aquatic ecology	
	Avian populations	
Water	Impacts on surface water quality	Chapter 8
	Impacts on groundwater quality	
	Impacts on groundwater levels and local well supplies	
	Flood risk assessment including the potential for the proposed development to be affected by flooding and the potential for the development to increase flood risk elsewhere	
	Hydrological impacts on designated sites	
Land & Soil	Loss of land use	Chapter 9
	Excavated materials	
	Contamination of soil	
	Soil erosion	
Air & Climate	Emissions to atmosphere & effect on air quality	Chapter 10
	Impact on climate	
	Vulnerability of the proposed development to climate change	
Noise	Noise & vibration emissions	Chapter 11
Landscape	Visual impact of new structures	Chapter 12
	Impact on landscape character	
Cultural Heritage	Impact to archaeological (known and unknown) & cultural heritage features.	Chapter 13
Material Assets	Roads, infrastructure, utilities, traffic.	Chapter 14
	Telecommunications, television, aviation	

1.5.2.3 Consultation

Extensive consultation was undertaken in relation to the proposed development, and comments from stakeholders and interested parties were requested and highly encouraged.

Consultation through meetings, a public information day, letters, email and telephone calls, with various statutory and non-statutory consultees has been maintained throughout.

Local Authority - Limerick City and County Council

Ballynisky Green Energy and MWP held a pre-planning consultation meeting with the Limerick City and County Council (LCCC) Planning Department on the 10th November 2022. This was a preliminary meeting to introduce the proposed site and discuss its suitability for a wind farm project. At the meeting, it was confirmed that the location

of the wind farm is within a "preferred area" for wind farm development; an area designated as suitable for wind energy development. The topics discussed included site access arrangements, turbine delivery route, potential for visual, ecological, archaeological and other environmental impacts and public consultation.

A second meeting was held with LCCC on the 17th of July 2024 as the proposed development had undergone minor design changes since the 2022 meeting based on feedback received from statutory consultees that were contacted in August 2022. It was recommended to the Applicant that a Geophysical survey be undertaken prior to submission for archaeological structures or features that may be present but not recorded at the site.

A third pre-planning meeting was held with LCCC on the 18th of December 2025, where details relating to the deeming incomplete of the previous application (LCCC- 2561003) for a wind farm development on the site were discussed.

Any issues raised were subsequently taken into account in the EIA process. Refer to details attached as **Appendix 1B** of **Volume III** of this **EIAR**. Issues raised have been addressed in the individual **EIAR** chapter where relevant.

Other Statutory and Non-Statutory Bodies

Written notifications setting out an overview of the development proposal were circulated in August 2022 to a number of stakeholders (both statutory and non-statutory consultees). The notifications invited feedback from the consultee on any key issues and concerns which they consider should be addressed and expressed that their input at this stage would be welcomed.

Consultees were informed that participation at this stage of the proposed development would not affect participation at a later stage in the planning process. A list of the organisations/groups consulted, a copy of the consultation documents and the responses received are provided in **Appendix 1B**, **Volume III** of this **EIAR**. Any issues raised were subsequently taken into account in the EIA process.

Consultation with the Local Community

Ballynisky Green Energy Ltd. have undertaken a significant consultation process with the local community, with the objective of ensuring that the views and concerns of all members of the local community were considered as part of the project design and the Environmental Impact Assessment process. In line with national policy, Ballynisky Green Energy Ltd. are committed to transparent and meaningful consultation. This facilitates more informed and active engagement with the proposed development. The key elements of this approach are outlined within the Stakeholder Community Report (**Appendix 1C**, **Volume III**).

The Applicant commenced public consultation for the proposed development in October 2022. A public consultation event was subsequently held on the 7th December 2022 at Coolcappa Community Hall. Community members were invited to come and receive information about the proposed development and engage with the Applicant.

A project website has been established in order to share information with the local community (https://ballyniskygreenenergy.ie/). This website has continued to be updated regularly throughout the development of the proposed development. Information presented on the project website includes:

- Project Information;
- Project Benefits;
- Key Questions;
- Company Information;
- Public Consultation Material;
- Project Updates;
- Wind Energy Survey; and
- Contact information.

A Community Liaison Officer has been available throughout the consultation period to answer any queries from members of the public.

With regard to all consultation undertaken, all feedback received was carefully considered by the project design team in designing the layout and siting of wind farm infrastructure, which was then subject to EIA. Following this, the current proposal was finalised and submitted as a planning application in September 2025. Upon deeming of the application incomplete and the third meeting with LCCC, the project was resubmitted as a planning application in December 2025.

1.5.2.4 Environmental Impact Assessment Report

An **EIAR** is prepared as part of the EIA process. The **EIAR** includes a baseline assessment to determine the status of the existing environment; impact prediction and evaluation to determine the significance of effects identified (including cumulative effects); determination of mitigation and monitoring measures to reduce the effects identified; and a residual effect assessment once any mitigation and monitoring measures have been implemented.

An **EIAR** is defined by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (Statutory Instrument (S.I.) No. 296 of 2018):

> "*A report of the effects, if any, which proposed development, if carried out, would have on the environment and shall include the information specified in Annex IV of the Environmental Impact Assessment Directive*".

The **EIAR** consists of a systematic analysis and assessment of the potential effects of the entire proposed development on the receiving environment. The intended purpose of the **EIAR** is to:

- Identify the baseline environmental context of the proposed development;
- Identify, describe and assess the significant effects of the development on the environment;
- Inform the consenting authority, other regulatory bodies and the public of any possible likely significant environmental effects and impacts associated with implementation of the proposed development;
- Determine whether the identified effects of the impacts could be significant; and
- Propose preventative or mitigation measures for potential significant effects of the impacts, as required, where feasible.

1.5.2.5 General Approach to Assessment

In preparing the **EIAR**, the following regulations were complied with:

- The requirements of EC Directives and Irish Regulations regarding Environmental Impact Assessment.

The following guidelines were also considered:

- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Environmental Protection Agency [EPA], 2022).
- In addition, specialist disciplines have had regard to other relevant guidelines, as noted in the specific chapters of the **EIAR**.

For each technical **EIAR** chapter, the classification and significance of effects is generally evaluated in accordance with the EIA Directive and the methodology outlined in the EPA's guidelines.

Where more relevant and specific standards and methodologies exist, they are adopted and outlined in the respective methodology sections within each technical chapter (for example, specific criteria and assessment terminology used to assess air quality impacts). The EIAR is based on the data gathered during the assessment process. It applies accepted methodologies in determining if effects will be significant and includes mitigation measures to avoid or reduce effects where possible.

Each of the chapters contains a description of the existing environment, an assessment of the likelihood and extent of any potential environmental impacts and proposes mitigation measures, where necessary.

1.5.2.5.1 Assessment of Impacts and Effects

The potential impacts of the proposed development and associated effects on a sensitive receptor/existing environment are determined. This is undertaken by assessing the character of effect (including magnitude, duration probability and quality) in comparison to baseline conditions using the relevant terminology outlined in the 2022 EPA guidelines (EPA, 2022) (Table 1-2).

In EIA, impacts are defined as the changes resulting from an action, whereas effect is the term used to express the consequence of an impact (expressed as the 'significance of effect'). If the anticipated effects are unacceptable, design measures or other relevant mitigation measures can be implemented to reduce or avoid those effects. The EIAR describes the current state of the environment and assesses the likely significant effects of a proposed development on the environment, including the residual effects once mitigation and monitoring measures have been implemented.

The assessment of impacts takes into account any embedded mitigation measures that forms an inherent part of the proposed development (and as included in the EIAR Chapter 03 Description of the Proposed Development). For this assessment, 'embedded mitigation measures' are those that have been incorporated into the design of the development and any 'additional mitigation' are those preventing, reducing and offsetting any remaining significant adverse effects.

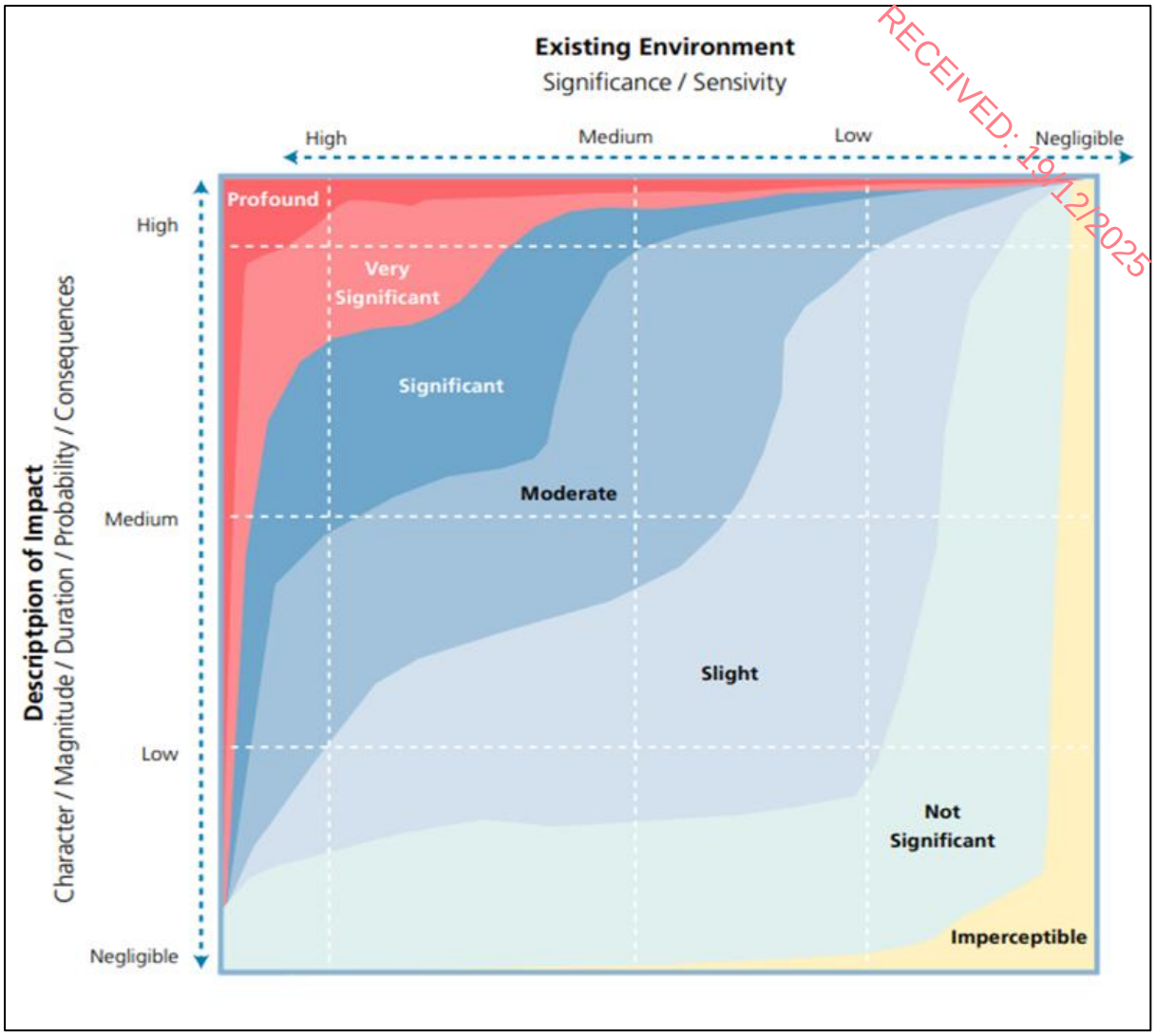
Where it has not been possible to quantify effects, qualitative assessments are carried out, based on expert opinion and professional judgement. Where uncertainty exists, this is noted in the relevant EIAR chapter. Overall, a character of effect of High, Medium, Low or Negligible is then assigned to the effect being assessed.

The matrix (Figure 1-3) adapted from the EPA's 2022 guidelines is then used to classify the significance of effect being assessed. This considers the overall character of effect with the sensitivity of the receptor/existing environment.

Table 1-2: Impact Assessment Criteria

	Term	Description
Quality of Effects	Positive	A change which improves the quality of the environment
	Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error
	Negative /Adverse	A change which reduces the quality of the environment
Significance of Effects	Imperceptible	An effect capable of measurement but without significant consequence
	Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
	Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities

	Term	Description
	Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
	Significant	An effect which, by its character, magnitude duration or intensity alters a sensitive aspect of the environment
	Very Significant	An effect which, by its character, magnitude duration or intensity alters most of a sensitive aspect of the environment
	Profound	An impact which obliterates sensitive characteristics
Duration of Effect	Momentary	Effects lasting from seconds to minutes
	Brief	Effects lasting less than a day
	Temporary	Effects lasting less than a year
	Short-term	Effects lasting one to seven years
	Medium-term	Effects lasting seven to fifteen years
	Long-term	Effects lasting fifteen to sixty years
	Permanent	Effects lasting over sixty years
	Reversible	Effects than can be undone e.g. through remediation or restoration
	Frequency	How often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)
Types of Effects	Indirect	Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
	Cumulative	The addition of many minor or significant effects, including effects of other projects, to create a larger, more significant effect.
	'Do Nothing'	The environment as it would be in the future should the subject project not be carried out.
	'Worst case'	The effects arising from a project in the case where mitigation measures substantially fail.
	Indeterminable	When the full consequences of a change in the environment cannot be described.
	Irreversible	When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
	Residual	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
	Synergistic	Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SOx and NOx to produce smog).



Source Figure 3.4, EPA Guidelines (EPA, 2022)

Figure 1-3: Determination of Significant Impacts

1.6 Structure of the EIAR

The EIAR is prepared in accordance with the requirements outlined in Schedule 6 of the Environmental Impact Assessment Regulations 2018 (S.I. No. 296 of 2018) and the 2022 EPA Guidelines on Information to be contained in an Environmental Impact Assessment Report.

The EIAR is presented in 4 No. Volumes as follows:

- Volume I – Non-Technical Summary;
- Volume II – Main EIAR;
- Volume III – Appendices; and
- Volume IV – Photomontages.

Table 1-3 provides a summary of the structure of the EIAR.

Table 1-3: Structure of the Environmental Impact Assessment Report

Volume	Content	Description
Volume I	**Non-Technical Summary**	The Non-Technical Summary provides an overview of the development and the **EIAR** in non-technical language. It is presented in a similar way to Volume II – Main **EIAR**, i.e. the use of a 'Grouped Format Structure', which discusses each environmental topic separately.
Volume II	**Main EIAR**	The Main **EIAR** provides a detailed description of the proposed development and contains specialist reports on each of the selected assessment topics. This document is prepared in the 'Grouped Format Structure' which examines each environmental topic area within an individual Chapter and includes the information under the required sections (Existing Environment, Impacts of the Proposed Development, Mitigation Measures, Residual Impacts, and Conclusion). This structure was selected for the Main **EIAR** as it facilitates straightforward investigation of individual topics: • Chapter 1 Introduction • Chapter 2 Background • Chapter 3 Description of Proposed Development • Chapter 4 Consideration of Alternatives • Chapter 5 Population and Human Health (including Shadow Flicker) • Chapter 6 Biodiversity • Chapter 7 Ornithology • Chapter 8 Water • Chapter 9 Land and Soils • Chapter 10 Air and Climate • Chapter 11 Noise and Vibration • Chapter 12 Landscape and Visual • Chapter 13 Cultural Heritage • Chapter 14 Material Assets • Chapter 15 Interaction of the Foregoing • Chapter 16 Schedule of Environmental Mitigation
Volume III	**Appendices**	The Appendices volume contains supporting information and reference documents to Chapters of the Main **EIAR**, **Volume II**.
Volume IV	**Photomontages**	This volume contains the Photomontages in support of **Chapter 12 Landscape and Visual Impact Assessment**. This chapter should therefore be read in conjunction with **Volume IV - Photomontages**.

1.7 Project Team

MWP Engineering and Environmental Consultants are the Environmental and Engineering Consultants to the Applicant for the proposed development. The study team is a combination of in-house specialists and sub-consultants. The in-house environmental and engineering team at MWP specialises in wind farm development at both the pre-planning and construction phases. Specialist sub-consultants engaged were:

- Enfonic – Noise;
- Laurence Dunne Archaeology, Shanarc Archaeology - Cultural Heritage;
- O'Callaghan Moran & Associates (OCM) (Sean Moran) – Hydrology / Flood Risk Assessment;

- RSK – Ornithology;
- Eire Ecology – Bat Surveys
- Cunnane Stratton Reynolds - Landscape and Visual Impact Assessment;
- Innovision (John Flanagan) – Photomontages;
- Ai Bridges – Telecommunications and Aviation; and
- Control Surveys – Topographical Surveys.

Details of the project team are provided in Table 1-4.

Table 1-4: Project Team – Roles and Expertise

EIAR Chapter/Role	Author	Qualification	Competencies
	Olivia Holmes	BSc MSc, CEng MIEI, MCIWEM, C.WEM	Olivia Holmes has over twenty years' experience in Environmental Engineering focussing primarily on Environmental Impact Assessment (EIA), Appropriate Assessment (AA) and planning. She has led the preparation of a number of large-scale multi-disciplinary EIA projects and planning and other consent applications.
Project Manager	(Assisted by Aileen O'Connor)	(Hons Bachelor's degree Environmental Science, (BSc) (PGDip) Energy Management Project Manager)	Aileen has over 13 years' experience in the environmental field both in industry and consultancy work. Aileen is a Senior Environmental Consultant and holds a BSc (Hons) in Environmental Science and PGDip in Energy Management. Aileen is an experienced and competent environmental professional with a background in contaminated land assessment, licence compliance and waste management. Aileen has prepared and peer reviewed chapters of EIARs and has coordinated and delivered many environmental assessment reports including the preparation of Resource Waste Management Plans (RWMP)s and contributed to Material Assets Impact Assessments on a wide variety of projects during her career to date including renewable energy, marine, quarries, industrial and commercial developments.
Engineering Design	Shane Howard	BE (Hons), MEngSc, MIEI	Shane is a civil engineer with broad ranging experience in a variety of positions across the energy, residential and infrastructure sectors. Shane has previous development experience as a project engineer for RES Australia contributing to the successful planning grant of multiple wind, solar and battery storage projects as well as the construction of utility scale wind and solar farms. He has been responsible for the civil engineering design, inspection and certification of multiple residential, recreation and amenity projects across Ireland.
01 Introduction	Kate Cain (Assisted by Aileen O'Connor)	BSc	Kate is a qualified and accomplished Environmental Project Manager / Consultant with over 13 years of experience in projects and auditing within the environmental management field. She has extensive experience in project management of multi-disciplinary projects in a wide variety of sectors. Her experience includes overseeing environmental authorisation applications, technical report writing, conducting stakeholder consultations and managing the project specialist teams to ensure the clients compliance and project success. She has specialist knowledge in the water and waste sectors, having led a wide range of such projects throughout her career. She has been

EIAR Chapter/Role	Author	Qualification	Competencies
			involved in these projects from inception to completion and has particular experience in reporting for Environmental Impact Assessments and water related assessments.
02 Background	Kate Cain (Assisted by Aileen O'Connor)	As above	As above
03 Description of the Proposed Development	Kate Cain (Assisted by Aileen O'Connor)	As above	As above
04 Consideration of Alternatives	Kate Cain (Assisted by Aileen O'Connor)	As above	As above
05 Population and Human Health	Kate Cain (Assisted by Aileen O'Connor)	As above	As above
05 Shadow Flicker	Jeremy King	CAD, GIS	Jeremy is the lead GIS technician in MWP and assists the environmental team in completing EIA's, EIS's, wind farm feasibility studies and planning applications. He also works alongside the Marine Department and wind farm civils design team, particularly in constraint mapping and collating and generating GIS baseline data that ultimately influences design and layout. Jeremy works with the EIA team specialists in areas such as geotechnical peat stability, hydrology, noise, ecology and accompanies the environmental teams in the field. He has expertise in WINDFARM design software that includes modules on wind farm layout, Photomontages, ZVI and Shadow Flicker. His base experience historically has been in CAD and he is responsible for the generation of wind farm design planning drawings and GIS based mapping/imagery associated with wind farm EIAR's. He has worked on a wide range of reports including peat stability, hydrological assessments, sediment and erosion plans and numerous wind farm EIAR's where he has been responsible for the GIS and CAD input.
06 Biodiversity	Gerard Hayes	BSc	Gerard is a Senior aquatic ecologist with over 15 years' experience in environmental consultancy. He is a Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM), a Member of the Freshwater Biological Association (FBA) and has Certified FBA accreditation in Identification of Freshwater Invertebrates to Family Level. Gerard has wide-ranging experience in all aspects of wind farm development relating to aquatic and terrestrial ecology and has authored numerous biodiversity assessments and enhancement plans for wind farm EIAR's.
	(Úna Williams)	(BSc. MSc.)	Úna has worked at MWP for six years and is an experienced field ecologist. She is familiar with various ecological survey methodologies including habitat/survey mapping and zoological surveys and has worked on research teams both in Ireland and abroad. She has undertaken assessments for a wide variety of projects including renewable energy developments, and infrastructural and coastal developments. Úna has designed and carried out several Avian Collision Risk Models for proposed

EIAR Chapter/Role	Author	Qualification	Competencies
			wind farms and has authored many ecological reports including Screening for Appropriate Assessment (AA) Reports (Stage 1), Natura Impact Statements (NIS) (Stage 2), Ecological Impact Assessments (EcIA), and Environmental Impact Assessments (EIA). She graduated from Queen's University Belfast in 2018 with an MSc in Animal Behaviour and Welfare, and from Trinity College Dublin in 2008 with an Environmental Science degree
07 Ornithology	Nick Henson	CEnv, MCIEEM	Nick has more than 17 years' experience of ornithological work. His specialist skills include the ecology and conservation of legally protected species, conducting detailed ornithological surveys, Ecological Impact Assessment (EcIA), Environmental Impact Assessment (EIA), Habitat Regulations Assessments (HRA) and the provision of high-level ecological advice for major infrastructure projects. Project experiences includes wind farms, gas pipelines, electricity connections, highways and rail schemes.
08 Water	Sean Moran, OCM	MSc	The Water Chapter has been prepared by Sean Moran of O'Callaghan Moran & Associates (OCM). Sean holds a master's degree in Hydrogeology and is a member of the Institute of Geologists of Ireland (P.Geol.) and the European Federation of Geologists (Eur. Geol.) and Chartered Institute of Water and Environmental Management. Sean has over 32 years of experience in the field of Environmental Science including the preparation of Environmental Impact Assessments. He has been involved in the preparation of the Water and Soils/Geology chapters of EIARs for large scale infrastructure projects including residential and commercial developments sites, railway and road infrastructure, wind farms and landfills throughout Ireland. He has also been involved in the assessment of EIAR Soils and Geology Sections on behalf of local authorities. He prepared the EIS for the Waste Licence Applications for the Kinsale Road Landfill in 1995 and the Kyletalesha Landfill in 1999. Between 2007-2018, he prepared water chapters for EIS applications for quarry developments for Quirkes Quarry in Killorglin Co. Kerry, for Lacken Quarry in Belmullet Co Mayo, the Corbet Quarry in Galway and the DOK Quarry in Tipperary. In 2017 he prepared the EIAR for the extension of the Shannovale Quarry in Fourcuil Co. Cork. He prepared the water chapters for the Ballylongford Wind farm in Co. Kerry in 2015. In 2016 he prepared the soils, hydrology and hydrogeology assessments for ten peat bogs supplying the Edenderry Power plant as part of the EIA process for the development. Between 2007 and 2024, Sean has reviewed the water and hydrology sections of over thirty applications for wind farms on behalf of Cork County Council.
09 Land and Soils	Paddy Curran	BE (Hons), MSc, DIC, CEng, MICE	Paddy graduated from University College Cork, Ireland in 2008 with a B.E. (Hons) in Civil Engineering and completed a Master's of Science in Soil Mechanics (MSc DIC) at Imperial College London, United Kingdom in 2012. Paddy's professional registrations include being a Chartered Engineer and Registered Ground Engineering Professional with the Institution of Civil Engineers. He has worked on all stages of the project life cycle from feasibility through to commissioning on a large variety of projects. His experience includes delivering the geotechnical investigation/interpretation, ground modelling, design and construction support for a number of Irish and International marine, renewable energy, port and coastal projects. He has also worked on the planning stages of a large number of projects which included environmental impact assessments.

EIAR Chapter/Role	Author	Qualification	Competencies
	(Jasmin Spoerri)	(MSc Applied Environmental Geoscience, BSc International Field Geosciences)	Jasmin Spoerri holds an MSc in Applied Environmental Geoscience and a BSc in International Field Geosciences from University College Cork (UCC). Jasmin has experience in geological investigation/interpretation, geotechnical investigation/interpretation, hydrogeological assessment and investigation, geo-environmental assessment, and report writing. She has authored several EIAR Land and Soils chapters on a variety of project types, including wind farms.
10 Air & Climate	Kieran Barry	BEng, PgD	Kieran is an Environmental Scientist with the Environment team at MWP. Kieran works on a variety of infrastructure projects conducting environmental assessments and supporting the delivery of a number of environmental deliverables including Environmental Impact Assessment (EIA) Screening Reports, feasibility and constraints studies, route options assessments and Environmental Impact Assessment Reports (EIAR).
11 Noise	Gary Duffy, Enfonic	BEng, MIOA	Gary Duffy, BEng, MIOA (Principal Consultant) is the managing director of Enfonic with over 25 years' experience as an acoustic engineer and consultant. He has extensive knowledge in the field of noise measurement, prediction, and impact assessment. He co-wrote the EPA's original guidance note on noise and represented the IOA on the technical advisory committee of the Department of the Environment's revision of Part E (Sound Insulation) of the Building Regulations. He is a founder member of the Irish branch of the Institute of Acoustics and a sitting member of the current committee.
	(Patricia Redondo, Enfonic)	(BEng, MSc)	Patricia Redondo (Acoustic Consultant) holds a BEng in Communication Systems Engineering, MSc in Acoustic Engineering and is an associate member of the Institute of Acoustics (AMIOA). She has extensive experience in both building and environmental acoustics including surveying, noise modelling and impact assessment.
12 Landscape and Visual	Evelyn Sikora, CSR	BA, MPlan	Evelyn is a qualified landscape architect and town planner with Cunnane Stratton Reynolds (CSR). She is also a Corporate Member of the Irish Landscape Institute. She has specialised in Landscape and Visual Assessment (LVIA) and has six years' experience in a range of projects, including Strategic Infrastructure Projects throughout Ireland. These include a number of infrastructural projects including road schemes, flood relief projects, telecommunications, quarry developments, wind farms, solar farms, water abstraction projects and residential and commercial development, in both rural and urban contexts. She has extensive experience in assessing landscape character as part of Landscape and Visual Assessment work.
13 Cultural Heritage	Laurence Dunne Archaeology	BSc	Laurence is the principal and senior archaeologist of LDA and has been a licensed archaeologist for the past 22 years. In that time, he has completed an extensive and diverse range of projects, the vast majority of which are development driven. Projects range from small scale single house constructions to large scale residential and major commercial developments, wind and solar farms, roadways, water and sewerage schemes, pipelines, inter-connector telecom and electrical cabling both terrestrial and undersea, coastal defence and channel deepening projects, dive surveys and shipwreck excavations.

EIAR Chapter/Role	Author	Qualification	Competencies
			Laurence has completed over forty archaeological/cultural sections for Environmental Impact Statements (EIS) and Archaeological Impact Assessments (AIA), excavations and monitoring In Ireland relating to renewable energy. Since 1999, Laurence Dunne has completed twenty-seven wind farm projects. The wind farm projects involved all facets of the planning process: EIS, AIA, test excavations in advance of planning as well as subsequent monitoring of construction works. LDA has also undertaken assessments with regard to linear grid cable trenching for planning purposes as well as targeted test trenching and follow-up monitoring at several sites in North and East Kerry.
14 Traffic and Transportation	Ilyaas Adams	BScEng	Ilyaas is a Chartered Transportation Engineer with MWP. His work has involved focussing largely on the implementation of successful public transport, active travel, private development, operations planning and infrastructure schemes within Ireland. He has worked both as an engineering contractor involved in the project/site management of various construction projects, staff and graduate development, tendering, technical delivery, and client liaison.
14 Material Assets	David McGrath (Ai Bridges) (Telecoms & Aviation)	B. Eng	The telecommunications and aviation assessment was completed by David McGrath of Ai Bridges. David is a senior radio planner / engineer with Ai Bridges and holds a B. Eng in Electronic Engineering with over 10 years of experience in aviation, telecommunications network design, analysis and troubleshooting of radio frequency issues and development of telecommunication projects.
15 Interaction of the Foregoing	Kate Cain (Assisted by Aileen O'Connor)	As above	As above
16 Schedule of Environmental Mitigation	Kate Cain (Assisted by Aileen O'Connor)	As above	As above

1.8 Difficulties Encountered

There were no difficulties encountered in the preparation of this **EIAR**. As is standard practice, best available predictive modelling techniques were used where relevant to inform the assessment.

1.9 Note on Drawings and Graphics

Details of the proposed development are supported by the planning application drawings prepared by MWP in compliance with our internal Quality Management System (accredited to ISO: 9001). These drawings accompany the planning application and are referenced as relevant throughout the **EIAR**. The 1:50,000 and 1:25,000 mapping that was used to generate many of the figures in the **EIAR** are the copyright of Ordnance Survey Ireland (OSI licence number EN0015720). As agreed through written communication with LCCC (dated 13th March 2023), the planning department will accept drawings in 1:1,000 scale as part of the application. Refer to **Appendix 1B** of **Volume III** of the **EIAR** for the written confirmation.

1.10 References

DEHLG (2006) *Planning Guidelines for Wind Energy*. Department of Environment, Heritage and Local Government.

DHPLG (2018) *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.* Department of Environment, Heritage and Local Government.

DHPLG (2019) *Draft Revised Wind Energy Guidelines*. Department of Housing, Planning and Local Government.

EPA (2022) *Guidelines on the Information to be contained in Environmental Impact Assessment Reports. Environmental Protection Agency*.

Directive 2011/92/EU on the effects of certain public and private projects on the environment (EIA Directive) as amended by Directive 2014/52/EU EU (2017) Environmental Impact Assessment of Projects: Guidance on Scoping. European Union.

Limerick City and County Council (2022) Limerick Development Plan 2022-2028.