

# 1 INTRODUCTION AND METHODOLOGY

## 1.1 Introduction

This Environmental Impact Assessment Report (EIAR) has been prepared by Synergy Environmental Limited T/A DNV (hereinafter referred to as DNV) on behalf of Evara Developments Ltd and Kelland Homes, here in after referred to as 'the Applicant', who is seeking planning permission for a mixed-use Large Scale Residential development of 611 residential units on an 18.7-hectare site at Boherboy, Saggart, Co. Dublin.

This EIAR presents the environmental impact assessment (EIA) process which has been undertaken in accordance with the Planning and Development Regulations 2001 (as amended).

EIA is a process of identifying and evaluating the likely environmental, social and economic effects of a proposed development project, taking into account both adverse and beneficial effects. EIA also involves finding ways and means to reduce adverse effects and enhance beneficial effects. It ensures that planning decisions are made, taking into account the environmental effects and with engagement from stakeholders has been compiled in accordance with all current legislation and best practice guidance.

This chapter describes the methodology by which the EIA was carried out and the EIAR was completed. The methodology used is broadly consistent across all chapters to ensure the EIAR is clear to navigate for the reader.

## 1.2 Quality Assurance and Competency of Experts

Under Article 5(3)(a) of Directive 2014/52/EU it is a requirement that:

*“the developer shall ensure that the environmental impact assessment report is prepared by competent experts”*

This EIAR has been led and coordinated by DNV. Technical chapters have been prepared by a multi-consultancy team of environmental specialists.

Founded in 2010, Enviroguide is an award-winning, multi-disciplinary environmental consultancy specialising in environmental compliance, ecology, planning, waste management, contaminated land, engineering, and sustainability. Providing end to end environmental consultancy services, Enviroguide consultants hold scientific, engineering, and/or legal qualifications with extensive technical knowledge and extensive practical experience within the environmental consultancy and management sectors. Professional memberships include the Chartered Institute of Ecology and Environmental Management, the Chartered Institution of Wastes Management (CIWM), the Irish Environmental Law Association, the Institute of Environmental Management and Assessment (IEMA), Engineers Ireland, the Institute of Geologists of Ireland, and the Royal Town Planning Institute.

Enviroguide was acquired by DNV in 2023. DNV is the independent expert in risk management and assurance, operating in more than 100 countries. Through its broad experience and deep

expertise DNV advances safety and sustainable performance, sets industry benchmarks, and inspires solutions.

This chapter has been prepared by Grainne Ryan, Principal EIA Consultant at DNV. Grainne is a Principal Environmental Consultant with 11 years' experience, specialising in EIAs for strategic infrastructure, renewable energy, residential, industrial and pharmaceutical projects. Grainne has a B.A. in Geography, Planning and Environmental Policy, an MSc in Environmental Policy and a Post Graduate Diploma in Project Management.

This chapter has been reviewed and approved by Catherine Keogan, Technical Director and EIA Lead at DNV. Catherine is an environmental consultant with 37 years' experience in consultancy, specialising in EIAs for large-scale residential, commercial developments, pharmaceutical, BESS and solar projects working closely with a range of developers, planning consultants and architects within the public and private sector. Catherine has a B.Sc. (Hons) in Analytical Science and a Post Graduate Diploma in Renewable Energy Technology Systems.

For each chapter of this EIAR, the author, qualifications, and experience of working on other development projects are detailed. The EIAR Project Team are identified in Table 1-1.

*Table 1-1 EIAR Project Team*

No.	Chapter	Consultant Name and address	Specialist Area
1	<b>Introduction and Methodology</b>	DNV, 3D Core C, The Plaza, Park West, D12F9T Gráinne Ryan	Multidisciplinary Planning and Environmental Consultants
2	<b>Description of the Proposed Development and Assessment of Alternatives</b>	DNV, 3D Core C, The Plaza, Park West, D12F9T Gráinne Ryan	Multidisciplinary Planning and Environmental Consultants
3	<b>Planning and Development Context</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN Rachel Redmond	Multidisciplinary Planning and Environmental Consultants
4	<b>Population and Human Health</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN Rachel Redmond	Multidisciplinary Planning and Environmental Consultants
5	<b>Biodiversity</b>	Scott Cawley 4-6 Riverwalk, Citywest Business Campus, Dublin 24, D24 DCW0 Bea	Ecological Consultancy
6	<b>Land and Soils</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN Nuria Manzananas Gareth Carroll	Multidisciplinary Planning and Environmental Consultants
7	<b>Hydrology and Hydrogeology</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN Nuria Manzananas	

No.	Chapter	Consultant Name and address	Specialist Area
		Gareth Carroll	
8	<b>Air Quality</b>	AONA Environmental Consulting, Unit 8A Northwest Business Park, Sligo, F91 E285  Mervyn Keegan	Air Quality Consultants
9	<b>Climate</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN  Aoife Gillen  Milo Reddaway	Multidisciplinary Planning and Environmental Consultants
10	<b>Noise and Vibration</b>	Wave Dynamics, Unit 202, Nesta Business Centre, Old Airport Rd, Santry, Dublin, D09 HP96  James Cousins  Cathal Reck	Acoustic Consultancy Services
11	<b>Landscape and Visual Impact Assessment</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN  Dara Hilliard	Multidisciplinary Planning and Environmental Consultants
12	<b>Archaeology and Cultural Heritage</b>	IAC Archaeology, Unit G1, Network Enterprise Park, Kilcoole, Co. Wicklow A63 KT32  Lucy Bagshaw	Archaeology and Heritage Consultancy
13	<b>Material Assets – Waste and Utilities</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN  Aisling Jones	Multidisciplinary Planning and Environmental Consultants
14	<b>Material Assets – Traffic and Transport</b>	Pinnacle, Grosvenor Court, 67A Patrick Street, Dun Laoghaire, Co. Dublin  Shaun O'Reilly  James Mayer	Engineering Consultancy
15	<b>Risk Management</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN  Lakshmi Priya Mohan	Multi-disciplinary environmental, planning and heritage resource management consultancy
16	<b>Interactions</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN  Darragh Grant	Multidisciplinary Planning and Environmental Consultants
17	<b>Mitigation and Monitoring</b>	DNV, 3D Core C, The Plaza, Park West, D12F9TN	Multidisciplinary Planning and Environmental Consultants

No.	Chapter	Consultant Name and address	Specialist Area
		Aisling Jones	
NTS	Non-Technical Summary	Input from all above consultants and compiled by DNV	Multidisciplinary Planning and Environmental Consultants
App	Appendices		

### 1.3 Purpose of the Environmental Impact Assessment and the Environmental Impact Assessment Report

EIA is a systematic examination of the potential impacts of a proposed development on the environment. In assessing the environmental impacts, this EIAR will review the baseline conditions, describe the Proposed Development and identify the potential for likely significant environmental effects during construction and operation.

Where likely significant adverse effects are identified, proposed mitigation measures will be presented to avoid, manage and minimise such effects.

Under Schedule 5 of the Planning and Development Regulations 2001, as amended (the Planning Regulations), an EIAR is required to accompany planning applications for specified projects as part of the EIA process.

The EIAR describes the outcomes of the iterative EIA process which was progressed in parallel with the project design process. In doing so, it forms the first part of the EIA process that will be completed by South Dublin County Council (SDCC), as the competent authority, which in turn will be required to examine, analyse and evaluate the direct and indirect effects of the development on the various factors listed in Directive 2011/92/EU, as amended by 2014/52/EU (the EIA Directive).

Where likely significant environmental effects are identified that are unacceptable, the EIA process aims to quantify and minimise the effects of the impact that the specified development has on the environment through appropriate mitigation measures and where necessary, subsequent monitoring. This process is illustrated in Figure 1-1.

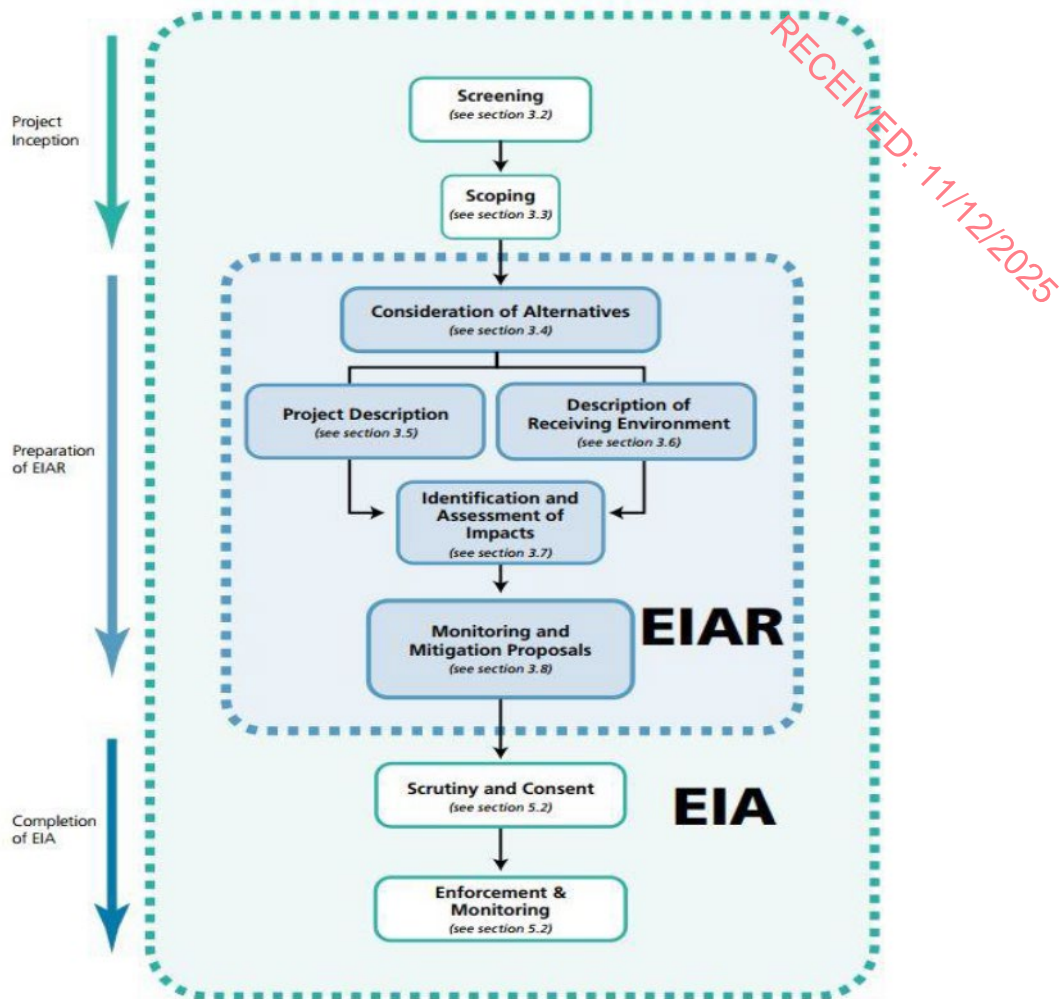


Figure 1-1 EIA Process

The purpose of the EIAR is to provide the relevant competent authority with information on the likely and significant effects on the environment by the Proposed Development. This EIAR was prepared in parallel with the project design process and reflects the potential cumulative effect of other developments.

#### 1.4 EIA Legislation

The EIA Directive requires EIA to be carried out for certain projects as listed in Annex I of the Directive. The EIA Directive is transposed into Irish law through the Planning and Development Act 2000, as amended, and the Planning and Development Regulations 2001, as amended.

#### 1.5 EIA Guidance Used

This EIAR has been prepared in accordance with all relevant guidance. Topic specific methodology guidance will be set out in the topic chapters. The following general guidance has been used to inform the approach to EIA and present the EIAR chapters.

- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA May 2022);
- Environmental Assessments of Plans, Programmes and Projects – Rulings of the Court of Justice of the European Union (European Union 2017);
- Environmental Impact Assessment of Projects – Guidance on Scoping (Directive 2011/92/EU as amended by 2014/52/EU) (European Union 2017);
- Guidance of Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Union 2013);
- Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report (European Union 2017);
- European Commission 2017. Environmental Impact Assessment of Projects Guidance on Screening (Directive 2011/92/EU as amended by 2014/52/EU);
- EU Commission Guidance on Interpretation of definitions of project categories of annex I and II of the EIA Directive (2015);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Government of Ireland 2018);
- Key Issues Consultation Paper on the Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems; (Department of Housing, Planning, Community and Local Government 2017);
- Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Communities 1999);
- Circular PL 05/2018 -Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive), and Revised Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government 2018);
- Implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (European Communities 2003); and
- Office of the Planning Regulator (OPR) Environmental Impact Assessment Screening Practice Note (2021).

The EIA Directive defines EIA as a process whereby Article 1(2)(g) states that EIA means:

*“(i) the preparation of an environmental impact assessment report by the developer, as referred to in Article 5(1) and (2);*

*(ii) the carrying out of consultations as referred to in Article 6 and, where relevant, Article 7;*

*(iii) the examination by the competent authority of the information presented in the environmental impact assessment report and any supplementary information provided, where necessary, by the developer in accordance with Article 5(3), and any relevant information received through the consultations under Articles 6 and 7;*

*(iv) the reasoned conclusion by the competent authority on the significant effects of the project on the environment, taking into account the results of the examination referred to in point (iii);*

*(iii) and, where appropriate, its own supplementary examination; and*

*(v) the integration of the competent authority's reasoned conclusion into any of the decisions referred to in Article 8a”.*

The EIA Directive requires the EIAR to identify, describe and assess, in an appropriate manner and in light of each individual case, the direct, indirect and cumulative significant effects of the Proposed Development on factors of the environment including:

- a) population and human health
- b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC (respectively, the Habitats Directive and the Birds Directive)
- c) land, soil, water, air and climate
- d) material assets, cultural heritage and the landscape
- e) the interaction between the factors referred to in points (a) to (d)

## **1.6 The Need for an EIA**

Annex 1 of the EIA Directive requires as mandatory an EIA for all development projects listed therein. Schedule 5, Part 1, of the Planning Regulations transposes Annex 1 of the EIA Directive directly into Irish planning legislation. An EIAR is required to accompany a planning application for development of a class set out in Schedule 5, Part 1 of the Planning Regulations which exceeds a limit, quantity or threshold set for that class of development. The Proposed Development is not considered to fall under any class set out in Schedule 5, Part 1 of the Planning Regulations.

Schedule 5, Part 2 of the Planning and Development Regulations 2001 as amended, defines projects that are assessed on the basis of set mandatory thresholds for each of the project classes including:

### **10. Infrastructure projects**

#### **10. (b)(i) Construction of more than 500 dwelling units.**

It is proposed to construct 627 residential units as part of the Proposed Development.

This is above the stated threshold of 500 dwellings. Therefore, the Proposed Development is subject to a mandatory EIA for Part 2, Section 10 (b)(i).

## **1.7 Scope of the EIAR**

‘Scoping’ is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. It is defined in EC Guidance on EIA Scoping 2001 as:

*“Determining the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR”.*

The content of this EIAR was informed by a scoping process carried out by the Applicant, design team and EIAR consultants to identify the core issues likely to be most important during the EIA process.

The scope of this EIAR has had regard to the documents listed in Section 1.5 together with:

- The requirements of Part X of the Planning Act and Part 10 of the Planning Regulations.
- The requirements of the South Dublin County Council Development Plan 2022-2028.
- Relevant Regional and National Planning Policy Documents.
- The receiving environment and any vulnerable or sensitive local features and current uses.
- Previous relevant planning history and applications that have been submitted on the subject and adjoining lands.
- The likely and significant impacts of the Proposed Development on the environment; and
- Available mitigation measures for reducing or eliminating any potentially significant undesirable impacts.

In addition, the individual chapters of this EIAR should be referred to for further information on the documents consulted by each individual specialist consultant.

The EIAR prepared for the Proposed Development has endeavoured to be as thorough as possible and therefore all the issues listed in Schedule 6, Sections 1 and 2 of the Planning and Development Regulations have been addressed in the EIAR.

## **1.8 Purpose and Objective of the EIAR**

The purpose of this EIAR is to assist in the EIA process, by identifying likely significant environmental impacts resulting from the Proposed Development, to describe the means and extent by which they can be reduced or mitigated, to interpret and communicate information about the likely impacts and to provide an input into the decision making and planning process.

The fundamental principles to be followed when preparing an EIAR are:

- Anticipating, avoiding and reducing significant effects.
- Assessing and pursuing preventative action.
- Maintaining objectivity.
- Ensuring clarity and quality.
- Providing relevant information to decision makers; and
- Facilitating public and stakeholder consultation.

EIA is an iterative process. The EIAR captures this assessment process and describes its outcomes. The EIAR documents the consideration of environmental effects and provides transparent, objective and replicable documentary evidence of the EIA evaluation and decision-making processes. The EIAR provides information on any identified effects arising as a consequence of the Proposed Development and which:

- Are environmentally based.

- Are likely to occur; and
- Have significant and adverse effects on the environment.

The EIAR also documents how the design of the Proposed Development incorporates measures for the purposes of impact avoidance, reduction or amelioration; as well as to explain how significant adverse effects will be avoided.

The key objective of this EIAR is to inform the relevant competent authority on the acceptability of the Proposed Development, in carrying out an EIA, in order to reach a decision in the full knowledge of the Proposed Development's likely significant impacts on the environment, if any.

## 1.9 Format and Structure of this EIAR

The formation of an EIAR necessitates the co-ordination and collation of associated, yet diverse specialised areas of assessment. The EIA approach involves the examination of each environmental factor, describing the existing baseline environment, the Proposed Development, its likely impacts and direct and indirect significant effects pertaining to that environmental factor and mitigation measures, where appropriate.

Each technical assessment sets out the relevant legislation, policy, and guidance together with the methodology used to carry out the assessment of potential effects, including the criteria that are used to establish which effects are significant. The significance criteria follow that as defined in the EPA 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' 2022<sup>1</sup> as shown in Table 1-2 below.

*Table 1-2 Description of Effects*

Category	Type and Description
<b>Quality of Effects</b> It is important to inform the non-specialist reader whether an effect is positive, negative or neutral.	<b>Positive Effects</b> A change which improves the quality of the environment (for example, by increasing species diversity, or improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
	<b>Neutral Effects</b> No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	<b>Negative/Adverse Effects</b> A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance)

<sup>1</sup> [https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR\\_Guidelines\\_2022\\_Web.pdf](https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf)

Category	Type and Description
<p><b>Describing the Significance of Effects</b></p> <p>'Significance' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful (also see <i>Determining Significance</i>).</p>	<p><b>Imperceptible</b> An effect capable of measurement but without significant consequences.</p> <p><b>Not Significant</b> An effect which causes noticeable changes in the character of the environment but without significant consequences.</p> <p><b>Slight Effects</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p> <p><b>Moderate Effects</b> An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.</p> <p><b>Significant Effects</b> An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment.</p> <p><b>Very Significant</b> An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.</p> <p><b>Profound Effects</b> An effect which obliterates sensitive characteristics.</p>
<p><b>Describing the Extent and Context of Effects</b></p> <p>Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly or increasingly experienced.</p>	<p><b>Extent</b> Describe the size of the area, the number of sites and the proportion of a population affected by an effect.</p>
	<p><b>Context</b> Describe whether the extent, duration or frequency will conform or contrast with established (baseline) conditions.</p> <p><b>Likely Effects</b></p>

Category	Type and Description
	<p>The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p>
	<p><b>Unlikely Effects</b> The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
<p><b>Describing the Probability of Effects</b></p> <p>Descriptions of effects should establish how likely it is that the predicted effects will occur so that the CA can take a view of the balance of risk over advantage when making a decision.</p>	<p><b>Likely Effects</b> The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p>
	<p><b>Unlikely Effects</b> The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
<p><b>Describing the Duration and Frequency of Effects</b></p> <p>'Duration' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful.</p>	<p><b>Momentary Effects</b> Effects lasting from seconds to minutes.</p>
	<p><b>Brief Effects</b> Effects lasting less than a day.</p>
	<p><b>Temporary Effects</b> Effects lasting less than a year.</p>
	<p><b>Short-term Effects</b> Effects lasting one to seven years.</p>
	<p><b>Medium-term Effects</b> Effects lasting seven to fifteen years.</p>
	<p><b>Long-term Effects</b> Effects lasting fifteen to sixty years.</p>
	<p><b>Permanent Effects</b> Effects lasting over sixty years.</p>
	<p><b>Reversible Effects</b> Effects that can be undone, for example through remediation or restoration.</p>
	<p><b>Frequency of Effects</b> Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).</p>
<p><b>Describing the Types of Effects</b></p>	<p><b>Indirect Effects (a.k.a. Secondary or Off-site Effects)</b> Effects 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.</p>
	<p><b>Cumulative Effects</b></p>

Category	Type and Description
	The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
	<p><b>'Do-nothing Effects'</b></p> <p>The environment as it would be in the future should the subject project not be carried out.</p>
	<p><b>'Worst-case' Effects</b></p> <p>The effects arising from a project in the case where mitigation measures substantially fail.</p>
	<p><b>Indeterminable Effects</b></p> <p>When the full consequences of a change in the environment cannot be described.</p>
	<p><b>Irreversible Effects</b></p> <p>When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.</p>
	<p><b>Residual Effects</b></p> <p>The degree of environmental change that will occur after the proposed mitigation measures have taken effect.</p>
	<p><b>Synergistic Effects</b></p> <p>Where the resultant effect is of greater significance than the sum of its constituents (e.g. combination of SO<sub>x</sub> and NO<sub>x</sub> to produce smog)</p>

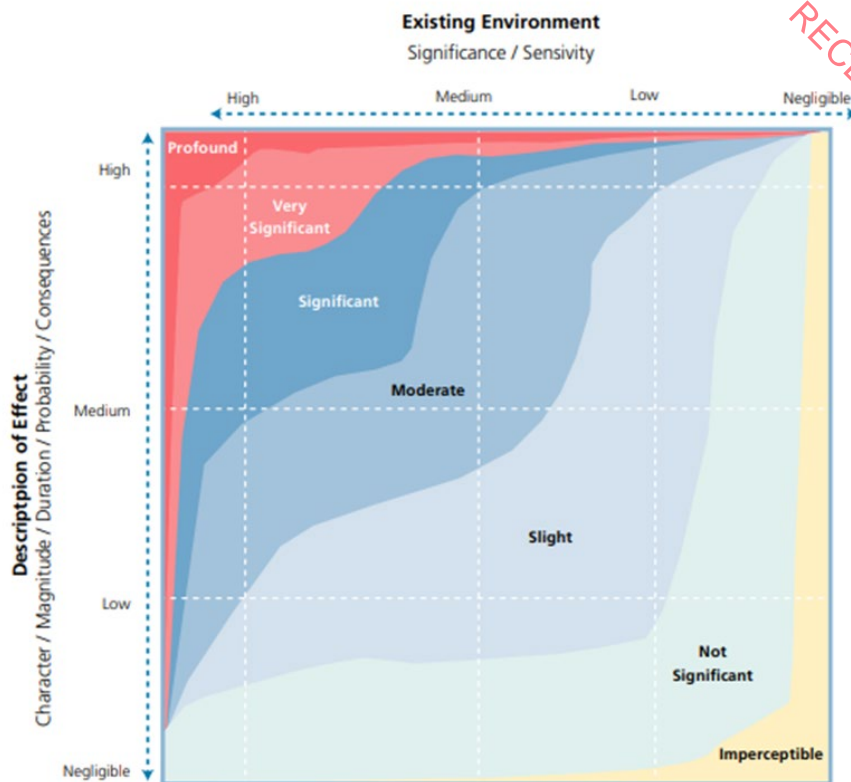


Figure 1-2 :Determining the Significance of the Effect (EPA 2022)

The topics examined in this EIAR are categorised under the environmental factors prescribed under the EIA Directive:

- Population and Human Health.
- Biodiversity.
- Land and Soils.
- Water.
- Air Quality.
- Material Assets.
- Cultural Heritage; and
- Landscape and Visual.

The potential likely significant effects caused by the vulnerability of the Proposed Development to risks of major accidents and/or disasters must also be examined.

The structure of the EIAR is set out in Table 1-3 below.

Table 1-3 Structure of the Environmental Impact Assessment Report (EIAR)

No.	Chapter	Content
1	Introduction	Chapter 1 sets out the introduction, the site description, the general methodology and approach to the EIAR.
2	Description of the Proposed Development & Assessment of Alternatives	As required under Article 5(1)(a) of the EIA Directive, Chapters 2 provides a description of the site, design, and scale of Proposed Development, and as required

No.	Chapter	Content
		under Article 5(d), an evaluation of the reasonable alternative design approaches.
3	Planning and Development Context	Chapter 3 sets the national, regional and local policy framework for the Proposed Development.
4	Population and Human Health	Chapter 4 covers the requirement for assessment on potentially significant effects to population and human health as required under Article 3(1)(a) of the EIA Directive.
5	Biodiversity	Chapter 5 covers the requirement of Article 3(1)(b) to assess potentially significant effects on biodiversity (which previously referred only to 'fauna and flora'), having particular attention to species and habitats protected under the Habitats Directive and the Birds Directive.
6	Land and Soils	Chapter 6 covers the requirement under Article 3(1)(c) of the EIA Directive on Land and Soil to assess the type of soil and geology in the area of the Proposed Development and identifies any potentially significant effects.
7	Hydrology and Hydrogeology	Chapter 7 covers the requirement under Article 3(1)(c) of the EIA Directive to assess potentially significant effects to water quality arising from the Proposed Development. This chapter will assess any potential effects from pollution and discharges to surface water.
8	Air Quality	Chapter 8 covers the requirement under Article 3(1)(c) of the EIA Directive on Air to assess potentially significant effects to air quality in the surrounding environment.
9	Climate	Chapter 9 covers the requirement under Article 3(1)(c) of the EIA Directive to assess potentially significant effects on Climate Change (greenhouse gas emissions and its vulnerability to climate change).
10	Noise and Vibration	Chapter 10 covers the requirement to assess potentially significant effects from airborne noise and vibration as required under Article 3(1)(a) of the EIA Directive on Human Health.
11	Landscape and Visual Impact Assessment	Chapter 11 covers the requirement under Article 3(1)(d) of the EIA Directive to assess potentially significant effects on the landscape. This chapter will assess any potential visual impacts to landscape caused by the Proposed Development.
12	Archaeology and Cultural Heritage	Chapter 12 covers the requirement under Article 3(1)(d) of the EIA Directive to assess potentially significant effects on cultural heritage.
13	Material Assets – Waste and Utilities	Chapter 13 covers the requirement under Article 3(1)(d) of the EIA Directive to assess potentially significant effects on material assets. This chapter will identify impacts to existing utilities and infrastructure from the development of the Proposed Development.  Article 5(1), Annex IV, point 1(d) requires estimates of quantities and types of waste produced during construction and operation phase. Chapter 12 will also present an assessment of how resources and waste will be managed for the Proposed Development

No.	Chapter	Content
14	Material Assets – Traffic and Transport	Chapter 14 sets out traffic and transport effects that will be caused on nearby receptors due from increase vehicle movements during the construction phase and operational phase.
15	Risk Management	Chapter 15 covers the requirement under Article 3(2) of the EIA Directive, to include the expected effects deriving from the vulnerability of the Proposed Development to risks of major accidents and/or disasters.
16	Interactions	As required under Article 3(1)(e) of the EIA Directive, Chapter 16 provides an assessment of the interaction between all of the environmental aspects referred to in this EIAR.
17	Summary of Mitigation and Monitoring Measures	Chapter 17 describes mitigation and monitoring as required under Article 5(1) of the EIA Directive in order to avoid, prevent, reduce, or if possible, offset any identified significant adverse effects on the environment and, where appropriate, describes any proposed monitoring arrangements.

This approach employs standard descriptive methods, replicable prediction techniques and standardised impact descriptions to provide an appropriate evaluation of each environmental topic under consideration.

### 1.10 Methodology Used to Produce this EIAR

The methodology employed to produce this EIAR is detailed in Table 1-4 below. The objective is to evaluate each environmental topic, both individually and collectively, in a systematic and objective manner.

The methodology will outline the methods used to describe the baseline environmental conditions as well as predict the likely impacts on the environment of the Proposed Development. The data and survey requirements for each chapter will vary depending on the environmental topic and will be chosen by the particular specialist based on relevant legislation, best practice guidance, policy requirements, and professional judgement. Similarly, the study area is also defined for each environmental topic based on professional judgement and experience.

All environmental topics require desktop reviews of all relevant data at a minimum. These desktop studies are then supplemented by field studies and consultations with relevant stakeholders, for example interested parties, statutory bodies and local authorities, as required for each environmental topic.

*Table 1-4 EIA Chapter Approach*

Chapter	Description of Section
Introduction	Provides an overview of the specialist area and specifies the specialist who prepared the assessment.

Chapter	Description of Section
Study Methodology	This subsection outlines the method by which the relevant impact assessment has been conducted within that chapter.
The Existing Receiving Environment (Baseline Situation)	This section will describe and assess the receiving environment, the context, character, significance and sensitivity of the baseline receiving environment into which the Proposed Development will fit. This analysis also takes account of any other proposed developments that are likely to proceed in the immediate surroundings.
Characteristics of the Proposed Development	<p>Consideration of the '<i>Characteristics of the Proposed Development</i>' allows for a projection of the '<i>level of impact</i>' on any particular aspect of the environment that could arise.</p> <p>For each chapter those characteristics of the Proposed Development which are relevant to the area of study are described; for example, the chapter on landscape and visual impact addresses issues such as height, design and impact on the surrounding landscape.</p>
Potential Impact of the Proposed Development	<p>This section provides a description of the specific, direct and indirect, effects that the Proposed Development may have. This analysis is provided with reference to both the Existing Receiving Environment and Characteristics of the Proposed Development sections, while also referring to the: (i) magnitude and intensity, (ii) integrity, (iii) duration and (iv) probability of impacts.</p> <p>The assessment addresses whether the impacts are direct, indirect, secondary or cumulative in nature. It also looks at the timescale of such impacts e.g. are they short, medium, long-term, and are they of a temporary, permanent, continuous or intermittent nature, and are they positive or negative impacts. The impact interactions are also addressed.</p>
Avoidance, Remedial and Mitigation Measures	<p>This section of each chapter describes the mitigation measures which are required. The requirement to describe mitigation measures is laid out in the EIA Directive, as implemented by the Planning Act and the Planning Regulations. Avoidance, remedial and mitigation measures describe any corrective or mitigative measures that are either practicable or reasonable, having regard to the potential impacts of the Proposed Development. This includes avoidance, reduction and remedy measures as set out in Section 4.7 of the Development Management Guidelines 2007, to reduce or eliminate any significant adverse impacts identified.</p>
Residual Impacts of the Proposed Development	<p>This section allows for a qualitative description of the resultant specific direct, indirect, secondary, cumulative, short, medium and long-term, temporary, permanent, continuous, or intermittent, positive and negative effects as well as impact interactions which the Proposed Development may have, assuming all mitigation measures are fully and successfully applied.</p>

Chapter	Description of Section
Do Nothing Impact	In order to provide a qualitative and equitable assessment of the Proposed Development, this section considers the Proposed Development in the context of the likely impacts upon the receiving environment should the Proposed Development not take place.
Monitoring	This involves a description of monitoring in a post-development phase, if required. This section addresses the effects that require monitoring, along with the methods and the agencies that are responsible for such monitoring.
Reinstatement	While not applicable to every aspect of the environment considered within the EIAR, certain measures may need to be proposed to ensure that in the event of the proposal being discontinued, there will be minimal impact to the environment.
Interactions	This section provides a description of impact interactions together with potential indirect, secondary and cumulative impacts.
Difficulties Encountered in Compiling Information	The EIA Directive requires that the EIAR includes ' <i>details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved</i> ' (EIA Directive, Annex IV, Part 6). Each chapter that contains an environmental baseline and assessment contains a section outlining any difficulties encountered in compiling that chapter.

### 1.11 Non-Technical Summary

A Non-Technical Summary of the EIAR has also been prepared. The EIA Directive states that one of the objectives of the EIA process is to ensure that the public are fully aware of the environmental implications of any decisions. EPA Guidelines note that the non-technical summary of the EIAR should facilitate the dissemination of the information contained in the EIAR and that the core objective is to ensure that the public is made as fully aware as possible of the likely environmental impacts of projects prior to a decision being made by South Dublin County Council. A Non-Technical Summary of the EIAR has therefore been prepared which summarises the key environmental impacts and is provided as a separately bound document.

### 1.12 Links between EIAR and Appropriate Assessment

A Screening Report for Appropriate Assessment (AA) has been carried out by Scott Cawley Ltd for the Proposed Development, to determine if there is a risk of effects to any Natura 2000 sites.

Upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of the AA Screening report that, "There is a requirement to proceed to Stage 2 of the Appropriate Assessment process; and the preparation of an NIS is required".

Design alteration requirements and appropriate mitigation measures have been set out in the NIS, such that their implementation will ensure that impacts on the conservation objectives of European sites will be unlikely during the Construction and Operational Phases of the Proposed Development. Consequently, there will be no adverse effects on any European sites.

While AA is required by the proposer of any plan or project likely to have an adverse effect on a Natura 2000 site, EIA is required for projects listed in Annex I of the EIA Directive. The requirement for EIA relative to projects listed in Annex II of the EIA Directive is determined on a case by case. While these two different types of assessment are independent and are required by separate legislation, namely the Birds and Habitat Directives (i.e. AA) and the EIA Directive (i.e. EIAR) there is a degree of overlap, particularly in the Biodiversity Chapter of the EIAR.

### **1.13 Availability of EIAR Documents**

A copy of this EIAR document and Non-Technical Summary is available for purchase at the offices of South Dublin County Council at a fee not exceeding the reasonable cost of reproducing the document.

### **1.14 Statement of Difficulties Encountered**

No exceptional difficulties were experienced in compiling the necessary information for the Proposed Development. Where any specific difficulties were encountered these are outlined in the relevant chapter of the EIAR.

### **1.15 Quotations**

The application is also accompanied by a Non-Technical Summary of the EIAR, which is laid out in a similar, but condensed format to the main EIAR. The structure, presentation and the Non-Technical Summary of the EIAR, as well as the arrangements for public access, all facilitate the dissemination of the information contained in the EIAR. The core objective is to ensure that the public and local community are aware of the likely environmental impacts of the Proposed Development prior to the granting of consent.

However, it is important to acknowledge that the EIAR by its nature contains statements about the Proposed Development, some of which are positive and some less than positive. Selective quotation or quotations out of context can give a misleading impression of the findings of the study.

The EIA Regulations require that difficulties such as technical deficiencies, lack of information or knowledge encountered in compiling any specified information for the EIAR be described.