1 INTRODUCTION

This Environmental Impact Assessment Report (EIAR) presents the assessment of environmental impacts and applicable mitigation measures associated with the residentially-led development on lands in the Clonburris Strategic Development Zone (SDZ) within the townlands of Kishoge, Esker South, Grange, and Balgaddy, Clonburris, County Dublin (hereafter referred to as 'the Proposed Development'). This EIAR for the Proposed Development has been prepared on behalf of South Dublin County Council Housing Section (hereafter referred to as 'the Applicant'). This EIAR accompanies a Planning Application to South Dublin County Council.

This chapter has been prepared by Eleanor Mac Partlin, EIAR Manager, with assistance from Niamh Robinson, EIAR Co-ordinator and Ian Doyle, EIAR Assistant, all at Stephen Little and Associates. Eleanor is the Associate Director of Stephen Little and Associates and has significant experience in the management and delivery of complex multidisciplinary projects, with particular experience in Town Planning and EIA. Niamh has 4 years' professional experience in the planning field, and holds a MRUP – Masters in Regional and Urban Planning. Ian has 2 years' professional experience in the planning field, and holds a Bachelor of Science (Honours) in Spatial Planning.

1.1 Summary of the Proposed Development

Chapter 3: 'Description of Proposed Development' of this EIAR sets out the detailed description of the Proposed Development. A summary description is provided here for more immediate comprehension of the project subject of this EIAR.

The proposed development is located across three adjacent sites (cumulatively, c. 29.39 ha in total), predominately within the Clonburris SDZ Planning Scheme area. The eastern portion of Site 5b lies outside of the Clonburris SDZ Planning Scheme area. The proposed development includes: 1,252 no. dwellings, 2no. childcare facilities, a community pavilion, reuse of Grange House for employment, retail space, public open space and associated site development works.

A summary description of the proposed development at each of the Sites (Site 3, Site 4 & Site 5) is provided in the following subsection. The proposed development (i.e. the project) is to be subject of a single Part 10 planning application to An Bord Pleanala, accompanied by this overarching EIAR.

1.1.1 Summary of Proposed Development - Site 3

The proposed development at Site 3 includes:

580no. dwellings, in a mix of house, apartment, duplex and triplex units, comprising 1-bedroom, 2-bedroom and 3-bedroom typologies;

a 2-storey childcare facility; and,

all associated and ancillary site development and infrastructural works including: surface level car parking, bicycle parking, hard and soft landscaping and boundary treatment works, including public, communal and private open space, public lighting, bin stores and foul and water services. Vehicular access to the site will be from existing Adamstown Avenue and the Northern Link Street (NLS) recently permitted under Reg. Ref. SDZ24A/0033W.

1.1.2 Summary of the Proposed Development- Site 4

The proposed development at Site 4 includes:

436no. dwellings in a mix of house, apartment, duplex and triplex units, comprising 1-bedroom, 2-bedroom, 3-bedroom and 4-bedroom typologies;

a childcare facility on the ground floor of Block F;

a retail unit;

a community pavilion building;

re-use of Grange House for employment use; and,

all associated and ancillary site development and infrastructural works including surface level car parking, bicycle parking, hard and soft landscaping and boundary treatment works, including public, communal and private open space, public lighting, bin stores and foul and water services. Vehicular access to the site will be via the Southern Link Street (SLS) permitted under SDZ20A/0021.

1.1.3 Summary of the Proposed Development- Site 5

The proposed development at Site 5 includes:

236no. dwellings, including 55 no. social housing units, 113 no. affordable purchase units and 68 no. cost rental units. The scheme provides for a mix of 1, 2 and 3-bedroom units in a range of dwelling typologies, as follows:

- a) 35 no. houses
- b) 110 no. duplex units
- c) 33 no. triplex units, and
- d) 58 no. apartments

The proposal also includes all associated and ancillary site development and infrastructural works including a total of 219 no. car parking spaces at undercroft and surface level, bicycle parking, hard and soft landscaping and boundary treatment works, public, communal and private open space, public lighting, waste storage areas and foul and water services. Vehicular access to the site will be from Thoms Omer Way and the Northern Link Street (NLS) proposed under concurrent application Reg. Ref. SDZ24A/0033W.

1.2 Aim of the EIAR

The preparation of an EIAR is part of an overall process of environmental impact assessment or EIA. An EIAR is defined in the Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022) as: -

"A report or statement of the effects, if any, that the proposed project, if carried out, would have on the environment" (EPA, 2022).

According to these guidelines, the 'EIAR presents the results of a systematic analysis and assessment of the significant effects of a proposed project on the receiving environment' (EPA, 2022).

The preparation of this EIAR is in accordance with Directive 2011/92/EU as amended by Directive 2014/52/EU (hereafter referred to as 'the Directive'), the Planning and Development Act 2000, as amended and the Planning and Development Regulations 2001, as amended. It is also in accordance with the guidelines listed at paragraph Error! Reference source not found.

The prescribed range of environmental factors is as follows: -

"The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors: -

- 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.
- c) land, soil, water, air and climate.
- d) material assets, cultural heritage and landscape.
- e) the interaction between the factors referred to in points (a) to (d)."

In addition, the guidelines quote Article 5(1) of the Directive when describing the contents of an EIAR, as follows: -

"'The information to be provided by the developer shall include at least:

- a) a description of the project comprising information on the site, design, size and other relevant features of the project.
- b) a description of the likely significant effects of the project on the environment.
- c) a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment.
- a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.
- e) a non-technical summary of the information referred to in points (a) to (d); and
- f) any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected."

Article 94 of the Planning and Development Regulations 2001, as amended, provides for the information to be contained in an EIAR as follows: -

"94. An EIAR shall take into account the available results of other relevant assessments under European Union or national legislation with a view to avoiding duplication of assessments and shall contain—

- a) the information specified in paragraph 1 of Schedule 6,
- b) any additional information specified in paragraph 2 of Schedule 6 relevant to the specific characteristics of the development or type of development concerned and to the environmental features likely to be affected,
- c) a summary in non-technical language of the information required under paragraphs (a) and (b),
- a reference list detailing the sources used for the descriptions and assessments included in the report, and
- a list of the experts who contributed to the preparation of the report, identifying for each such expert—
 - (i) the part or parts of the report which he or she is responsible for or to which he or she contributed,
 - (ii) his or her competence and experience, including relevant qualifications, if any, in relation to such parts, and
 - (iii) such additional information in relation to his or her expertise that the person or persons preparing the EIAR consider demonstrates the expert's competence in the preparation of the report and ensures its completeness and quality."

1.3 EIAR Guidance

This EIAR has been completed in accordance with the requirements as set out in the Directive and relevant guidelines and documentation, including: -

- Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022).
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out environmental impact assessment (Department of Housing, Planning and Local Government, August 2018),
- Department of Housing, Planning and Local Government (2018) 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.

- Guidance on the preparation of Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Commission, 2017).
- EU Commission's SEA Implementation Guidance from 2003 (Paragraphs 5.25 and 5.26) refer to chapter on human health.
- Circular PL 1/2017 Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive).
- Circular PL 8/2017 Implementation of Directive 2014/52/EU Advice on Electronic Notification Requirements.
- Advice Notes for Preparing Environmental Impact Statements Draft (EPA, 2015).

1.4 The EIAR Process

This section demonstrates the process that has been carried out by the Applicant and Design Team in the preparation of this EIAR. As described and shown in Figure 1.1, the EIAR forms a part of the EIA process.

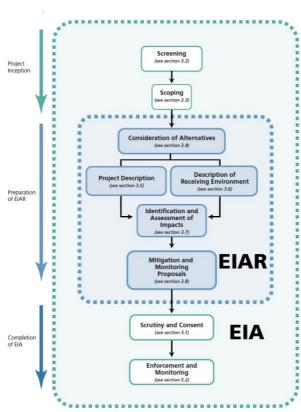


Figure 1.1: EIA Process - Extract taken from Figure 2.2, page 11 of the EPA Guidelines 2022.

Further explanation of terms referred to in Figure 1.1 is provided below: -

Screening: -

"The process of assessing the requirement for a project to be subject to Impact Assessment based on project type and scale, as well as the significance or environmental sensitivity of the receiving environment."

In screening for EIAR, it was considered that the proposed development exceeds **500 dwelling units** and the site area exceeds **10** ha. The mandatory EIA threshold for Class **10** Infrastructure Projects (Part 2 of Schedule 5 of the Planning and Development Regulations **2001** (as amended)) is therefore exceeded.

Scoping: -

"The process of identifying the significant issues which should be addressed by a particular Impact Assessment as well as the means or methods of carrying out the assessment."

No formal scoping request was issued to either South Dublin County Council or An Bord Pleanála in respect of this EIAR.

Environmental Impact Assessment (EIA): -

"The process of examining the anticipated environmental effects of a proposed project – from consideration of environmental aspects at design stage, through consultation and preparation of an Environmental Impact Assessment Report (EIAR), evaluation of the EIAR by a competent authority, and the subsequent decision as to whether the project should be permitted to proceed, encompassing public response to that decision."

Competent Authority Decision

If, during the review, the Competent Authority (An Bord Pleanála in this case) determines that the information presented in an EIAR is not sufficient for it to make a determination, then the developer may be asked to provide further information.

If granting permission, the Competent Authority may attach conditions to the consent. The conditions will typically seek to ensure adherence to mitigation and monitoring measures presented in the EIAR. These may be augmented and modified by the Competent Authority.

If refusing permission, the Competent Authority may cite specific evidence from the EIAR such as the non-conformity of potential impacts with official standards, impractical mitigation measures or uncertainty about environmental interactions.

1.5 Need for this EIAR

The revised Directive (Directive 2011/92/EU, as amended by Directive 2014/52/EU) uses the term environmental impact assessment report (EIAR) rather than the previous environmental impact statement (EIS). Where current national guidelines and regulations refer to an Environmental Impact Statement or EIS, this can be taken to mean an Environmental Impact Assessment Report (EIAR).

Section 172 of Part X of the Planning and Development Act, 2000, as amended by regulation 17 of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) sets out the requirement for an EIA as follows: -

"172 (1) An environmental impact assessment shall be carried out by the planning authority or the Board, as the case may be, in respect of an application for consent for proposed development where either—

- (a) the proposed development would be of a class specified in—
- (i) Part 1 of Schedule 5 of the Planning and Development Regulations 2001, and either—
 - (I) such development would equal or exceed, as the case may be any relevant quantity, area or other limit specified in that Part, or
 - (II) no quantity, area or other limit is specified in that Part in respect of the development concerned, or
- (ii) Part 2 of Schedule 5 of the Planning and Development Regulations 2001 and either—
 - (I) such development would equal or exceed, as the case may be any relevant quantity, area or other limit specified in that Part, or
 - (II) no quantity, area or other limit is specified in that Part in respect of the development concerned, or
- (b) (i) the proposed development would be of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations 2001 but does not equal or exceed, as the case may be,

the relevant quantity, area or other limit specified in that Part, and

(ii) the planning authority or the Board, as the case may be, determines that the proposed development would be likely to have significant effects on the environment."

Schedule 5 of the Planning and Development Regulations 2001 (as amended) lists the classes of development where an EIA is mandatory under Part 1 and where an EIA may be required under Part 2. Where a project falls within a criterion for a type of development and / or exceeds a threshold as listed in Part 1 or Part 2, then it must be subjected to EIA.

Schedule 5 (Part 2) of the Planning & Development Regulations 2001 – 2018 set mandatory thresholds for each project class. Sub-section 10(b)(iii) and (iv) addresses 'Infrastructure Projects' and requires that the following class of project be subject to EIA: (b)(i) Construction of more than 500 dwelling units. Category 10(b)(iv) refers to 'Urban development which would involve an area greater than 2 hectares in the case of business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.'

The proposed number of residential units is cumulatively 1,252 no. in total. It therefore exceeds the threshold for which an EIAR is required, as it comprises more than 500no. dwellings. Furthermore the cumulative site area of the proposed development is c. 29.4 ha. This is also above the EIAR threshold, being a combined area greater than 10 ha in a built up area.

Consequently, an EIAR is submitted to An Bord Pleanala with this Part 10 Application, as part of the EIA process.

1.6 EIAR Layout and Structure

The composition of this EIAR has been prepared in the context of the EPA Guidelines (2022) and the screening and scoping stages described above. The EIAR comprises 2 volumes, as follows: -

- **Volume 1:** Written Statement, including Non-Technical Summary.
- Volume 2: Appendices.

Following on from the layout, the structure of the EIAR is shown in Table 1.1 below.

Chapter No.	EIAR Chapter Name	Consultant
1	Introduction	Stephen Little & Associates Chartered Town Planners & Development Consultants
2	Non-Technical Summary	Stephen Little & Associates Chartered Town Planners & Development Consultants with input from the consultants outlined below.
3	Description of Proposed Development	Stephen Little & Associates Chartered Town Planners & Development Consultants.
4	Description of Reasonable Alternatives	Stephen Little & Associates Chartered Town Planners & Development Consultants.
5	Population & Human Health	AWN Consulting Ltd.
6	Biodiversity	JBA Consulting Engineers and Scientists Ltd.
7	Land, Soil & Geology	DBFL Consulting Engineers.
8	Water & Hydrology	DBFL Consulting Engineers.
9	Air (Noise & Vibration)	AWN Consulting Ltd.
10	Climate (Air Quality)	AWN Consulting Ltd.
11	Climate (Climate Change)	AWN Consulting Ltd.
12	Landscape and Visual Impact Assessment	Doyle + O'Troithigh Landscape Architecture

Chapter No.	EIAR Chapter Name	Consultant	
13	Material Assets (Transportation)	DBFL Consulting Engineers.	
14	Material Assets (waste)	AWN Consulting Ltd.	
15	Material Assets (Utilities)	O'Connor Sutton Cronin Consultant Engineers	
16	Cultural Heritage (Archaeological& Architectural)	The Archaeological & Built Heritage Consultancy (IAC)	
17	Risk Management (Major Accident & Disaster)	Stephen Little & Associates Chartered Town Planners & Development Consultants.	
18	Summary of Mitigation Measures	Stephen Little & Associates Chartered Town Planners & Development Consultants.	
19	Summary of Residual Impacts	Stephen Little & Associates Chartered Town Planners & Development Consultants.	
20	Summary of Cumulative Impacts & Interactions	Stephen Little & Associates Chartered Town Planners & Development Consultants.	
21	Bibliography	Stephen Little & Associates Chartered Town Planners & Development Consultants.	
-	Overall Co-ordination and Management of the EIAR	Stephen Little & Associates Chartered Town Planners & Development Consultants.	

Table 1.1: Environmental Impact Assessment chapters.

The relevant experts involved in the preparation of this EIAR can be found in Table 1.2 below.

Name	Years Exp.	Professional Qualifications	Professional Affiliations	Role
St	Stephen Little & Associates Chartered Town Planners & Development Consultants			
Eleanor Mac Partlin	26	B Soc SC, MRUP	MRTPI, MIPI	EIAR Manager Editorial Responsibility
Niamh Robinson	4	BA Geography, Planning & Environmental Policy, MA Urban and Regional Planning	-	EIAR Co-ordinator.
lan Doyle	2	BSc (Hons) Spatial Planning	-	EIAR Co-ordinator.
AWN Consulting				
Chonaill Bradley	9	Bsc ENV, PG Dip Circular Economey	AssocCIWM	Material Assets (Waste) Population & Human Health
Sarah Tierney	2	BA Environmental Science	GradIEMA	Population & Human Health
Dominic Wright		IOA Diploma in Acoustics and Noise Control	AMIOA	Air (Noise & Vibration)
Alister Maclaurin		BSc in Creative Music and Sound Technology and IOA Diploma in Acoustics and Noise Control.	MIOA	Air (Noise & Vibration)
Ciara Nolan	8	MSc. Environmental Science, BSc Eng. (Energy Systems Engineering)	MIEnvSc, MIAQM	Climate (Air Quality) Climate (Climate Change)
	JBA Consulting Engineers and Scientists Ltd			
William Mulville	7	BSc (Hons), MSc	ACIEEM	Biodiversity
Patricia Byrne	25	BSc (Hons), PhD	MCIEEM	Biodiversity

Name	Years Exp.	Professional Qualifications	Professional Affiliations	Role
Michael Coyle	4	B.A (Hons), MSc	-	Biodiversity
Matthew Hosking	2	BSc (Hons)	-	Biodiversity
	DBFL Consulting Engineers			
Dieter Bester	11	B.Eng Civil Engineering, CEng (MIEI)	Engineers Ireland (MIEI)	Land, Soils & Geology, Water, Material Assets (Transport)
Aislinn Murtagh	2	M.Eng Civil Engineering	Engineers Ireland (MIEI)	Land, Soils & Geology, Water
Daniel Garvey	5	B.Eng Civil Engineering	Engineers Ireland (MIEI)	Material Assets (Transport)
The Archaeological & Built Heritage Consultancy (IAC)				
Faith Bailey	22	BA Archaeology, MA Cultural Landscape Management (Archaeology and Built Heritage)	MIAI MCIFA	Cultural Heritage (Archaeology)
Maeve Tobin	19	BA Archaeology & Geography, MA Archaeology	MIAI MIAPO	Cultural Heritage (Archaeology)
	Doyle O'Troithigh Landscape Architects			
Daithí O'Troithigh	21	Dip Arch Tech, BA Larch, PG Dip Larch, Msc Urban Design	MILI	Landscape and Visual Impact Assessment
	O'Connor Sutton Cronin Consultant Engineers			
Conor McCarthy	15	Chartered Engineer	-	Material Assets (Utilities)
Yagiz Demir	4	Electrical Engineer	-	Material Assets (Utilities)

Table 1.2: List of EIAR Experts.

1.7 Structure of Each Environmental Topic

Each environmental topic (Chapters 5-18) of this EIAR has been structured in accordance with the EPA Guidelines 2022, under the headings below.

1.7.1 Introduction

All of the relevant introductory text and descriptions for the chapter are located under this Section.

1.7.2 Methodology

An outline of the methodology employed in the assessment, including where possible a reference to the EPA Guidelines.

1.7.3 Receiving Environment (Baseline Situation)

Existing Environment relevant to the environmental factor being assessed for this project.

A dynamic description of the specific environment into which the proposal will fit, taking account of other developments likely to occur. The particular aspects of the environment, for each topic, are discussed in terms of their context, character, significance and sensitivity.

1.7.4 Characteristics of the Proposed Development

Detailed descriptions / descriptions outside the scope of the relevant environmental factors being assessed should be removed. These may be referred to the main project description under Chapter 3: Description of Proposed Development. This chapter also includes description of exempted development and future development on/near the application site.

The characteristics relevant to the environmental factors being assessed should be considered for the Construction and Operational Phases.

1.7.5 Potential Impacts the Proposed Development

The potential impact of the proposed development includes a general description of the possible types of impacts that projects of this kind would be likely to produce, for Construction and Operational Phases.

This includes a consideration of the 'Do-Nothing' impact. The 'Do-Nothing' impact describes the environment, as it would be in the future if the proposed project were not carried out. Section 3.4.2 of the EPA Guidelines 2022 describes the 'Do-Nothing alternative as: -

"a general description of the evolution of the key environmental factors of the site and environs if the proposed project did not proceed" (EPA, 2022).

Potential impacts without mitigation measures are considered in this section: -

- Construction Phase Impacts.
- Operational Phase Impacts.
- Do-nothing impacts.

1.7.6 Mitigation Measures

A description of any specified remedial or reductive measures considered necessary, resulting from the assessment of potential impacts.

A description of any post development monitoring of effects on the environment which might be necessary, covering the monitoring methods and the agencies responsible for their implementation.

Where required, a description of reinstatement measures and the agencies responsible for their implementation.

All of the proposed mitigation measures of this EIAR are grouped into Chapter 18: Summary of Mitigation Measures.

1.7.7 Predicted Impact of the Proposed Development

An assessment of the specific impacts of the proposed development on the environment, as found by expert analysis and judgment, having regard to the receiving environment, the characteristics of the proposal, the potential impacts and any mitigation measures.

The predicted impacts, for both construction and operational stages, are assessed having regard to their character, magnitude, duration, consequences and significance. A **'Worst Case'** impact is also considered for both the construction and operational phases of the proposed development. Thus, the predicted impacts are assessed under the following headings.

Construction Phase.

- Operational Phase.
- Worst Case impact.
- Interactions.
- Cumulative.

All Predicted Impacts are grouped in Chapter 22: Summary of Residual Impacts and Cumulative Impacts.

Interactions and Cumulative Impacts are examined under Chapter 22: Summary of Residual Impacts and Cumulative Impacts.

1.7.8 Monitoring

Monitoring may be appropriate where impact pre-mitigation is potentially significant. Allows for assessment of effectiveness of mitigation measures.

1.7.9 Difficulties Encountered

Section 3.7.5 of the EPA Guidelines 2022 note that "details of difficulties (for example technical deficiencies or lack of knowledge) encountered in compiling the required information and the main uncertainties involved" should be described within the EIAR.

1.7.10 Bibliography

A list of reference material used in compiling the chapter. This will feed into Chapter 21 Bibliography.

1.8 Assessment of Impacts

Clarity of method, language and meaning are vital to accurately explain the full range of effects. Adherence to a systematic method of description can be of considerable assistance in this matter.

The relevant terms listed in the table below can be used to consistently describe specific effects. All categories of terms do not need to be used for every effect.

1.8.1 Quality of Effects

With regard to the 'Quality of Effects', it is crucial that any such effects are clearly identified, especially to non-specialist readers.

Effects which may occur can be characterised into 3 types: positive, negative or neutral.

Firstly, if the proposed element of the project improves the quality of the receiving environment it is seen as a Positive Effect.

Secondly, where such a change does not affect the quality of the receiving environment it can be described as a Neutral Effect.

Finally, a Negative / Adverse Effect can be described as a change, which reduces the quality of the environment.

1.8.2 Describing the Significance of Effects

In terms of 'Describing the Significance of Effects', it is outlined under the EPA Guidelines (2022) that such effects are specific to each different environmental topic.

The EPA Guidelines (2022) state that in the absence of specific definitions, there are 7 potential useful definitions, set out under Table 1.3.

Type of Effects	Description of Effect
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging trends.
Significant Effects	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, significantly alters most of a sensitive aspect of the environment.
Profound Effects	An effect which obliterates sensitive characteristics.

Table 1.3: Describing the Significance of Effects.

1.8.3 Describing the Extent and Context of Effects'

When 'Describing the Magnitude of Effects', the assessment should address the: Extent (i.e. Describe the size of the area, the number of sites, and the proportion of a population affected by an effect), Duration (i.e. time period, please refer to Section 1.8.5 below for more detail), Frequency (i.e. its recurrence) and Context (i.e. whether the foregoing magnitudes will conform or contrast with established baseline conditions).

1.8.4 Describing the Probability of Effects'

In 'Describing the Probability of Effects', a clear description of effects as outlined above enables the Competent Authority (An Bord Pleanála) to decide the balance of risk over advantages when making a decision. The probability is broken into 2 no. types: -

- The Likely Effects in so far as: The effects can reasonably be expected to occur as a result of the planned project if all mitigation measures are properly implemented.
- The Unlikely Effects in so far as: The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.

1.8.5 Describing the Duration and Frequency of Effects

In describing the Duration of Effects, it is crucial to acknowledge that different environmental topics have varying concepts of 'Duration'. Therefore, it is acknowledged under EPA Guidelines (2022), that the following timescales as shown under Table 1.4 below provide a broad definition of useful times: -

Description of Effect	Timescale for each effect
Momentary Effects	Seconds to Minutes
Brief Effects	Less than a day
Temporary Effects	Less than a year
Short-term Effects	Lasting 1 to 7 years
Medium-term Effects	Lasting 7 to 15 years
Long-term Effects	Lasting 15 to 60 years

Permanent Effects	Lasting over 60 years
Reversible Effects	Effects that can be undone, through remediation or restoration
Frequency of Effects	Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)

Table 1.4: Describing the Duration and Frequency of Effects.

1.8.6 Describing the Types of Effects

Annex IV paragraph 5 of the Directive states notes that "The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project".

Under the EPA Guidelines (2022), 8 different types of effects are identified, including inter-related effects: -

- 'Indirect Effects' (also referred to as Secondary Effects) 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 Effects'** The addition of many minor or significant effects of other projects, to create larger, more significant effects.
- **'Do Nothing Effects'** The environment as it would be in the future should no project of any kind be carried out.
- **'Worst case Effects'** The effects arising from a project in the case where mitigation measures substantially fail. It can also be a worst case assumption where there is uncertainty in the assessment or in the effectiveness of mitigation measures.
- 'Indeterminable Effects' When the full consequences of a change in the environment cannot be described.
- **'Irreversible Effects'** When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
- **'Residual Effects'** The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
- **'Synergistic Effects'** Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SOx and NOx to produce smog).

1.8.7 Determining Significance

The above Sections 1.8.1 - 1.8.6 above provide a helpful guide in determination of the significance of the impact. The language described in the above Sections has been used in the preparation of this EIAR.

Figure 1.2 taken from the EPA Guidelines (2022) illustrates how the character of a predicted impact to the sensitivity of the receiving environment can determine the significance of the impact.

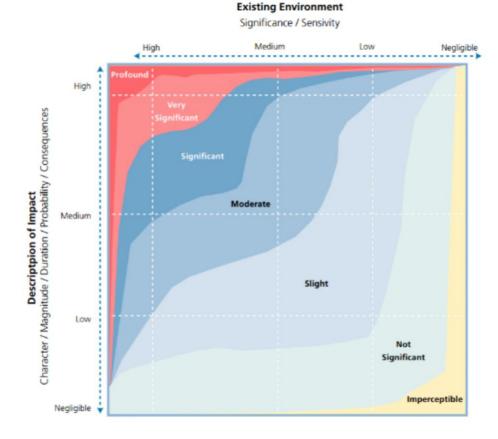


Figure 1.2: Chart showing typical classifications of the significance of impacts (Figure 3.5, EPA Guidelines 2022).

1.9 Public and Stakeholder Consultation

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 projects prior to the granting of consent.

1.9.1 Submissions in relation to the EIAR

Statutory / Public Consultation

This EIAR and application will be available for inspection free of charge or may be purchased on payment of a specified fee (which fee shall not exceed the reasonable cost of making such a copy) during public opening hours excluding Bank Holidays at the following location: -

- The Offices of South Dublin County Council, County Hall Tallaght, Dublin 24, D24 A3XC;
- The Office of An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902 (between 9.15am and 5.30 pm Monday to Friday).

The application (including EIAR) may also be viewed/downloaded on the following website: www.kishoge-part10.com.

EIAR Portal

As of 1 September 2018, there is an obligation on the applicant, where an EIAR has been prepared, to submit the relevant information to the EIA Portal.

The Applicant has submitted an application form, a copy of the public notice and a site location plan to the Department of Housing Planning and Local Government.

A copy of this submission and acknowledgement receipt issued by the Department of Housing Planning and Local Government accompanies the Part X planning application.

1.10 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.

1.11 Forecasting Methods Used

The methods employed to forecast the effects on the various aspects of the environment are standard techniques used by each of the particular individual disciplines.

The general format followed was to identify the receiving environment, to add to that a project of the 'loading' of the proposed development on the various aspects of the environment considered, to put forward amelioration measures as necessary to lessen or remove a potential impact, and thereby to arrive at a net predicted impact.

1.12 Quotations

EIARs by their nature contain 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.

Therefore, the study team urges that quotations should, where reasonably possible, be taken from the conclusions of specialists' sections or from the non-technical summary and not selectively.

1.13 Errors

While effort has been made to ensure that the content of this EIAR is error free and consistent, there may be instances in this document where typographical errors and / or minor inconsistencies do occur. These typographical errors and / or minor inconsistencies are unlikely to have any material impact on the overall findings and assessment contained in this EIAR.