

1 INTRODUCTION

This Environmental Impact Assessment Report (EIAR) presents the assessment of environmental impacts and applicable mitigation measures associated with the proposed Strategic Housing Development (SHD) in the Townlands of Kilcarbery, Corkagh Demesne, Deansrath, and Nangor, Co. Dublin (hereafter referred to as 'the Proposed Development'). This EIAR for the proposed Project has been prepared on behalf of Adwood Limited (The Applicant). This EIAR accompanies a planning application made directly to An Bord Pleanála (ABP) under the provisions of Section 8 of the Planning and Development (Housing) and Residential Tenancies Act 2016.

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. The description of the development can be summarised as: -

- Residential-led development comprising 1,034no. residential units, 1no. community facility, 1no. retail unit and 1no. temporary and 1no. permanent creche, in buildings ranging from 2 to 6-storeys.

The breakdown of residential accommodation is as follows: -

- 578no. own door houses, including: -
 - 449no. 3-bed 2-storey houses (House Type A, A1, A2, B, C, D, G & H).
 - 31no. 4-bed 2-storey houses (House Type E & J).
 - 98no. 4-bed 3-storey houses (House Type F & F1).
- 154no. own door duplex / apartments, in 3 to 4-storey buildings, including: -
 - 41no. 1-bed duplex / apartments (Type M1 & M2).
 - 49no. 2-bed duplex / apartments (Type K, N1 & N2).
 - 64no. 3-bed duplex / apartments (Type L, L1, L2 & L3).
- 302no. apartment units accommodated in 9no. 4 to 6-storey buildings (with upper floor set-backs), including: -
 - Block 1 accommodating 29no. apartments (6no. 1-beds, 18no. 2-beds and 5no. 3 beds).
 - Block 2 accommodating 24no. apartments (4no. 1-beds, 15no. 2-beds and 5no. 3 beds).
 - Block 3 accommodating 30no. apartments (13no. 1-beds and 17no. 2-beds).
 - Block 4 accommodating 30no. apartments (13no. 1-beds and 17no. 2-beds).
 - Block 5 accommodating 45no. apartments (12no. 1-beds, 22no. 2-beds and 11no. 3-beds).
 - Block 6 accommodating 37no. apartments (16no. 1-beds and 21no. 2-beds).
 - Block 7 accommodating 37no. apartments (16no. 1-beds and 21no. 2-beds) – 7no. ground floor apartments to be temporarily converted to accommodate temporary creche facility pending construction of permanent creche building at Grange Square.
 - Block 8 accommodating 33no. apartments (5no. 1-beds, 23no. 2-beds and 5no. 3-beds).
 - Block 9 accommodating 37no. apartments (16no. 1-beds and 21no. 2-beds).

Private rear gardens are provided for all houses. Private patios / terraces and balconies are provided for all duplex and apartment units. Upper level balconies are proposed on elevations of all multi-aspect duplex and apartment buildings.

The proposed development includes, in addition, 1no. retail unit (c. 178 sq. m gross floor area), 1no. community building (c. 785 sq. m gross floor area), 1no. temporary creche (c. 557 sq m gross floor area in lieu of 7no. ground floor apartment units in Block 7 pending construction of permanent creche at Grange Square) and 1no. permanent creche building at Grange Square (c. 909 sq. m gross floor area).

And, all associated and ancillary site development works, hard and soft landscaping, boundary treatment works, including: -

- New vehicular access from Outer Ring Road / Grange Castle Road (R136) (left in and left out arrangement) to the west and 2no. new vehicular access points onto Old Nangor Road (L5254) to the north and associated works to existing adjoining roads.
- New internal street network, including spine road (c. 6m in width) extending from Outer Ring Road / Grange Castle Road (R136) to the west onto Old Nangor Road (L5254) to the north.
- New pedestrian and cycle path network.
- Public amenity open space (c. 4.6 Ha).
- Surface water attenuation measures (SuDs).
- Wastewater pumping station including 18hr storage tank and associated infrastructure.
- 1,510no. surface car parking spaces.
- 1,105no. covered bicycle parking spaces.
- Communal bin storage for all terraced houses, duplex / apartment and apartment blocks.

all on a total site area of approximately 28.6 Ha.

1.2 Aim of the EIAR

An EIAR is defined in the Draft Guidelines on the Information to be contained in Environmental Impact Statements (EPA, 2017) as: -

"A statement of the effects, if any, which proposed development, if carried out, would have on the environment."

The preparation of this EIAR is in accordance with Directive 2011/92/EU as amended by Directive 2014/52/EU as outlined under the Draft Guidelines on the Information to be contained in Environmental Impact Statements (EPA, 2017). Within these guidelines is a prescribed range of environmental factors 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 amending Directive when describing the contents of an EIAR, as follows: -

"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.*
- d) *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."*

1.3 EIAR Guidance

This EIAR has been completed in accordance with the requirements as set out in the EIA Directive (2014/52/EU) and relevant guidelines and documentation, including: -

- Draft Guidelines on the Information to be contained in Environmental Impact Statements (EPA, 2017).
- Advice Notes for Preparing Environmental Impact Statements Draft (EPA, 2015).
- Guidance on the preparation of Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU).
- EU Commission's SEA Implementation Guidance from 2003 (Paragraphs 5.25 and 5.26) refer to HH Chapter.
- 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.

1.4 The EIAR Process

1.4.1 Introduction

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 Figure 1.1, the EIAR forms a part of the EIA process.

Further explanation of the 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."

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."

Environmental Impact Assessment Report (EIAR): -

"A statement of the effects, if any, which proposed development, if carried out, would have on the environment."

Environmental Impact Assessment (EIA): -

"The process of examining the anticipated environmental effects of 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, the subsequent decision as to whether the project should be permitted to proceed, encompassing public response to that decision."

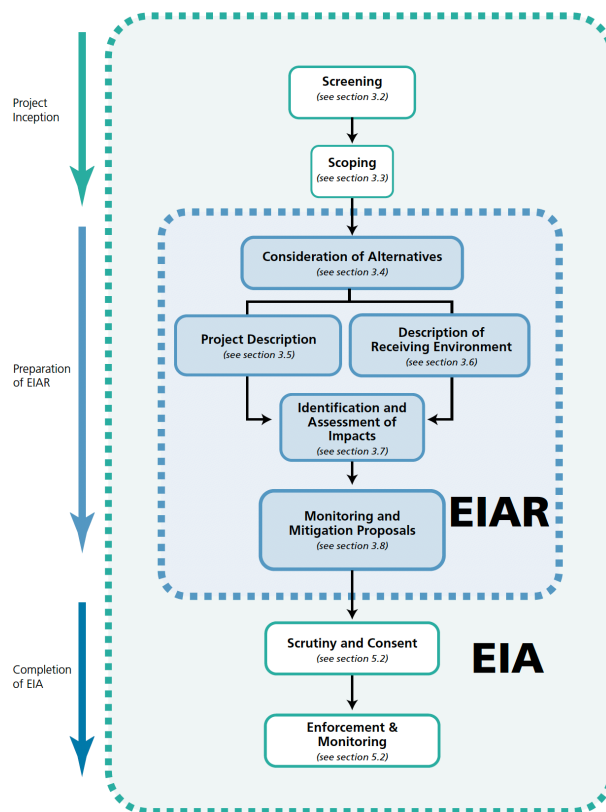


Figure 1.1: EIA Process - Extract taken from Figure 2.2, page 11 of the Draft EPA Guidelines 2017.

Competent Authority Decision

The Competent Authority (CA) can make one of three decisions in respect of a planning application accompanied by an EIAR, namely to seek further information, grant or refuse the application. The CA in relation to the Section 175 approval is An Bord Pleanála.

If, during the review, the CA 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 CA 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 CA.

If refusing the CA 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 process to determine whether an EIA is required for a proposed development is called Screening. This is dependent on the mandatory legislative threshold requirements or the type and scale of proposed development and significance or environmental sensitivity of the receiving environment.

Annex I of the EIA Directive 85/337/EC requires as mandatory the preparation of an EIA for all development projects listed therein. Schedule 5 (Part 1) of the Planning & Development Regulations 2001-2018 brought Annex 1 of the EIA Directive directly into Irish planning legislation. The Directive prescribes mandatory thresholds in respect to Annex 1 projects. Annex II of the EIA Directive provides EU Member States discretion in determining the need for an EIA on a case-by-case basis for

certain classes of project having regard to the overriding consideration that projects likely to have significant effects on the environment should be subject 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 Ha in the case of business district, 10 Ha in the case of other parts of a built-up area and **20 Ha elsewhere**.'

The proposed development comprises a new residential neighbourhood, including 1,034no. residential units and ancillary supporting facilities, on a site of c. 28.6 Ha. The project exceeds the 500no. dwelling units and 20 Ha site area thresholds requiring mandatory EIA.

1.6 EIAR Layout & Structure

The composition of this EIAR has been prepared in the context of the EPA Draft Guidelines (2017) and the screening and scoping stages described above. The layout and structure of this EIAR is laid out under 3 volumes, each containing specific sections as follows: -

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

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

| 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 with input from Burke Kennedy Doyle Architects |
| 4 | Main Alternatives Considered | Stephen Little & Associates Chartered Town Planners & Development Consultants |
| 5 | Population & Human Health | AWN Consulting |
| 6 | Biodiversity | Scott Cawley Ecological Consultants |
| 7 | Land and Soils | DBFL Consulting Engineers |
| 8 | Water | DBFL Consulting Engineers |
| 9 | Climate (Air Quality & Climate Change) | AWN Consulting |
| 10 | Climate (Sunlight) | O'Connor Sutton Cronin Consulting Engineers |
| 11 | Climate (Daylight) | O'Connor Sutton Cronin Consulting Engineers |
| 12 | Air (Noise & Vibration) | AWN Consulting |
| 13 | Landscape and Visual Impact | Ronan MacDiarmada Landscape Architects |
| 14 | Material Assets (Transportation) | DBFL Consulting Engineers |
| 15 | Material Assets (Waste) | DBFL Consulting Engineers |
| 16 | Cultural Heritage (Archaeology & Architectural Heritage) | Irish Archaeological Consultancy Ltd. |
| 17 | Summary of Mitigation Measures | Stephen Little & Associates Chartered Town Planners & Development Consultants |

| Chapter No. | EIAR Chapter Name | Consultant |
|-------------|--|---|
| 18 | Summary of Residual Impacts | Stephen Little & Associates Chartered Town Planners & Development Consultants |
| 19 | Summary of Cumulative Impacts & Interactions | Stephen Little & Associates Chartered Town Planners & Development Consultants |
| 20 | Bibliography | 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 set out in Table 1.1 below.

| Firm | Name | Years Exp. | Professional Qualifications | Professional Affiliations | Role |
|--|----------------------------|------------|---|--|--|
| Stephen Little & Associates | | | | | |
| | Eleanor Mac Partlin | 21 | BScSoc MRUP | MIPI, RTPI | EIAR Project Director, Reviewer |
| | Michael O'Sullivan | 5 | Masters in Planning & Sustainable Development | | EIAR Project Manager, Author |
| | Conor Auld | 4 | BSc Environmental Planning, MSc Urban Design | | EIAR Project Manager, Author |
| AWN Consulting | | | | | |
| | Avril Challoner | 6 | PhD (Air Quality), BEng (Hons) (Environmental Engineering) | Full member IAQM and IES | Air Quality and Climate Consultant |
| | Leo Williams | 5 | Bachelors and Masters in Mechanical Engineering, PgDip in Acoustics & Noise Control | Associate Member of Institute of Acoustics (AMIOA) | Noise & Vibration Chapter - Author |
| | Stephen Smyth | 16 | Bachelors and PhD in Mechanical Engineering, PgDip in Acoustics & Noise Control | Member of Institute of Acoustics (MIOA) | Noise & Vibration Chapter - Reviewer |
| | Elaine Neary | 15 | BA (Hons) in Natural Sciences, MAppSc in Environmental Science | Full member of the Chartered Institute of Waste Management (MCIWM) | Preparation of Waste Chapter of EIAR and associated Waste Management Plans |
| | Paul Conaghan | 9 | BSc (Hons) Environmental Science, BSc Environmental Engineering. | International Association of Hydrogeologists | Preparation of Human Health Chapter |
| DBFL | | | | | |
| | Bill Bates | 25 | BEng (Hons) Civil Engineering; MSc Civil Engineering; PhD (Cost & Risk). | Chartered Engineer Institute of Civil Engineers (MICE); Chartered Engineer Engineers Ireland (MIEI). | Water, Waste, Land, Soils and Geology Chapters - Author |

| | | | | | |
|----------------------------|-------------------------------|----|--|--|--|
| | Thomas Jennings | 20 | BEng (Hons) Civil Engineering, MSc International Transportation | Chartered Engineer Institute of Logistics and Transportation (CMILT); Member Engineers Ireland (MIEI); Member Institute of Highway and Transportation Engineers (MIHT) | Transportation Chapter, Reviewer |
| | Mark McKenna | 7 | BEng (Hons) Civil Engineering, MSc Transport Planning & Engineering | Member Engineers Ireland (MIEI) | Transportation Chapter, Author |
| OCSC | | | | | |
| | Patrice McVeigh | 12 | Masters in Environmental Engineering, BSc (Hons) Geography | Chartered Scientist with Institute of Environmental Science | Daylight & Sunlight Chapters - Author |
| | Patrick Field | 15 | BE (Hons) Building Services | Chartered Engineer with Engineers Ireland | Daylight & Sunlight Chapter - Reviewer |
| RMDA | | | | | |
| | Ronan MacDiarmada | | | | Landscape and Visual Impact Chapter - Author |
| Arborist Associates | | | | | |
| | Felim Sheridan | | | | Arborist |
| IAC Consulting | | | | | |
| | Faith Bailey | 16 | MA Cultural Landscape Management, BA (Hons) Archaeology | Member of the Chartered Institute for Archaeologist, Member of the Institute of Archaeologists Ireland | Archaeological, Architectural and Cultural Heritage Chapter - Author |
| Scott Cawley | | | | | |
| | Maeve Maher-McWilliams | 7 | BSc (Hons) Biological Sciences, MSc Evolutionary and Behavioural Ecology | Associate member of Chartered Institute of Ecology and Environmental Management (CIEEM) | Biodiversity Chapter - Author |
| | Aebhin Cawley | 17 | BA (Hons) Zoology, PgDip Physical Planning | Chartered Environmentalist (Cenv), Full member of CIEEM | Biodiversity Chapter - Reviewer |

Table 1.2: List of EIAR Experts.

1.7 Structure of Each Environmental Topic

Each environmental topic within Chapter 5 – Chapter 16 of this EIAR has been structured in accordance to the EPA Draft Guidelines 2017, 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

Characteristics relevant to the environmental factor being assessed for this project.

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.

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

1.7.5 Potential Impacts of 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 Demolition, 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 no development of any kind were carried out.

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

- Construction and Operational 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.

- Construction Phase.
- Operational Phase.

All of the proposed mitigation measures of this EIAR are grouped into Chapter 17: Summary of Mitigation Measures.

1.7.7 Predicted Impact of the Proposed Development

An assessment of the specific impacts of the subject proposal 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 demolition and 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 development: -

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

All of the Predicted Impacts measures of this EIAR are grouped into Chapter 17: Summary of Mitigation Measures.

Cumulative Impacts and Interactions are examined under Chapter 19: Summary of Cumulative Impacts & Interactions.

1.7.8 Monitoring

Required where impact pre-mitigation is potentially significant. Allows for assessment of effectiveness of mitigation measures.

1.7.9 Difficulties Encountered

Any limitations or technical difficulties associated with assessment of an environmental factor are detailed in the relevant Chapters.

1.7.10 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.

1.7.11 Bibliography

A list of reference material used in compiling the Chapter. This will feed into Chapter 20: Bibliography.

1.7.12 Consultations

A list of consultations held in the course of the preparation of the EIAR, including the following details:-

- Agency / Body.
- Date of Consultation.
- Nature of Consultation (i.e. meeting, email, phone call).

The EIAR team has engaged in consultations, where necessary, with the relevant authorities. It has also engaged with the Design Team. The outcome of this engagement has been identified where relevant in the preparation of each EIAR Chapter.

We refer also to Section 1.9 Public & Stakeholder Consultation, below.

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

These 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 and;

Finally, Negative /Adverse Effects 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 EIAR Guidelines that such effects are specific to each different environmental topic.

The EIAR Guidelines state that in the absence of specific definitions, there are 7no. potential useful definitions set out under **Error! Reference source not found..**

| Type of Effects | Description of Effect |
|---------------------|---|
| Imperceptible | An effect capable of measurement but without noticeable consequences. |
| Not significant | An effect which causes noticeable changes in the character of the environment but without noticeable 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 alters the majority 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 characteristics of which 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 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 2no. types.

- The **Likely Effects** in so far as: The effects can reasonably be expected to occur as a result of the planning 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 EIAR Draft Guidelines 2017, that the following timescales as shown under Table 1.3 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

Under the Guidelines, **Describing the Types of Effects** are identified into 8no. different types of, and 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 SO_x and NO_x 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 EIA.

Figure 1.2 taken from the EPA Draft Guidelines (2017) illustrated how the character of a predicted impact to the sensitivity of the receiving environment can determine the significance of the impact.

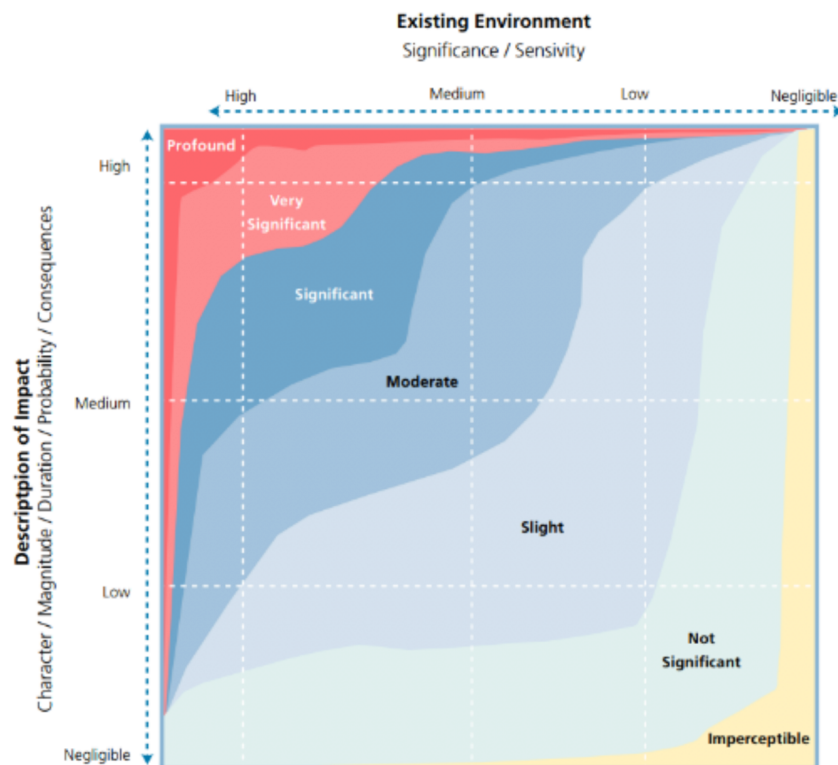


Figure 1.1: Chart showing typical classifications of the significance of impacts (Figure 3.5, Draft EPA Guidelines 2017, page 53).

1.9 Public & Stakeholder Consultation

Public participation and consultation is an integral part of the new Strategic Housing Development process as outlined in the Planning and Development (Housing) and Residential Tenancies Act 2016, as amended, and the Planning and Development (Strategic Housing Development) Regulations 2017.

The structure, presentation and the non-technical summary of the EIAR document, 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

1.9.1.1 Statutory / Public Consultation

This EIAR and application will be available for inspection free of charge or 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 locations: -

- The Offices of An Bord Pleanála, 64 Marlborough Street, Dublin 1.
- The Offices of South Dublin County Council, County Hall, Belgard Square North, Tallaght, Co. Dublin.

The application and EIAR may also be viewed at / downloaded from the following website: -

- www.kilcarberyshd.ie

1.9.1.2 Prescribed Bodies

A number of Prescribed Bodies have been issued with a copy of the planning application prior to lodgement of the application with An Bord Pleanála. A list of such Bodies are outlined as follows: -

- National Transport Authority.
- Transport Infrastructure Ireland.
- Minister for Culture, Heritage & An Gaeltacht.
- Heritage Council.
- An Taisce – the national Trust for Ireland.
- Irish Water.
- Irish Aviation Authority.
- Department of Defence.
- South Dublin Childcare Committee.

A schedule list of the Prescribed Bodies issued with a copy of the planning application and a copy of such letter is enclosed with the Planning Application documentation.

1.9.1.3 EIAR Portal

As of the 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 acknowledgement receipt issued by the Department of Housing Planning and Local Government accompanies the SHD 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 Quotations

EIAR's 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 urge that quotations should, where reasonably possible, be taken from the conclusions of specialists' section or from the non-technical summary and not selectively.

1.12 Errors

While every effort has been made to ensure that the content of this EIAR document 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.