1.0 INTRODUCTION

1.1 Preamble

This *Environmental Impact Assessment Report* (EIAR) relates to a proposed development by Kilsaran Concrete Unlimited Company (hereafter referred to as Kilsaran or the Applicant throughout) comprising, *inter alia*, the extension of the life of the current permitted rock quarry[1] at Bellewstown Quarry, Bellewstown, Co. Meath from 10 years to 25 years, as well as the provision of a new dedicated access road to serve the quarry.

In addition, the subject application seeks permission to develop a new dedicated quarry access road facilitating an increase in daily HGV traffic movements to / from the quarry to 81 No. loads per day which will cross the Mullagh Road and fields in a northeast direction away from the quarry onto the L1615 across the townlands of Bellewstown, Hilltown Little, Gafney Little and Hilltown Great. This will allow extraction of the available rock reserve at this location over a 25-year period, which is much sought after nationally and internationally, particularly in road and construction projects.

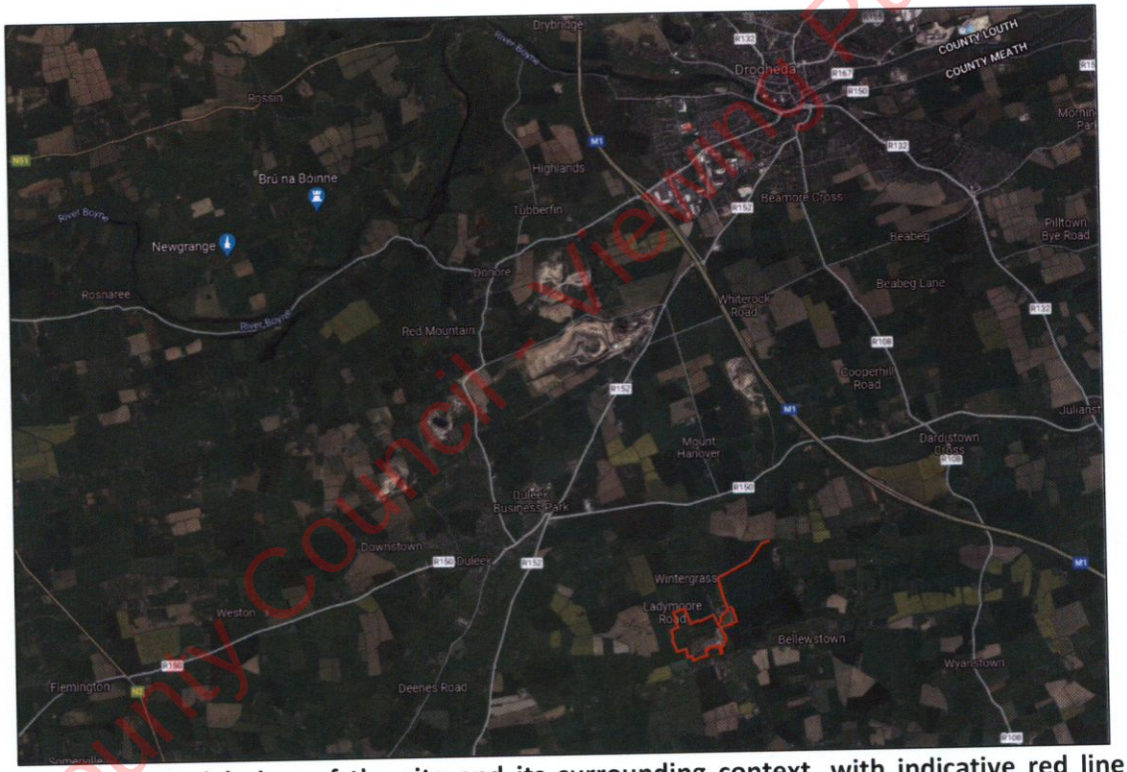

Figure 1.1: Aerial view of the site and its surrounding context, with indicative red line boundary. (Source: Googlemaps.ie, annotated and cropped by TPA 2022.)

The subject site comprises a rock quarry (to the west) and agricultural lands (to the east). The proposed extraction area, subject of this application, is permitted as part of the existing quarry permission detailed above. The site is generally surrounded by agricultural lands and there are a number of detached dwellings to the south of the site.

[1] Permitted by way of substitute consent by An Bord Pleanála (Ref. No. PL17.SU0101) by an *Order* dated 24th October 2018, with the continued extraction at the quarry and its expansion to the north and west of the existing void area was previously permitted by An Bord Pleanála by *Order* dated 24th October 2018 under Ref. No. PL17.QD0013 (in accordance with section 37L of the *Planning and Development Acts, 2000* (as amended)) (hereafter referred to the 37L development).

As set out in Section 1.3 below, the proposed development is of a type that requires a mandatory *Environmental Impact Assessment (EIA)* – referred to as an EIAR in this document. In addition, a Natura Impact Statement (NIS) is also submitted.

Figure 1.2: Aerial View of Subject Site, with indicative boundary outlined in red. (Source: Googlemaps.ie, annotated and cropped by TPA 2022.)

1.2 EIA Process

EIA requirements are governed by Directive 2014/52/EU, which amends the Directive 2011/92/EU. The primary objective of the EIA Directive is to ensure that projects that are likely to have significant effects on the environment are subjected to an assessment of their likely impacts.

EIA forms part of the planning consent process and is carried out by the Competent Authority. An EIAR is prepared by / on behalf of a Developer in respect of a project seeking planning consent. The EIAR thus becomes an integral informing element in the Competent Authority's EIA. The 2014 Directive has introduced strict new requirements in respect of the competency of experts responsible for the preparation of the EIAR (see Table 1.1 below and Appendix 1.1 for details on the experts involved in the preparation of this document).

The EIA process may be summarised as follows:

1. Screening – Is EIA required?
2. Scoping – If EIA is required, what aspects of the environment should be considered?

3. Preparation of EIAR.
4. EIAR informs EIA (as part of the consent process).

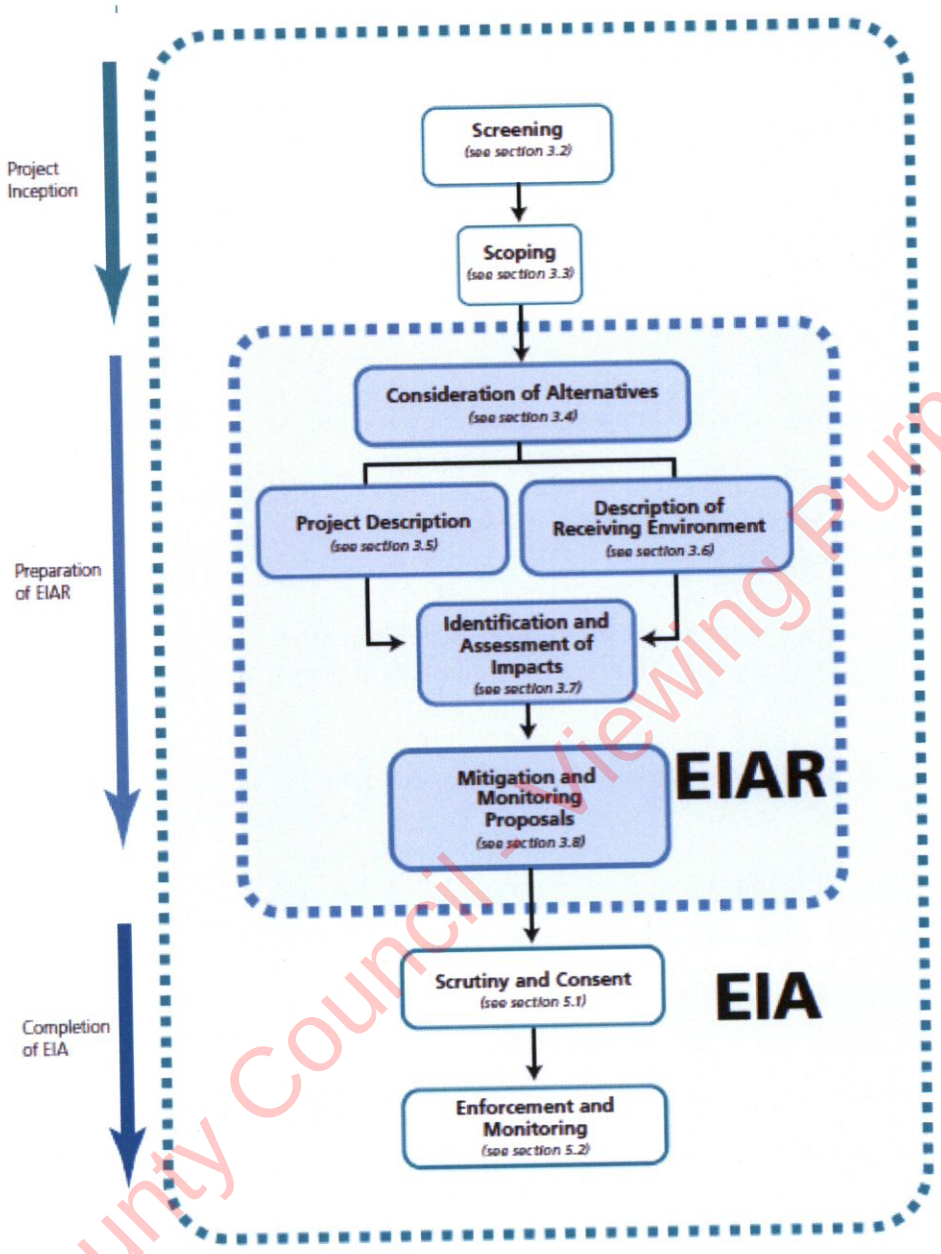

Figure 1.3: Flow chart illustrating the EIA Process. (Source: *Guidelines on the information to be contained in Environmental Impact Assessment Reports*, 2022, EPA; Figure 2.1.)

1.3 Need for Environmental Impact Assessment Report

The EIA Directives have been transposed into Irish law for the purposes of this planning application by the provisions of Part X of the *Planning and Development Acts, 2000 (as amended)* and Part 10 of the *Planning and Development Regulations, 2001 (as amended)*.

Specifically, with reference to Schedule 5, Part 2, 2(b) of the *Planning and Development Regulations, 2001 (as amended),* an EIAR is a mandatory requirement for the *"Extraction of stone, gravel, sand or clay, where the area of extraction would be greater than 5 hectares".*

The proposed development provides for the continued extraction area of c. 17.3 hectares, which is in excess of the threshold for mandatory requirement of EIA having regard to the above class of development based on an extraction area in excess of 5 hectares. An EIAR is therefore required for this development.

A core objective of this EIAR is to provide the appropriate information and evaluation of the proposed development, having regard to the specific characteristics of the project, the proposed scale of the development and the potential for significant effects arising from the proposed development.

1.4 Purpose of the Environmental Impact Assessment Report

As noted, the 2014 Directive has redefined EIA as a process, whereby an Environmental Impact Assessment Report is a key informing element (this replaces the previous Environmental Impact Statement – EIS).

An EIAR's purpose is to predict and assess likely significant effects (direct and indirect) on the environment arising from the proposed development. It is used during the consent process to inform EIA.

As per Article 5(1) of the amended Directive, an EIAR should provide the following information:

- Description of Project
- Description of Baseline Scenario
- Description of Likely Significant Effects
- Description of Avoidance / Mitigation Measures
- Description of Reasonable Alternatives (and rationale for chosen option)
- A Non-Technical Summary

Annex IV of the Directive sets out a more detailed outline of the information required in an EIAR. The subject EIAR has been prepared in full accordance with these stated requirements of Annex IV.

The preparation of the *Environmental Impact Assessment Report* has been co-ordinated by Tom Phillips + Associates, Town Planning Consultants,[2] in association with other members of the Project Team as identified in Table 1.1 below. Details in respect of the competence of the various experts is set out in Appendix 1.1.

[2] Tom Phillips + Associates, Town Planning Consultants, 80 Harcourt Street, Dublin 2, D02 F449
Tel: (01) 478 6055; Fax: (01) 478 6054; E-mail: info@tpa.ie

A copy of the full EIAR is available for reference/purchase at the offices of the Planning Authority, Meath County Council, Buvinda House, Dublin Road, Navan, County Meath, C15 Y291.

1.5 Scoping of the Environmental Impact Assessment Report

A non-statutory scoping exercise was conducted for this EIAR to establish what format the EIAR would take and the range and aspects of the environment to be considered and led to a decision on the matters to be addressed and the format to be used (the so-called 'grouped' ER format - see Section 1.6). This exercise was conducted following consultations between the Applicant and its professional advisors.

The scope of the *Environmental Impact Assessment* conducted in respect of the proposed development includes the following:

- The requirements of the EIA Directive (Directive 2011/92/EU, the codified EIA Directive), the *Planning and Development Acts 2000-2015*, and the *Planning and Development Regulations, 2001-2015;*
- European Commission *Impact Assessment Guidelines, 2009;*
- *Guidelines on the recommended information to be contained in Environmental Impact Statements* published by the Environmental Protection Agency (EPA 2002);
- *Advice Notes on Current Practice in the Preparation of Environmental Impact Statements* (EPA 2003);
- *Revised guidelines on the information to be Contained in Environmental Impact Statements (Draft), September 2015;*
- *Advice Notes for Preparing Environmental Impact Statements (Draft), September 2015;*
- *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, May 2022;*
- Regard was also had to the EIA Directive 2014/52/EU adopted on 16th April 2014, and which came into force on 15th of May 2014 and the Circular Letter PL 1/2017 issued by the Department of Housing, Planning, Community and Local Government (15th May 2017); and
- The requirements of Meath County Council, as elaborated in the current *County Development Plan* and as advised by the Officers, to facilitate evaluation of the proposed development.
- The likely concerns of local residents and other third parties.
- The nature, location and scale of the proposal.
- The existing environment, as well as any vulnerable or sensitive features and current uses.
- The likely and significant impacts of the proposed development on the environment.
- Available methods of reducing or eliminating undesirable impacts.
- The *Planning and Development Regulations, 2001 (as amended)* specify the aspects of the environment likely to be significantly affected by the proposed development, including in particular:

- Population and Human Health, Biodiversity (Flora and Fauna).
- Soil, Water, Air, Climatic Factors, Noise and Vibration, the Landscape and Visual Impact.
- Material Assets – Site Services, Traffic and Transportation, Waste Management.
- Architectural, Archaeological and Cultural Heritage.
- The inter-relationship between the above factors and an indication of difficulties encountered in compiling the required information.

These considerations are addressed in the EIAR.

1.6 EIAR Methodology and Format

In addition to the 2014 Directive, the subject EIAR has been informed by:

- *Guidelines on the Information to be contained in Environmental Impact Statements (EPA, 2002);*
- *Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003);*
- *Guidelines On The Information To Be Contained In Environmental Impact Assessment Reports* (EPA, May 2022);
- *Draft Advice Notes for Preparing Environmental Impact Statements,* Draft, (EPA draft September 2015a);
- *Draft Revised Guidelines on the Information to be Contained in Environmental Impact Statements* (EPA draft September 2015b);
- *Environmental Impact Assessment of Projects: Guidance on Screening* (European Commission, 2017);
- *Environmental Impact Assessment of Projects: Guidance on Scoping* (European Commission, 2017);
- *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report* (European Commission, 2017);
- *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment,* (August 2018);
- Guidance of Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Commission, 2013);
- *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* (Department of Environment, Community and Local Government 2013);
- *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 Commission, 1999);
- *Implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment* (European Commission, 2003);
- *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);
- *Planning and Development Act 2000*, as amended; and
- *Planning and Development Regulations 2001*, as amended.

In addition to these guidance documents, all EU Directives and national legislation relating to the specialist areas (e.g. Biodiversity, Air and Climate, Noise) have been considered under each relevant environmental aspect. Specific guidance is addressed in the relevant chapters of this EIAR.

Environmental Impact Assessment Reports require the assimilation, co-ordination and presentation of a wide range of relevant information in order to allow for the overall assessment of a proposed development. To allow for ease of presentation, and consistency when considering the various environmental factors considered, a systematic structure is used for the main body of the Report.

The structure of the EIAR is outlined below.

1.6.1 Introduction and Project Description Chapters

The chapters of this EIAR introduce and describe the proposed development in sufficient detail to allow for a full assessment of the potential environmental effects.

The need for the proposed development is also described and a detailed outline of the consideration of alternatives is presented in order to clearly outline the decision making process leading to the proposed development including the environmental appraisal of reasonable alternatives.

An overview of the EIA process is detailed (in this chapter) and the approach to the preparation of this EIAR is presented

1.6.2 Environmental Baseline and Assessment Chapters

Each of the chapters of this EIAR broadly follow the same structure. This structure is as follows:

- Introduction;
- Methodology;
- Receiving Environment;
- Characteristics of the Proposed Development;

- Potential Impact of the Proposed Development;
- Ameliorative, Remedial or Reductive Measures;
- Predicted Impact of the Proposed Development;
- Monitoring;
- Reinstatement;
- Interactions and Potential Cumulative Impacts.

1.6.2.1 Introduction

This section provides an overview of the aims and objectives of the chapter in assessing the proposed development and outlines the scope of the assessment.

1.6.2.2 Methodology

This section of each chapter outlines the methods used to describe the baseline environmental conditions and to predict the likely impacts on the environment of the proposed development during both the construction phase and the operational phase. The data and survey requirements for each chapter vary depending on the environmental topic and have been 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 best practice guidelines, professional judgement and experience.

All environmental topics require desk-based reviews of all relevant data at a minimum. These desk-based studies were 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. Figure 1.2 below illustrates the key stages in the preparation of an EIAR.

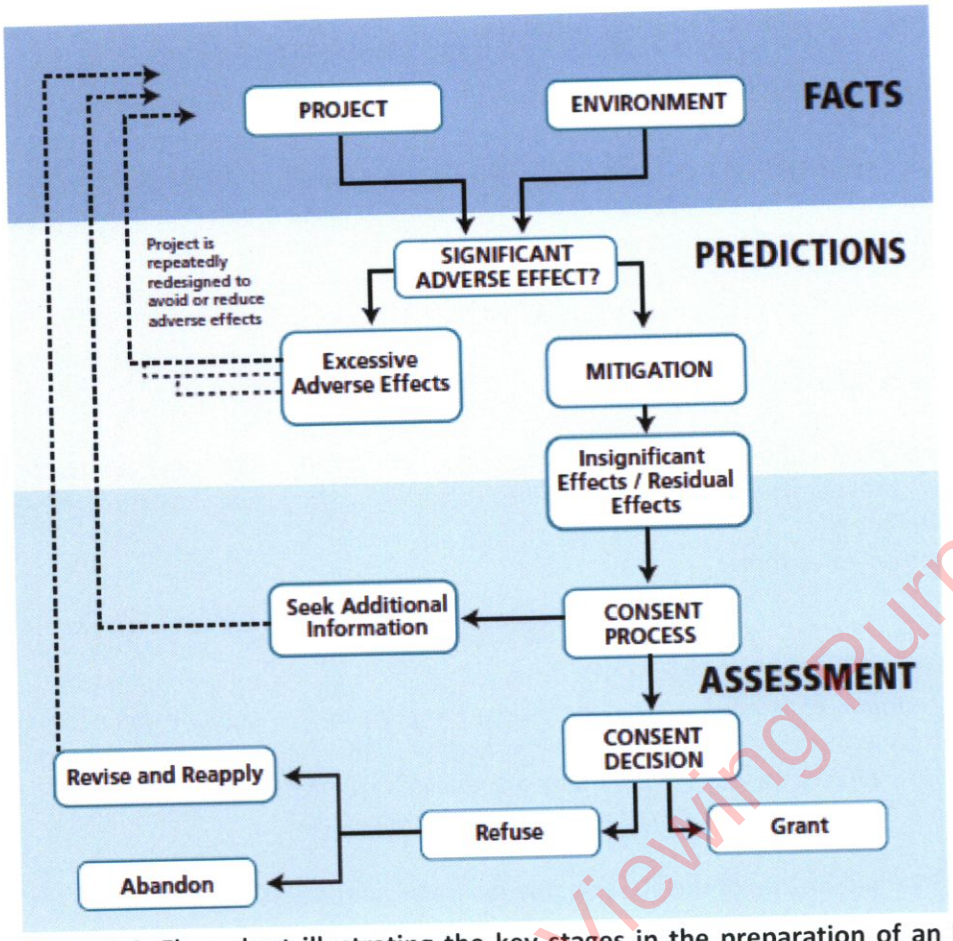

Figure 1.4: Flow chart illustrating the key stages in the preparation of an EIAR. (Source: *Guidelines on the information to be contained in Environmental Impact Assessment Reports*, 2022, EPA; Figure 2.2.)

1.6.2.3 Receiving Environment (Baseline Situation)

Each chapter of this EIAR provides a description of the existing environmental conditions within each defined study area. Schedule 6 Paragraph 2(c) of the *Planning and Development Regulations* has a requirement to include the following in the EIAR:

> *'a description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.'*

This section in each chapter describes the findings of the desktop studies, field surveys and information gained through any consultations carried out, and uses the information to provide a description of the current state of the environment based on all information gathered.

1.6.2.4 Characteristics of the Proposed Development

A description of the location, nature and extent of the project along with its construction and operational characteristics. The description includes estimates of any residues, emissions, or waste produced during the construction and operational stages.

1.6.2.5 Ameliorative, Remedial or Reductive Measures

This section of each environmental chapter describes the mitigation measures which are required. The requirement to describe mitigation measures is laid out in the EIA Directive (85/337/EEC) of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment and the *Planning and Development Regulations*.

Article 5(1) of the 2014 EIA Directive states that:

> *'...the developer shall include at least:*
>
> *(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'*
> *Annex IV states that:*
>
> *'7. A description of the measures envisaged to avoid, prevent, reduce, or if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparing of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.'*

Schedule 6 Paragraph 2(g) of the 2018 Regulations, also states that:

> *'(g) a description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of an analysis after completion of the development), explaining the extent to which significant adverse effects on the environment are avoided, prevented, reduced or offset during both the construction and operational phases of the development.'*

As per Section 3.8.1 of the *EPA Guidelines on Information to be Contained in Environmental Impact Assessment Reports (EPA 2022)* there are four types of mitigation measure, namely:

- **Mitigation by avoidance** – generally part of the consideration of alternatives, where adverse effects are avoided entirely through changes in design;
- **Mitigation by prevention** – generally technical measures taken to prevent a potential unacceptable significant effect. Measures are put in place to limit the source of the effect, e.g. through specification of process standards or building design. Prevention measures also include safeguards against the effects of accidental events;
- **Mitigation by reduction** – commonly used to deal with effects which cannot be avoided and does not tend to effect the source of the problems, but instead aims to limit the effect of it. These measures can be split into two types, namely reducing the effect through interception of the emission (e.g. wastewater treatment and noise attenuation); and reducing exposure to the effect by identifying the receptors to be impacted and installing protection or a barrier between the receptor and the source of the effect; and
- **Mitigation by remedy/offsetting** – a strategy for dealing with negative effects which can neither be avoided nor reduced. Remedy involves compensation for or counter-

action of an adverse effect (e.g. planting new vegetation to compensate for removal elsewhere as a result of the project). Offsetting involves carrying out further works to improve adverse conditions (e.g. installing tunnels to allow wildlife to retain access to comparable habitats).

A significant proportion of mitigation is already incorporated into the design of the proposed development. Environmental considerations have been incorporated into the decision-making processes with regards to all aspects of the proposed development. Where an impact to the environment has been deemed as unacceptable, mitigation has been embedded in the design or the option was ruled out.

Each required mitigation measure has been fully described in the mitigation section within each chapter.

All impacts resulting in a 'Moderate' significance or above have mitigation measures proposed. Professional judgement around this general position depending on the subjective nature of the assessment has also been applied, where relevant.

1.6.2.7 Predicted Impact of the Proposed Development

The main purpose of the EIAR is to assess and describe the likely environmental impacts of the proposed development. The proposed development has the potential to impact on the environment during both the construction and operational phases. Each specialist reviewed the details of the proposed development and, based on the baseline information collected, predicted the impacts that the proposed development has on their specific environmental topic.

Under Schedule 6 Paragraph 2(e) of the *Planning and Development Regulations*, descriptions of the likely significant effects on the environment resulting from the following shall describe:

- *'the construction and existence of the proposed development, including, where relevant, demolition works'*;
- *'the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources'*;
- *'the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste'*;
- *'the risks to human health, cultural heritage or the environment (for example due to accidents or disasters)'*
- *'the cumulation of effects with other existing or approved developments, or both, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources'*
- *'the impact of the proposed development on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the proposed development to climate change'*; and
- *'the technologies and the substances used'*.

Each predicted impact has been fully described and assigned a significance and duration based on the assessment criteria as outlined within each chapter. A conservative approach has been

taken to assessing likely impacts, with the 'worst case scenario' used in order to ensure all foreseeable impacts have been identified.

Assessment criteria have been developed on a subject-by-subject basis informed by professional judgement to ensure that the criteria used are flexible and relevant to each subject.

The development of the criteria have had regard to the EPA assessment criteria as per the EPA EIAR Guidelines. Figure 1.5 shows how a comparison of the character of the predicted impact to the sensitivity of the receiving environment determine the significance of the impact.

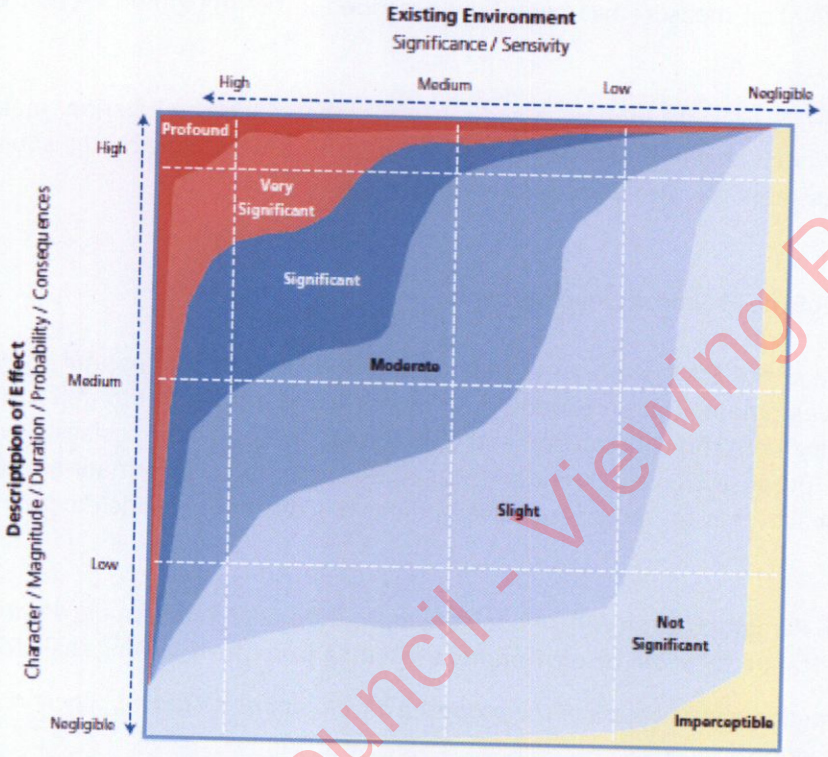

Figure 1.5 Chart showing typical classifications of the significance of impacts. (Source: EPA, 2022.)

1.6.2.8 Monitoring

Where appropriate and relevant, monitoring has been proposed to assess the actual impacts on the receiving environment and the effectiveness of the proposed mitigation measures. Monitoring allows for the comparison of pre- and post-project conditions, and will enable any unforeseen impacts to be identified and mitigated where required.

In addition to the requirement for monitoring under Schedule 6 Paragraph 2(g) of the 2018 Regulations, Part 35 of the EIA Directive states:

> *"Member states should ensure that…appropriate procedures are determined regarding the monitoring of significant adverse effects on the environment resulting from the construction and operation of a project, inter alia, to identify unforeseen significant adverse effects, in order to be able to undertake appropriate remedial action. Such*

monitoring should not duplicate or add to monitoring required pursuant to Union legislation other than this Directive and to national legislation."

Where monitoring is a requirement, each relevant chapter clearly states what monitoring is to be carried out.

1.6.2.9 Reinstatement

While not applicable to every aspect of the environment considered within this EIAR, certain measures may need to be proposed to ensure that in the event of the proposed development being discontinued, that there will be minimal impact to the environment.

Where reinstatement measures are proposed, these are discussed in the relevant chapter.

1.6.2.10 Interactions and Potential Cumulative Impacts

Schedule 6 of the *Planning and Development Regulations (Information to be Contained in EIAR)* includes the following in Part 2 (e):

(i) a description of the likely significant effects on the environment of the proposed development resulting from, among other things -

(V) the cumulation of effects with other existing or approved developments, or both, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources

The potential for significant cumulative impacts and impact interactions is described for each environmental topic.

1.6.3 Non-Technical Summary

As per the requirements of the Directive, the Non-Technical Summary (NTS) comprises an easily accessible summary of the EIAR, using non-technical language. It is formulated to be understandable to those without a prior background to the project or particular environmental expertise.

1.7 EIAR Study Team and Guarantee of Competency and Independence

The *Environmental Impact Assessment Report* was completed by a project team led by Tom Phillips + Associates, who also prepared a number of the chapters.

The members of the team, their qualifications and their respective inputs are outlined below in Table 1.1. The EIAR Chapters as set out in Table 1.1 are provided with Appendices for each section provided immediately thereafter, where applicable. A separate Non-Technical Summary of the EIAR is also enclosed within the inside cover.

In accordance with EIA Directive 2014/52/EU, we confirm that experts involved in the preparation of the EIAR are fully qualified and competent in their respective field. Each has extensive proven expertise in the relevant field concerned, thus ensuring that the information provided herein is complete and of high quality.

Table 1.1: EIAR Chapter Headings and Contributors

CHAPTER	ASPECT OF THE ENVIRONMENT ASSESSED	CONTRIBUTOR
Chapter 1	Introduction	Tom Phillips + Associates (TPA) Name and qualifications: Síne Kelly *Planning Consultant* – BAgriSc (Land Hort) MRUP Adv.Dip. PM MIPI AMILI
Chapter 2	Site Location and Context	Tom Phillips + Associates Name and qualifications: As per Chapter 1.
Chapter 3	Description of the Proposed Development	Tom Phillips + Associates and Kilsaran Concrete Unlimited Company Name and qualifications: Síne Kelly *Planning Consultant (TPA)* – BAgriSc (Land Hort) MRUP Adv.Dip. PM MIPI AMILI Fergus Gallagher *Planning and Environmental Manager* (Kilsaran Concrete Unlimited Company) - B.Eng (Hons) Mineral Surveying, MSCSI, MRICS, FIMQS, Chartered Mineral Surveyor
Chapter 4	Examination of Alternatives	Tom Phillips + Associates Name and qualifications: As per Chapter 1.
Chapter 5	Population and Human Health	Tom Phillips + Associates Name and qualifications: As per Chapter 1.
Chapter 6	Biodiversity	Ecology Ireland Name and qualifications: Dr. Gavin Fennessy *Ecologist* - B.Sc. PhD MCIEEM

Chapter 7	Land, Soils and Geology	AWN Consulting Limited Name and qualifications: Paul Conaghan *Environmental Consultant* – BSc Environmental Science, MSc Environmental Engineering
Chapter 8	Hydrogeology, Hydrology	Hydro Environmental Services Name and qualifications: Michael Gill *Environmental Engineer and Hydrogeologist* - BA, BAI, Dip Geol., MSc, MIEI. David Broderick *Hydrogeologist* - BSc, MSc, H. Dip Env Eng.
Chapter 9	Air + Climate	AWN Consulting Limited Name and qualifications: Ciara Nolan *Environmental Consultant* - BSc (Hons) in Energy Systems Engineering, MSc in Applied Environmental Science, Associate Member of the Institute of Air Quality Management
Chapter 10	Noise and Vibration	AWN Consulting Limited Name and qualifications: Mike Simms *Senior Acoustic Consultant* - BE, MEngSc in Mechanical Engineering, Member of the Institute of Acoustics and of the Institution of Engineering and Technology
Chapter 11	Landscape and Visual Impact	Macroworks Name and qualifications: Jamie Ball *Visual Impact Assessment Specialist* - BA LA Hons
Chapter 12	Traffic & Transportation	Traffic Wise Name and qualifications: Julian Keenan

		Engineer - Degree of Bachelor of Engineering (Hons.) in Civil Engineering, Member of the Institution of Engineers of Ireland, Member of the Chartered Institution of Highways and Transportation
Chapter 13	Archaeological & Cultural Heritage	Irish Archaeological Consultancy Ltd Name and qualifications: Faith Bailey *Archaeologist and Cultural Heritage Consultant* - MA, MCIfA, MIAI
Chapter 14	Waste Management	AWN Consulting Limited Name and qualifications: Dr Fergal Callaghan *Environmental Consultant* – BSc Industrial Chemistry University of Limerick, 1991, PhD Chemical Engineering, University of Birmingham, 1998, Member of the Royal Society of Chemistry, Member of the Chartered Institute of Waste Management, Associate member of the Institute of Chemical Engineers Chonaill Bradley *Environmental Consultant* – BSc Environmental Science, Griffith University Australia, 2012, Associate Member, Charted Institute of Waste Management.
Chapter 15	Interactions and Cumulative Impacts	Tom Phillips + Associates Name and qualifications: As per Chapter 1.
Chapter 16	Mitigation and Monitoring	Tom Phillips + Associates Name and qualifications: Various EIAR Consultants as above.
Chapter 17	Difficulties Encountered	Tom Phillips + Associates Name and qualifications: As per Chapter 1.
NTS	All Chapters	All contributors listed above.