



1.0 INTRODUCTION

1.1 Preamble

This *Environmental Impact Assessment Report* (EIAR) relates to a proposed development by Breedon Cement Ireland Limited (hereafter referred to as Breedon or the Applicant throughout) comprising, *inter alia*, the deepening of the north-western portion of the current permitted limestone quarry¹ at Killaskillen, Kinnegad Co. Meath by four extractive benches to 10m OD, over an area of 4.13 hectares. The proposed development will not result in any increase to the annual output of the existing limestone quarry or to the production capacity of the existing cement plant.



Figure 1.1: Aerial view of the site and its surrounding context, with indicative red line boundary. (Source: Quarry Consulting.)

The applicant's wider landholding comprises an existing limestone quarry, an existing cement plant and asphalt plant. The proposed extraction area, which is the subject of this application, is permitted as part of the extant quarry permissions referenced. The site is generally surrounded by lands which can be described as rural in character. Residential properties in the vicinity of the site primarily comprise of one-off dwellings fronting onto Local Roads to the east and west of the site.

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.

¹ Permission to extract limestone and shale was originally granted in April 2000 (Meath County Council (MCC) Reg. Ref. 982026; An Bord Pleanála Ref. PL17.111198. Further permission granted in Nov 2009 for an extension to the limestone quarry under Reg. Ref. TA/900603.



The proposed development constitutes “the Project” for the purposes of EIA and is set out in more detail in Chapter 3 of the EIAR.

A Non-Technical Summary (NTS) of the EIAR is also submitted with this Application. As per the requirements of the Directive, the 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.

1.2 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).

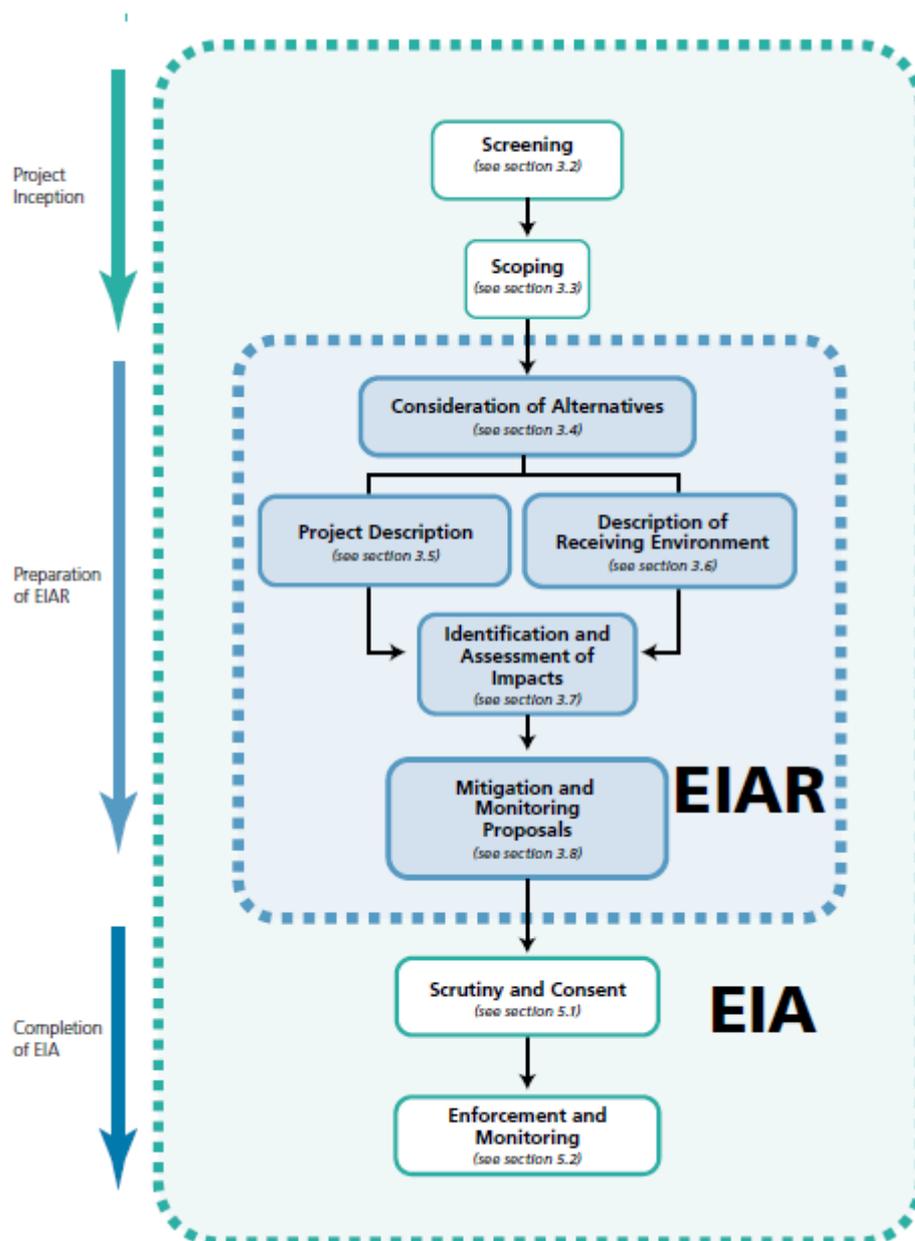


Figure 1.3: Flow chart illustrating the EIA Process. (Source: *Guidelines on the information to be contained in Environmental Impact Assessment Reports, 2022, EPA; Figure 2.1.*)

1.3 Need for Environmental Impact Assessment Report - Screening

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)*.

The EIA Directives list those projects for which an EIA is mandatory (Annex I) and those projects for which an EIA may be required (Annex II).

Annex I projects are listed in Part 1 of Schedule 5 of the *Planning and Development Regulations 2001 (as amended)* ("the Regulations").

The Project is not listed within Part 1 of Schedule 5 of the Regulations and therefore mandatory EIA is not required in this instance.

With respect to Part 2 of Schedule 5 (Annex II) projects, the relevant thresholds relating to the subject proposal are outlined below:

Class 2 (b)

Extraction of stone, gravel, sand or clay, where the area of extraction would be greater than 5 hectares.

The proposed development provides for the deepening of an existing extraction area of c. 4.13 hectares. Notwithstanding the fact that this is below the threshold for an EIAR to be required, the proposed development forms part of a wider quarry development which is far in excess of 5 hectares, within a wider landholding which extends to c. 286 hectares. It is therefore considered that an EIAR be undertaken to take account of the wider landholding which is in excess of the threshold for mandatory requirement of EIA. The subject site and wider landholding can be seen in Fig. 1.4



Fig 1.4: The subject site (red) is part of a wider quarry landholding (blue).

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.

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 as follows:

1. Description of the project, including in particular.

(a) A description of the location of the project.

(b) A description of the physical characteristics of the whole project, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases.

(c) A description of the main characteristics of the operational phase of the project (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil, and biodiversity) used.

(d) An estimate, by type and quantity, of expected residues and emissions (such as water air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during the construction and operation phases.

2. A description of the reasonable alternatives (for example in terms of project design, technology, location, size, and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.

3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the project 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.

4. A description of the factors specified in Article 3(1) likely to be significantly affected by the project: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects and landscape.



5. A description of the likely significant effects of the project on the environment resulting from, *inter alia*:

(a) The construction and existence of the project, including, where relevant, demolition works.

(b) The use of natural resources, in particular land, soil, water, and biodiversity, considering as far as possible the sustainable availability of these resources.

(c) The emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste.

(d) The risks to human health, cultural heritage, or the environment (for example due to accidents or disasters).

(e) The cumulation of effects with other existing and/ or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.

(f) The impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change.

(g) The technologies and the substances used. 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. This description should take into account the environmental protection objectives at Union or Member State level which are relevant to the project.

6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

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 preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduce, or offset, and should cover both the construction and operational phases.

8. A description of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/ or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose



provided that the requirements of the Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

9. A non-technical summary of the information provided under points 1 to 8.

10. A reference list detailing the sources used for the descriptions and assessments included in the report.

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 Consultants², 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.

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*;

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- 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.

Table 1.1 below outlines the environmental aspects covered in this EIAR and the justification for why they have been included.

Environmental Aspect	Detailed Assessment	Justification
Population and Human Health	Yes	The proposed development may impact on population and human health, employment, local community, and amenity uses, during the operational phases.
Biodiversity	Yes	The subject site is brownfield in nature having previously been cleared of overburden and subject to extraction activity. A Stage 1 Appropriate Assessment screening has been prepared and determined, that it is unlikely that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.
Land, Soils and Groundwater	Yes	Impacts on geology and hydrogeology will be assessed in terms of the operational and decommissioning phase of the proposed development. This will include geo-technical and environmental site investigation. Potential



Environmental Aspect	Detailed Assessment	Justification
		cumulative impacts with other projects will also be assessed.
Hydrology	Yes	The proposed development has the potential to impact on water (including flood risk, hydrology, and drainage) as there will be ground disturbance associated with the proposed development.
Air Quality and Climatic Factors	Yes	The operational phase will have the potential to give rise to air quality impacts, principally relating to particulate matter and dust. A baseline air quality assessment has been undertaken, with reference to EPA monitoring data (Chapter 9)
Noise and Vibration	Yes	The Operational phases will have the potential to give rise to impacts relating to noise and vibration. A baseline noise survey will be undertaken to determine the prevailing noise level representative of the site and nearest noise sensitive locations with appropriate mitigation measures proposed (Chapter 10)
Material Assets – Waste	Yes	Any wastes generated by the proposed quarrying activity are likely to be of a similar nature to the existing operations at the quarry (Chapter 11).
Material Assets – Traffic and Transportation	Yes	The transportation chapter (chapter 12) of the EIAR will present an assessment of the potential traffic and transport impacts of the proposed development.
Material Assets – Site Services	Yes	The Material Assets section of the EIAR (Chapters 11 & 12) will examine the likely significant effects of the operation of the proposed development on intrinsic and valuable assets of material value.
Archaeological, Architectural and Cultural Heritage	Yes	The archaeological, architectural, and cultural assessment (Chapter 13 of EIAR) will provide an assessment of the archaeological, architectural, and cultural heritage potential within, and in the vicinity of the extent of the proposed development.
Landscape and Visual Impact Assessment (LVIA)	Yes	The LVIA will consider effects on the landscape character of the existing setting (i.e. as a result of the proposed development) and visual impacts (i.e. the extent to which the proposed development can be seen).
Major Accidents and Disasters	No	The existing quarry is operated in accordance with an Emergency Response Plan and an Environmental Accident Prevention Plan. See



Environmental Aspect	Detailed Assessment	Justification
		Appendix 3.1 – <i>Breedon Environmental Management Manual</i>
Interactions	Yes	There is the potential for multiple direct or indirect effects (from various environmental aspects) to result in an accumulation or magnified effects from the proposed development.
Cumulative Impacts	Yes	The proposed development will be in proximity to other permitted and proposed developments and thus has the potential to exacerbate or create larger, more significant effects. The EIAR will assess the impact inter alia of the proposal in line with relevant proposals within 1km of the subject site. The relevant proposals are set out in Chapter 2 of the EIAR.
Daylight and Sunlight	No	The proposed development does not involve any overground construction and is remotely located from nearby receptors.
Wind	No	The proposed development does not present any potential for wind impacts to nearby receptors.

Table 1.1: Environmental aspects covered in this EIAR and the justification for why they have been included. (Source: TPA, 2022.)

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 (if required);
- 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 1.4 below illustrates the key stages in the preparation of an EIAR.

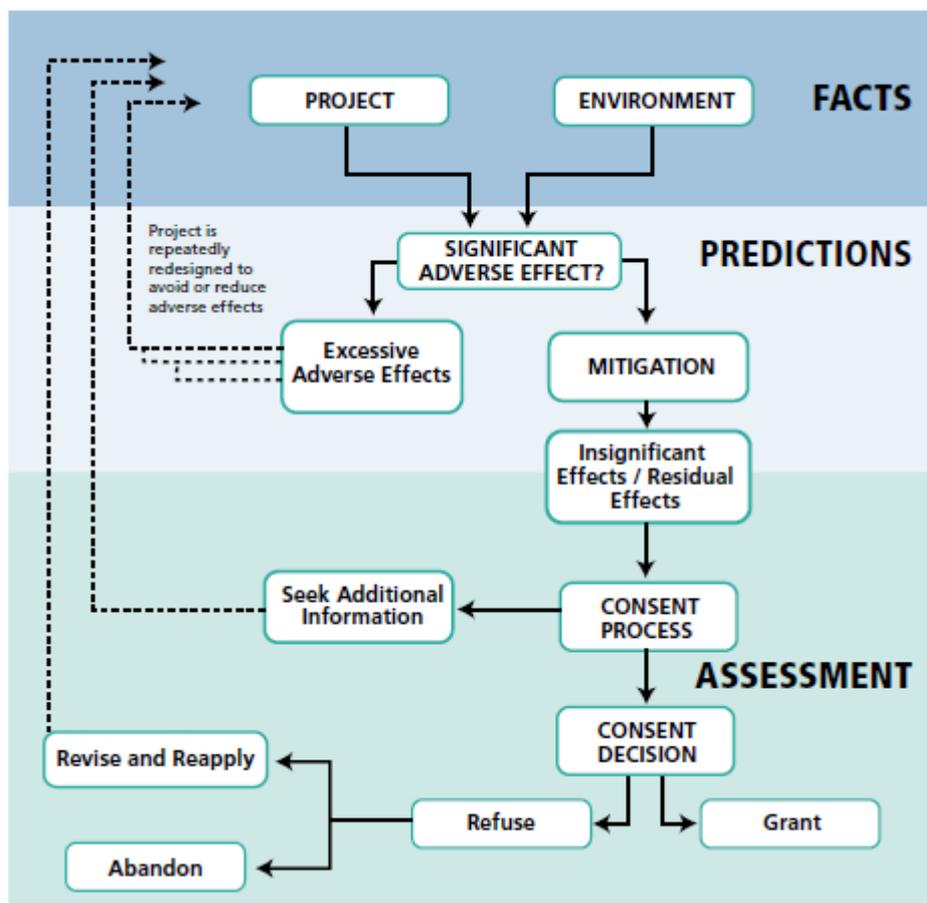


Figure 1.4: Flow chart illustrating the key stages in the preparation of an EIAR. (Source: *Guidelines on the information to be contained in Environmental Impact Assessment Reports, 2022, EPA; Figure 2.2.*)

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. It is noted that there is a proposed solar farm development on lands adjacent to the existing quarry (Meath County Council Planning Ref: 22/958) The solar project will form part of the future receiving environment considered in this EIAR.



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 counteraction 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.

1.6.2.6 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.

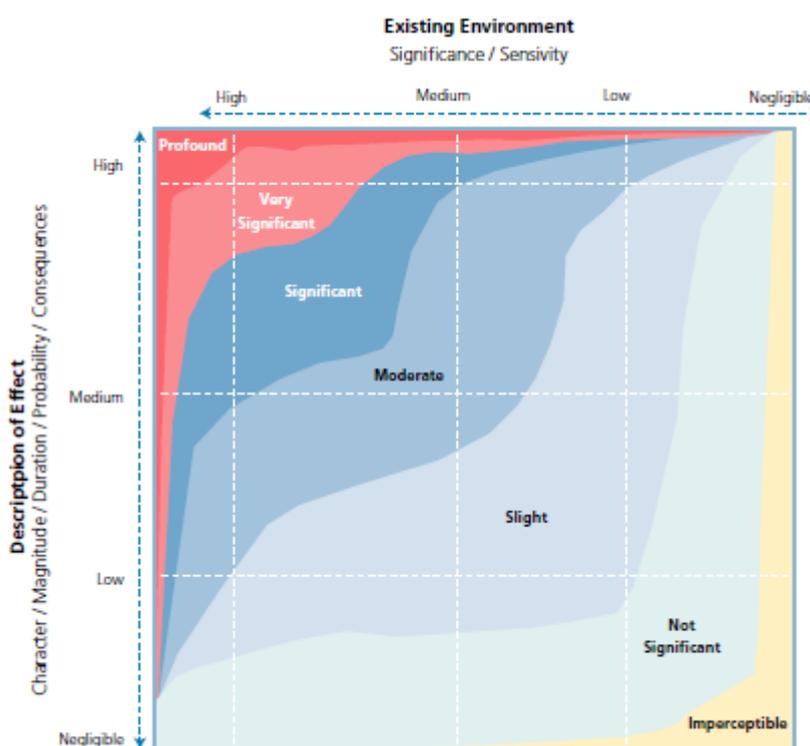


Figure 1.5 Chart showing typical classifications of the significance of impacts. (Source: EPA, 2022.)

1.6.2.7 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.

1.6.2.8 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.

1.6.2.9 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 Consultation

As part of the pre-application process TPA has provided preliminary details of the proposed development to a range of statutory consultees via written correspondence dated April 20, 2022. A list of the consultees is provided below:



- Department of Culture, Heritage & the Gaeltacht and NPWS
- Department of the Environment Climate and Communications
- An Taisce
- National Parks and Wildlife Service
- Environmental Protection Agency
- The Health Service Executive
- Geological Survey Ireland
- Inland Fisheries Ireland (IFI)
- Irish Water

At time of submitting the application, TPA had received one written response in relation to the proposed development. This response was from the Geological Survey Ireland (GSI dated May 30, 2022 (Appendix 1.2). In their letter GSI suggested the use of their publicly available datasets and also noted that should the development go ahead, they would much appreciate a copy of reports detailing any site investigations carried out. Should any significant new quarry faces be identified, GSI requested that potential visits to personally document exposures be arranged, if possible through consultation with Geological Survey Ireland Heritage Programme. Alternatively, GSI asked that a digital photographic record of significant new excavations could be provided

1.8 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.

chapter	Aspects of the Environment Considered	Contributor	Person Responsible
Chapter 1	Introduction and Methodology	Tom Phillips + Associates (TPA)	Gavin Lawlor
Chapter 2	Site Location and Context	TPA	Gavin Lawlor
Chapter 3	Description of the Proposed Development	TPA	Gavin Lawlor
Chapter 4	Key Alternatives Considered	TPA	Gavin Lawlor



chapter	Aspects of the Environment Considered	Contributor	Person Responsible
Chapter 5	Population and Human Health	TPA	Gavin Lawlor
Chapter 6	Biodiversity	Ecology Ireland	Gavin Fennessy
Chapter 7	Land, Soils and Geology	Hydro G	Dr. Pamela Bartley Dr. Colin O'Reilly P.Geol. Pat Breheny
Chapter 8	Water (Hydrology and Hydrogeology)	Hydro G	Dr. Pamela Bartley Dr. Colin O'Reilly P.Geol. Pat Breheny
Chapter 9	Air and Climate	TMS	Imelda Shanahan
Chapter 10	Noise and Vibration	TMS	Imelda Shanahan
Chapter 11	Material Assets – Waste	TMS	Imelda Shanahan
Chapter 12	Material Assets –Traffic and Transportation	PMCE	Alan O'Reilly
Chapter 13	Cultural Heritage incl. Archaeology	IAC Archaeology	Faith Bailey
Chapter 14	Landscape Visual Impact Assessment	Macroworks	Rory Curtis
Chapter 15	Interactions and Cumulative Impacts	TPA	Gavin Lawlor
Chapter 16	Mitigation	TPA	Gavin Lawlor
Chapter 17	Difficulties Encountered	TPA	Gavin Lawlor
	Non – Technical Summary	All Contributors outlined above - compiled by TPA	

