

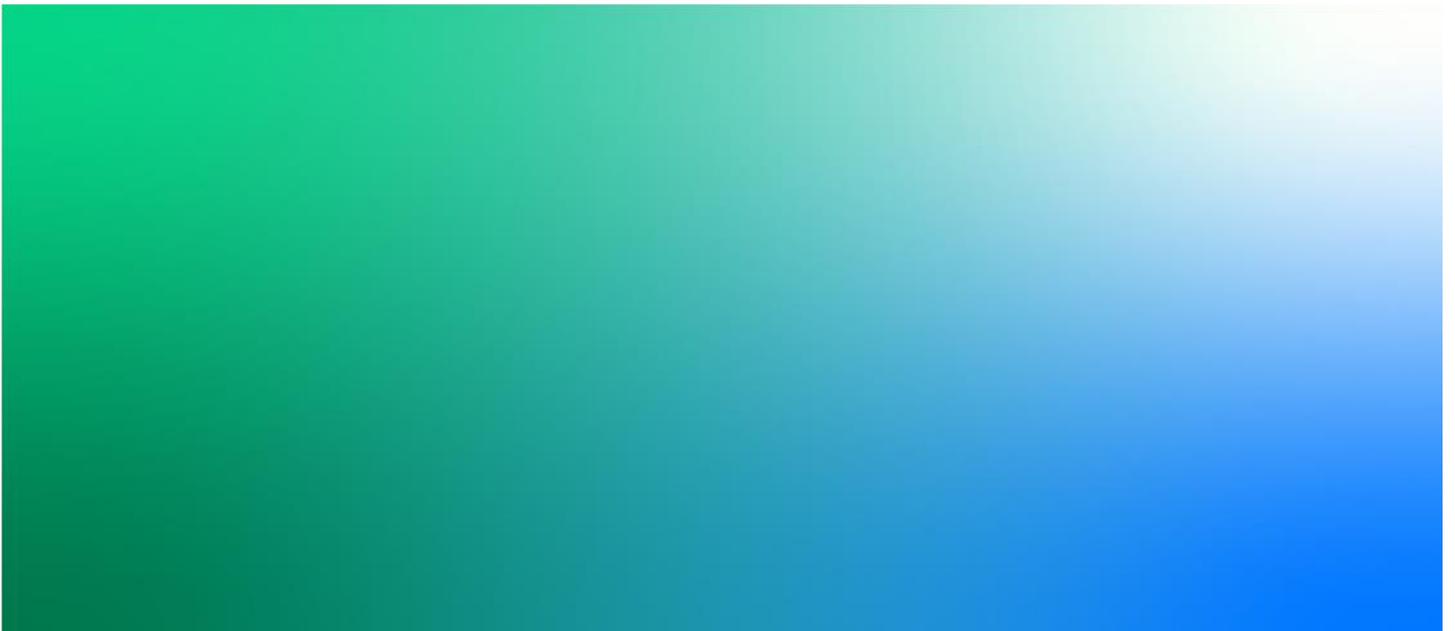
# Jacobs

## Cork Line Level Crossings

Volume 2, Chapter 4: EIA Process and Methodology

Iarnród Éireann

March 2021



## Cork Line Level Crossings

Project No: 32111000  
 Document Title: Volume 2, Chapter 4: EIA Process and Methodology  
 Document No.: 4  
 Revision: A05  
 Date: March 2021  
 Client Name: Iarnród Éireann  
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### Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
A01	December 2019	Draft for Comment	SJ	HC	RM	AB
A02	May 2020	Client comments addressed	SJ	HC	RM	AB
A03	October 2020	Client Updates	Various	HC	RM	AB
A04	December 2020	For Legal Comment	Various	RM	RM	AB
A05	March 2021	For Issue to An Bord Pleanála	Various	RM	RM	AB

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## Table of Acronyms

Acronym	Meaning
ABP	An Bord Pleanála
CA	Competent Authority
CIÉ	Coras Iompair Éireann
EC	European Commission
EEC	European Economic Community
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
IÉ	Iarnród Éireann

## 4. The Environmental Impact Assessment Process

### 4.1 Introduction

EIA is the process by which the effects on the environment (positive and negative) of a proposed development or project are assessed; where effects are significant, relevant design and / or other mitigation measures can be taken to avoid or reduce those effects.

An EIAR is the document compiled as a result of this assessment process. This chapter of the EIAR describes legal provisions for EIA with respect to the proposed Project which comprises an application to An Bord Pleanála for a Railway Order (RO); the legislative requirements for EIA with respect to the proposed Project; the EIA process and methodology for identifying, predicting, evaluating and mitigating the effects (positive and negative) on the receiving environment caused by a proposed Project. Where negative effects are significant, design changes and/or other mitigation measures are proposed to avoid or minimise these effects.

The initial Directive of 1985 (Council Directive 85/337/EEC) and its three amendments (see **paragraph 4.8 References**) were codified by Directive 2011/92/EU of 13 December 2011. Directive 2011/92/EU was amended in 2014 by Directive 2014/52/EU (which came into force in May 2014) and together all of these Directives are referred to herein as “the EIA Directive” and/or “the 2014 EIA Directive”. A significant body of domestic and EU case law exists in relation to the interpretation of the EIA Directive and regard has been had to same in the preparation of this application and in the EIAR as whole.

This application for a RO is also made pursuant to the provisions of section 37 of the Transport (Railway Infrastructure) Act 2001 Act (as amended) (also referred to herein as ‘the 2001 Act’)<sup>1</sup>. This requires, *inter alia*, that an application shall be made in writing and shall be accompanied by:

- a) A draft of the proposed RO;
- b) A Plan of the proposed railway works;
- c) A Book of Reference to a Plan indicating the identity of the owners and of the occupiers of the lands described in the Plan and
- d) A statement of the likely effects on the environment of the proposed railway works

### 4.2 Legislative Provisions

A statement of the likely effects on the environment of the proposed railway works is addressed by the preparation of this Environmental Impact Assessment Report (EIAR) (previously referred to as an Environmental Impact Statement in section 39 of the 2001 Act) and, as stated earlier, the EIAR in relation to this RO application has been compiled in accordance with the 2014 EIA Directive, section 39 of the 2001 Act and having regard to relevant guidelines.

Generally it is noted that section 6(c) of the Planning and Development (Strategic Infrastructure) Act 2006<sup>2</sup> amended the definitions section (section 2(1)(g)) in the Planning and Development Act 2000 so that the definition of ‘strategic infrastructure development’ includes *inter alia* any proposed railway works referred to in section 37(3) of the Transport (Railway Infrastructure) Act 2001 (as amended by the Planning and Development (Strategic Infrastructure) Act 2006). (It is further noted that the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No.296/2018)<sup>3</sup> apply *inter alia* to applications for permission to An Bord Pleanála for strategic infrastructure development under section 37E of the Planning and Development Act 2000). In addition, section 54 of the Planning and Development (Amendment) Act 2010<sup>4</sup> amended section 172 of the Planning and Development Act 2000 and refers to the carrying out of an environmental assessment by An Bord Pleanála in respect of an application for consent for proposed development

<sup>1</sup> Section 37 of the Transport (Railway Infrastructure) Act 2001 Act (as amended)

<sup>2</sup> Planning and Development (Strategic Infrastructure) Act 2006

<sup>3</sup> European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No.296/2018)

<sup>4</sup> Planning and Development (Amendment) Act 2010

which includes *inter alia* a Railway Order granted under section 43 of the Transport (Railway Infrastructure) Act 2001.

### 4.3 EIAR Guidance

The approach to the assessment of environmental impacts has been completed in accordance with, but not limited to, the following:

- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Environment, Community and Local Government 2018);
- Environmental Impact Assessment of Projects – Guidance on Scoping (Directive 2011/92/EU as amended by 2014/52/EU) (European Union 2017);
- Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Union 2017);
- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA 2017). The Planning Inspectorate (UK), Advice Note Seventeen: Cumulative Effects Assessment Relevant to Nationally Significant Infrastructure Projects (December 2015); and
- Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission (EC) 1999); and
- Advice Notes on Current Practice in the Preparation of Environmental Impact Statement (EIS) (EPA 2003) and draft revised notes (September 2015) (EPA 2015).

In addition to the applicable EIA legislation and guidance, all EU Directives and national legislation relating to the specialist areas have also been considered as part of the process and are addressed in the relevant assessment chapters.

### 4.4 EIA Process

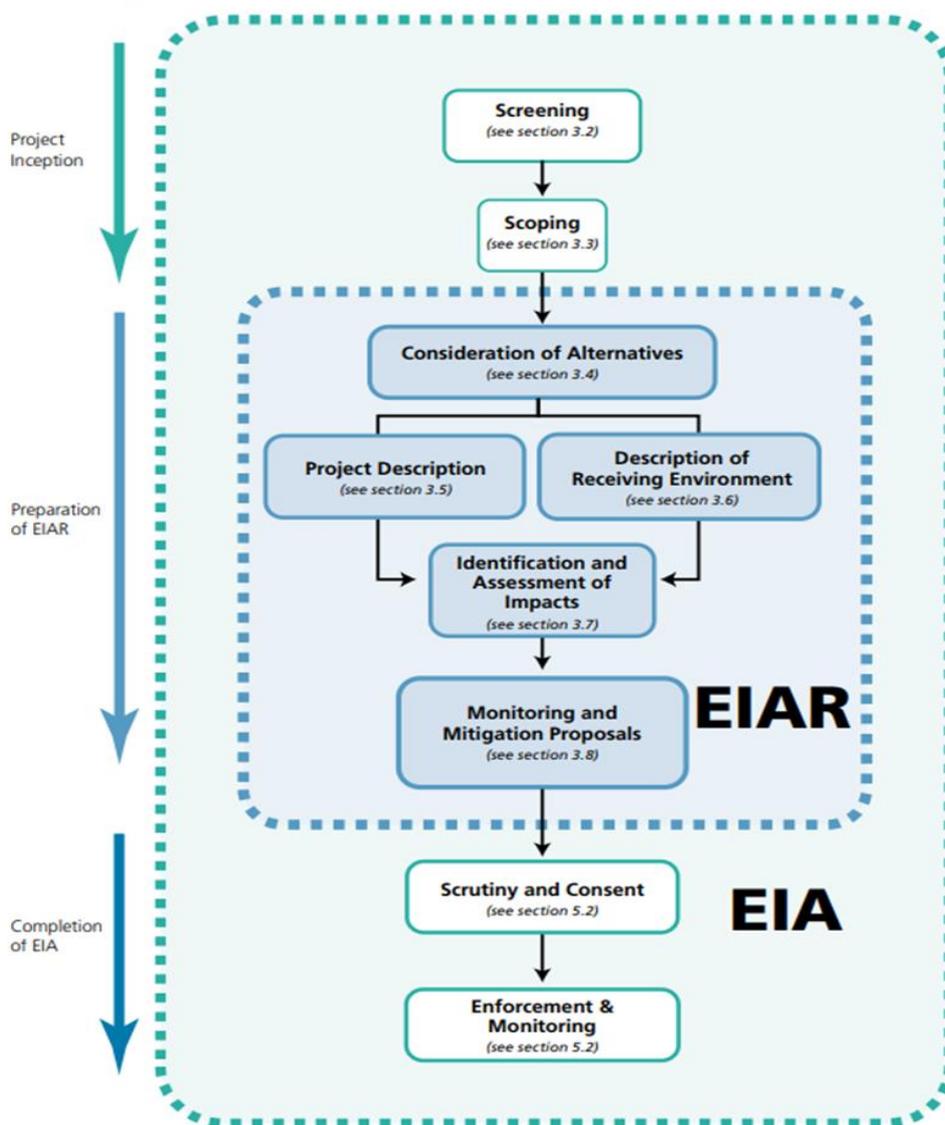
The 2014 EIA Directive defines EIA as a process consisting of:

- The preparation of an EIAR by the developer;
- The carrying out of consultations with the public, prescribed bodies and any other EU Member States where transboundary effects have the potential to occur;
- The examination by the competent authority of the information presented in the EIAR, any supplementary information provided by the developer and any relevant information received through consultations;
- The reasoned conclusions by the competent authority on the significant effect of the project on the environment, taking into account the examination referred to above and, where appropriate its own supplementary examination; and
- The integration of the competent authority's reasoned conclusion on the significance of the effects into its decision to grant consent, refuse consent or grant consent with conditions referred to in Article 8a.

This EIAR takes into account information compiled through the desk-based assessment, field surveys and consultation with the relevant statutory bodies and the general public and has been conducted in accordance with best practice. The specific best practice and guidance used for each environmental aspect is detailed in the relevant assessment chapter of this EIAR. The EIA process is summarised below in inset .

Inset Figure 4.1.

Inset Figure 4.1: The EIA Process (EPA 2017)



\*Note that Sections referred to in Inset Figure 4.1 above are within the Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA 2017)

#### 4.4.1 Environmental Impact Assessment Screening

In this case, the provisions of section 37 of the 2001 Act require that an application for a RO shall be made to An Bord Pleanála (the Competent Authority) in writing and shall be accompanied by a number of matters including "a statement of the likely effects on the environment of the proposed railway works" which comprises an Environmental Impact Assessment Report (EIAR) (previously referred to as an Environmental Impact Statement in section 39 of the 2001 Act). In terms of the EIA Directive (85/337/EEC) as amended and codified, this is similar to a mandatory EIA for an Annex I project. The EIAR in relation to this Railway Order application has been compiled in accordance with the 2014 EIA Directive, the 2001 Act, including section 39 thereof, and having regard to relevant guidelines listed above.

An Bord Pleanála, as the Competent Authority, will carry out the Environmental Impact Assessment of the RO application made by CIÉ.

#### 4.4.2 Environmental Impact Assessment Scoping

Scoping is the process of determining the content and extent of matters that should be covered by the EIAR for submission to the Competent Authority, in this case An Bord Pleanála. Scoping requires consideration of the nature and probable scale of potential environmental impacts which are likely to arise as a result of the proposed Project.

A Screening and Scoping Report was published for Public and Statutory Stakeholders on 20th November 2019 and was consulted upon until the 21st January 2019. Details in regard to statutory and non-statutory consultation are provided in Volume 2, Chapter 1: Introduction. In addition, each discipline chapter will include a response to issues raised of relevance to that topic.

The main objectives of the Screening and Scoping exercise for the proposed Project were to:

- Provide a description of the proposed Project;
- Identify likely significant impacts which may arise during construction and operation of the proposed Project and which will be addressed in detail in the EIAR;
- Identify potential environmental impacts which may be partially or wholly omitted from the EIAR (scoped out);
- Outline proposed assessment methodologies for completing the EIAR;
- Outline the likely contents of the EIAR; and
- Form a basis of common reference for consultation about the scope and methodology for the EIAR.

#### 4.4.3 Environmental Impact Assessment Report (EIAR)

The EIAR presents the findings of the EIA and includes all of the information set out in Section 4.2 of this chapter. It is submitted alongside the application for a Railway Order. The method for EIA and the structure of the EIAR are presented in Section 4.7 of this chapter.

### 4.5 Scrutiny and Consent

Scrutiny includes the examination by the competent authority of the information presented in the EIAR, any supplementary information provided by the developer and any information received through consultations, including consultations with the public.

The 2001 Act and Article 8a of the 2014 Directive specifies the information which must be included in the competent authority's response which includes the reasoned conclusions on the significant effects of the proposed Project on the environment, taking into account the examination and, where appropriate, its own supplementary examination.

### 4.6 Enforcement and Monitoring

The 2014 Directive (paragraph 35) requires that member states ensure the implementation of measures to avoid or minimise effects by the developer and to determine monitoring and enforcement measure to ensure this. Specifically, it states:

*"Member States should ensure that mitigation and compensation measures are implemented, and 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."*

It is anticipated that the obligations will be discharged by the inclusion of appropriate conditions in any grant of a Railway Order and the scrutinising and enforcement of compliance by Iarnród Éireann.

## 4.7 Methodology in Preparation of the EIAR

### 4.7.1 EIAR Format & Structure

This EIAR will broadly follow the 'Grouped Format Structure' as laid out in the Guidelines on the Information to be Contained in Environmental Impact Statements (EPA 2002) as well as advice on the presentation of information in an EIAR as set out in the Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA 2017). This means that the EIAR has been prepared in a format which examines each environmental topic as a separate section in the EIAR covering the existing environment, potential impacts, and mitigation measures for that particular environmental topic. This format facilitates ease of cross referencing between varying environmental topics.

The EIAR is contained in five volumes and supported by the Natura Impact Statement and a Planning and Development Compliance Report. The structure of the EIAR is provided in Table 4.1.

Table 4.1: Structure of the EIAR

Section	Description	Prepared by
<b>Volume 1: Non-Technical Summary (NTS)</b>		
NTS	Summary of the EIAR in non-technical language.	Jacobs
<b>Volume 2: Introductory Chapters</b>		
Table of Contents		Jacobs
Table of Acronyms		Jacobs
Chapter 1	Introduction	Jacobs
Chapter 2	Project Need and Alternatives	Jacobs
Chapter 3	Project Description	Jacobs
Chapter 4	The Environmental Impact Assessment Process and Methodology	Jacobs
Chapter 5	Plans, Policy & Guidance	Jacobs
<b>Volume 3: EIAR: Discipline Chapters</b>		
Chapter 6	Population & Health	Jacobs
Chapter 7	Biodiversity	Jacobs
Chapter 8	Soils, Geology & Hydrogeology	Jacobs
Chapter 9	Water	Jacobs
Chapter 10	Noise & Vibration	Jacobs
Chapter 11	Traffic & Transport	Jacobs
Chapter 12	Cultural Heritage	AMS Note: additional Geophysical and Test Trenching undertaken by ACSU Ltd.
Chapter 13	Landscape & Visual	Macro Works
Chapter 14	Resource Use & Waste Management	Jacobs
Chapter 15	Air Quality	Jacobs
Chapter 16	Cross Cutting Themes	Jacobs
Chapter 17	Interactions and Cumulative Impacts	Jacobs

Section	Description	Prepared by
Chapter 18	References	Jacobs
<b>Volume 4: Drawings &amp; Figures</b>		
Figures	Graphics and plans supporting the EIAR chapters, illustrating the proposed Project and environmental information. Figure reference numbers correspond to the relevant EIAR chapter (e.g. Figure 8.1 relates to Chapter 8)	Jacobs AMS Macro Works
<b>Volume 5: Appendices &amp; Schedules</b>		
Appendices	Technical reference information supporting the EIAR chapters, such as calculations and detailed background data. Appendix numbers correspond to the relevant EIAR chapter (e.g. Appendix 8.1 relates to Chapter 8)	Jacobs AMS Macro Works
Schedules	Schedule of Mitigation Measures	Jacobs

As far as is practicable, the chapters are written in a non-technical style to make it accessible to a wider, non-specialist audience. Where technical terminology is used, an explanation is provided in the text, and/or in the glossary of terms, which is provided at the beginning of Volume 2 of the EIAR.

#### 4.7.2 EIAR Discipline Chapters Structure

Each of the topic chapters in Volume 3 (Environmental Assessment) of this EIAR broadly follow the same structure which includes the following headings:

##### Introduction

Provides an overview of the aims and objectives of the Chapter in assessing the proposed Project and outlines the scope of the assessment.

##### Study Area

Details on the study area of the proposed Project. It is defined for each environmental topic based on professional judgement and experience.

##### Baseline Environment

Baseline refers to the current state of environmental characteristics. It involves the collection and analysis of information on the condition, sensitivity and significance of relevant environmental factors which are likely to be significantly affected by the project. The data and survey requirements for each assessment will vary and will be chosen by the topic author, based on relevant legislation, best practice guidance, policy requirements, and professional judgement. These desktop studies are then supplemented consultations with relevant stakeholders, for example interested parties, statutory bodies and local authorities, as required for each environmental topic.

##### Assessment Methodology

Each environmental topic has its own bespoke method for assessment, in accordance with published professional guidelines, details of which are provided within each Topic Chapter. Generic methods for EIA will also apply and the assessments will be conducted in accordance with the following EPA Guidance:

- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA 2017c); and
- Draft Advice Notes for Preparing Environmental Impact Statements (EPA 2015).

In addition to the applicable EIA legislation and guidance, all EU Directives and national legislation relating to the specialist areas will also be considered as part of the process.

The purpose of the EIAR is to describe ‘likely significant effects on the (environmental) factors’. This description needs to cover ‘direct effects, and any indirect, secondary, cumulative, transboundary, short-term, medium term and long term, permanent and temporary positive and negative effects of the proposed Project’ (S.I. no. 296 of 2018, Schedule 6)<sup>5</sup>.

The significance attributed to impacts (or effects) is generally understood to mean the importance of the consequence of the change to the baseline condition. Professional judgement by competent experts, as well as professional guidelines, has a role in determining significance. The EPA Guidelines (EPA 2017c)<sup>6</sup> provides guidance on determining significance. This is reproduced in Table 4.2 and will form the basis of all topic assessments in the EIAR.

Table 4.2: Reproduction of Table 3.3 Description of Effects from the Draft EPA Guidelines (EPA 2017c) Assessment Criteria

Assessment Criteria	
Quality of Effects	
It is important to inform the non-specialist reader whether the effect is positive, negative or neutral.	<ul style="list-style-type: none"> <li><b>Positive Effects</b> A change which improves the quality of the environment (for example, by increasing species diversity or improving the reproductive capacity of an ecosystem; or removing nuisances; or improving amenities)</li> </ul>
	<ul style="list-style-type: none"> <li><b>Neutral Effects</b> A change which does not affect the quality of the environment</li> </ul>
	<ul style="list-style-type: none"> <li><b>Negative / Adverse Effects</b> A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing a nuisance)</li> </ul>
Significance of Effects	
‘Significance’ is a concept that can have different meanings for different topics – in the absence of specific definitions for the different topics the following definitions may be useful.	<ul style="list-style-type: none"> <li><b>Imperceptible</b> An effect capable of measurement but without noticeable consequences</li> </ul>
	<ul style="list-style-type: none"> <li><b>Not significant</b> An effect which causes noticeable changes in the character of the environment but without noticeable consequences</li> </ul>
	<ul style="list-style-type: none"> <li><b>Slight Effects</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities</li> </ul>
	<ul style="list-style-type: none"> <li><b>Moderate Effects</b> An effect that alters the character of the environment in a manner that is consistent with existing and emerging trends</li> </ul>
	<ul style="list-style-type: none"> <li><b>Significant Effects</b> An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment</li> </ul>
	<ul style="list-style-type: none"> <li><b>Very Significant Effects</b> An effect which, by its character, magnitude, duration or intensity significantly alters the majority of a sensitive aspect of the environment</li> </ul>

<sup>5</sup> S.I. No. 296/2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

<sup>6</sup> EPA Guidelines (EPA 2017c)

Assessment Criteria	
	<ul style="list-style-type: none"> <li>▪ <b>Profound Effects</b> An effect which obliterates sensitive characteristics</li> </ul>
Extent and Context of Effects	
Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly or increasingly experienced.	<ul style="list-style-type: none"> <li>▪ <b>Extent</b> Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Context</b> Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)</li> </ul>
Probability of Effects	
Descriptions of effects should establish how likely it is that the predicted effects will occur – so that the CA can take a view of the balance of risk over advantage when making a decision.	<ul style="list-style-type: none"> <li>▪ <b>Likely Effects</b> The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Unlikely Effects</b> The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</li> </ul>
Duration and Frequency of Effects	
'Duration' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful.	<ul style="list-style-type: none"> <li>▪ <b>Momentary Effects</b> Effects lasting from seconds to minutes</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Brief Effects</b> Effects lasting less than a day</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Temporary Effects</b> Effects lasting less than a year</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Short-term Effects</b> Effects lasting one to seven years</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Medium-term Effects</b> Effects lasting seven to fifteen years</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Long-term Effects</b> Effects lasting fifteen to sixty years</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Permanent Effects</b> Effects lasting over sixty years</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>Reversible Effects</b> Effects that can be undone, for example through remediation or restoration</li> </ul>

In addition to the use of these criteria, the most common method employed to determine significance of effects is to compare the magnitude of the predicted effect with the sensitivity of the receiving environment. This is shown in Table 4.3. In this approach 'magnitude' and 'sensitivity' are used as descriptors of a wide range of different factors. 'Magnitude' includes the spatial extent of the effect; the time period over which the effect will occur; and whether the effect is permanent or reversible. Sensitivity describes the value or importance placed upon a 'receptor'. The matrix shown in is based on the Draft EPA Guidelines on the Information to be Contained in EIARs (2017) as a method of combining magnitude and sensitivity to achieve a decision on significance. The use of these approaches improves the transparency and robustness of the professional judgement employed.

Table 4.3: Significance OF Impacts Matrix

		Sensitivity of Receptor			
		Negligible	Low	Medium	High
Magnitude of Impact	High	Not significant-to Slight	Moderate	Very Significant	Profound
	Medium	Not significant to Slight	Slight to Moderate	Significant	Significant to Very Significant
	Low	Not significant	Slight	Slight to Moderate	Moderate to Significant
	Negligible	Imperceptible	Not Significant	Not significant	Not significant

### 4.7.3 Mitigation Measures

This sets out measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, identify any proposed monitoring arrangements. This section explains the extent to which significant adverse effects on the environment are avoided, prevented, reduced or offset and covers both the Construction and Operational Phases.

The requirement to describe mitigation measures are 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 European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

### 4.7.4 Residual Effects

Any effects that remain after all assessment and mitigation are referred to as 'Residual Effects'. These are the remaining environmental 'costs' of a project that could not be reasonably avoided. Residual effects are clearly described in accordance with the system of effects description set out above.

### 4.7.5 Interactions and Cumulative Effects

The potential for significant cumulative impacts and impact interrelations are assessed as per Schedule 6 of the EIA Regulations.

### 4.7.6 Difficulties Encountered in Compiling Required Information

This section draws attention to limitations about factors that may affect the reliability of baseline data. These include the availability, completeness, accuracy, age and accessibility of data.

The EIA Directive and EIA Regulations require that the EIAR includes 'details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved' (EIA Directive, Annex IV, Part 6; EIA Regulations, Schedule 6, Part 2(f)). Each chapter in Volume 3 includes a section outlining any difficulties encountered in compiling that chapter.

## 4.8 References

Department of Environment, Community and Local Government (2013). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

Department of Housing, Planning, Community and Local Government (2017). Key Issues Consultation Paper on the Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems.

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Environmental Protection Agency (2015b). Draft Revised Guidelines on the Information to be Contained in Environmental Impact Statements

Environmental Protection Agency (2017). Draft Revised Guidelines on the Information to be Contained in Environmental Impact Assessment Reports

European Union (2014). Directive 2014/52/EU 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 (EIA Directive)

European Union (2011). Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (EIA Directive)

European Union (1985). Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment

European Union (1997). Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment. (This widened the scope of the EIA Directive by increasing the types of projects covered, and the number of projects requiring mandatory environmental impact assessment (Annex I). It also provided for new screening arrangements, including new screening criteria (at Annex III) for Annex II projects, and established minimum information requirements).

European Union (2003). Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC (This sought to align the provisions on public participation with the Aarhus Convention on public participation in decision-making and access to justice in environmental matters).

European Union (2009). Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (This amended the Annexes I and II of the EIA Directive, by adding projects related to the transport, capture and storage of carbon dioxide (CO<sub>2</sub>)).

European Union (2017a). Environmental Assessments of Plans, Programmes and Projects – Rulings of the Court of Justice of the European Union.

European Union (2017b). Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report.

European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 – S.I. No. 296 of 2018

European Communities (1999). Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions

Government of Ireland (2018). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment

Planning and Development Regulations 2001 (as amended) – S.I. No. 600 of 2001 (as amended)

Transport (Railway Infrastructure) Act 2001 (as amended and substituted) – No. 55 of 2001 (as amended)