
Chapter 1

Introduction

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1. INTRODUCTION

Córas Iompair Éireann, hereafter referred to as CIÉ or ‘the Applicant’, is applying to An Bord Pleanála for a Railway Order (“RO”) for the DART+ West project (“the proposed project” or “proposed development”) under the Transport (Railway Infrastructure) Act 2001 (as amended and substituted) (“the 2001 Act”). The RO application is made pursuant to the provisions of section 37 of the 2001 Act. Section 37 of the 2001 Act requires, inter alia, that the application be made in writing and be accompanied by:

- (a) A draft of the proposed Railway Order.
- (b) A plan of the proposed railway works.
- (c) A book of reference to a plan describing the works which indicates the identity of the owners and of the occupiers of the lands described in the Plan.
- (d) A statement of the likely effects on the environment of the proposed railway works (this Report).

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).

The initial Directive of 1985 (Council Directive 85/337/EEC) and its three amendments 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 Ireland 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/national 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. Accordingly, this EIAR has been prepared in accordance with the EIA 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), section 39 of the 2001 Act and having regard to relevant guidance documents and guidelines.

This chapter presents the purpose of the EIAR, a brief overview of the proposed development, the legislative requirement for undertaking an environmental impact assessment as part of the Railway Order application process and introduces other key environmental legislative requirements that have informed this EIAR. The key stages in the EIA process are summarised to include the Screening, Scoping and preparation of an EIAR. The overarching assessment methodology used to describe and assess the potential effects of the project is presented and is further expanded in each of the EIA environmental factor chapters contained in this EIAR. Any difficulties encountered in the preparation of this EIAR are also identified. The overall structure of the report is presented and an introduction to the EIA project team. Finally, an overview of the consultation that has informed the EIAR and the next steps are outlined.

All necessary technical information required for the purpose of this EIAR is enclosed within this report.

1.1 Purpose of this report

This EIAR forms part of a Railway Order application that is submitted by CIÉ to An Bord Pleanála for its approval of the proposed development. The EIAR in relation to this Railway Order application has been compiled in accordance with the EIA Directive, the information referred to in section 39 of the 2001 Act, and having regard to relevant guidance documents and guidelines.

The purpose of this EIAR is to inform the decision-making process on the Railway Order application for the DART+ West project. The EIAR is a “*statement of the effects, if any, that the proposed project, if carried out, would have on the environment.*” (EPA, 2022).

The primary objective of the EIAR is to present an evaluation of the likely significant environmental effects of the project. The EIAR presents the baseline environmental information relevant to the project under each of the environmental factors, it assesses and reports on the likely significant positive and/or negative effects as a result of the proposed development and propose appropriate mitigation and monitoring measures where required. The EIAR has been prepared following the logical analysis of the proposed development having regard to the receiving environment. This process of environmental impact 'assessment' and the preparation of this report has been an evolving iterative process.

This EIAR has been prepared to facilitate the competent authority, in this case An Bord Pleanála, undertaking of an Environmental Impact Assessment (EIA) and determine by way of a reasoned conclusion the likely significant effects of the proposed development on the environment. EIA is the process by which the likely significant effects on the environment (positive and negative) of a proposed development or project are assessed; where effects are significant, relevant design changes and / or other mitigation measures can be taken to avoid, reduce or mitigate those effects. The application for an RO is made to An Bord Pleanála, and among the documents which must accompany the application as per section 37(3)(e) of the 2001 Act is an EIAR which is prepared in accordance with Directive 2014/52/EU and inter alia contains the information referred to in section 39 of the 2001 Act and having regard to relevant guidance documents and guidelines.

1.2 Project overview

The DART+ West project is seeking to significantly increase rail capacity on the Maynooth & M3 Parkway lines. This will be achieved by changing from diesel powered trains to electrified, high-capacity DART trains and increasing the frequency of trains from 6 to 12 trains per hour per direction. The hourly passenger capacity will increase from 5,000 to 13,200. The project will involve the electrification of approximately 40 km of permanent way (railway line) from the Dublin City centre to west of Maynooth and to M3 Parkway Station and all associated supporting infrastructure.

The electrification of the rail line is located predominantly within the existing railway corridor within Iarnród Éireann/ CIE owned lands however some works will involve the acquisition of private lands to facilitate the project.

The principal project components are as follows:

- Electrification and re-signalling of the Maynooth and M3 Parkway lines (approximately 40 km in length).
- Capacity enhancements at Connolly Station (to include modifications to junctions and the station) to facilitate increased train and passenger numbers.
- Provision of a new Spencer Dock Station, which will better serve the north Docklands area and improve interchange with the Luas.
- Closure of level crossings and provision of replacement bridges where required.
- Construction of a new DART depot facility west of Maynooth to facilitate the maintenance and parking (stabling) of trains.
- Interventions at existing bridges over the rail line where there are insufficient clearances for the overhead electrification equipment.
- Substations, electrical buildings and all other civil and ancillary works as necessary to accommodate the project.

DART+ West will be the first project of the DART+ Programme to be delivered by IÉ. The DART+ Programme is a transformative programme of projects that aims to modernise and improve existing rail services in the Greater Dublin Area (GDA). It will provide a sustainable, electrified, reliable and more frequent rail service, improving capacity on rail corridors serving Dublin. Figure 1-1 provides a schematic layout of the proposed DART+ West and its interactions with the proposed MetroLink project at Glasnevin and the proposed DART+ South West project.

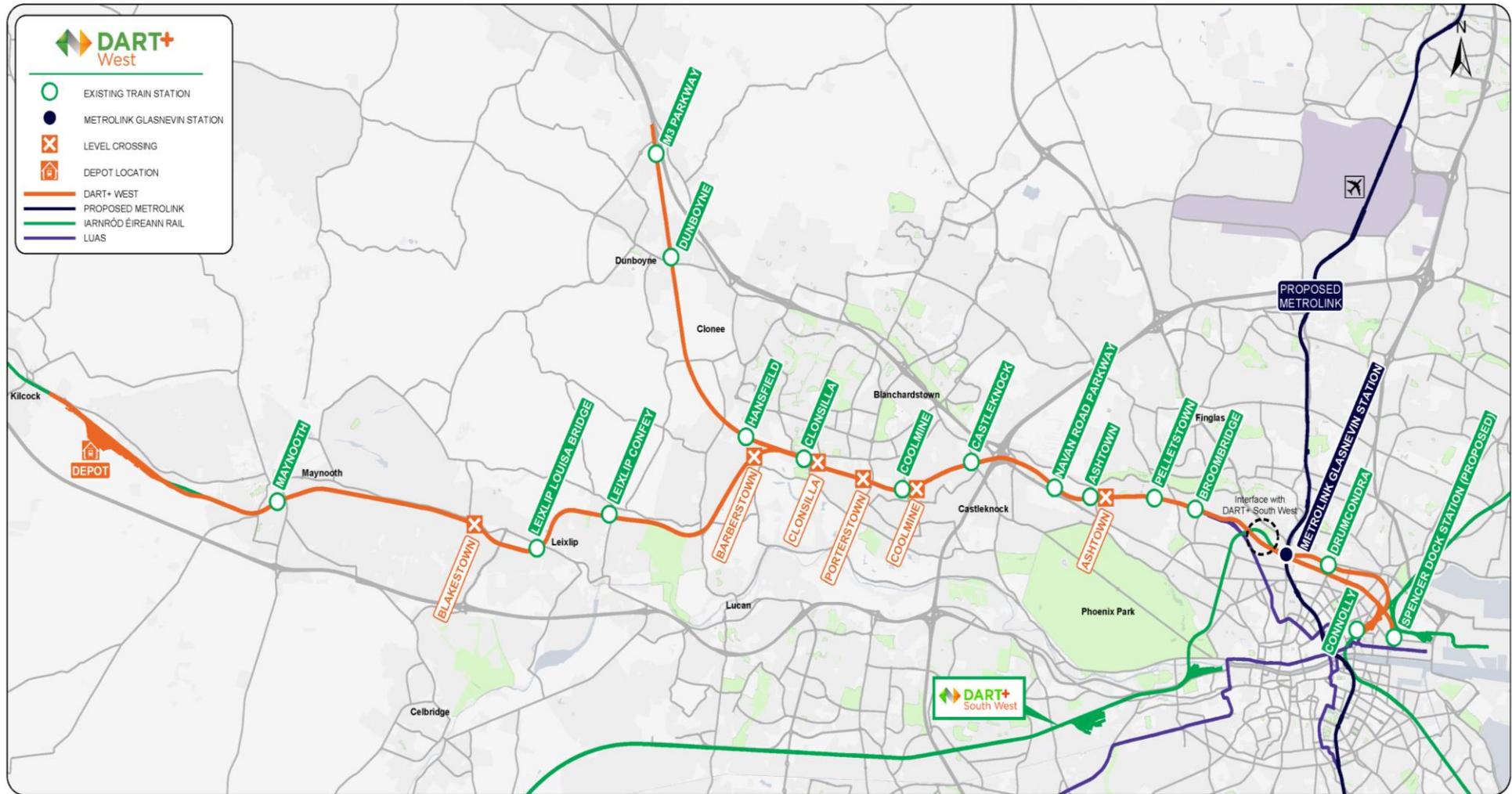


Figure 1-1 Schematic of DART+ West project

1.3 The Applicant

The application is being made by Córas Iompair Éireann (CIÉ), Ireland's national public transport provider. Under Section 37(1) of the 2001 Act CIÉ may apply to An Bord Pleanála for a Railway Order. As the leading provider of public transport services in the State, the CIÉ Group is committed to provision of accessible services for all of its customers.

The goal of the CIÉ Group (“the Group”) is to deliver attractive sustainable public transport services, which supports the continued growth of the Irish economy and social cohesion. The Group has the unique capacity to manage a cost-effective delivery of high-quality public transport solutions across Ireland. The Group works in collaboration with its shareholder, the Minister of Transport, and with the regulator, the National Transport Authority (NTA).

Iarnród Éireann (IÉ) is a wholly owned subsidiary of CIÉ and have developed the proposed Project from concept to application stage. IÉ is responsible for the operation of the DART and intercity rail passenger services throughout Ireland and more specifically for the proposed Project area. Iarnród Éireann provides passenger and some freight rail services along the proposed project area.

1.4 Requirement for EIA

IDOM have been commissioned by CIÉ to prepare the RO application including this EIAR for the DART+ West project in accordance with relevant EU and national legislation, associated guidelines and standards.

1.4.1 Legislation and guidance

As stated in the Introduction section of this chapter, the proposed development is being progressed through the Railway Order process through an application for a Railway Order as required under the Transport (Railway Infrastructure) Act 2001 (“the 2001 Act”). The 2001 Act has been amended and substituted by a number of legislative provisions including by the Planning and Development (Strategic Infrastructure) Act 2006, by the Dublin Transport Authority Act, 2008, by the Public Transport Regulation Act, 2009 and as recently further amended by the European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 in Statutory Instrument No. 743/2021 (“the 2021 Regulations”). The statutory requirements for a Railway Order application and the requirement to prepare an EIAR arises under the 2001 Act and the EIA Directive.

Other key environmental assessments which have been included in this EIAR include inter alia: an assessment under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive) and statutory (for example the Planning and Development Act 2000 (as amended)) and regulatory provisions (for example S.I. No.477 of 2011) transposing the Habitats Directive and the Birds Directive; EU Water Framework Directive (WFD) (2000/60/EC) assessment; and a site-specific flood risk assessment.

Further it is also noted section 6(c) of the Planning and Development (Strategic Infrastructure) Act 2006 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) 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 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 which includes inter alia a Railway Order granted under section 43 of the Transport (Railway Infrastructure) Act 2001.

1.4.2 Transport (Railway Infrastructure) Act 2001

The Transport (Railway Infrastructure) Act 2001 (as amended and substituted) (“the 2001 Act”) provides for the application for a Railway Order (“RO”) by *inter alia* Coras Iompair Éireann to An Bord Pleanála.

As set out in the Introduction of this EIAR, the Railway Order application is made pursuant to the provisions of section 37 of the 2001 Act. Section 37 of the 2001 Act requires, inter alia, that the application be made in writing and be accompanied by: (a) a draft of the proposed Railway Order; (b) a plan of the proposed railway works; (c) a book of reference to a plan describing the works which indicates 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 (this Report). 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).

In 2006 An Bord Pleanála assumed the role of the Minister for Transport where the granting of Railway Orders is concerned. Subsequently, section 49 of the Planning and Development (Strategic Infrastructure) Act 2006 amended the 2001 Act *inter alia* by substituting new sections 37 to 47A for sections 37 to 47. These new sections were primarily intended to transfer responsibility for the approval of a Railway Order from the Minister for Transport to An Bord Pleanála and to make certain related amendments. Accordingly, pursuant to the 2001 Act, An Bord Pleanála has the powers to *inter alia*:

- Receive an application for a Railway Order.
- Assess the application.
- Hold an oral hearing.
- Consider a range of matters before deciding whether to grant the order to which the application relates (section 43 of the 2001 Act).
- After considering these matters, if An Bord Pleanála is of opinion that the application should be granted, it shall make an order authorising the construction of the works applied for, including improvement and the operation of the railway subject to such conditions, modifications, restrictions and requirements (and on such other terms) as An Bord Pleanála thinks proper and specifies in the order.

A Railway Order is therefore the statutory consent to an applicant providing authorisation to construct, maintain, improve and operate the railway or railway works. Railway works and the procedure for obtaining a Railway Order is governed by the Transport (Railway Infrastructure) Act 2001, as amended and substituted.

The 2001 Act sets out a bespoke process covering all aspects of consultation and notification requirements in relation to the application, consideration, assessment and decision-making for a proposed Railway Order and if granted, for the construction, maintenance, improvement and operation of a railway and railway works, including powers of compulsory acquisition.

1.4.2.1 Compulsory acquisition of land & other rights in relation to land

A Railway Order when granted confers powers on CIÉ to allow for the acquisition of land and other rights in relation to land to facilitate the construction, maintenance, improvement and operation of the railway. For example, section 45(1) of the 2001 Act inter alia states:

“Upon the commencement of a railway order, the Agency or CIÉ shall thereupon be authorised to acquire compulsorily any land or rights in, under or over land or any substratum of land specified in the order and, for that purpose, the railway order shall have effect as if it were a compulsory purchase order...”

In accordance with 37 (3)(d) of the 2001 Act a book of reference has been prepared (*indicating the identity of the owners and of the occupiers of the lands described in the plan*) and this EIAR has assessed the proposed railway works set out in the plan. All reasonable efforts have been made to engage with all affected property owners throughout the design and EIA process. Where engagement has been forthcoming this has informed the design and EIA process and is documented as appropriate in this EIAR.

1.4.2.2 Railway Order

As provided for by section 37(3)(a) of the 2001 Act, the application for the RO includes a detailed draft of the proposed order. Section 43 of the 2001 Act sets out the matters to be considered before deciding whether to grant the order to which the application relates, including inter alia:

- The application.
- The draft order and documents that accompanied the application.
- The report of any oral hearing held and the recommendations contained therein.
- The EIAR submitted as part of the application for the order.
- Submissions made by any person arising from the publication of the notice in relation to the application for a railway order and/or any further information requested and received in relation to the application.
- Submissions made by any planning authorities (or other authority if the railway works are likely to have significant effects on the environment in Northern Ireland) arising from the publication of the notice in relation to the application for a railway order.
- Any additional information requested and furnished under section 41 of the 2001 Act.
- The likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out the railway works and for the environment of such works.
- The policies and objectives for the time being of the Government, a State authority, the Minister, planning authorities and any other body which is a public authority whose functions have, or may have, a bearing on the proper planning and sustainable development of cities, towns or other areas, whether urban or rural.
- The national interest and any effects the performance of An Bord Pleanála's function may have on issues of strategic economic or social importance to the State.
- The National Planning Framework and any regional spatial and economic strategy in force.

1.4.3 EIA Directive

This EIAR has been prepared in accordance with the requirements of the EIA Directive (2011/92/EU *Assessment of the effects of certain public and private projects on the environment* as amended by Directive 2014/52/EU¹) and includes the information set out in section 39 of the 2001 Act and has had regard to relevant guidelines and guidance documents as set out in paragraph 1.6.1. Article 5 and Annex IV to the EIA Directive 2011/92/EU sets out the information to be contained in an EIAR and is reproduced in the Table 1-1 below. The information provided in this EIAR meets these requirements. The table below includes the chapter reference where each of the information requirements is addressed in this EIAR.

Table 1-1 Information for the EIAR - Annex IV of EIA Directive as amended by Directive 2014/52/EU

Information for the EIAR as per Article 5(1)	Chapter in this EIAR:
1. Description of the project, including in particular: <ul style="list-style-type: none"> (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 	Chapter 4 and Chapter 5

¹ The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) inter alia transposed the Directive.

Information for the EIAR as per Article 5(1)	Chapter in this EIAR:
<p>construction and operational phases.</p> <p>(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.</p> <p>(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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>5. A description of the likely significant effects of the project on the environment resulting from, inter alia:</p> <p>(a) the construction and existence of the project, including, where relevant, demolition works.</p> <p>(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources.</p> <p>(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste.</p> <p>(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters).</p> <p>(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.</p> <p>(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.</p> <p>(g) the technologies and the substances used.</p> <p>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 established at Union or Member State level which are relevant to the project.</p> <p>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.</p> <p>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, reduced or offset, and should cover both the construction and operational phases.</p> <p>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 this 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</p>	<p>Chapter 3 (and Technical appendices - POSR and OSR)</p> <p>Chapters 6-23</p> <p>Chapters 6-23</p> <p>Chapters 6-23</p> <p>Chapters 1,2 and 6-23</p> <p>Chapters 6-23</p> <p>Chapters 6-23, 24 and 27</p> <p>Chapters 6-23, 24 and 27</p> <p>Volume 1 All Chapters</p>

Information for the EIAR as per Article 5(1)	Chapter in this EIAR:
<p>proposed response to such emergencies.</p> <p>9. A non-technical summary of the information provided under points 1 to 8.</p> <p>A reference list detailing the sources used for the descriptions and assessments included in the report.</p>	

1.5 Other relevant requirements to inform application

1.5.1 Habitats Directive and Birds Directive

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (“the Habitats Directive”) and Directive 2009/147/EC of the European Parliament and of the Council of 30th November 2009 on the conservation of wild birds (“the Birds Directive”) list habitats and species which are, in a European context, important for conservation and in need of protection. This protection is afforded in part through the designation of sites which support significant examples of habitats or populations of species (“European sites”). Sites designated for birds are termed “Special Protection Areas” (SPAs) and sites designated for natural habitat types or other species are termed “Special Areas of Conservation” (SACs). The complete network of European sites is referred to as “Natura 2000”.

In order to ensure the protection of European sites in the context of land use planning and development, Article 6(3) of the Habitats Directive provides for the assessment of the implications of plans and projects for European sites, as follows:

Any plan or project not directly connected with or necessary to the management of the site² but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Article 7 of the Habitats Directive provides that the provisions of, *inter alia*, Article 6(3) are to apply to SPAs under Directive 2009/147/EC (the “Birds Directive”).

The requirements arising out of Article 6(3) are transposed into Irish law by Part XAB of the Planning and Development Act 2000 (as amended and substituted) and by the European Communities (Birds and Natural Habitats) Regulations 2011 as amended³ (S.I. No.477 of 2011) (the Habitats Regulations), including Part 5 thereof. The assessment is referred to as an “Appropriate Assessment” (AA).

The determination of whether or not a plan or project requires AA is referred to as “Stage 1” or “AA Screening”. A Habitats Directive Appropriate Assessment (AA) “Stage 1” Screening was completed to determine whether or not the proposed development, either individually or in combination with other plans or projects, in view of best scientific knowledge, is likely to have a significant effect on areas designated as being of European importance for nature conservation (“European sites”), thereby enabling Iarnród Éireann, to fulfil its obligations under Article 6(3) of the Habitats Directive. The AA Screening completed for the project could not rule out likely significant effects on European Sites and therefore the project must proceed to Stage 2. A Stage 2 AA ‘Natura Impact Statement’ (NIS) is included as a separate document to this EIAR.

² Including, where applicable, ‘sites’.

³ Including *inter alia* S.I. 290 of 2013; SI 499 of 2013; SI 355 of 2015; the Planning, Heritage and Broadcasting (Amendment) Act 2021, Chapter 4; SI 293 of 2021.

Prior to approval of a plan or project which is the subject of Appropriate Assessment or “Stage 2 AA” it is necessary to “ascertain” that the plan or project will not “adversely affect the integrity of the site.”

The NIS contains an examination of the implications of the proposed development, on its own or in combination with other plans or projects, for Natura 2000 sites. It has been prepared in accordance with the provisions of the Habitats Directive and Part XAB of the Planning and Development Act 2000 (as amended), including inter alia sections 177U, 177V, 177S thereof, to facilitate the carrying out of an Appropriate Assessment by An Bord Pleanála.

A Stage 2 AA ‘Natura Impact Statement’ (NIS) is included as a separate document to this EIAR and has determined “given the full and proper implementation of the mitigation prescribed in this NIS, the proposed development, either individually or in combination with other plans or projects, will not adversely affect the integrity of the Rye Water Valley/Cartron SAC, the South Dublin Bay and the River Tolka Estuary SPA, the North Bull Island SPA or any other European site.”

1.5.2 Water Framework Directive Assessment

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (“the Water Framework Directive” or “WFD”) requires all Member States to protect and improve water quality in all waterbodies so that they achieve good ecological status by 2015 or, at the latest, by 2027. It has been given legal effect in Ireland by, inter alia, the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003) (as amended) and the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009). It applies to rivers, lakes, groundwater, transitional and coastal waters. The aforementioned regulations have established River Basins with associated River Basin Management Plans (as required by the Directive) and legally binding quality objectives for all surface waters and environmental quality standards for pollutants.

Any works which could affect the biological, physiochemical or hydromorphological quality of a waterbody requires an assessment in line with the WFD to demonstrate how the proposed works will not lead to a degradation in status and where possible, enhance waterbody status in order to achieve the required “Good” status target as set out in the directive. The likely impacts to various hydrological and hydrogeological parameters and how these affect WFD status are assessed in this EIAR, in Chapter 10 and Chapter 11.

1.5.3 The Planning System and Flood Risk Management Guidelines for Planning Authorities (S. 28 Guidelines)

A Site-specific Flood Risk Assessment (SSFRA) has been undertaken and has informed the design stage and the environmental assessment contained in this EIAR. All potential sources of flooding have been considered, including fluvial, coastal, pluvial, groundwater and surface water drainage derived flooding.

The SSFRA has been prepared in accordance with ‘The Planning System and Flood Risk Management Guidelines for Planning Authorities’ published by the Office of Public Works (OPW) and Department of Environment, Heritage and Local Government (DEHLG) in 2009. The Guidelines set out a staged approach to the assessment of flood risk with each stage carried out only as needed. The stages are listed below:

- **Stage I Flood Risk Identification** – to identify whether there may be any flooding or surface water management issues.
- **Stage II Initial Flood Risk Assessment** – to confirm sources of flooding that may affect an area or proposed development, to appraise the adequacy of existing information and to scope the extent of the risk of flooding which may involve preparing indicative flood zone maps.
- **Stage III Detailed Flood Risk Assessment** – to assess flood risk issues in sufficient detail and to provide a quantitative appraisal of potential flood risk to a proposed or existing development or land to be zoned, of its potential impact on flood risk elsewhere and of the effectiveness of any proposed mitigation measures.

1.6 EIA process

Environmental Impact Assessment (EIA) is a process under the terms of European Directives⁴ for the assessment of the effects of development projects on the environment. An Environmental Impact Assessment Report (EIAR) is a statement prepared by the developer, providing information on the significant effects on the environment based on current knowledge and methods of assessment. It is carried out by competent experts, with appropriate expertise to provide informed assessment on the environmental factors as required under the EIA Directive. The EIAR consists of a systematic analysis and assessment of the potential effects of a proposed development on the receiving environment.

Environmental impact assessment is defined in Article 1 of the EIA Directive to mean a process consisting of:

- I. the preparation of an EIAR by the developer, as referred to in Article 5(1) and (2).
- II. the carrying out of consultations as referred to in Article 6 and, where relevant, Article 7.
- III. the examination by the competent authority of the information presented in the EIAR and any supplementary information provided, where necessary, by the developer in accordance with Article 5(3), and any relevant information received through the consultations under Articles 6 and 7.
- IV. the reasoned conclusion by the competent authority on the significant effects of the project on the environment, taking into account the results of the examination referred to in point (iii) and, where appropriate, its own supplementary examination.
- V. the integration of the competent authority's reasoned conclusion into any of the decisions referred to in Article 8a.

An Bord Pleanála is the competent authority for the purpose of carrying out an environmental impact assessment of the proposed development.

1.6.1 Guidance

The preparation of the EIAR has been informed by relevant international and national EIA guidelines including the following:

- *Guidelines on the information to be contained in Environmental Impact Statements* (Environmental Protection Agency (EPA), 2002).
- *Advice notes on current practice in the preparation of Environmental Impact Statements* (EPA, 2003).
- *Guidelines on information to be contained in the Environmental Impact Assessment Report* (EPA, 2022).
- *Draft Advice Notes for preparing Environmental Impact Statements* (EPA, 2015).
- *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*, (DHPLG, August, 2018).
- *Environmental Impact Assessment of National Road Schemes - A Practical Guide, Revision 1* (NRA/TII, 20 November 2008).
- *Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report* (European Commission, 2017).
- *Environmental Impact Assessment of Projects–Guidance on Scoping (Directive 2011/92/EU as amended by 2014/52/EU)* (European Commission, 2017).
- *Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions* (European Commission (EC) 1999).
- *Advice Note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects, 2019 published by the Planning Inspectorate, an executive agency of the Ministry of Housing, Communities and Local Government of the United Kingdom.*

⁴ EU Directive 85/337/EEC as amended by Directive 2011/92/EU and Directive 2014/52/EU

Other legislation, guidelines from TII and other bodies have been considered and are detailed in the relevant technical assessment chapters of this EIAR. Each environmental factor assessed in this EIAR sets out the legislative context, policy context and guidance relevant to that environmental factor. 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 each of the relevant assessment chapters contained in this EIAR.

1.7 Key Stages of the EIA process

The key stages of the EIA process are:

- Screening.
- Scoping
 - Consideration of alternatives.
- Preparation of EIAR
 - Project description.
 - Baseline description.
 - Assessment of impacts.
 - Mitigation and monitoring measures.

The key stages of the EIA process are illustrated in Figure 1-2. The figure also illustrates the role of consultation throughout the EIA process. An overview of the key stages of the EIA process is presented in the sections below.

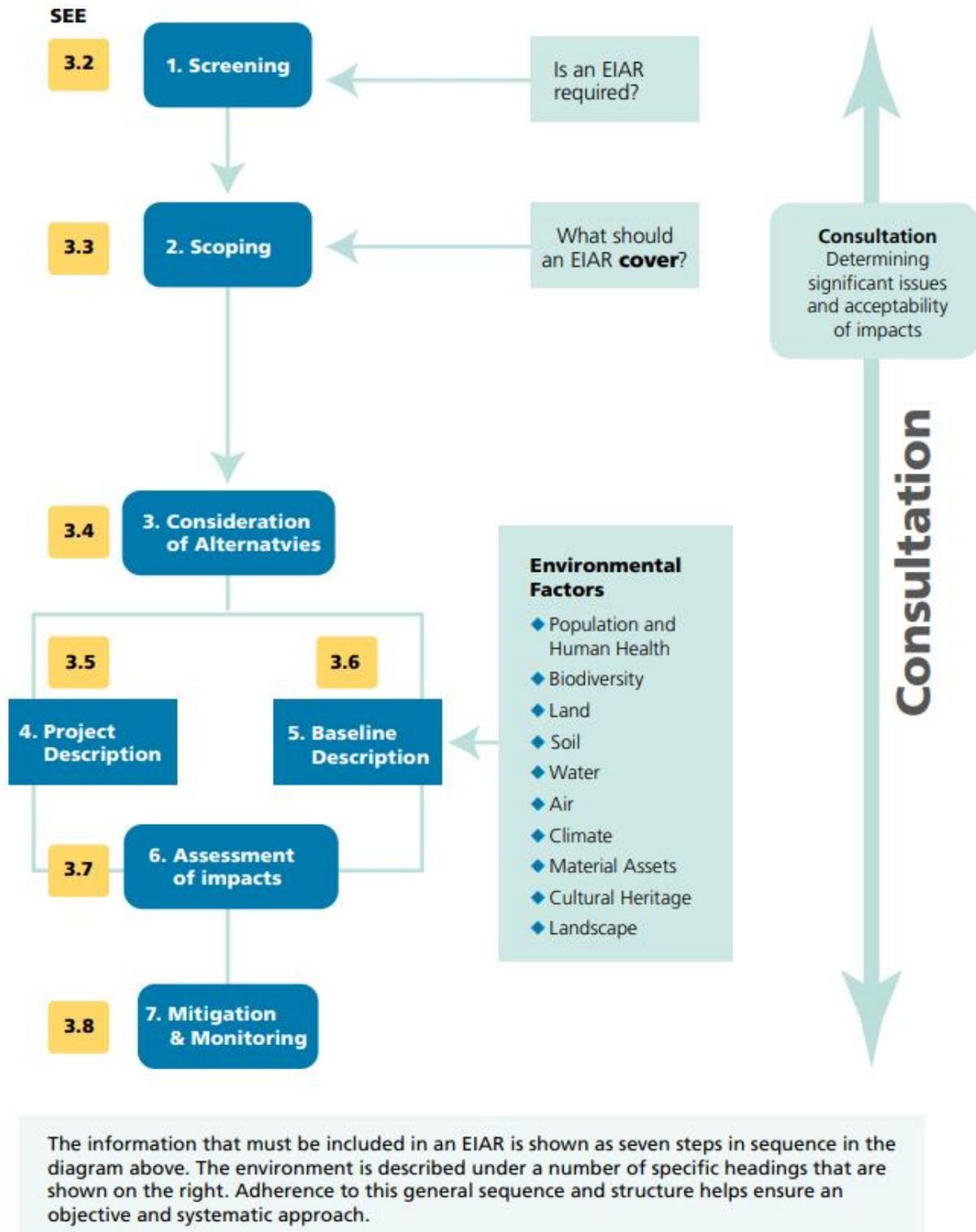


Figure 1-2 Key stages of the EIA process in sequence (EPA, 2022)

1.7.1 Screening

The start of the EIA process requires determining whether an EIA needs to be undertaken or not. As described in Section 1.4.2 of this chapter, Section 37 (3)(e) of 2001 Act and as recently further amended by the European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 in Statutory Instrument No. 743/2021 (“the 2021 Regulations”) requires a Railway Order application to be accompanied by “a statement of the likely effects on the environment (referred to subsequently in this Part as an ‘environmental impact statement’) of the proposed railway works.” It is therefore mandatory to submit

an EIAR (formerly referred to as an EIS) with a Railway Order application. An EIA Screening exercise was undertaken for the project to confirm this requirement.

1.7.2 Scoping

'Scoping' is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. The Scoping stage provides an opportunity to consult with prescribed bodies and key stakeholders about the extent of the information to be contained within the EIAR.

An Informal EIA Scoping report was prepared on DART+ West and sent to prescribed bodies and key stakeholders on the 12 March 2020. This report is available in Appendix A1.1 Informal EIA Scoping Report in Volume 4 of this EIAR. The key objectives of the Scoping Report were to:

- Provide a description of the proposed project.
- Identify likely significant impacts which may arise during construction and operation of the proposed project that will be assessed in the EIAR.
- Outline proposed assessment methodologies for completing the assessments.
- Outline the likely contents of the EIAR.
- Form a basis of common reference for consultation about the scope and methodology for the EIAR.

On the basis of the information provided in the Informal EIA Scoping Report views were sought on the scope and level of detail that should be considered when preparing this EIAR, including any additional environmental issues or alternative methodologies that should be taken into consideration. The prescribed bodies and key stakeholders were invited to comment over a 6-week period. The submissions received have been considered as part of the preparation of this EIAR, as appropriate.

An Informal EIA Scoping Response Report has been prepared to document the process undertaken and is included in Appendix A1.2 Informal EIA Scoping Response Report in Volume 4 of this EIAR. This report details the list of prescribed bodies and key stakeholders (Table 4.1) that were invited to comment, feedback received and how the feedback has been considered by the project team as part of preparation of this document.

1.7.3 EIAR

The main purpose of an EIAR is to identify, describe and present an assessment of the likely significant impacts of a project on the environment. This informs the Competent Authority's assessment process, its decision on whether to grant consent for a project and, if granting consent, what conditions to attach (EPA, 2022).

The EIAR focuses on:

- Impacts / effects that are both likely and significant.
- Impact / effects descriptions that are accurate and credible.

In accordance with the EIA Directive and guidance documents the EIA process facilitates ongoing design review allowing for the project design to be adapted and reviewed in light of predicted environmental effects emerging during the preparation of an EIAR. The design team and the environmental specialists have maintained a regular dialogue through the design preparations and revisions to ensure that this objective is achieved.

1.7.3.1 Consideration of alternatives

The EIA Directive requires an EIAR to contain: '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.’ (EPA, 2022).

Further information on this process and consideration of the various reasonable alternatives studied is presented in Chapter 3 of this EIAR.

1.7.3.2 Impact assessment methodology

The EIA environmental factors specified in the EIA Directive are assessed in the respective chapters of this EIAR. Each chapter addresses the relevant:

- Legislation, policy & guidance.
- Methodology used to assess the impacts including the relevant study area, sources of information survey techniques, consultations undertaken, and details the relevant criteria for assessment of impacts.
- Presents a description of the receiving/baseline environment.
- Describes the potential impacts on the environmental factor under examination.
- The mitigation and monitoring measures (where required) proposed to avoid, reduce and/or mitigate impacts.
- Residual effects after mitigation are applied.
- Interactions with other environmental factors.
- Assessment of cumulative effects of any plans or projects.

1.7.3.3 Criteria for the assessment of effects

A key document that has informed the assessment methodology is the *Guidelines on the information to be contained in Environmental Impact Assessment Reports* (May 2022) published by EPA 2022. Section 3.7 of these Guidelines, and specifically Table 3.4 (replicated in Table 1-2 below) forms the basis for describing the potential impacts as part of this environmental impact assessment. The consideration of potential impacts includes direct, indirect, secondary and cumulative impacts as appropriate, with reference to the appropriate guidance. Where specialists’ environmental factors have recognised guidance / standards relating to the description, and the significance of effects these are set out in the respective sections as part of that specialist chapter, as appropriate.

Table 1-2 Description of effects (EPA 2022)

Quality of Effects:	
Positive	A change which improves the quality of the environment.
Neutral	No effects, or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative	A change which reduces the quality of the environment.
Describing the Significance of effects:	
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Slight effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant effects	An effect which, by its character, magnitude, duration or intensity significantly alters a sensitive aspect of the environment.
Very Significant	An effect which, by its character, magnitude, duration or intensity significant alters most of a sensitive aspect of the environment.
Profound effects	An effect which obliterates sensitive characteristics.

Describing the Extent and Context of Effects:	
Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Describing the Probability of the Effects:	
Likely effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
Unlikely effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measure are properly implemented.
Describing the Duration and Frequency of Effects:	
Momentary effects	Effects lasting from seconds to minutes
Brief effects	Effects last less than a day
Temporary effects	Effects lasting less than a year
Short-term effects	Effects lasting one to seven years
Medium-term Effects	Effects lasting seven to fifteen years
Long-term effects	Effects lasting fifteen to sixty years
Permanent effects	Effects lasting over sixty years
Describing the Duration and Frequency of Effects:	
Reversible effects	Effects that can be undone, for example through remediation or restoration.
Frequency of effects	Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hour, daily, weekly, monthly, annually).

1.7.3.4 Interactions

Article 3(1) of the EIA Directive requires that: The environmental impact assessment shall identify, described and assesses in an appropriate manner, in light of each individual case, the direct and indirect significant effects of a project on the [Environmental factors listed in a to d of the Directive] and the *interaction between the factors*.

The interaction between impacts on different environmental factors are considered as relevant throughout the EIAR. Close co-ordination and consultation between the EIA team was maintained throughout the process to ensure that interactions are adequately in this EIAR.

1.7.3.5 Mitigation and monitoring

Annex IV (7) of the EIA Directive states:

“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, reduced or offset, and should cover both the construction and operational phases.”

Early in the design process assessments are carried out to identify likely significant effects and to integrate mitigation measures into the fundamental design to address potential adverse effects.

Close consultation and collaboration between the EIA team was undertaken during the development and assessment of the final mitigation measures. Mitigation measures may unintentionally cause indirect effects, on other environmental factors. For example, landscaping mitigation to reduce visual impacts could interact with proposals for a noise barrier wall to mitigate noise effects. Co-ordination via EIA project team

workshops were undertaken to ascertain if mitigation proposed needs to be referred to and/or assessed in other sections of the EIAR has been undertaken as part of this EIAR.

1.7.3.6 Residual impacts

The residual impacts are the final or intended effects which occur after the proposed mitigation measures have been implemented. Residual effects are described in the relevant chapters of this EIAR in accordance with the system of describing effects as set out previously.

1.7.3.7 Cumulative assessment of effects

Annex 5(1)(e) of the EIA Directive requires that the EIAR shall contain:

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

(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;”

Furthermore, Annex IV (5) states that the EIAR shall contain:

“The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect 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 established at Union or Member State level which are relevant to the project”.

The cumulative effects of the proposed development in respect of each of the environmental factors have been identified and assessed in a tiered approach whereby, the cumulative effect of the entirety of the project, which considers the of many minor or significant effects resulting from the entirety of the project have been assessed under each environmental factor in the respective chapter in the EIAR, as appropriate in Volume 2 of this EIAR. The cumulative effects resulting from relevant plans and projects are identified, described and assessed in Chapter 26 of this EIAR.

1.8 Difficulties encountered / limitations

No significant difficulties were encountered during the preparation of this EIAR. Any technical limitations associated with assessment of an environmental factors are detailed in the relevant EIAR chapter. However, it must be noted that due to the unprecedented Covid 19, government restrictions presented unique challenges for the project team to progress the EIAR. However, the compilation of the information necessary for the EIAR did not present any significant difficulties. Some assumptions and projections were necessary for certain areas of this assessment, particularly the traffic and noise assessments, detailed in the respective chapters.

Survey work has been undertaken to complement data from official sources to provide reliable and up-to-date baseline information on which to undertake the environmental assessments. Access to lands for surveys was not permitted to a small number of landholdings and assumptions are made in these locations.

This EIAR has been prepared based on the best available information and in accordance with current best practice and relevant guidelines.

1.9 Structure of the EIAR

This EIAR has been prepared on behalf of C oras Iompair  ireann/Iarnr od  ireann (“the Applicant”) and IDOM with the assistance of a team of competent experts. See Section 1.10 for further details.

This EIAR is presented as follows:

Volume 1: Non-Technical Summary

Volume 2: Main Text

- Chapter 1: Introduction
- Chapter 2: Policy Context and Need for the Project
- Chapter 3: Alternatives
- Chapter 4: Description of the Proposed Development
- Chapter 5: Construction Strategy
- Chapter 6: Traffic and Transportation
- Chapter 7: Population
- Chapter 8: Biodiversity
- Chapter 9: Land and Soils
- Chapter 10: Water (including Hydrology and Flood Risk)
- Chapter 11: Hydrogeology
- Chapter 12: Air Quality
- Chapter 13: Climate
- Chapter 14: Noise and Vibration
- Chapter 15: Landscape and Visual Amenity
- Chapter 16: Material Assets: Agricultural Properties
- Chapter 17: Material Assets: Non-agricultural Properties
- Chapter 18: Material Assets: Utilities
- Chapter 19: Material Assets: Resources and Waste Management
- Chapter 20: Archaeology and Cultural Heritage
- Chapter 21: Architectural Heritage
- Chapter 22: Electromagnetic Compatibility and Stray Current
- Chapter 23: Human Health
- Chapter 24: Major Accidents and Disasters
- Chapter 25: Interactions
- Chapter 26: Cumulative Effects
- Chapter 27: Summary of Mitigation and Monitoring Measures

Volume 3a: Technical Figures

Volume 3b: Photomontages

Volume 4: Technical Appendices

Supporting Environmental Documents

1.10 EIA project team

The EIA Directive requires the developer to ensure that the EIAR is prepared by competent experts. Table 1-3 below outlines the qualifications and expertise of the key members of the project team who were involved in the preparation of this EIAR.

Table 1-3 EIA project team

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
Chapter 1: Introduction	Frances O'Kelly Roughan & O'Donovan (ROD)	MSc, BSc, MIPI	This chapter is prepared by Frances O'Kelly. Frances is an Associate in the Roughan and O'Donovan (ROD) Environmental Team. She is a Spatial Planner with over 13 years' experience. Frances holds a B.Sc. (Hons) in Spatial Planning and a M.Sc. (Hons) in Community Local Development from the Dublin Institute of Technology and completed Human Health Impact Assessment course with the Institute of Public Health in Ireland. She is a social scientist with extensive experience in EIA, SEA, and socio-economic, human health assessments. Frances is a member of the Irish Planning Institute. Frances has worked as an Environmental Planner and/or EIA Co-ordinator on a range of infrastructure and development projects in Ireland including: Waterford Sustainable Transport Bridge EIAR, Dursey Island Cable Car & Visitor Centre EIAR, Luas Finglas Route Options Report Metro North Environmental Impact Statement (2008), CrossRail1 Environmental Statement (2008).	13
Chapter 2: Policy Context and Need for the Project	Frances O'Kelly Roughan & O'Donovan (ROD)	MSc, BSc, MIPI	See above.	13
	Barry Corrigan Roughan & O'Donovan (ROD)	BSc Hons, DIP, CEnv	Barry is a Chartered Environmentalist (CEnv.), Director and the Environmental Team Leader in ROD. He holds a B.Sc. (Hons) in Environmental Studies from Trinity College Wales and a Post Graduate Diploma in EIA & SEA Management from UCD. Barry has over 22 years' experience working on multi-disciplinary infrastructure projects and has a track record of successful delivery of EIS, EIAR and accompanying Appropriate Assessments. He has acted as Environmental Manager and Project Manager on a range of major transport infrastructure projects including greenways, light rail and road projects. Notably, Barry was the Project Manager and EIA Coordinator responsible for the N5 Ballaghaderreen to Scramoge Road Project which consisted of 35km of Type 1 single carriageway road and associated works.	22
	Cristina Chalé Sabat IDOM	MSc	Cristina brings over 15 years of experience to the project, including more than 12 years in the railway sector. She began her contribution to the DART+ West project as Design Manager, leading the technical design from inception up to the launch of the Public Consultation no. 2 in July 2021. Since then, she has assumed the role of Project Manager. She has developed most of her career in the field of railway and metro networks in greenfield but, above all, brownfield projects. In them, she has taken up the technical leadership or civil design coordination of many railway projects with multidisciplinary teams in areas such as civil, geotechnics, structures, architecture and railway systems, also taking part in the operational studies of railway networks.	17
Chapter 3 Alternatives	Mark Kilcullen Roughan & O'Donovan (ROD)	BE (Civil), MSc, CEng MIEI, FCons EI	Mark has over 31 years' experience and is the Roughan and O'Donovan Director with responsibility for railway works and bridges. Mark has a B.E. in Civil Engineering from University College Galway as well as an M.Sc. in Structures from the University of Newcastle Upon Tyne. He is a chartered member of Engineers Ireland (C.Eng., M.I.E.I.) and a Fellow of the Association of Consulting Engineers (F.Cons.E.I.). His roles require involvement in all aspects of concept and detailed design, procurement and administration of contracts for a range of projects in the rail, road and waterway environments. Mark's experience as Project Manager/Director includes dozens of Iarnród Éireann level crossing replacement projects and the delivery of the EIA for the Maynooth Line Electrification before the scheme was subsequently shelved for funding reasons.	27

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
	Borja Aróstegui Chapa IDOM	MSc, PhD Architect	Borja, as the Lead Architect for the project, has been involved in the design of the stations (mainly Spencer Dock and Connolly Station), footbridges (Ashtown and Coolmine) and parapets. He has over 15 years' experience. Among his works, those which are related to the development of transport infrastructure stand out: he was the team leader for the tender design of 15 metro stations, control centre and depot for a new Istanbul Metro line, for the preliminary design of 20 stations and urban integration for the first Light Rail line in Ciudad de Guatemala, for the tender design of 5 metro stations and an intermodal transportation hub for a new metro line in Alger and for the detailed design of 17 train stops in the Santiago-Rancagua commuter line in Chile. He is also responsible for the design of the India International Exhibition Centre in Delhi (under construction).	15
	Cristina Chalé Sabat IDOM	MSc	See above.	17
	Barry Corrigan Roughan & O'Donovan (ROD)	BSc Hons, DIP, MIEMA, CEnv	See above.	22
Chapter 4 Description of the Proposed Development	Cristina Chalé Sabat IDOM	MSc	See above.	17
	Lynda Angus IDOM	MEng CEng MICE	Lynda brings more than 12 years of working experience, including more than 10 years in the railway sector. She has a Masters degree in Civil and Environmental Engineering from University of Edinburgh (2010) and is a Chartered Civil Engineer in the UK under the Institution of Civil Engineers (ICE). Lynda has worked for IDOM as Design Manager on the DART+ West Project since 2021 and joined the company from Bechtel where she has accumulated vast amounts of experience in design and construction management of major infrastructure projects, both in the UK and abroad. Lynda has developed a wide-ranging skill set through undertaking roles within client, contractor and design consultant organisations and has experience of the entire project lifecycle from concept design through to project handover. She has worked on iconic projects such as HS2 and Crossrail in the UK and Riyadh Metro Project in Saudi Arabia.	12
	Miguel Angel Piñeiro Torres IDOM	MSc Telecom Eng, PMP®	Miguel brings more than 24 years of working experience, including more than 10 years in the railway sector. Miguel is a chartered engineer under the Telecoms Engineer official body in Spain. He has worked in several system integration companies such as Telefónica Sistemas and Indra, designing and delivering end-to-end telecommunication solutions in mission critical environments. He has worked in HHR (Haramain High Speed Rail) in Saudi Arabia, integrating and delivering the telecommunication solution; in Algeria, leading the supervision of design and construction for the extension and upgrading the existing line of Constantine light rail train, and he has worked in several other countries such as Spain, Portugal, France, Sweden and Israel. He has been project manager and technical lead of railway cross transversal projects that include all the disciplines: signaling, telecom, energy, track, depots, civil works, geotechnical, structures, architecture, depots, stations, etc.	24

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
	Carlos Azuaga Pozo IDOM	BEng (Hons) CEng MIET	<p>Carlos brings over 13 of experience in Overhead Line Equipment (OHLE) & HV and Traction for projects in Ireland, Spain, United Kingdom, Denmark, Poland, Sweden and Israel, providing a high level of technical competence, advice, and project engineering skills. Carlos is a Chartered Engineer in the UK under the Institution of Engineering and Technology.</p> <p>Carlos was leading and co-ordinating the design team for power supply and OHLE, systems assurance, rolling stock, EMC signalling and communications and the depot for the MetroLink project in Dublin. And he is currently the CRE (Design Lead) for the OHLE and HV & Traction systems for the DART+ West project.</p>	13
	Javier Duran Ruiz de Gaona IDOM	MSc Civil Eng	<p>Javier brings more than 15 years of working experience, including more than 10 years in linear infrastructure projects. He has been working in IDOM for more than 15 years, developing design functions, and coordinating work teams in Spain and worldwide. He has been involved in international projects in countries such as Saudi Arabia, Libya, Angola, Colombia, Israel, United Kingdom and Ireland. This includes the design of the first metro line in Dublin (MetroLink), the design of Purple Line of Jerusalem LRT Network, and the design of Line3 of Riyadh Metro where he has played a management role throughout all phases of the project life cycle. His background in rail depot projects include: Gilo depot for the tram lines of Jerusalem LRT Network, depot "Patios de Bello" for Metro Medellín and Dardistown depot of MetroLink in Dublin. He also has experience in other infrastructure projects, apart from rail projects, for example in roads, airports, hydraulics works, building, etc.</p>	18
	Asier Anacabe Uriarte IDOM	MSc Industrial Eng	<p>Asier has 31 years of experience in project and construction management, in M/E engineering and in tunnel safety infrastructure engineering. He has been working as Project and/or Construction Manager in very large multidisciplinary projects. He brings a large experience in power supply, control and safety installations on motorways in the mountainous province of Gipuzkoa, with a total of 24 km length of fully equipped tunnels, multiple electrical MV substations, and a large LV distribution system, with a total investment of 89MM € during more than 13 years.</p> <p>He also can provide his experience on metro projects, in Riyadh and Istanbul, in MV and LV for auxiliary services at stations.</p>	31
	Maria Del Mar Mayo Martinez IDOM	Msc Civil Engineer, PMP®	<p>Maria is a MSc Senior Civil Engineer (2001), University of Cantabria, Structures and Foundations specialist. PMP® (2019). She has developed her professional career in IDOM. She has international experience, as project manager, project director and/or structural specialist, in several infrastructure projects; highspeed railway infrastructure lines; metro and light rail lines; roads and highways; in different phases along the project cycle life.</p> <p>Some relevant projects led by Mar are DART+West (Ireland) as project director, Copenhagen Ring 3 Project (DK), as project director for the Preliminary/Detailed Design/Follow-up of the LRT 18 kms Civil Work Design and Build Contract, Lines VBG & L, Odense Tramway (DK), as project director, 14 kms Transport System Design and Build Contract, Riyadh Metro Line 3 (Saudi Arabia), Elevated Stations, project manager. As project manager she oversaw the structural design within several High-Speed Lines in Spain and railway lines in Croatia.</p> <p>Regarding building structures, she has worked in several countries designing singular buildings: institutional, hospital, garages and housing. Highlighting the structural design of the Iberdrola Tower, in Abandoibarra, Bilbao, a building designed by Cesar Pelli, 165 meters high above ground.</p>	21

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
	Alfonso Celada Jaramillo IDOM	MSc Civil Engineer	<p>Alfonso Celada has been working in IDOM since 2006 as civil structural engineer. Alfonso is Master Civil Engineer with 17 years of experience in structural design related to large transport infrastructures. He has developed his professional career in the field of executive planning of large-scale reinforced concrete, prestressed concrete and steel structures for transport infrastructures. He has participated in both high speed and conventional rail projects.</p> <p>Mr. Celada has extensive experience in the development of all the different stages involved in large transport infrastructure project, from feasibility studies to preliminary and detailed design; all of which means that he can approach any project from a global perspective. Especially relevant is his experience in high-speed rail exclusively for passenger traffic (HSL Spain).</p>	16
	Borja Aróstegui Chapa IDOM	MSc, PhD Architect	See above.	15
	Mark Kilcullen Roughan & O'Donovan (ROD)	BE (Civil), MSc, CEng MIEI, FCons EI	See above.	27
	Thomas Leonard Roughan & O'Donovan (ROD)	BEng (Hons) CEng MIEI	<p>Thomas is a design consulting engineer in Roughan & O'Donovan's Transportation Group. Thomas is a chartered engineer (C.Eng.) with a B.E. in Civil Engineering from Dundalk IT and a B.Eng. (Hons) in Civil Engineering from DIT. He is also a member of the Institute of Engineers (M.I.E.I.). His 14 years' experience includes two years as a site engineer on numerous civil engineering projects in urban environments and design and implementation of temporary traffic management plans. Thomas has worked on a variety of transportation and civil engineering projects from conception through to construction with a focus on the detailed design, tender action, evaluation, award stages and construction support of transportation schemes.</p>	14
	Barry Corrigan Roughan & O'Donovan (ROD)	BSc Hons, DIP, MIEMA, CEnv	See above.	22
	Andrea Sánchez Amores (IDOM)	MSc Telecoms Engineer	<p>Andrea is a Telecoms Engineer with 10 years of experience in the Railway industry. She has worked extensively in the design and execution phases of mass transit projects, as well as in the tender phase. Some of the key projects where she has participated include: the CBTC re-signalling project of the S-bane (mass transit) in Copenhagen, where she was the Telecoms Systems Manager, several Metro projects in South America as Telecoms Designer, and the last two and a half years she has been working as Telecoms CRE for the DART+ West project. She has strong project management skills (she is Prince2 certified), as well as knowledge of Safety and Risk management processes.</p>	15

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
	Kevin Blackwood Blackwood Associates	Bachelor of Architecture Part III, MRIAI RIAI Conservation Grade 1	Kevin is a Grade 1 Conservation Architect with a broad experience in the conservation and adaptation of historic buildings and sites. He has been responsible for the design and project management of a series of important public commissions. Kevin is familiar with Georgian buildings: he was responsible for the conservation plan and conservation works at Westport House. He has been responsible for the extensive works to the important medieval site of Rinn Dúin. Additionally, Kevin has been involved in projects such as St. Audoen's Church and the O'Brien Institute.	30
	Michael Halpenny Blackwood Associates	B.Sc. (Hons) ArchTech, Post Grad Dip	Michael brings a broad experience of working with historic buildings, having produced conservation standard surveys, detail designs and construction documentation and on site supervision at a number of important historic buildings, including Russborough House, the Town Hall and Court House, Dun Laoghaire, the East Pier Dun Laoghaire and the Law Society in Blackhall Place. Michael has produced extensive record drawings reports and specifications detailing the repair works being carried out at the national monument of Rinn Dúin. He has also overseen the conservation of numerous other medieval sites including, Kiltreevan Graveyard, a ruin at Strokestown House and Lisonuffy Church, all in Roscommon, Grey Abbey and Tea Lane Graveyard in Kildare and St Audeon's Church in Dublin.	19
Chapter 5 Construction Strategy	Cristina Chalé Sabat IDOM	MSc	See above.	17
	Lynda Angus IDOM	MEng CEng MICE	See above	11
	Miguel Angel Piñeiro Torres IDOM	MSc Telecom Eng, PMP®	See above	24
	Carlos Azuaga Pozo IDOM	BEng (Hons) CEng MIET	See above	13
	Asier Anacabe Uriarte IDOM	MSc Industrial Eng	See above	31
	Mark Kilcullen Roughan & O'Donovan (ROD)	BE (Civil), MSc, CEng MIEI, FCons EI	See above.	27
	Thomas Leonard Roughan & O'Donovan (ROD)	BEng (Hons) CEng MIEI	See above	14
	Andrea Sánchez Amores (IDOM)	MSc Telecoms Engineer	See above	15

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
Chapter 6 Traffic and Transportation	Cristina Chalé Sabat IDOM	MSc	See above	17
	Philip Shiels AECOM	BEng (Hons), CEng MIEI	Philip Shiels is a Chartered Engineer who has been working in AECOM's Dublin office since 2006 in the Transportation Planning area. Philip has a B.Eng. (Hons) in Civil & Transportation Engineering from Napier University Edinburgh and a Diploma in Civil Engineering from DIT. He is also a chartered engineer (C.Eng.) and a Member of the Institution of Engineers of Ireland (M.I.E.I.). He has a significant amount of experience in both highway and public transport modelling and also has considerable experience in the area of project appraisal and business case development and has acted as appraisal team leader in the assessment of numerous transportation projects.	15
	Beata Smyl AECOM	MSc Eng, MIEI, CEng	Beata Smyl is a Chartered Engineer with AECOM since 2013. She is a Chartered Engineer (C.Eng.) and a member of the Institution of Engineers Ireland (IEI) working in the Transportation Planning area. She has a significant experience in the transport modelling field of both public transport schemes, using the NTA's Regional Modelling System and highway projects. She has acted as lead on transport modelling, appraisal and reviews on a wide range of transportation projects, including Luas Cross City EIAR. She led the modelling tasks and traffic impact assessment associated with writing this chapter.	16
	Caroline Brooks AECOM	BSc (Hons) MTPS	Caroline Brooks is a Transport Planner who has been working for AECOM since 2014 in Development Planning. Caroline has a BSc (Hons) in Geography from the University of Derby and is a Member of the Transport Planning Society. Caroline has a significant amount of experience in the preparation of Transport Impact Assessments for varying different land use classes, including road schemes, across the UK and Ireland. This includes liaison with relevant stakeholders and leading the internal teams. Caroline has also provided Development Control support, in the form of reviewing transportation impact of proposals, for local highway authorities in the UK and Ireland as well as National Highways.	16
Chapter 7 Population	Frances O'Kelly Roughan & O'Donovan (ROD)	MSc, BSc, MIPI	See above.	13
	Yana Bersunukayeva Roughan & O'Donovan (ROD)	MSc, BSc,	Yana Bersunukayeva assisted in the preparation of this chapter. Yana is an Environmental Scientist in Roughan & O'Donovan Consulting Engineers. She holds a B.A. (Hons) in Environmental Science from Trinity College Dublin and a M.Sc. (Hons) in Global Change, Ecosystem Science and Policy from University College Dublin. Yana's work involves coordinating the preparation of Environmental Planning Documents for a range of projects as well as managing the preparation of Environmental Impact Assessment Reports (EIAR).	4
Chapter 8 Biodiversity	Patrick O'Shea Roughan & O'Donovan (ROD)	BA, MSc	The Biodiversity Chapter has been prepared by Patrick O'Shea. Patrick has a degree in Botany from Trinity College Dublin and an MSc in Ecological Management and Conservation Biology from Queen's University Belfast. He is a Full Member of the Chartered Institute of Ecology and Environmental Management and has over nine years' experience in the ecological assessment including assessing impacts from linear infrastructure projects in Ireland and the UK. Patrick holds licences issued by the National Parks and Wildlife Service for bat roost disturbance during surveys (DER-BAT-2022-39) and to handle bats during the course of his work (C59/2022).	7

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
	Kate Moore Roughan & O'Donovan (ROD)	BSc Hons	Kate is an Ecologist with over six years' experience in ecological assessment. She holds a B.Sc. (Hons) in Environmental Biology from University College Dublin. Kate has experience in undertaking specialised surveys of wintering birds, red squirrel, badger, otter, newt, bat and invasive plant species. She has also authored and contributed to numerous Environmental Impact Assessments, Appropriate Assessments and Strategic Environmental Assessment reports.	6
Chapter 9 Land and Soils	Paul Kissane Roughan & O'Donovan (ROD)	BA, BAI, PhD, CEng, MIEI	Paul Kissane authored this chapter, Associate responsible for ROD's geotechnical group. He holds a B.A., B.A.I., and a Ph.D. from the Trinity College, Dublin. He is a Chartered Engineer with 14 years' experience in geotechnical projects and is a Registered Ground Engineering Specialist (RoGEP). Paul has prepared contract documents and technical papers on geotechnical risk at all stages from preliminary to detailed designs and construction, including projects investigating Dublin Boulder Clay and Dublin Port Clay deposits, canals/quay wall structures and contaminated lands along relevant parts of this railway corridor. He has experience in earthworks, foundations, slope/retaining structures, construction over soft ground and optimisation of material reuse, predominantly for linear infrastructure projects.	21
Chapter 10 Water (including Hydrology and Flood Risk)	John Paul Rooney Roughan & O'Donovan (ROD)	BA, MAI, CEng, MIEI	John Paul Rooney is an Associate with ROD and leads the company's water engineering team. He has 20 years' experience in the design, construction and management of civil and structural engineering projects including flood alleviation schemes, road schemes, residential, education and commercial building projects, water supply and wastewater infrastructure. In 2015, he was awarded a Postgraduate Research Masters (Level 9) at Trinity College Dublin on the subject "Barriers and Solutions to the Implementation of Sustainable Drainage Systems in Dublin". He presented the findings of his research at Engineers Ireland in April 2016 and at the National Hydrology Conference in November the same year. He is also a member of the Water and Environment Committee of Engineers Ireland and in 2018 was invited by Engineers Ireland to join the "State of Ireland Flood Advisory Group" in recognition of his expertise in the field of flood risk management and sustainable stormwater practice in Ireland.	18
	Warren Vokes Roughan & O'Donovan (ROD)	BA, MSc, MCIWEM	This chapter was authored by Warren Vokes who is Senior Hydrologist at Roughan and O'Donovan Consulting Engineers. He holds a B.A. in Geography Planning & Environmental Policy from University College Dublin and an M.Sc. in River Environments & their Management from the University of Birmingham. He is a member of Chartered Institute of Water & Environmental Managers (MCIWEM) & International Association of Hydrogeologists. Warren specialises in water quality, hydromorphology, EIA and hydrodynamic modelling.	5
Chapter 11 Hydrogeology	Michael McDonald JBA	CGeol, FGS, BSc, MSc. PhD	Michael McDonald is Chief Hydrogeologist at JBA Consulting and has 30 years' professional experience in engineering and environmental consulting. He is a Chartered Geologist and Hydrogeologist and holds a BSc (Hons) in Geology from the University of Newcastle upon Tyne, an MSc in Environmental Science from the University of Lancaster and a PhD in Geology from the University of St Andrews. Michael has experience in assessment of the impact of a wide range of developments including infrastructure developments on the hydrogeological environment including projects in Ireland.	30

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
	Alex Jones JBA	CGeol, FGS, BSc, MSc, PhD	Alex Jones authored the chapter on hydrogeology and is a Principal Hydrogeologist at JBA Consulting with 13 years' professional experience. He is a chartered geologist (CGeol) and Fellow of the Geological Society of London (FGS). Alex has a BSc (Hons) in Environmental Science from the University of East Anglia and an MSc in Hydrogeology from the University of Cardiff. He has experience in the assessment of development impacts upon the hydrogeological environment, with particular specialism in hydro ecological receptors including recent project experience in Ireland.	13
Chapter 12 Air Quality	Dr. Avril Challoner AWN Consulting Ltd.	CSci, BSc, MSc, MIAQM MIEnvSc	This chapter was authored by Dr. Avril Challoner, who is a Senior Environmental Consultant in the Air Quality and Climate section of AWN Consulting. She holds a BEng (Hons) in Environmental Engineering from the National University of Ireland Galway, HDip in Statistics from Trinity College Dublin and has completed a PhD in Environmental Engineering (Air Quality) in Trinity College Dublin graduating in 2013. She has since worked as an air quality consultant in London and Dublin. She is a Chartered Scientist (CSci), full Member of the Institute of Air Quality Management and specialises in the fields of air quality, climate, EIA and air dispersion modelling.	9
	Dr. Edward Porter AWN Consulting Ltd.	BSc Hons, PhD	Dr. Edward Porter is a Director at AWN Consulting. He has a B.Sc. in Chemistry from the University of Sussex and a PhD in Air Quality from University College Dublin. Edward has worked on numerous major infrastructure projects in Ireland and has also undertaken research in California and in Dublin. He has a detailed knowledge of air quality standards, air dispersion modelling packages and impact assessment methods. He has also written guidelines for both the EPA and NRA.	22
Chapter 13 Climate	Dr. Avril Challoner AWN Consulting Ltd.	CSci, BSc, MSc, MIAQM MIEnvSc	See above.	9
	Dr. Edward Porter AWN Consulting Ltd.	BSc Hons, PhD	See above.	22
Chapter 14 Noise and Vibration	Dr. Stephen Smyth AWN Consulting Ltd.	BSc PhD	This chapter has been prepared by Dr Stephen Smyth of AWN Consulting Ltd. Stephen holds a BAI and a PhD in Mechanical Engineering from TCD and is a member of both Engineers Ireland and the Institute of Acoustics. Stephen has responsibility for the acoustics team at AWN Consulting. Stephen has worked in the field of acoustics since 2003 gaining experience in both environmental and architectural acoustics. Stephen has experience of assessing the environmental impact of numerous infrastructure projects within Ireland including the M8, N5, N4, Dunkettle Interchange/N25 and other developments.	13
Chapter 15 Landscape and Visual Amenity	Thomas Burns Brady Shipman Martin	B.Agr.Sc (Landscape), DIP EIA, Adv Dip Planning and Environmental Law	This chapter of the EIAR has been prepared by Thomas Burns, Partner with Brady Shipman Martin environmental, landscape and planning consultants. Thomas has a primary degree in Landscape (B.Agr.Sc. (Landscape), 1989) and a postgraduate diploma in EIA Management (Dip. EIA Mgmt., 1994) both from University College Dublin (UCD) and an Advanced Diploma in Environmental and Planning Law from King's Inn (Ad. Dip. En. & Plan. Law, 2018). Thomas has over 30 years direct experience in carrying out landscape and visual impact assessments for major commercial, infrastructural, mixed-use and residential developments.	25

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
Chapter 16 Material Assets: Agricultural Properties	John Bligh John Bligh & Associates	BA. Ag, MSc MASA MACA	This chapter was prepared by John Bligh, principal consultant of John Bligh & Associates, agricultural and environmental consultants. John has a Bachelor of Agricultural Science from University College Dublin (1996) and a Master's degree in Environmental Systems from Galway Mayo Institute of Technology (2013). John has extensive experience of providing agricultural and non-agricultural input to EIA including constraints studies, route option studies and the environmental assessment at design stage. John has considerable experience as expert witness during the statutory process. He has been involved as the senior consultant in the provision of agricultural and property services on over 60 major road and rail projects in Ireland.	20
Chapter 17 Material Assets: Non-agricultural Properties	John Bligh John Bligh & Associates	BA. Ag, MSc MASA MACA	See above.	20
Chapter 18 Material Assets: Utilities	Judit Hoyos Cordero IDOM	B.Sc, Msc Civil Eng	Judit Hoyos Cordero, M.Sc. Civil Engineer, has participated in IDOM projects since 2018. She has participated in railway transport projects in several cities such as San José (Costa Rica) and Dublin (Ireland), placing special emphasis on the workshops of the new line to be electrified, including both maintenance equipment and urban services and implementation of SuDS systems. She has also participated in urban planning projects, such as the Club Med in Marbella, calculating urban services.	4
	Thomas Leonard Roughan & O'Donovan (ROD)	BEng (Hons) CEng MIEI	See above	14
Chapter 19 Material Assets: Resources and Waste Management	Victoria da Silva Pereira Roughan & O'Donovan (ROD)	BSc Hons	Victoria is a Senior Environmental Consultant in Roughan & O'Donovan. She has a B.Sc. in Environmental Science and Geography from the University of Johannesburg and a B.Sc. (Hons) in Environmental Management from the University of South Africa. Victoria has over 10 years' experience on environmental impact assessment co-ordination and environmental management systems. Her background is in linear infrastructure, and her experience covers a wide range of projects at all stages from feasibility study, options selection, preliminary design, statutory procedures and detailed design to the construction stage.	10
	Barry Corrigan Roughan & O'Donovan (ROD)	BSc Hons, DIP, MIEMA, CEnv	See above.	22
Chapter 20 Archaeology and Cultural Heritage	Faith Bailey IAC Ltd.	BA, MA, MCIFA	Faith is a Senior Archaeologist and Cultural Heritage Consultant with IAC Ltd. She holds an M.A. in Cultural Landscape Management and a B.A. in single honours archaeology from the University of Wales, Lampeter. She is a licence eligible archaeologist, a member of the Chartered Institute of Field Archaeologists (M.C.I.F.A.) and has over 13 years' experience working in commercial archaeology. She has been responsible for the production and delivery of a number of archaeological and built heritage desk top assessments, EIA, master plans, LAP/SEA and management plan associated with all sectors of development in the Republic and Northern Ireland. Faith also has significant experience in the preparation of Briefs of Evidence and taking the stand as the expert witness at Oral Hearings.	15

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
Chapter 21 Architectural Heritage	Rob Goodbody Historic Building Consultants	BA(MOD), DIP Env P, DIPABRC, MUBC, MA	Rob has gained an array of qualifications in building conservation, history and environmental planning. These include a B.A., two postgraduate diplomas and two master's degrees. Rob is also a Member of the Irish Planning Institute and a Member and former director of ICOMOS Ireland. He spent nearly thirty years as a professional planner and has also been researching the histories of buildings and towns for more than thirty years. Rob established Historic Building Consultants in 2003 and has prepared detailed reports for clients throughout Ireland. Work has included architectural heritage inputs to EIS for a large number of roads and cycleways, including works on railways, canals and bridges.	30
Chapter 22 Electromagnetic Effects and Stray Current	Nigel Duignan Compliance Engineering Ireland (CEI) Ltd.	MSc	The chapter has been prepared by Nigel Duignan of Compliance Engineering Ireland Ltd. Nigel has a Degree in Electronic Engineering from Maynooth University and an MSc in Engineering from the same university. He is also a member of the Institute of Engineers of Ireland (MIEI). He has worked in his current role as an Engineering Consultant for over 13 years and in that time has experience in assessing electromagnetic impacts for many large scale infrastructural projects including heavy and light rail developments in Ireland.	13
	John McAuley Compliance Engineering Ireland (CEI) Ltd.	MSc, BSc	John McAuley is the Managing Director of Compliance Engineering Ireland Ltd. John has 35 years' experience in EMC engineering and testing and has been lead certification signatory on virtually all major rail purchases in Ireland in the last 10 years. He has acted as consultant on the Metro North, Metro West, and BXD lines. He has extensive experience of computer modelling of power frequency and RF fields. John has also lectured extensively on the subjects of electromagnetic compatibility and electromagnetic fields and human health. He has won the IEI award for best environmental paper for a contribution on EMF.	35
Chapter 23 Human Health	Frances O'Kelly Roughan & O'Donovan (ROD)	MSc, BSc, MIPI	See above.	13
Chapter 24 Major Accidents & Disasters	Cristina Chalé Sabat IDOM	MSc, BSc, MIPI	See above.	13
	Frances O'Kelly Roughan & O'Donovan (ROD)	MSc, BSc, MIPI	See above.	13
	Yana Bersunukayeva Roughan & O'Donovan (ROD)	MSc, BSc	See above.	4
Chapter 25 Interactions	EIA contributors listed in Chapters 6-24 co- ordinated by Frances O'Kelly Roughan & O'Donovan (ROD)	MSc, BSc, MIPI	See above.	13

EIAR Chapter	Competent Experts	Qualifications	Competency Details	Experience (Years)
	Yana Bersunukayeva Roughan & O'Donovan (ROD)	MSc, BSc	See above.	4
Chapter 26 Cumulative Effects	EIA contributors listed in Chapters 6-25 co- ordinated by Frances O'Kelly Roughan & O'Donovan (ROD)	MSc, BSc, MIPI	See above.	13
	Yana Bersunukayeva Roughan & O'Donovan (ROD)	MSc, BSc	See above.	4
Chapter 27 Summary of Mitigation and Monitoring Measures	Victoria da Silva Pereira Roughan & O'Donovan (ROD)	BSc Hons	See above.	10

1.11 Consultation

Consultation during the design and environmental impact assessment process is a key element as part of any project. An overview of the statutory, non-statutory and public consultations that has informed the design and environmental assessments throughout this EIAR is presented below.

The main consultations stages as part of the project development include the following:

- Pre-Application Consultation with An Bord Pleanála (July 2020 – May 2022).
- Consultation on the Emerging Preferred Option - Non-statutory public consultation no.1 (24 August- 21 October 2020).
- Non-Statutory Informal EIA Scoping Report (March 2021).
- Consultation on the Preferred Option - Non-statutory public consultation no.2 (28 July 2021- 6 October 2021) & Revised Ashtown Preferred Option Localised Consultation (9 March 2022- 6 April 2022)
- Statutory consultation as part of the EIA / Railway Order application process.

The non-statutory consultation and feedback received during the consultation phases is addressed in greater detail in Appendix A3.1 Public Consultation No.1 Consultation Findings Report and Appendix A3.2 Public Consultation No.2 Consultation Findings Report in Volume 4 of this EIAR.

1.11.1 RO Statutory Consultation

Section 40 of the 2001 Act details the notification and publication process which is carried out before an application is made by CIÉ for a Railway Order. This includes:

- Depositing – and keeping deposited – at places which are accessible to the public as directed by An Bord Pleanála, a copy of the draft order RO and all documents accompanying the application, for not less than 6 weeks following the publication of the notice referred to in section 40(1)(b) of the 2001 Act.
- Publishing a notice in one or more newspapers circulating in the area to which the RO relates:
 - indicating that an application will be made for an order.
 - indicating the time and the place or places at which, and the period (which shall be 6 weeks) during which, a copy of the draft order and accompanying documents deposited under section 40 may be inspected.
 - stating that An Bord Pleanála will consider any submissions in relation to the proposed order or in relation to the likely effects on the environment of the proposed railway works which are submitted in writing to it by any person within the 6 week consultation period.
 - stating that a copy of or extract from the draft order and accompanying documents may be purchased on payment of a fee not exceeding the reasonable cost of making such copy or extract stating, if it be the case, that the proposed railway works are likely to have significant effects on the environment in Northern Ireland.
 - stating that a person may question the validity of a decision of An Bord Pleanála by way of an application for judicial review, under Order 84 of the Rules of the Superior Courts (S.I. No. 15 of 1986).
 - identifying where practical information on the review mechanism can be found.
- Serve on the planning authority/planning authorities in whose functional area(s) (or any part thereof) the proposed railway works are proposed to be carried out, on the Minister for Transport and on such other persons (if any) as An Bord Pleanála may direct a copy of the draft order and accompanying documents and the notice referred to in section 40(1)(b) of the 2001 Act.
- Serve a copy of the newspaper notice together with relevant extracts from the documents referred to in section 40(1)(a) of the 2001 Act on every occupier and every owner of a land referred to in the draft order.
- Members of the public and any other body can make a submission or observation in writing in relation to the RO application, including the EIAR and the compulsory purchase order and supporting documents.

- An Bord Pleanála may request further information. If the response to the further information contains significant data in relation to the likely effects on the environment of the proposed Project, An Bord Pleanála must direct CIÉ that the information is put on a further public consultation for at least three weeks.
- Valid submissions received will be considered by An Bord Pleanála as part of the decision-making process.
- It is at the discretion of An Bord Pleanála whether or not an oral hearing will be held.
- After the Oral Hearing An Bord Pleanála will prepare an assessment of the proposed development and will decide whether to grant, grant in part or refuse the RO.

An approved RO is required to construct and operate the proposed development and for the necessary compulsory purchase order arrangements.

1.12 References

Environmental Protection Agency. (2022) *Guidelines of the Information to be contained in Environmental Impact Assessment Reports, 2017.*

Environmental Protection Agency. (2015) *Revised Guidelines on the Information to be contained in Environmental Impact Statements (draft September 2015).*

Environmental Protection Agency. (2015a) *Advice Notes for Preparing Environmental Impact Statements (draft September 2015).*

Environmental Protection Agency. (2003) *Advice Notes on Current Practice in the Preparation of Environmental Impact Statements.*

Environmental Protection Agency. (2002) *Guidelines on the Information to be contained in Environmental Impact Statements.*

European Union. (2013) *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment.*

European Commission (2017) *Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU).*

European Commission. (2012) *Interpretation suggested by the Commission as regards the application of the EIA Directive to ancillary/associated works.*

European Commission. (2006) *Clarification of the application of Article 2(3) of the EIA Directive.*

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

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

European Union (2014) Directive 2014/52/EU of 16 April 2014 on the assessment of the effects of certain public and private projects on the environment

Government of Ireland. (2006) Planning and Development (Strategic Infrastructure) Act 2006

Government of Ireland. (2015) Roads Act 2015

Government of Ireland. (2001) Transport (Railway Infrastructure) Act 2001

Transport Infrastructure Ireland. (formerly National Roads Authority) (2008) *Environmental Impact Assessment of National Road Schemes – A Practical Guide.*

