

Environmental Impact Assessment Report

Chapter 1

Introduction and Project Screening

Volume 2 Part 1



1 INTRODUCTION AND PROJECT SCREENING

1.1 Context

This Environmental Impact Assessment Report (EIAR) has been prepared by RPS, on behalf of the applicant for permission, Dublin Port Company (DPC), in respect of the 3FM Project. The 3FM Project is the third and final Strategic Infrastructure Development (SID) project at Dublin Port within the Dublin Port Masterplan 2040, reviewed 2018, for which development consent is sought.

DPC is applying for a 15-year permission to facilitate the construction of the 3FM Project, given the scale of the proposed development and the overriding imperative to ensure that Dublin Port continues to operate effectively during construction which will require works to be staged in distinct phases.

In addition to permission sought under section 37G of the Planning and Development Act 2000, as amended (referred to throughout this EIAR as “the 2000 Act”), additional consents are required for certain marine works included in the 3FM Project, including a Dumping at Sea (DaS) Permit from the Environmental Protection Agency (EPA). Other consents will also be required for a range of activities including waste management, service connections and archaeological monitoring from the relevant consenting authorities.

The 3FM Project does not require a Marine Area Consent under the Maritime Area Planning Act 2021 as it falls within the time-limited exempting provisions of section 75(4) of that 2021 Act, as inserted by section 277 of the Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023.

This EIAR has been prepared to support the relevant assessments to be carried out by the respective competent authorities on all relevant applications related to development consent. Accordingly, this EIAR identifies, describes and assess in an appropriate manner, all the direct and indirect significant effects of the 3FM project, regardless of the content of any application for consent.

This chapter of the EIAR introduces the project and outlines the procedure that was followed for screening and preparing this EIAR.

1.2 Purpose of the EIAR

Environmental Impact Assessment (EIA) is a procedure under the terms of European Union Directives¹ for the assessment of the likely significant effects of a project on the environment. An Environmental Impact Assessment Report (EIAR) is a statement prepared by the applicant for development consent, providing information on the likely 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 within their discipline.

¹ EU Directive 85/337/EEC, as amended, and codified by Directive 2011/92/EU (as amended by Directive 2014/52/EU).

The primary objective of any EIAR is to identify the baseline environmental context of the proposed project, to identify the effects, if any, which the proposed project, if carried out, would have on the environment and to propose alternative options, where feasible. Where alternative options are not feasible, appropriate mitigation measures, where necessary, are proposed.

In preparing this EIAR, the following legal provisions and guidelines, amongst others, were followed:

- The requirements of EU EIA Directives and Irish law regarding Environmental Impact Assessment (including Part X of the Planning and Development Act (PDA) and Part 10 of the Planning and Development Regulations 2001, as amended (PDRs));
- European Commission Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Commission, 2017);
- The Planning and Development Act 2000 (as amended); and
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022).

In addition, specialist disciplines have had regard to other relevant guidelines and legislation where appropriate, as noted in the specific chapters of the EIAR. This EIAR includes all of the information that may reasonably be required to reach a reasoned conclusion on the likely significant effects of the 3FM Project on the environment, including all of the information specified in Annex IV of the EIA Directive, taking into account current knowledge and methods of assessment.

1.3 Function of the EIAR

This EIAR is a report, prepared on behalf of the developer, of the effects which the proposed project, if carried out, may have on the environment and includes the information specified in Annex IV of the Environmental Impact Assessment Directive, and is submitted to a competent authorities as part of a development consent process. The competent authority uses the information provided in the EIAR to assess the environmental effects of the project and, in the context of other considerations, to help determine if consent should be granted. The EIAR contains information regarding:

- The project;
- The likely significant effects of the project;
- The baseline scenario;
- The considered alternatives;
- The features and measures to mitigate any significant adverse effects;
- Additional information specified in Annex IV of the EIA Directive; and
- The Non-Technical Summary.

Environmental impact assessment is a process consisting of:

- (i) the preparation of an EIAR by the developer;

- (ii) the carrying out of consultations;
- (iii) the examination by the competent authority of the information presented in the EIAR (and any supplementary information provided) and any relevant information received through the consultations;
- (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 above (including, significantly, the examination of the information presented in the EIAR);
- (v) the integration of the competent authority's reasoned conclusion into any other relevant decisions.

Accordingly, this EIAR includes the necessary information, and is of sufficient quality, for the competent authorities to reach a reasoned conclusion on the significant effects of the 3FM project on the environment. Article 5 of the EIA Directive, and Schedule 6 of the Planning and Development Regulations 2001, as amended (referred to throughout this EIAR as "PDRs 2001") specifies the minimum content of an EIAR.

The EIAR has been prepared following an examination, analysis, and evaluation of the direct and indirect significant effects of the project in relation to the receiving environment.

1.4 Technical Difficulties or Lack of Data

The compilation of the information necessary for the EIAR did not present any significant difficulties. In addition to published datasets, the preparation of the EIAR has drawn on the environmental monitoring programme which is currently in place for the construction of the following projects at Dublin Port:

- Alexandra Basin Redevelopment (ABR) Project, the first SID brought forward to planning from the Dublin Port Masterplan 2040, and which commenced construction in 2016; and
- MP2 Project, the second SID brought forward to planning from the Dublin Port Masterplan 2040, and which commenced construction in 2022.

The combined ABR Project and MP2 Project monitoring programme is comprised of:

- Continuous noise monitoring at three locations;
- Continuous dust monitoring at two locations;
- Periodic vibration monitoring;
- Continuous water quality monitoring (turbidity, dissolved oxygen, temperature, salinity) within the inner Liffey channel at four locations (pH was added in 2023);
- Continuous water quality monitoring (turbidity at three depths) within Dublin Bay at four locations over the period October 2017 to March 2021. This was complemented by continuous wave climate and tidal current measurements;
- Passive Acoustic Monitoring (PAM) for Harbour Porpoise detection at two locations within Dublin Bay over the period October 2017 to March 2021 during the ABR Project capital dredging campaigns, and one location within the inner Liffey channel from July 2022;

- Static Acoustic Monitoring (SAM) for Harbour Porpoise detection at four locations within Dublin Bay over the period October 2017 to March 2021 during the ABR Project capital dredging campaigns, and at three locations from April 2022;
- Records of marine mammal sightings by Marine Mammal Observers (MMOs) during dredging and piling operations;
- Benthic surveys of the licenced dumping at sea site located at the entrance to Dublin Bay;
- Monthly seal surveys at Bull Island;
- Lamprey surveys within the Liffey;
- Wintering waterbird surveys within the South Dublin Bay & River Tolka Estuary Special Protection Area (SPA);
- Tern colony surveys;
- Black guillemot surveys; and
- Underwater noise surveys during piling and dredging activities to validate models used to assess the impact on migratory fish and marine mammals.

The site-specific and up-to-date scientific data collected was used in the preparation of the EIAR for the project and serves to illustrate the depth of understanding of the environment in and around Dublin Port, including the inner Liffey channel (Dublin Harbour) and Dublin Bay, and the quality of the data on which that understanding is based.

The preparation of this EIAR was further assisted by the extensive environmental datasets collated during the preparation of the Strategic Environmental Assessment (SEA), for the purposes of the review of the Dublin Port Masterplan during 2017 and 2018.

Additional survey work has been undertaken to provide up-to-date baseline information for the environmental assessments, in addition to the site-specific information from the existing databases from official sources, as detailed within specific chapters of this EIAR.

1.5 The Applicant and the Dublin Port Masterplan 2040

DPC is a statutory company incorporated on 28 February 1997 pursuant to the powers granted to the (then entitled) Minister for the Marine and Natural Resources by section 7 of the Harbours Act 1996. DPC traces its legal origin from the Corporation for the Preserving and Improving of the Port of Dublin Act 1786 to the Dublin Port Act 1867, until the establishment of the modern Company pursuant to the Harbours Act 1996. DPC is a commercial company, wholly owned by the State, tasked with the management and development of Dublin Harbour.

Dublin Port is the largest freight and passenger port in Ireland, with all cargo handling activities being carried out by private sector companies operating in intensely competitive markets within the port.

Dublin Port has been identified as a Core Port of international significance in the Trans European Network (TEN-T) Policy as defined by the European Union based on Regulation 1315/2013. It forms part of the European

Union's Core Transportation Network and was also designated a Tier 1 Port of national importance in the National Ports Policy 2013 and again in the National Ports Policy 2019.

Dublin Port's large share of national port volumes, particularly in the Roll-On Roll-Off (Ro-Ro) and Lift-On Lift Off (Lo-Lo) modes, arises from a combination of two factors: location; and depth of water. Dublin Port is a key part of the national port system and DPC seeks to ensure that it plays its role in providing national port capacity.

For all of Ireland's major national ports, it is essential for the health and vitality of the national economy that capacity constraints do not emerge which could lead to supply chain inefficiencies. The Dublin Port Masterplan 2040 seeks to ensure that no capacity constraints emerge in Dublin Port between now and 2040.

The Dublin Port Masterplan 2040 sets out DPC's vision to transform Dublin Port into a highly land efficient port and an attractive community resource in its own right, accessible and permeable to the people of Dublin to enjoy and experience the port's heritage in all its diversity, from the natural environment, to arts, to local history.

Furthermore, where the Masterplan had originally envisaged a return to an eastern expansion of Dublin Port into the Tolka Estuary, the 2018 review came to the fundamental conclusion that DPC would no longer pursue this as an option. The Dublin Port Masterplan 2040 therefore aims to maximise the capacity on Dublin Port's fixed brownfield land area before seeking to develop additional port capacity at another east coast location. DPC has published the detailed analysis behind this approach in the Dublin Port Post 2040 Dialogue Papers.²

The Dublin Port Masterplan 2040, reviewed 2018, determined that the port's ultimate capacity was 77.2m tonnes of cargo throughput per annum by 2040 based on the brownfield land available to the port. Since then, however, there has been a permanent loss of 7ha of port land to State Services in the North Port, primarily for the Office of the Revenue Commissioners, Customs Division as a result of Brexit. The consequence of this loss of land has been to reduce the port's ultimate capacity to 73.8m tonnes of cargo throughput per annum by 2040.

DPC is in the process of carrying out a number of projects from the Dublin Port Masterplan 2040 to achieve the port's ultimate capacity of 73.8m tonnes of cargo throughput per annum by 2040. This development has focused, to date, on the north side of the River Liffey and at Dublin Inland Port.

On the north side of Dublin Port:

- The **ABR Project**³ is largely completed and works on the final stages are underway;
- The **MP2 Project**⁴ has commenced; and
- The project to redevelop the port's internal road system has been completed and work is underway to complete a network of Active Travel Routes (cycle, pedestrian, wheelers etc) throughout and on the periphery of the port⁵.

² Notably in [Paper 5 - The Conundrum of Planning for Long-Term Growth](#) – and in [Paper 7 - Options for the Greenfield Development of Additional East Coast Port Capacity](#).

³ ABR Project - [PA0034](#)

⁴ MP2 Project - [304888](#)

⁵ Roads Project – [Masterplan 2040](#), Figure 6, Page 47

At the 44ha **Dublin Inland Port**:

- Full planning permission has been granted for one site of 22ha⁶;
- The first of nine plots has been developed and is in operation to provide capacity for port-related but non-core activities which have been removed from Dublin Port to meet one of the objectives of DPC's **Franchise Policy**⁷; and
- Plans for the development of the second 22ha site for the transit storage of trailers and containers are in preparation.

DPC's focus of attention now, is to plan for the completion of the Masterplan 2040 by bringing forward the **3FM Project**, the third and final SID project within the Masterplan in order to:

- Provide one fifth of the capacity for freight required in the unitised modes (Ro-Ro and Lo-Lo) that will be needed by 2040 on the almost one fifth of Dublin Port's lands located on the Poolbeg Peninsula;
- Complete the development of Dublin Port's overall road network to maximise the removal of port traffic from other public roads in the vicinity of Dublin Port; and
- Complete a series of public realm, heritage and active travel projects on the Poolbeg Peninsula which mirror similar developments on the north side of the port to meet the Dublin Port Masterplan 2040's second objective to integrate Dublin Port with Dublin City

given the growth rates projected, and the need to cater for this growth without further eastern expansion into the Tolka Estuary.

DPC is challenged to complete major construction projects in a manner consistent with the principles of proper planning and sustainable development and which avoids, prevents or reduces impacts on the environment, without disruption to the port's large and increasing throughput of both cargo and passengers.

The Dublin Port Masterplan 2040 provides the necessary framework to enable these essential port development projects to be brought forward for required consents and to be implemented in time to meet anticipated demand.

Dublin Port is an essential part of Dublin and contributes to the life of the city in many ways. Dublin Port is a crucial part of the national infrastructure which facilitates merchandise trade in and out of Ireland. The port is also of key importance to the national tourism sector as an important gateway for visitors to Ireland. The contribution that Dublin Port makes to the national and regional economy and to the people of Ireland as a strategic piece of infrastructure gives port lands their real intrinsic value.

Dublin Port is a significant focal point for employment in Dublin, both directly through businesses operating in the port and regionally through enterprises supported by the trading activity carried out at the port. An efficient and dynamic Dublin Port will contribute to the generation of more employment in the economy.

⁶ Dublin Inland Port - [Masterplan 2040](#), Figure 4, Page 43 and Fingal County Council [grant](#) of planning permission

⁷ [Franchise Policy](#), 2014

1.6 The 3FM Project

The 3FM Project at Dublin Port has been designed in accordance with the Dublin Port Masterplan 2040. The proposed project focuses on the DPC-owned lands of the south port area on the Poolbeg Peninsula. Figure 3 in the Masterplan (reproduced in Figure 1.1) identifies the land uses and development projects on port lands which will allow the port to achieve its ultimate capacity of 73.8m tonnes of cargo throughput per annum by 2040.

The 3FM Project has evolved from the concept drawings of the Masterplan, driven by DPC's understanding of the key environmental constraints formulated by a decade of environmental monitoring, collaborative working with NGOs and Universities, and early consultation with key stakeholders.

The 3FM Project has six key elements:

1. A new public road and bridge called the **Southern Port Access Route (SPAR)** to link the North and South Port Estates.

The route will include a new bridge over the River Liffey. It will be located immediately east of Tom Clarke Bridge and north of the R131. The route will facilitate Heavy Goods Vehicles (HGVs), active travel users (pedestrians, cyclists, wheelers etc), emergency (blue light) vehicle services and public transport users moving to and from the South Port and Poolbeg Peninsula. The SPAR will allow the 3FM Project to be fully rail enabled through rapid shunting of freight by electric vehicles from the South Port Estate, across the Liffey, to rail intermodal facilities in the vicinity of the North Port Estate. The SPAR will have a direct connection to the Dublin Tunnel via the North Port Estate road system.

2. A **new Lift-on Lift-off (Lo-Lo) container terminal** with an annual throughput capacity of 550,000 Twenty-foot Equivalent Units (TEU) or 5.34m tonnes.

The Lo-Lo container terminal will consist of two main components:

- a. Terminal located north of the ESB's Generating Station on the eastern end of Poolbeg Peninsula with 650m of deep water berthage dredged to a depth of -13.0m CD (Chart Datum), plus associated cargo handling areas (Dublin Port Masterplan Area N). This terminal will accommodate larger Lo-Lo vessels of up to 240m length, primarily from Continental Europe.
 - b. Transit container storage yard located on waterside land currently used for bulk cargo handling (Dublin Port Masterplan Area L).
3. Replacement of the existing Lo-Lo container terminal, currently operated by Marine Terminals Limited (MTL), with a **new Roll-On Roll-Off (Ro-Ro) freight terminal** with an annual throughput capacity of 360,000 Ro-Ro units or 8.69m tonnes.

The Ro-Ro freight terminal will consist of two main components:

- a. Terminal located at existing Berths 42 – 45 including provision of two berths, each with a single tier Ro-Ro ramp, plus associated cargo handling facilities (Dublin Port Masterplan Area K).
- b. Terminal located on Port owned land on the southern side of the Poolbeg Peninsula (Dublin Port Masterplan Area O).

This combined terminal will accommodate larger Ro-Ro vessels of up to 240m length, primarily from Continental Europe.

4. Provision of a **325m diameter ship turning circle** in the river channel north of Pigeon House Harbour, dredged to a depth of -10.0m CD.

The ship turning circle will enable safe navigation and efficient manoeuvring of vessels up to 240m in length.

5. Maritime Village

Development of a new **Maritime Village** at Pigeon House Road and Berth 41.

This village will accommodate local rowing, sailing, and boat clubs and will provide a significantly enhanced public realm and facilities on the waterside. It will also accommodate the relocation of Port Harbour Operations from the North Port Estate.

6. Community Gain

Integrating Dublin Port with Dublin City and its people is a core objective of the Masterplan for Dublin Port. Development of proposed new public amenities on the Poolbeg Peninsula as part of the 3FM Project will provide **community gain** and contribute towards integrating the port with the city. These include:

Enhanced **recreational** amenity through:

- **7km of new or upgraded Active Travel Path** (cycle, pedestrian, wheelers etc.) and **4.9km of new or upgraded footway** for the North Port Estate, SPAR and Poolbeg Peninsula, which will link with the 1.4km Liffey Tolka Greenway in the North Port Estate, and from there to the 4.0km Tolka Estuary Greenway currently under construction by Dublin Port. DPC will also provide Dublin City Council with a €5 million contribution for future upgrading of the existing coastal path along the southern perimeter of the Poolbeg Peninsula
- Development of a sailing, rowing and maritime campus (Maritime Village) adjacent to the existing Poolbeg Yacht and Boat Club in conjunction with local yacht and boating clubs, including a public slipway and facilities for maritime skills training.
- Provision of Recreational Space
 - **Port Park and Wildflower Meadow** (2.5ha)
 - **Coastal Park** (1.6ha)
- Provision of 1.1ha extension to Irishtown Nature Park.

Enhanced **public realm** through:

- Development of a new public plaza as a key part of the Maritime Village.
- Extensive boundary softening works adjacent to the development sites forming part of the 3FM Project.

Community support through:

- Establishment of a new €2 million Community Benefit Fund for Education, Heritage & Maritime Training Skills projects within the Poolbeg area. The initial capital for the Fund will be administered by DPC in consultation with local stakeholders.

Heritage & Biodiversity enhancements through:

- Commissioning a new Public Access Feasibility Study regarding the Great South Wall so as to identify improved public interpretation, accessibility, facilities and conservation possibilities,
- Provision of up to €1 million funding to implement the study recommendations.
- Provision of an additional permanent marine structure (dolphin) to expand the available habitat and range of the Dublin Port Tern Colonies.
- Provision of Interpretative Markers to delineate the alignment of the Great South Wall (GSW)

A General Arrangement Drawing illustrating the main elements of the 3FM Project is presented in [Figure 1.2](#).

Other significant ancillary works include:

- Improvements to the existing road network, linking and providing access to the port terminals, including new signal-controlled junctions and a new roundabout on Pigeon House Road;
- Improved pedestrian access from Irishtown to the proposed Maritime Village; and
- Demolition of the existing Poolbeg Oil Jetty and Sludge Jetty.

A detailed description of each element of the 3FM Project is presented in Chapter 5 of the EIAR and on the Planning Drawings.

The estimated capital cost of the 3FM Project is €1.1 billion (2024 costs).

Without the 3FM Project, Dublin Port will reach its capacity limit much earlier than 2040, perhaps as early as 2030. If this were to happen, there is a risk of a national port capacity shortage.

Post-2040, additional capacity at other new or existing east coast ports will be required so that, as Dublin Port approaches its ultimate capacity, excess volumes which Dublin Port cannot handle can be accommodated elsewhere.

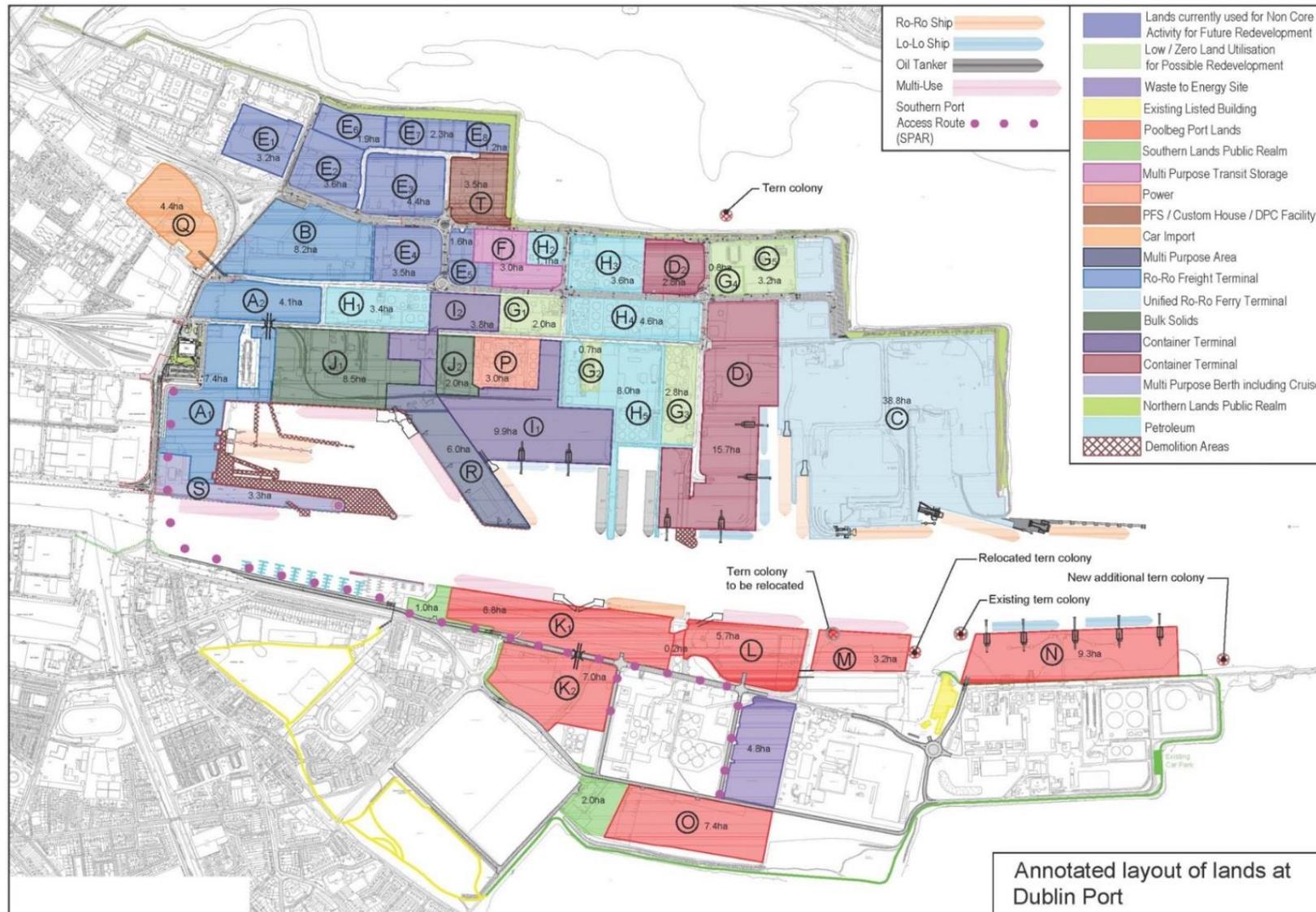


Figure 1.1 Dublin Port Masterplan 2040, reviewed 2018, Annotated Layout at Dublin Port (Reproduced from Figure 3 of the Masterplan)

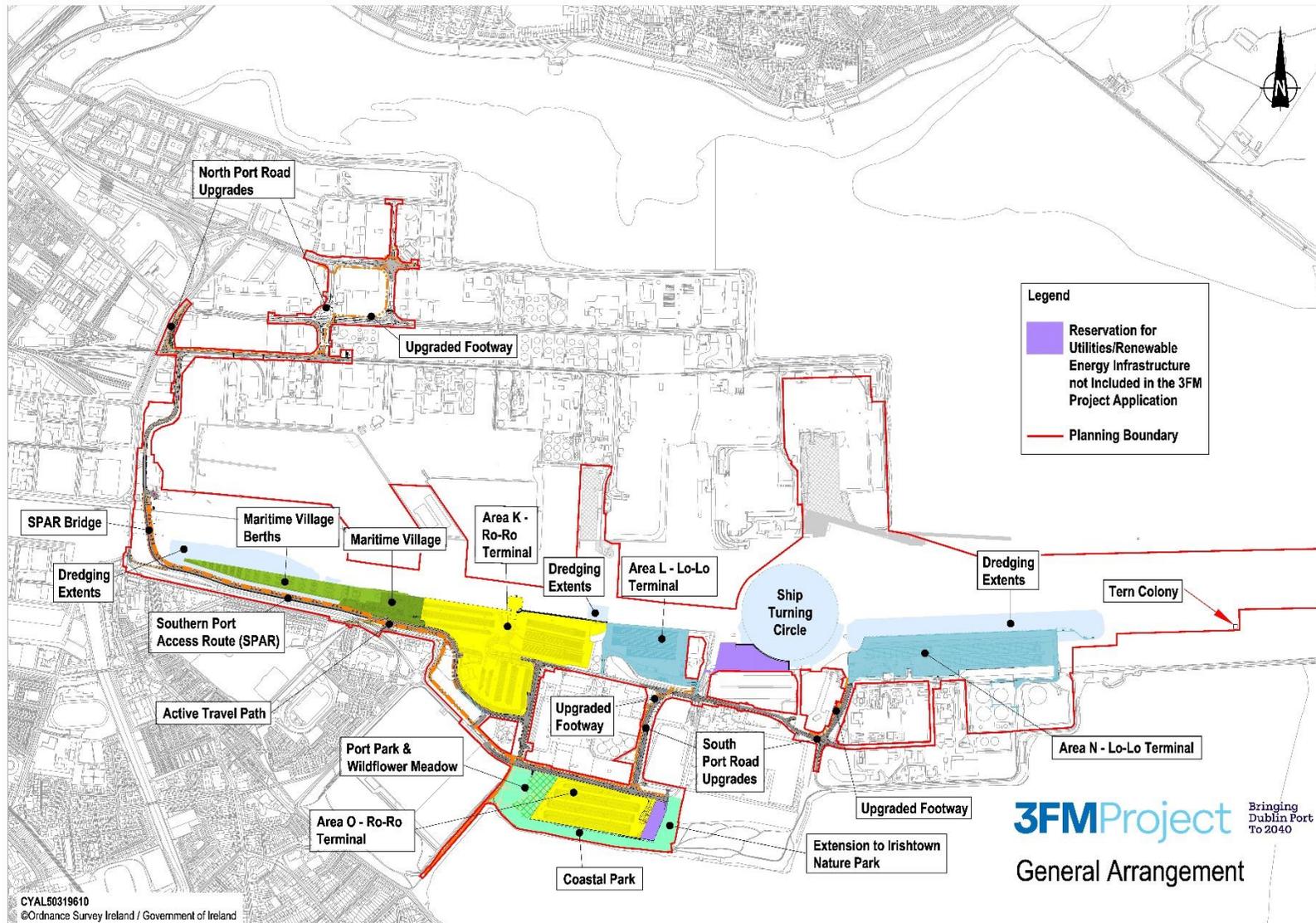


Figure 1.2 Main Elements of the 3FM Project

1.7 Project Screening and Requirement for the EIAR

The Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) summarise the position of an EIAR within the overarching EIA process (Figure 2.1 reproduced in Figure 1.3 of this Chapter of the EIAR).

The 3FM Project falls within the following class of development identified in paragraph 10(e) of Annex II of Directive 2014/52/EU (the EIA Directive):

(e) Construction of roads, harbours, and port installations, including fishing harbours (projects not included in Annex I).

In screening the 3FM Project, the applicant determined that the thresholds set out in the EIA Directive, and applicable Irish Regulations were exceeded and, therefore, an EIA would be required to be undertaken by the relevant competent authorities in the context of the applications for development consent.

Directive 2014/52/EU includes a requirement for a developer to prepare and submit an EIAR to the competent authority. For the purposes of an application for permission made pursuant to section 37E of the PDA 2000, the obligations under Directive 2014/52/EU have been transposed into Irish law pursuant to Part X of the PDA 2000 and Part 10 of the PDRs 2001.

This EIAR has been prepared in compliance with the requirements of Directive 2014/52/EU and the Irish legislation in force as of 30th June 2024.

For the purposes of the application for permission, under the provisions of section 37B(4)(a) of the PDA 2000, by notice dated 3rd May 2024, An Bord Pleanála (Ref 29N.PC0252) determined that the 3FM Project is Strategic Infrastructure Development (SID). Accordingly, the application for permission is made directly to An Bord Pleanála (the Board) under section 37E of the PDA 2000.

With respect to environmental assessment, section 37E of the PDA 2000 states:

“(1) “An application for permission for development in respect of which a notice has been served under section 37B(4)(a) shall be made to the Board and shall be accompanied by an environmental impact assessment report in respect of the proposed development.”

In this regard an EIAR is a requirement of the SID application process. To facilitate the Board in carrying out the necessary assessment, the application documentation includes this EIAR. As stated above, the same EIAR shall be submitted, as required, with other applications for development consent.

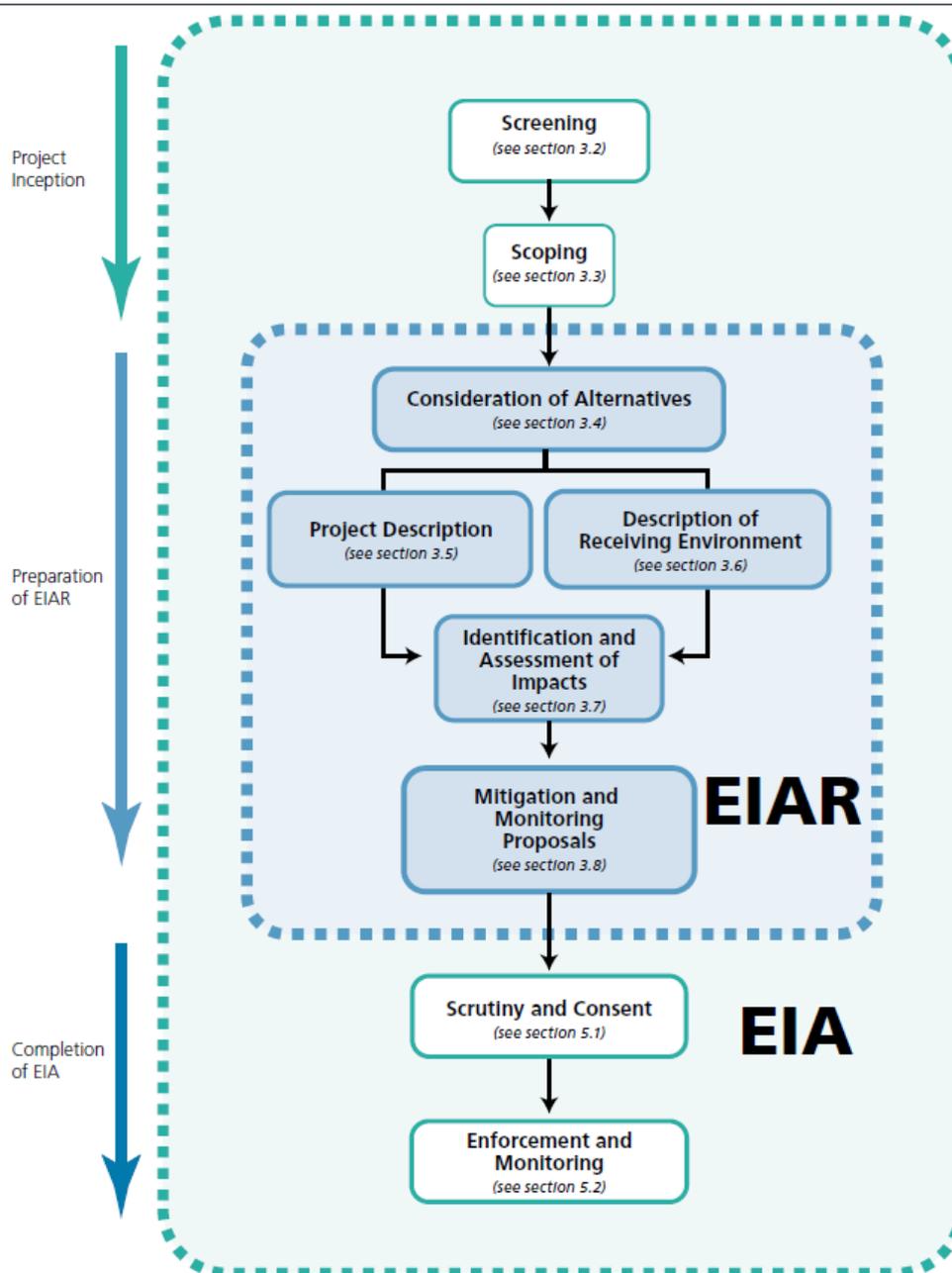


Figure 1.3 The Position of this EIAR within the EIA Process

1.8 Methodology and Structure of the EIAR

The objective of this EIAR is to provide information on the project to the public, relevant prescribed bodies and, ultimately, to the competent authority. To this end, Article 3(1) of the EIA Directive requires that significant effects are identified, assessed and described in an ‘appropriate manner’. Article 5(1) requires that the specified information is supplied in an appropriate form – the information should be presented in an EIAR that enables stakeholders and authorities to form opinions, and to make decisions regarding the project. While there are no formal requirements concerning the format and the presentation of the report, this EIAR clearly sets out the methodological considerations and the reasoning behind the identification and assessment of likely significant effects.

1.8.1 EIAR Content

Article 5(1) sets out what must be included as a minimum in the EIAR. Annex IV to the Directive, expands on these requirements. In short, this includes the following:

- A description of the project: this is an introduction to the project and includes a description of the location of the project, its characteristics, including land use requirements during construction and operational phases, as well as estimates of the expected residues, emissions, and waste produced during the construction and operation phases.
- Baseline scenario: a description of the relevant aspects of the current state of the environment, and the likely evolution thereof, without the implementation of the project, on the basis of the availability of environmental information and scientific knowledge.
- Environmental factors affected: a description of the environmental factors likely to be significantly affected by the project, including consideration of climate change mitigation and adaptation, biodiversity, natural resource sustainability, and the risks of major accidents and disasters.
- Effects on the environment: a description of the likely significant effects of the project on the environment. Such significant effects include direct and indirect, secondary, cumulative, transboundary, short-term, medium-term, and long-term, permanent and temporary, and positive and negative, as appropriate.
- Assessment of alternatives: a description of the studied reasonable alternatives to the project, with an indication of the main reasons for the selection of the option chosen, including a comparison of environmental effects.
- Mitigation measures: a description of the measures envisaged to avoid, prevent, reduce and, where possible, offset any identified significant adverse effects on the environment, including a determination of the effectiveness of such measures, their reliability and certainty, as well as the commitment to ensuring their practical implementation and monitoring of results.
- Monitoring: a description of any measures proposed to monitor significant adverse effects on the environment and/or measures taken to mitigate them.
- Non-Technical Summary: an easily accessible summary of the content of the EIAR presented without technical jargon, hence understandable to anybody without a background in the environment or the project.
- Quality of the EIAR: the experts responsible for preparing the EIAR are competent.

1.8.2 Assessment Methodology

1.8.2.1 Baseline Scenario

An assessment of the relevant aspects of the current state of the environment, and the likely progression thereof, without implementation of the project, is undertaken by qualified experts based on detailed environmental data and scientific knowledge. The consideration of the baseline scenario accords, in

particular, with the detailed guidance in that respect provided in European Commission Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Commission, 2017).

The outcomes of the assessment are provided in a description of existing environmental conditions, and the 'do-nothing' scenario, within each environmental topic chapter. This forms the foundation against which likely significant effects can be compared and evaluated. It further provides the baseline against which ex-post-facto monitoring can be used to measure change, once the project has been implemented.

1.8.2.2 Environmental Factors

Article 3(1) requires that the following environmental factors be considered in an EIA so as to appropriately identify, describe and assess the likely significant effects which could potentially impact upon them as a result of the implementation of the project:

- Biodiversity, flora and fauna;
- Land, soils, geology and hydrogeology;
- Water quality and flood risk;
- Air;
- Climate;
- Noise and vibration;
- Material assets - coastal processes;
- Material assets - traffic and transportation;
- Material assets - services
- Archaeology and cultural heritage;
- Landscape and visual;
- Population and human health; and
- Waste.

Consideration must also be given to the interaction of these environmental factors and the potential for cumulative effects.

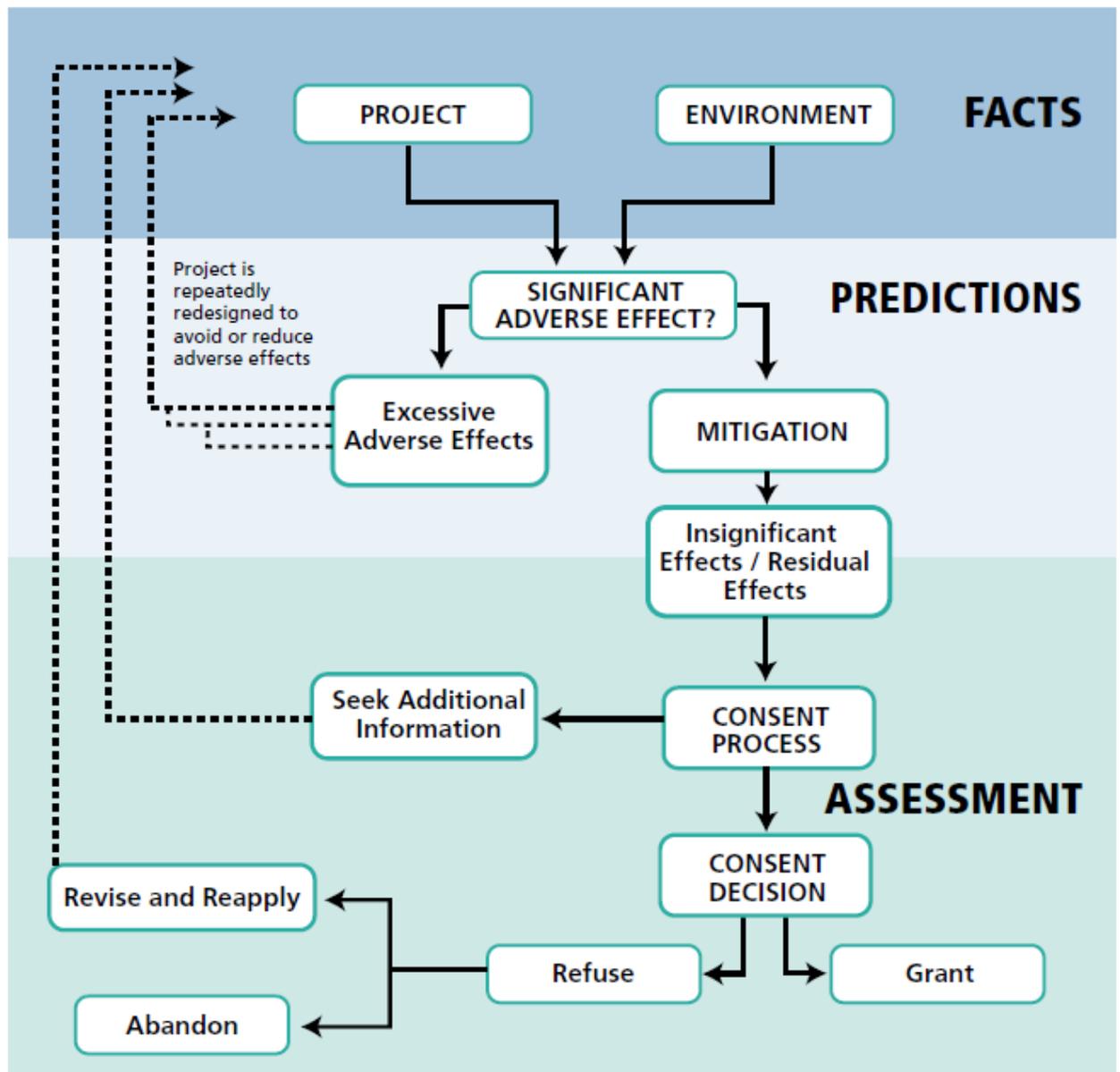


Figure 1.4 EIA Process Flow Chart

The Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) illustrate the EIA process flow chart which is applied to each environmental factor (Figure 2.2 reproduced in Figure 1.4 of this Chapter of the EIAR). It illustrates that the EIA process can be considered as involving three main parts:

- The first consists of a compilation of facts – i.e. the description of the existing environment and the description of the proposed project;
- The second consists of predictions of likely effects – this may be carried out on an iterative basis as the design is improved to eliminate excessive adverse effects; and
- The final part consists of the assessment of the environmental effects as part of a consent process which may decide to grant, condition, refuse or seek additional information.

Specific topic-related methodologies are outlined in this section.

Further to these, consideration is also given to the additional factors identified below, which are incorporated into assessment procedures to provide a complete understanding of the interaction between the project and the environment.

1.8.2.3 Climate Change

The assessment in the EIAR has been undertaken in accordance with the relevant (Climate change) provisions of: *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment*, European Commission (2017).

In addition to considering the effects of the project upon climatic factors, consideration is also given to the project's compliance with national policy in the form of the Climate Action Plans, the potential impacts of the project on climate change through greenhouse gases and embodied carbon, and the vulnerability of the project to future changes in the climate, and to its capacity to adapt to such changes into the future.

This EIAR assesses the direct and indirect effects of the project's construction and operation on climate change over its lifetime, the optimal ways in which greenhouse gases from shipping and land-based freight can be minimised, and how the project's construction and operation comply with the Climate Action Plans.

1.8.2.4 Major Accidents and Disasters

Consideration is given to the potential of the project to cause accidents and/or disasters (both natural and man-made), and to the vulnerability of the project to potential accidents and/or disasters. The assessments of the risks presented by the project in this regard have focused on prevention, monitoring, and early warning. Identified risks have been examined to determine the best ways to manage and control their potential impacts, including by way of a comprehensive emergency management plan.

1.8.2.5 Biodiversity

Further to consideration of the effects of the project upon flora and fauna, consideration is also given to the effects of the project upon biodiversity; understood to be the variability among living organisms, this includes diversity within species, between species and of ecosystems. The assessment in the EIAR has been undertaken in accordance with the relevant (Biodiversity) provisions of: *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment*, European Commission (2017).

When assessing biodiversity, particular regard has been given to the ecologically significant environs of the project within Dublin Port and the surrounding area. The species and habitats which are to be found in the surrounding environs have been the subject to extensive monitoring and assessment by DPC for many years. This EIAR draws on this significant body of data.

In addition, as set out in detail in Chapter 7 *Biodiversity, Flora & Fauna* of this EIAR and, in particular, the Appropriate Assessment Screening Report [AASR] and Natura Impact Statement [NIS] submitted with the application for permission in respect of the 3FM project, special attention has been given to sites protected under the Habitats Directive and Birds Directive.

DPC has assessed the impacts of the project on the surrounding marine environment in line with the Marine Strategy Framework Directive 2008. The assessment of the project's impacts in this regard has been greatly assisted by the diverse suite of data-gathering apparatus present at the port and the surrounding waters.

1.8.2.6 Natural Resources

Consideration is given to the sustainability of resources, particularly with regard to land, soil, water and biodiversity, as well as energy. The assessment of the project's impacts upon the availability of natural resources is in addition to the assessment of the impacts of the project upon the resource itself.

1.8.2.7 Assessing Impacts

The identification, description, and assessment of the effects of the project upon the aforementioned factors is premised upon an understanding of the likely magnitude of predicted impacts and the sensitivity to change of affected receptors. This provides for a determination of the likely significance of effects. The consideration of significance in this context has been informed by the EPA *Guidelines on the information to be contained in Environmental Impact Assessment Reports* (EPA, 2022) on describing the significance of effects (EPA, 2022) as well as expert judgement of the consultants involved in the preparation of this EIAR. Given the unique setting of Dublin Port, the setting of 'significance criteria' has been carried out in a context-specific and tailored manner, taking into consideration the characteristics of the impact and the values associated with the environmental issues affected, in the light of the EPA Guidelines.

The baseline scenario relating to each environmental factor is used to identify potential receptors. The sensitivity of a given receptor is dependent on the receptor concerned, and the effect to which it is subject. For this reason, given that sensitivity is context-specific, it is thus defined within each topic chapter, but nonetheless considers:

- The vulnerability of the receptor;
- The capacity of the receptor to recover; and
- The value / importance attributed to the receptor.

An impact is defined as a physical change to the environment which is attributable to the implementation of the project. The impacts which are likely to arise, and their magnitude, are detailed within individual topic chapters. Nonetheless, unless otherwise stated, the magnitude of impacts generally takes into account factors such as:

- The extent of the impact;
- The duration of the impact;
- The frequency of the impact; and
- The capacity for the impact to be reversed.
- The significance of an effect, defined in terms of the express consequence of an impact, is determined with regard to the magnitude of the impact and the sensitivity or value of the receptor. The level of significance of effects is defined separately within each section and has been developed to accord with Table 3.4 Descriptions of Effects in the EPA EIAR Guidelines (EPA, 2022)

Effects are also considered, and categorised, in terms of being direct, indirect, secondary, cumulative, transboundary, short-term, medium-term, long-term, permanent, temporary, positive and negative, as appropriate. Effects are described in an appropriate manner, allowing for the competent authorities to

assess them in the decision-making process. The assessment of significance or otherwise of any effects are substantiated in detail. The methodologies used are identified and explained, allowing the weight attached to different factors to be observed and understood.

Cumulative effects are defined in the EPA EIAR Guidelines (EPA, 2022) as “the addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects” and arise from changes to the environment that are caused by an action in combination with other actions. Cumulative effects can arise from a number of sources, where relevant, including:

- The in-combination effects of different projects in the same area; and
- The interaction between the various impacts within a single project.

The cumulative effects of the 3FM Project, in conjunction with other proposed projects, are considered within each topic chapter. Relevant developments considered within the cumulative assessments include those which are:

- Under construction;
- Permitted, but not yet implemented; and
- Submitted for development consent, but not yet determined.

It is noted that developments that are built and operational at the time of submission are considered to be part of the existing baseline conditions and thus are dealt with in specific environmental topic chapters.

Each topic chapter further considers whether there are significant cumulative effects which are likely to arise as a result of interaction between effects as part of the same project.

1.8.2.8 Assessment of Alternatives

The EIA Directive requires assessment of reasonable alternatives which are relevant to the proposed project including, as appropriate, an outline of the likely evolution of the current state of the environment without implementation of the project (baseline scenario), as a means of improving the quality of the environmental impact assessment process and of allowing environmental considerations to be integrated at an early stage in the project's design.

The process allows for adjustment to minimise environmental impact thus minimising project significant effects on the environment.

In this context, in accordance with the relevant provisions of the European Commission *Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)* (European Commission, 2017), DPC has carried out a detailed assessment of alternatives under the following headings, amongst others:

- Design;
- Technology;
- Location;
- Size; and
- Scale.

In addition, EPA EIAR Guidelines (EPA, 2022) state that *“The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with ‘an indication of the main reasons for selecting the chosen option’. It is generally sufficient to provide a broad description of each main alternative studied and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or mini-EIA) of each alternative is not required.”*

Assessment of alternatives includes consideration of the avoidance, prevention, reduction, or offsetting of adverse environmental effects, which may be described at a number of levels including:

- Those assessed at plan stage (which the EU guidance states *“it would likely be unnecessary to consider them again”*); and
- those assessed at design stage (which the EU guidance describes as *“alternatives or variants of Project components in order to mitigate significant environmental impacts that emerge during assessment”*).

In this EIAR the ‘do-nothing’ alternative has been assessed, which is defined in the EPA Guidelines (EPA, 2022) as “a general description of the evolution of the key environmental factors of the site and environs if the proposed project did not proceed”. As already noted, this alternative would lead to extreme constraints on the capacity of Dublin Port within a decade. Further detail in this regard is set out in the Chapter 4 *Assessment of Alternatives*.

The potential for carrying out the project at alternative locations on the east coast has been assessed, in the context of DPC’s ongoing assessment of its medium- and long-term capacity requirements.

Potential alternative layouts and designs have been considered at length, given the constraints of the site and the need to maximise the efficiency of the limited space available.

Within each potential design solution proposed there has been extensive assessment of different processes, methods and materials which might be used in each context to minimise any potential effects on the environment.

Mitigation measures, where required, have been proposed only after a consideration of any alternative measures which might be available, having assessed each alternative for its appropriateness in the relevant context and its efficacy.

The EIAR includes the main reasons for selecting the chosen option, in each circumstance, with regard to its potential environmental impacts. In tandem with the assessment of mitigation measures below, the consideration of reasonable alternatives has focused on the avoidance or prevention of adverse effects on the environment. Where alternatives have not been selected due to technological obstacles, budgetary obstacles, stakeholder obstacles, or legal/regulatory problems, these alternatives have nevertheless been thoroughly considered and the detail of the relevant assessments is set out in this EIAR.

DPC has made use of its extensive local knowledge, its institutional memory, and its deep and ongoing engagement with the local communities in the environs of the port, to assess alternatives in the context of this project. Detailed consultation with the public has been taken on board and used to inform the design of the project and in the selection of relevant alternatives where appropriate.

1.8.2.9 Mitigation Measures

Where required, mitigation measures are identified and described within individual topic chapters. These are measures which could further avoid, prevent, reduce and, where possible, offset likely significant adverse effects upon the environment. Measures have been assessed in order to prioritise avoidance and prevention where possible. Only where effects are unavoidable have reduction and offsetting measures been proposed. Where possible, a long-term approach to mitigation has been adopted.

A description of those potentially adverse effects which proposed mitigation measures are intended to avoid, prevent, reduce or offset are provided in addition to a summary regarding the proposed measures' effectiveness, reliability, and certainty, as well as the commitment to ensuring their practical implementation and monitoring of results. These proposed measures have been fully incorporated into the proposed design and operation of the project.

1.8.2.10 Monitoring

In the context of environmental assessment, monitoring is defined (EPA, 2022) as "the observation, measurement and evaluation of environmental data to follow changes over a period of time, to assess the efficiency of control measures and to record any unforeseen effects in order to be able to undertake appropriate remedial action." Monitoring is typically a repetitive and continued process carried out during construction, operation or decommissioning of a project.

The Dublin Port Masterplan has a long-standing suite of monitoring and data-gathering measures that have informed the contents of this EIAR. Further monitoring is proposed for the construction and operational phase of the proposed project. Nevertheless, duplication of efforts will be strictly avoided.

As observed in the EPA Guidelines (EPA, 2022), it may be appropriate, where relevant, to propose that monitoring takes place after consent is granted in order to check that the project, in practice, conforms to the predictions made during the EIA and to record any unforeseen effects in order to undertake appropriate remedial action. In addition, monitoring confirms that proposed systems are operating as intended. Monitoring is proposed, as appropriate, in the individual chapters of this EIAR.

Further to mitigation measures, appropriate and proportionate monitoring measures are also identified and summarised within individual topic chapters.

1.8.2.11 Residual Effects

Residual effects are the final predicted or intended effects which occur after the proposed mitigation measures have been implemented. They refer to the degree of change that will occur after the proposed mitigation measures have taken effect.

It may not always be possible or practical to mitigate all adverse effects, and those which may remain are referred to as 'residual effects'. Residual effects must be clearly described, and are a key consideration in deciding whether the project should be permitted or not.

1.8.2.12 Conclusion on Likely Significant Effects

A conclusion by the authors of the EIAR on the likely significant effects of the 3FM Project on the environment, taking into account the results of the examination of the information presented in the EIAR is provided. In addition, a summary of the key impacts and mitigation and monitoring measures associated with the 3FM Project is provided, along with a discussion of cumulative impacts, interactions, and inter-relationships between environmental factors. This conclusion will inform the reasoned conclusion to be made by the competent authority in conducting the EIA.

1.8.3 Structure of the EIAR

The EIAR has been structured in accordance with the European Commission's Guidance "Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)" (2017) and EPA *Guidelines on the information to be contained in Environmental Impact Assessment Reports* (EPA, 2022) on describing the significance of effects (EPA, 2022). Accordingly, the EIAR:

- Is presented with a clear structure with a logical sequence that describes, inter alia, existing baseline conditions, predicted impacts (nature, extent, and magnitude), scope for mitigation, proposed mitigation measures, significance of unavoidable/residual impacts for each environmental factor;
- Contains a table of contents at the beginning of the document;
- Comprises a description of the development consent procedure and how EIA fits within it;
- Reads as a single document with appropriate cross-referencing and is concise, comprehensive, and objective;
- Is written in an impartial manner without bias;
- Includes a full description and comparison of the alternatives studied;
- Makes effective use of diagrams, illustrations, photographs, and other graphics to support the text;
- Uses consistent terminology with a glossary;
- References all information sources used;
- Has a clear explanation of complex issues;
- Contains a good description of the methods used for the studies of each environmental factor;
- Covers each environmental factor in a way which is proportionate to its importance;
- Provides evidence of effective consultations;
- Provides a basis for effective consultations to come;
- Makes a commitment to mitigation (with a programme) and to monitoring;
- Contains a Non-Technical Summary which does not contain technical jargon; and

- Contains, where relevant, a reference list detailing the sources used for the description and assessments included in the EIAR.

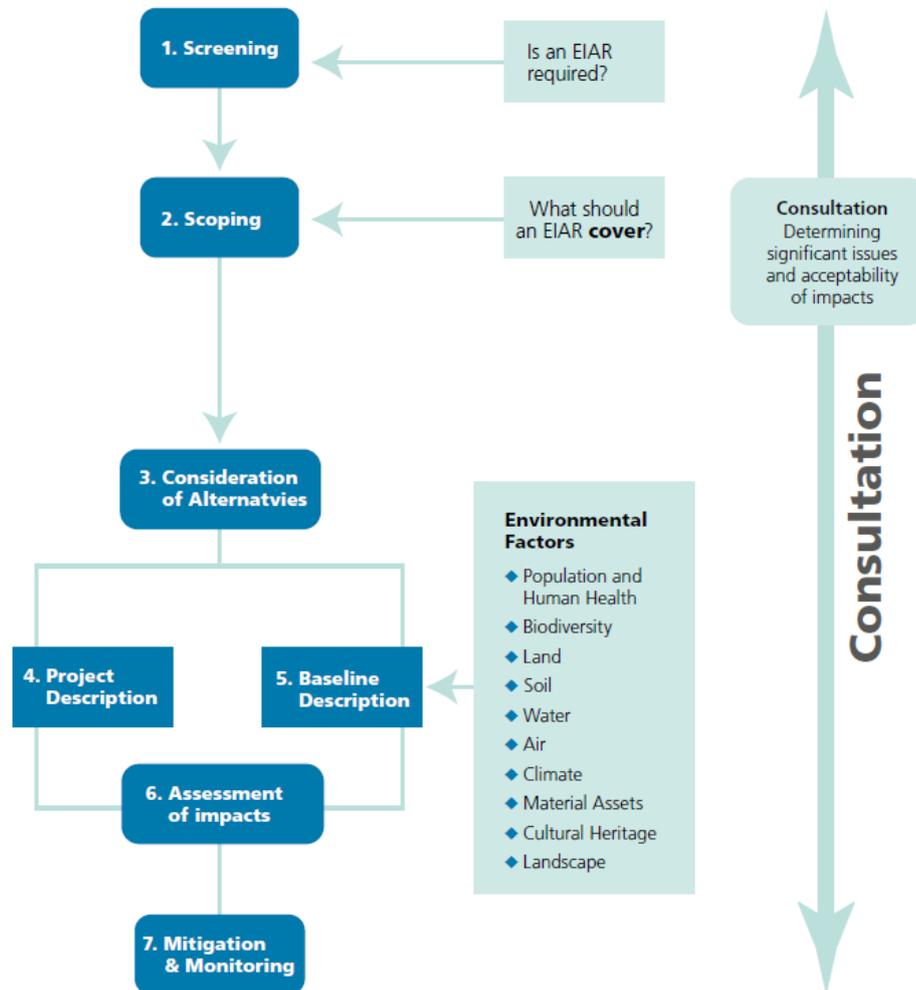


Figure 1.5 EIAR Contents and General Sequence

The EPA EIAR Guidelines (EPA, 2022) illustrate a general seven-step sequence which helps ensure an objective and systematic approach to the EIAR process (Figure 3.1 reproduced in Figure 1.5 of this Chapter of the EIAR).

Following this approach, this EIAR is broken down into the following Chapters.

STAGE 1

- Introduction and Project Screening

STAGE 2

- Need for the 3FM Project
- Consultation and Project Scoping

STAGE 3

- Examination of Alternatives

STAGE 4

- Project Description
- Risk of Major Accidents

STAGES 5 AND 6 (by Environmental Factor)

- Subsequent chapters address specific environmental factors and provide a description of the existing environment, the likelihood of effects, the significance of effects, remedial and mitigation measures, residual impacts, and monitoring measures. The specific environmental factors considered are:
 - Biodiversity, Flora and Fauna
 - Land, Soils, Geology and Hydrogeology
 - Water Quality and Flood Risk Assessment
 - Air Quality
 - Climate
 - Noise and Vibration
 - Material Assets - Coastal Processes
 - Material Assets - Traffic and Transportation
 - Material Assets - Services
 - Cultural Heritage (including Industrial and Archaeological)
 - Landscape and Visual
 - Population and Human Health
 - Waste

STAGE 7

- Cumulative Effects and Environmental Interactions
- Summary of Mitigation Measures and Conclusion
- References and Bibliography
- Glossary of Terms

The advantages of using this type of format are that it is easy to examine each environmental topic and it facilitates easy cross-reference to specialist studies undertaken as part of the assessment.

Each topic of environmental assessment is considered as a separate chapter and is drafted by relevant specialists. The EIAR is presented in three volumes of the application documentation, as follows:

Volume 1

- EIAR Non-Technical Summary

Volume 2

- EIAR Main Document

Volume 3

- EIAR Appendices

In addition to the EIAR and its appendices, the application documentation also comprises:

- Planning Report;
- Planning Drawings (A1/A0) and (A3);
- Screening for Appropriate Assessment Report;
- Natura Impact Statement (NIS);
- Draft Construction Environmental Management Plan (CEMP);
- Summary of Mitigation Measures;
- Dublin Port Heritage – Conservation Strategy;
- Control of Major Accident Hazards (COMAH) Land Use Planning Assessment; and
- Water Framework Directive (WFD) Compliance Assessment.

The following were involved in the preparation of the EIAR:

- RPS – Planning consultants for the 3FM Project;
- RPS – Lead Environmental consultants for the 3FM Project; and
- RPS – Lead Engineering consultants for the 3FM Project

The production of the EIAR has been co-ordinated by RPS. The EIAR structure, responsibility and qualified input for each chapter are detailed in Table 1.1.

Table 1.1 List of Contributors to EIAR Chapters

Chapter of EIAR	Lead Author(s)	Company	Subject	Qualifications
Chapter 1	Alan Barr	RPS	Introduction and Project Screening	BSc PhD CEng CSci CWEM FICE FIEI CIWEM
Chapter 2	Brendan Considine	DPC	Need for the 3FM Project Project Rationale	Dublin Port Company
	Helena Gavin	RPS	Spatial Planning Policy	BA, MSc Town & Country Planning, PG Dip EnvEng, MIPI
Chapter 3	Alan Barr	RPS	Consultation and Project Scoping	BSc PhD CEng CSci CWEM FICE FIEI MCIWEM
Chapter 4	Grace Glasgow	RPS	Assessment of Alternatives	MEng Eurlng CEng CSci CWEM FIEI FCIWEM FICE
Chapter 5	Brendan Daly	RPS	Project Description Landside	MEng CEng FCIHT MIEI MloD
	Mark McConnell		Marine	BEng CEng MICE MIEI
Chapter 6	Douglas Adamson	Byrne Ó Cléirigh Consulting	Risks of Major Accidents and Disasters	BA BAI ME(Mgmt) CEng MIEI MEI
Chapter 7	Suzanne Lowry	RPS	Biodiversity, Flora & Fauna Terrestrial Biodiversity	BSc (Hons) MSc ACIEEM
	Gerard Morgan	Aquatic Services Unit, UCC	Benthic Biodiversity and Fisheries	BSc (Hons) MSc
	Simon Berrow	IWDG	Marine Mammals	BSc (Hons) PhD
	Adam McClure	RPS	Avian Biodiversity	BSc MCIEEM
	James McCrory	RPS	Designated Areas	BA (Mod) MSc CEcol CEnv MCIEEM CBiol MRSB
Chapter 8	Joe McGrath	RPS	Land, Soils, Geology & Hydrogeology	BSc (Hons) MSc MCIWEM MIEEnvSc

Chapter of EIAR	Lead Author(s)	Company	Subject	Qualifications
Chapter 9	Mark Magee	RPS	Water Quality	BA (Mod), MSc, CSci, CEnv, CWEM, MCIWEM
	Andrew Jackson	RPS	Flood Risk Assessment	BEng CEng MICE MIEI
Chapter 10	Stephen McAfee	RPS	Air Quality	BSc MSc MIAQM CMIES
Chapter 11	Paul Chadwick	RPS	Climate	BA (Mod) M.Phil AIEMA
Chapter 12	Stephen Cleary	RPS	Terrestrial Noise and Vibration	BA(Mod) MSc MIEMA MIOA CEnv
	Rasmus Pedersen	RPS	Underwater Noise	BA MSc PGDip MIOA
Chapter 13	Adrian Bell	RPS	Material Assets - Coastal Processes	BSc CEng FIAE FIEI MICE MIStructE
Chapter 14	Celine Daly	RPS	Material Assets - Traffic and Transportation	BSc MSc FCILT MCIHT MTPS
Chapter 15	Dave Fleming	RPS	Material Assets – Services	BE (Elec) CEng MIEI
Chapter 16	Niall Brady	ADCO	Cultural Heritage Marine Archaeology	BA MA PhD FSA
	Chris Southgate	Southgate Associates	Industrial Heritage	MA (Cantab) MI Sruct E FIEI
	Grainne Shaffrey	Shaffrey Architects	Conservation Architecture	B.Arch, M.A. Urban Design & Regeneration, F.R.I.A.I., R.I.A.I. Grade 1 Conservation Architect
	Sean O'Laoire	MOLA	Heritage Architecture	B.Arch (Hons),Dip.Urban Design,PPRIAI
Chapter 17	Raymond Holbeach	RPS	Landscape and Visual	BSc(Hons) MLA CMLI
Chapter 18	Andrew Buroni	RPS	Population and Human Health	PhD MSc BSc (Hons) Fellow of the Royal Society of Medicine, Fellow of the Royal Society for Public Health
Chapter 19	Donal Doyle	RPS	Waste	BEng MSc CEng FICE MIEI

Chapter of EIAR	Lead Author(s)	Company	Subject	Qualifications
Chapter 20	Grace Glasgow Laura McAnallen	RPS	Cumulative Effects and Environmental Interactions	MEng Eurlng CEng CSci CWEM FIEI FCIWEM FICE BSc MSc PhD CSci C.WEM MCIWEM
Chapter 21	Alan Barr	RPS	Summary of Mitigation Measures and Conclusions	BSc PhD CEng CSci CWEM FICE FIEI MCIWEM

1.9 Viewing and Purchasing of the EIAR

The EIAR is available to view and download at the following dedicated web address <https://www.dublinport3fm.ie/>.

The EIAR can be inspected free of charge or purchased on payment of a specified fee (which shall not exceed the reasonable cost of making such copy) during public opening hours at the offices of An Bord Pleanála and Dublin City Council.

The EIAR can be viewed at the reception of the Dublin Port Centre, Alexandra Road, Dublin 1 during normal working hours. A computer and screen has also been made available with appropriate search facilities. Hard copies and e-copies of the EIAR may also be purchased from DPC at the reasonable cost of making such copy by phoning the following number during normal business hours, 01 8876000; or by post to Dublin Port Centre, Alexandra Road, Dublin 1; or by email to info@dublinport.ie.