

# Environmental Impact Assessment Report (EIAR) Non-Technical Summary

Ringaskiddy Port Redevelopment

Report No. M1099-AYE-R- ENV-001 28 January 2025 Revision 03 Port of Cork Company



# **Document Control**

#### Project

Ringaskiddy Port Redevelopment

Client

Port of Cork Company

#### Document

EIAR Non-Technical Summary

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Ringaskiddy Port Redevelopment

### [1] Introduction, Scoping and Consultation

The provision of effective, efficient and competitive port facilities is essential to the economic vitality of the country and the South-West Region. Ports are essential infrastructure and government policy is to ensure that infrastructure and port services are provided in time to meet changing market demands. Government policy is also to require port companies to fund all of their infrastructure and operational requirements from their own resources. Guaranteeing cost-efficiencies in terms of land use and operational activities is therefore a national policy obligation for the Port of Cork.

Within Europe, the Port of Cork is identified as a Core Port within the Trans-European Transport Network (Ten-T) and improving its capacity and efficiency will contribute to the development of an integrated European transport network.

Trade throughput at the Port of Cork is vital to the stability and future growth of the economy in the South-West Region. The Port of Cork is also a vital contributor to the nation economy and European infrastructure network. It is essential that the Port responds to future growth requirements and changes in shipping trends towards larger vessels.

The current government Policy Statement of the facilitation of Offshore Renewable Energy (ORE) by Commercial Ports in Ireland (Department of Transport 2021), recognises that Irish Ports will have an important role to play in delivering Offshore Renewable Energy targets to meet the EU's goal of climate neutrality by 2050. The Programme for Government 2020 and the Climate Action and Low Carbon development amendment act commit Ireland to a target of 70% electricity to be generated from renewable sources by 2030 and set a target of 5GW for offshore wind by 2030. The National Marine Planning Framework published in 2021 brings together the government's vision, objectives and marine planning policies for port activity and Offshore Renewable Energy. The significant role that the Port of Cork can play in facilitating the development of the Irish offshore renewable energy section is widely recognised in this policy document. To meet Ireland's target of 5GW by 2030 it has been assessed that a minimum of two facilities will be required from 2025 onwards for deployment activity. A multiple of typically smaller ports will also be needed for Operation and Maintenance operations.

The relocation of Port activities from the Upper Harbour, including City Quays is considered a key component to facilitate redevelopment of the Docklands and Tivoli for residential and employment uses. The city needs these lands to achieve its population growth targets and spatial planning objectives for the Region. Further the Port of Cork must release the equity of lands in the longer term in the Upper Harbour to fund their infrastructural and operational requirements, in line with Government policy. In this case, the Port of Cork must also relocate from the Upper Harbour because the depth of the water channel and width of the river at Tivoli cannot accommodate larger vessels and it is logistically difficult to accommodate with more than 1 container vessel at a time.

POCC undertook significant redevelopment works at Ringaskiddy under the previously permitted Strategic Infrastructure Development application (ref: PA0035, as modified by PM0010, 304437-19 and 310847-21)<sup>1</sup>.

A large portion of the permitted works have been completed and are now operational. There is no provision in legislation that provides for an extension of duration of the original permission, given the requirement for both an EIA and an AA. Accordingly, this application is seeking permission for the elements of the work previously permitted but which are yet to be completed.

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<sup>&</sup>lt;sup>1</sup> Hereafter referred to as the PA0035 permission.

The current application, therefore, occurs in the context of a pre-existing major port redevelopment project which is now operational. This redevelopment has expanded the capacity of the deepwater port at Ringaskiddy for the purposes of relocation which will ultimately contribute to enabling the Port of Cork to relocate operations entirely from the Upper Harbour by 2050. Stage 1a of the historic redevelopment (PA0035) is now complete and the construction of the Cork Container Terminal (CCT1) at Ringaskiddy East was concluded in 2022. The current approved infrastructure gives the port sufficient operational capacity up to 2029 however a planning condition limits throughput at the Ringaskiddy Port facility to 322,846 TEU until such time as the M28 and Road schemes are complete. CCT1 currently caters for 75-80% of Port of Cork's container traffic, however this is projected to increase progressively towards 2030.

To cater for the projected increase in container traffic and dry bulks and cargoes, a further berth (CCT2) and deepwater berth extension (Ringaskiddy West) as well as extension of the CCT yard are required and proposed herein under the current renewed application (Figure 1 and 2).

#### [1.1] Description of Location of the Proposed Project

Cork Harbour is a mid-sized water body approximately 28km<sup>2</sup> in area, and takes in the areas of Ringaskiddy, Monkstown, Cobh, Rostellan and Whitegate in County Cork.

The Port of Cork Ringaskiddy is located adjacent to the village of Ringaskiddy. Ringaskiddy village has a population of 570 people. Large industry and existing Port of Cork activities have a dominate role within the village. The National Maritime College of Ireland is located to the east of the village and University College Cork has developed further marine based research facilities. The community and residential services within Ringaskiddy include a primary school; creche, church: community centre, small convenience shop: restaurant and public house.

There are a number of amenity walks in the locality, Sports clubs in the areas include Shamrock Hurling and GAA club; Hibernian Soccer Club and Pfizer Sports Club. Haulbowline Island Amenity Park which opened in 2021 and is now considered a sensitive receptor for the purposes of this assessment. Paddy's Point Amenity area includes a pier and slipway, that opened in May 2019 is located adjacent to the Beaufort Building in Ringaskiddy and is managed and maintained by the Port of Cork. This amenity area was provided as part of the Port Redevelopment Project. The substantial new facilities replace the existing Ringaskiddy slipway and pier and were completed as part of the CCT1 development. Port lands at Ringaskiddy East were developed for a Container Berth / Multi-Purpose Berth under the Strategic Infrastructure Development (SID) permission (Ref. PA0035, as altered).

The location of the proposed redevelopment lies within Cork Harbour coastal water body (IE\_SW\_060\_000) in the South-Western River Basin District (SWRBD). The harbour is fed by Lough Mahon (IE\_SW\_060\_0750), Owenboy Estuary (IE\_SW\_060\_1200) and North Channel Great Island (IE\_SW\_060\_0300) transitional water bodies before feeding into the Outer Cork Harbour coastal water body (IE\_SW\_050\_000).

Cork Harbour coastal water body must achieve the core environmental objectives outlined in the South-Western River Basin Management Plan (SWRBMP) including the achievement of water related objectives for designated protected areas.

In terms of the impact assessment Cork Harbour is considered to be a feature of extremely high importance. The significance of the water body is extremely high as sections of the water body are protected by EU legislation, i.e. Natura 2000 sites (European Sites) designated under the Habitats

Directive (92/43/EEC) and Birds Directive (2009/147/EC) and shellfish areas designated under the Shellfish Waters Directive (2006/113/EC).

The Cork Harbour coastal water body (IE\_SW\_060\_0000) is designated as a heavily modified water body (HMWB) due to the port developments (SWRBD, 2008),and has been classified as being at 'good morphological status' according to the most recent EPA reporting (EPA, 2011). This water body is classified as being at 'moderate ecological potential in the South-Western River Basin Management Plan (2009-2015).

The proposed development does not directly impinge upon any Natura 2000 sites but lies within 100m of Cork Harbour SPA [Site Code: IE0004040] and within 5km of The Great Island Channel SAC [Site Code: IE0002267]. The next nearest Natura 2000 site is Ballycotton Bay SPA [Site Code: IE0004022], located over 15km from the proposed redevelopment footprint at its nearest point.

Cork Harbour SPA is located approx 60m to the west of the proposed redevelopment footprint at its nearest point, being the base of the breakwater where it meets the ADM Jetty. The main breakwater arm is 125m northwest of the proposed DWB quay wall extension.

Cork Harbour qualifies for designation under the Birds Directive by regularly supporting over 20,000 waterbirds including internationally important populations of wintering Black-tailed Godwit *Limosa limosa* and Redshank *Tringa totanus* along with nationally important wintering populations of Little Grebe *Tachybaptus ruficollis*, Great Crested Grebe *Podiceps cristatus*, Cormorant *Phalacrocorax carbo*, Grey Heron *Ardea cinerea*, Shelduck *Tadorna tadorna*, Wigeon *Anas penelops*, Teal *Anas crecca*, Pintail *Anas acuta*, Shoveler *Anas clypeata*, Red-breasted Merganser *Mergus serrator*, Oystercatcher *Haematopus*, Golden Plover *Pluvialis apricaria*, Grey Plover *Pluvialis squatarola*, Lapwing *Vanellus vanellus*, Dunlin *Calidris alpina*, Bar-tailed Godwit *Limosa laponica*, Curlew *Numenius arquata*, Black-headed Gull *Larus ridibundus*, Common Gull *Larus canus* and Lesser Black- backed Gull *Larus fuscus*. The site also qualifies for designation by regularly supporting a nationally important breeding population of Common Tern *Sterna hirundo*.

Monkstown Creek pNHA [Site Code: 001979] is located c.60m from the proposed development footprint at its nearest point. The boundary of this pNHA was revised in 2012 and now corresponds to the SPA boundary. Consultation with NPWS confirms that the conservation objectives and qualifying interests of the European site are to be considered for impact assessment purposes.

The Cork Harbour Ramsar Site is located approx 800m to the south of the proposed redevelopment footprint at its nearest point. The site comprised a Harbour consisting of several limestone basins separated from the sea and from each other by sandstone ridges. The Harbour is impounded and so is no longer tidal. Vegetation is dominated by rushed and included algae, wet woodland and wet grassland. The site supports various breeding waterbirds, internationally important numbers of wintering and spring staging waterbirds and provided important feeding areas for waders. Human activities include industrial and urban development, recreation and shooting.

The proposed redevelopment site lies directly within Cork Harbour IBA. The IBA factsheet can be downloaded from http://www.birdlife.org.

The site qualifies for designation under the following IBA Criteria:

- A4iii The site is known or thought to hold on a regular basis, ≥ 20,000 waterbirds or ≥ 10,000 pairs of seabird of one or more species.
- B1i The site is known or thought to hold ≥ 1% of a flyway or other distinct population of a waterbird species

- B2 The site is one of the most important in the country for a species with an unfavourable conservation status in Europe and for which the site-protection approach is thought to be appropriate.
- C3 The site is known to regularly hold at least 1% of a flyway population or of the EU population of a species threatened at the EU level (not listed on Annex 1 of The Birds Directive).
- C4 The site is known to regularly hold at least 20,000 migratory waterbirds and/or 10,000 pairs of migratory species of one or more species.
- C6 The site is one of the five most important in the European region in question for a species or subspecies considered threatened in the European Union.

From a cultural heritage perspective, neither the Ordnance Survey maps nor the Admiralty Charts indicate the presence of shipwrecks at Ring/Ringaskiddy. The nearest locations are to the north at Cobh, or to the northeast at Haulbowline Island where, for instance, an unnamed wooden rowing boat collided with the steamship Cambridge on 20th October 1898 'off Haulbowline' and was lost with five of the 16 workmen aboard being drowned.

The principal elements of the proposed works include construction of an additional quay and associated dredging at Ringaskiddy East, and construction of an extension to the Deep Water Berth at Ringaskiddy West and associated dredging. The likely greatest impact will arise from dredging works.

A programme of marine geophysical survey conducted in 2005 and archaeological diver inspection carried out in 2006, conducted under licence from what is today the DAHG, provide a robust set of data commissioned by the Port of Cork for cultural heritage assessment at Ringaskiddy. Additional new primary project-specific data was acquired in 2012 and 2014 to complement the earlier data sets. These surveys include geophysical data of the proposed disposal site. Further Underwater Archaeological Impact Assessment as carried out by Mizen Head Archaeology in 2024. No archaeological material has been identified in the dredge pockets and the proposed disposal site by these surveys. A geophysical anomaly has been identified over 100m outside the northern boundary of the dredge disposal site which is the nearest feature of interest.

On land, in the mid-1800s, the Ordnance Survey provides the first large-scale metrically accurate mapping, and this reveals the low-lying nature of the shoreline that is dominated by sandy shallows. Apart from the Martello tower and its associated features, the remains at Ringaskiddy are entirely residential and parklands, with a simple fishing village recorded at Ring, just south of the present-day East Basin (Ringaskiddy East). A landing place is indicated at the foot of Ballybricken House, with a linear feature extending across the sandflats. Boathouses are shown on the shoreline close to where the demesne of Ballybricken House met the edge of Prospect Villa. There is little other structural evidence along the shoreline, while Ring Island and Ring Point show only a series of small field walls. An Ordnance Survey datum station is indicated at the tip of Ring Point. The structures that may have existed on Ring Island earlier are not shown.

Later editions of the Ordnance Survey maps show the progressive development of the shoreline. By the time of the Third Edition (c. 1912), the landing place at Ballybricken had been extended below the Low Water Mark and is recorded as 'Ballybricken Hard' (Figure 6.3 EIAR Volume III). It reached almost across to what is today the reclaimed land of Ringaskiddy East. The boathouses belonging to Ballybricken House continued to exist, while a new linear breakwater, 'Foot's Hard', was built across the intertidal shallows on the east side of Ring Island. Buildings are once again recorded on the island, and include a windmill. There was also a well. The locations of these features are all now beneath the reclaimed land that forms Ringaskiddy East.

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Much of the landscape along the shore of Ring/Ringaskiddy has been transformed since the midtwentieth century. The building of industrial complexes took place across the parkland of Ballytaggart in the 1960s with the development of the Pfizer pharmaceutical plant. The development of the deepwater port at Ringaskiddy has seen the progressive reclamation of the foreshore along Barnahely and Loughbeg, and the former narrow extents of Ring Island and Ring Point are absorbed under the much more extensive Ringaskiddy East area.

The footprint of the modern port shows the need to undertake extensive reclamation to reach the deep waters of the main channel. This is evident in Ringaskiddy West where the former shoreline of Ballybricken has been buried. The reclamation work has been far greater in Ringaskiddy East, where the large area of low-lying land that included Ring Island and Ring Point, and the sandy shallows that connected these locations with the shoreline, are beneath the current port surface. There is none of the original natural shoreline exposed within the current port area.

#### [1.2] EIAR Objectives

The Port of Cork (POC) has appointed a team of specialist consultants to compile an Environmental Impact Assessment Report (EIAR) for their further redevelopment proposals at Ringaskiddy.

An EIS was prepared in 2014 for the initial Port Redevelopment application and significant number of studies were undertaken at the time. The new EIAR is informed by the original EIS, compliance monitoring reports and updated surveys where required.

For the current EIAR new and updated studies have been undertaken.

A comprehensive description of development is included in Section 2 of this Non-Technical Summary .

#### [1.3] EIAR Guidance

In preparing the EIAR, regard has been had to the following overarching EIA related guidance:

- Department of Housing, Planning and Local Government (2018) Circular PL 05/2018 -Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive) and Revised Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.
- Department of Housing, Planning, Community and Local Government (2017) Key Issues Consultation Paper on the Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems.
- Department of Housing, Planning, Community and Local Government (2017) Circular PL 1/2017 - Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition.
- Environmental Protection Agency (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports (May 2022).

- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, S.I. No. 269/2018.
- European Commission (2017) Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report.
- European Commission (2012) Interpretation suggested by the Commission as regards the application of the EIA Directive to ancillary/associated works.
- European Commission (1999) Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions.
- European Union (2013) Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment.
- Government of Ireland (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018).

Additional topic-specific guidance used to undertake assessments is identified in the impact assessment chapters, as appropriate.

#### [1.3.1] Impact Assessment and Description of Effects

This EIAR has been prepared to provide information on the likely significant effects of the proposed project on the environment as per the Planning and Development Regulations 2001 (as amended by Schedule 6 of the European Union (Planning and development) (Environmental Impact Assessment) Regulations 2018, (S.I. No. 296 of 2018).

EIA Regulations require reporting on those environmental effects arising from a project that are considered likely to be significant. With no statutory definition of what constitutes a 'significant effect', the professional opinion of competent experts is utilised on the basis of:

- The baseline conditions, and the sensitivity and importance of receptors,
- The expected magnitude of change on each receptor (considering the nature and duration of change, including site specific and wider effects; positive and negative effects; temporary and permanent effects; direct, indirect and secondary effects; and cumulative effects such as the interaction of scheme effects acting in combination upon a receptor), and
- The potential to avoid or reduce any potential effects such that they are unlikely to be significant.

The criteria for the presentation of the characteristics of potential significant effects will be described with reference to the magnitude, spatial extent, nature, complexity, probability, duration, frequency, reversibility, cumulative effect and transboundary nature (if applicable) of the effect. The environmental effects for each relevant topic have been predicted by determining the baseline environmental conditions which is the situation without the Proposed Scheme. This is then compared to the conditions that would prevail if the Proposed Scheme were to go ahead.

The classification and description of effects in the Proposed Scheme's EIAR follows the terms provided in Table 3.4 of the EPA Guidelines (2022). According to the Guidelines, the relevant terms can be used to consistently describe specific effects, but all categories of terms do not need to be



used for every effect. The guideline has six key processes of describing environmental effect (or impact).

The assessment of each environmental aspect has been undertaken for the 'do nothing' effect (i.e., effects should the project not be carried out), the 'construction phase' and the 'operation phase' of the Proposed Scheme.

For each significant adverse effect that has been identified by this EIAR, potential mitigation and monitoring measures have been recommended by the competent experts, consistent with statutory requirements and good industry practice in their respective field. The likely residual environmental impact(s) for each environmental topic are then outlined, determined through a review of what likely remaining impact is following implementation of the suggested mitigation and monitoring measures. These are outlined in the assessment tables, have been summarised further in Chapter 18 'Summary of Residual Effects and Schedule of Environmental Commitments'. Those relevant to construction stage will also be included in the Outline Construction Environmental Management Plan for the development.

#### [1.3.2] Structure of the EIAR

The EIAR will comprise 4 volumes as follows:

- Volume 1 This provides the 'Non-Technical Summary' to summarise the findings of the EIAR in a clear, accessible format that uses non-technical language and supporting graphics.
- Volume 2 This encompasses the main EIAR (this volume) including the chapters outlined below.
- Volume 3 This provides the figures that support the EIAR and are cross-references within Volume 2.
- Volume 4 This provides the technical appendices that support the EIAR and are crossreferences within Volume 2.

The EIAR (Volume 2) will be structured as follows:

- Chapter 1 Introduction, Scoping & Consultation
- Chapter 2 Need for Scheme & Alternatives
- Chapter 3 Project Description
- Chapter 4 Planning Policy
- Chapter 5 Population and Human Health
- Chapter 6 Cultural Heritage
- Chapter 7 Landscape & Visual
- Chapter 8 Traffic & Transportation
- Chapter 9 Noise & Vibration
- Chapter 10 Air Quality
- Chapter 11 Climate
- Chapter 12 Soils, Geology & Hydrogeology
- Chapter 13 Coastal Processes
- Chapter 14 Water Environment
- Chapter 15 Marine Ecology
- Chapter 16 Terrestrial Ecology & Ornithology

- Chapter 17 Material Assets
- Chapter 18 Interactions & Cumulative Effects
- Chapter 19 Major Accidents & Disasters
- Chapter 20 Schedule of Environmental Commitments

#### [1.4] Scoping & Consultation

The Project arises from a strategic need identified by the Developer (POCC) as described in Chapter 2 of this EIAR. The process of consultation initially enabled POCC to gauge opinion on general development options for the Port and facilitated differing perspectives to be taken into account in the initial stages of the development proposal. The consultation processes have helped to shape the proposal presented to An Bord Pleanála.

Building on the consultation carried out during the process to develop the POCC Strategic Development Plan Review in 2010, POCC carried out further extensive consultation on the project in the course of developing the original Project. RPS, in the course of preparing the original EIS, also consulted with various statutory and non-statutory bodies, and this facilitated changes to be made during the design stage of the Project to take account of comments, and suggestions arising from the consultation process.

#### [1.4.1] Consultation with An Bord Pleanála

A pre-application statutory consultation process was held with An Bord Pleanála relating to the proposed redevelopment at its inception in 2014. This occurred over a series of five pre-application consultation meetings between 2011 and 2014. Copies of the written records of those consultations are included in the original EIA (Volume IV - Appendix 1.2). Following on from that process, An Bord Pleanála served notice that it was of the opinion that the proposed redevelopment falls within the scope of paragraphs 37A(2)(a) and (b) of the 2000 Act and accordingly any application for permission for the proposed redevelopment must therefore be made directly to An Bord Pleanála under section 37E of the Act.

For the current planning application process a Section 287 SID pre-planning meeting was held with An Bord Pleanála on 01 October 2024. Pre-planning consultation was also held with Cork County Council in January 2025.

#### [1.4.2] Consultation with Statutory and Relevant Bodies

#### [1.4.2.1] Previous Consultation (2013-2014)

As mentioned above, the previous EIAR undertook a scoping phase consultation exercise with a number of statutory and non-statutory organisations. Letters were sent to the consultees, informing them of the proposed project, and inviting their comments on the proposals.

Further, a programme of public consultation was undertaken between April 2013 and February 2014 to seek the views of the wider public on the proposal. The consultation process involved:

- Briefings with local public representatives on the proposal
- Provision of up to date project information on the POCC website: www.portofcork.ie
- The publication of public notices in local newspapers

- Conduct of two Public Consultation Events, held on the following dates:
  - 11th 13th April 2013 (held at the Fota Island Gold Clubhouse, and the Carrigaline Court Hotel).
  - 6<sup>th</sup> 8<sup>th</sup> February 2014 (held at the Sirius Arts Centre Cobh, and the National Maritime College).

#### [1.4.2.2] Renewed Consultation (2024)

In 2024, letters were sent to the relevant statutory and non-statutory consultees listed below, informing them of the proposed application to finalise the previously approved development and inviting their comments on the proposal;

- An Taisce
- Arts Council
- Birdwatch Ireland
- Bord Gáis Eireann
- Bord Íascaigh Mhara
- Commissioners of Irish Lights
- Cork City Council
- Cork County Council
  - County Manager
  - Planning
  - Environment
  - Water Services
  - Roads
  - Corporate, Community & Emergency Services
- Cork Kerry Tourism
- Department of Agriculture, Food and the Marine
- Department of Arts, Heritage and the Gaeltacht
  - Development Applications Unit
  - NPWS Divisional Ecologist
  - Underwater Archaeology Unit
- Department of Children and Youth Affairs
- Department of Communications, Energy and Natural Resources
- Department of Defence
- Department of Education
- Department of Environment, Heritage and Local Government
- Department of Foreign Affairs
- Department of Health
- Department of Enterprise, Trade and Employment
- Department of Justice

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- Department of Transport, Tourism and Sport
- EirGrid
- Electricity Supply Board
- Enterprise Ireland
- Environmental Protection Agency
- Failte Ireland
- Geological Survey of Ireland
- Health and Safety Authority
- Health Service Executive Southern Area
- Heritage Council
- Inland Fisheries Ireland
- Irish Federation of Sea Anglers
- Irish Whale and Dolphin Group
- Irish Wildlife Trust
- Marine Institute
- National Roads Authority
- Office of Public Works
- RNLI Ireland
- SouthWest Regional Authority
- Sustainable Energy Authority for Ireland
- Teagasc

#### [1.5] Project Team

The EPA Guidelines require that "the introduction to the EIAR should include a list of the competent experts who have contributed to an EIAR, showing which part of the EIAR they have worked on, their qualifications, experience and any other relevant credentials". The EIAR has been prepared by a multidisciplinary team of environmental specialists as set out in Table 1.

#### Table 1: EIAR Team and Qualifications

Consultants	Experienced/Competent Expert and qualifications	Inputs
Ayesa	<ul> <li>Barry Sheridan</li> <li>Director, Environment</li> <li>BA Hons. (Environmental Sciences),</li> <li>Higher Diploma (Environmental Engineering),</li> <li>Higher Diploma (Acoustics &amp; Noise Control)</li> <li>Lynn Morrissey</li> <li>Senior Environmental Scientist</li> <li>BSc Biological Sciences</li> <li>MSc Environmental Resource Management</li> </ul>	Lead EIAR Consultants. Principal report writers.



	Andrea Brogan Environmental Consultant MA (Environmental Humanities), BSc (Tourism Management)	
	<b>Jeff Hean</b> Senior Ecologist PhD (Zoology), MSc (Ecology), ZSSA, SASAqS	Terrestrial Ecology.
	Joe Butler Senior Ecologist MSc (Wildlife Conservation & Management) BSc (Zoology), QCIEEM Meadhbh Stack	Appropriate Assessment (AA) Screening. Natura Impact Statement (NIS).
	Project Ecologist BSc Ecology and Environmental Biology	
	Ronan Browne Head of Consultancy PhD, MSc, Dip, Aquatic Biology	Marine Ecology
Aquafact	Eddie McCormack Associate Director PhD in Zoology, BSc Marine Science	Coastal Processes.
The Big Space Ltd.	Linda Maher Landscape Architect PhD (Landscape Architecture), MSc (World Heritage Management, BAgriSc Hons (Landscape Horticulture)	Landscape and Visual Impact Assessment.
Chris Shackleton Consulting Ltd.	<b>Chris Shackleton</b> Principal BA BAI (Engineering)	Photomontages.

## [2] Project Description

The works to assessed as part of this application are as follows:

#### **Ringaskiddy East (Container Berth 2)**

- Construction of the remaining phases of a 200m Container/Multipurpose Berth which are not completed by 20<sup>th</sup> October 2025. The berth is under construction and being developed in 4 phases (1. Combi wall quay wall, 2. Concrete deck piling, 3. Structural slab and 4. Upper slab and yard surfacing),
- Dredging of the seabed to a level of -13.0 m Chart Datum (CD)
- Installation of link-span comprising a floating pontoon and access bridge
- Installation of container handling cranes
- Lighting and Fencing

#### Ringaskiddy West (Deepwater Berth Extension):

- A new 182m extension to the existing Deepwater Berth (DWB) which will comprise a filled quay structure (of approximately 231m) extending no further seaward than the edge of the existing DWB
- Dredging works to varying levels to facilitate navigational access to the new facilities
- Lighting

#### Road Improvements:

- Improvements to internal road network at Ringaskiddy East to facilitate future access to the N28
- Lighting and fencing

For brevity of reference, the 200m '*container/multipurpose berth*' at Ringaskiddy East is referred to variably in the EIAR as '*container berth*' and/or '*CCT2*'

The configuration of the layout for the above Ringaskiddy Port Redeveloment is shown in Figure 3.2-3.4 of EIAR Volume III.

#### [2.1] Key Activities

The key activities to be undertaken as part of the construction of the proposed development are as follows;

- Dredging works with trailing hopper suction dredger/backhoe dredging to facilitate navigational access to Ringaskiddy West and Ringaskiddy East Berth 2.
- Importation of fill material as required.
- Temporary storage of construction materials, oils and fuels.
- Piling of quay wall with tubular steel piles.
- Casting of concrete in-situ.



• Stormwater management

The key activites to be undertaken as part of the operation of the proposed development are as follows:

- Maintenance dredging of navigational area
- Road drainage (management of stormwater)
- Discharge of waste and bilge from vessels
- Movements of vehicles and gantry cranes

0	Rubber Tyred Gantry Cranes -	4 nr
0	Harbour Mobile Cranes	1 nr
0	Straddle Carriers -	16 nr
0	Terminal Tractors -	6 nr
0	Reach Stackers	2 nr

#### [2.1.1.1] Ship to Shore Gantry Cranes

SSG cranes as illustrated in Plate 3.4 are used to transfer containers to and from ships and are located on the quayside. The final size of cranes will be determined by the terminal operator however the maximum size anticipated would have the capacity to service vessels up to 13 containers in width.

Typical maximum overall heights/dimensions for a crane of this capacity are summarised in Table 3.2, although the final dimensions may be smaller.

#### Table 3.2Typical Ship to Shore Crane Dimensions

Height to underside Jib (m)	Height to Apex (m)	Overall height with Jib raised (m)
Approx 37m	Approx 65.5m	Approx 89m



Plate 3.4 Typical Rail Mounted Ship to Shore Crane

#### [2.1.1.2] Rubber Tyred Gantry Cranes

Electrically powered RTG cranes are generally of short span and in this case are anticipated to accommodate 7 containers and a vehicle lane between the legs. A typical height for this type of crane would be in the order of 23m.

Typical photographs of RTG yard cranes are illustrated in Plates 3.5 and 3.6.



Plate 3.5 Typical RTG Yard Crane





#### Plate 3.6 Typical RTG Yard Crane

#### [2.1.1.3] Yard Transport

#### **Terminal Tractors**

Containers are generally be transported to and from the RTG stack using terminal tractors. These are basically similar to a normal HGV tractor unit. A typical unit is illustrated in Plate 3.7.



Plate 3.7

**Typical Terminal Tractor** 

#### Straddle Carriers

Containers are generally be transported to and from the main stack using straddle carriers. A typical unit is illustrated in Plate 3.8.





Plate 3.8 Typical Straddle Carrier

#### Reach Stacker

Reach stackers are front lifting items of equipment which use telescopic arms to place containers at height in stacks. This type of equipment is used in the CB/MPB area to handle containers. They will also be used in the main container terminal to move and handle empty containers. A typical unit is illustrated in Plate 3.9.



Plate 3.9 Typical Reach Stacker

#### [2.1.2] Ringaskiddy West

Operations at the DWB extension will be similar to those currently undertaken on the existing DWB.

Ship to shore operations will be undertaken by existing harbour Mobile Cranes with cargo being transferred to mobile hoppers discharging into HGV's for transport to onsite storage facilities or directly offsite.

A typical harbour mobile crane is illustrated in Plate 3.10.





Plate 3.10 Typical Harbour Mobile Crane

#### [2.2] Phased Implementation

The various elements of infrastructure proposed may be implemented in a single construction or alternatively they may be implemented in a number of phases as a result of trade demands, port operational requirements and funding.

It is anticipated that a phased implementation is likely to comprise three main elements as listed below and illustrated in Figure 3.5 which is contained within EIAR Volume III.

Phase 1 – Ringaskiddy East comprising;

- (a) Construction of Container Berth 2, dredging and surfacing.
- (b) RTG Stacks

(c) Additional Internal Roads to facilitate connection to new M28, when constructed, at eastern end of port complex / Ringaskiddy Village

Phase 2 - Ringaskiddy West comprising the extension to the existing DWB

Phase 3 – RoRo Ramp.

#### [2.3] Construction Activities

#### [2.3.1] Temporary Site Compound

An area will be required for the establishment of the Contractor's site compound. The site compound will be used for the Contractor's site office accommodation and facilities and will include an area for temporary storage of construction materials.

At Ringaskiddy East the extent of the site is such that the contractor will be able to establish facilities within the immediate site area. Should further areas be required then the existing freight compound could be made available.

At Ringaskiddy West an area for a site compound will be made available in the area immediately behind the proposed works / existing DWB as indicated in Figure 3.6 which is contained within EIAR Volume III.

#### [2.3.2] Site Access

Existing port operations will continue as normal during the construction period.

Suitable traffic management and other systems will be put in place as required to minimise disruption to existing activities during the construction period. These will include:

- Segregation of entrances
- Suitable restrictions on timing of deliveries to avoid peak traffic periods
- Preparation of a detailed traffic management plan for the construction phase

#### [2.3.3] Pollution Control

Pollution control measures will be put in place during the construction period as described in Chapter 14 of this EIAR.

#### [2.3.4] Site Safety

The works will be subject to the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (Construction) Regulations, 2013. All aspects of design construction will be reviewed with regard to health and safety and a risk assessment will be carried out. A project supervisor (design phase) will be appointed to produce a pre-tender Health and Safety Plan for the project. The principal contractor will be responsible for the control and co-ordination of health and safety during the works and will be appointed as the project supervisor (construction stage).

#### [2.3.5] Waste Disposal

Contractors working on site will be responsible for the collection, control and disposal of all wastes generated by the works. An indication of the types of waste likely to be generated by the works and the most appropriate method of disposal are presented in Table 3.3.

#### Table 3.3 Typical Wastes Generated by the Construction Works

Activity	Waste Generated	Disposal/Treatment Recommendations
General Construction Waste	Waste oils	Collected by waste recycling contractor.
	Other waste	Collected in skips for disposal by licensed waste contractor.
General Office/Messing	Paper, packaging, canteen etc.	Collected in covered skips/large bins for disposal by a licensed waste contractor.
Temporary Site Toilets	Sewage	Emptied under contract for disposal at an appropriate facility.



#### [2.4] Operational Activities

#### [2.4.1] Maintenance

When construction work has been completed, the quays and revetments will require little by way of maintenance.

Although some siltation may occur in the newly dredged areas the water depth is such that this is unlikely to cause any significant problem in the short term. Any maintenance dredging which may be required in the longer term will be carried out as part of the Port of Cork's regular maintenance dredging programme. The material generated would likely be disposed of at sea at a licensed disposal site agreed in accordance with Port of Cork's maintenance dredging licence.

#### [2.4.2] Pollution Control

Surface water from the main quay and working areas will be collected by a system of drainage channels and gullies. The surface water will be discharged to sea via oil and sludge interceptors to ensure that no pollution is released into the harbour or surrounding waters.

#### [2.4.3] Waste Disposal from Vessels

Port of Cork operates an Environmental Management System (EMS) which includes procedures for the disposal of waste from berthed vessels.

All waste to be disposed of from berthed vessels will be handled and disposed by a licensed waste disposal contractor. Waste awaiting disposal will not be permitted to be stored on the quayside.

Discharges from vessels to the harbour waters will not be permitted.

#### [2.5] Construction and Operational Phase Mitigation

Environmental mitigation measures will be implemented in both the construction and operational phases as detailed in Chapter 20 of this EIAR.

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### [3] Need for the Scheme and Alternatives

#### [3.1] Need for the Scheme

The provision of effective port facilities is essential to the economic vitality of the country and the South-West Region. Ports are essential infrastructure and government policy is to ensure that infrastructure and port services are provided in time to meet market demands.

The trade which uses the Port of Cork is vital to the stability and future growth of the economy in the South-West Region. The Port of Cork is also a vital contributor to the national economy and European infrastructure network. The Port is identified as one of Ireland's 3 core ports which will form part of a unified transport network around Europe (known as TEN\_T). The Port must remain competitive and respond to future economic demands to help sustain the regional and national economy and to provide a strong link to Europe.

A report on the Economic impact of the Ringaskiddy Port Redevelopment was prepared by Indecon International Economic Consultants Is to inform the original application. The Indecon Report shows that the Port of Cork plays a key role in the development of both the Cork City region and the wider Irish economy (Appendix 2.1 EIAR Volume IV). By facilitating the movement of goods to and from the UK and Continental Europe, the Port also plays an important role in the development of the EU's Internal Market. The Indecon Report emphasises that as a small open economy, Ireland is critically dependent on external trade to support its development.

Commercial ships are increasingly becoming larger to improve the efficiency and sustainability of sea freight. To maintain competitiveness, it is essential that the Port responds to future growth requirements and shipping trends towards larger vessels. The Port of Cork is in the process of relocating from the Upper Harbour because the depth of the water channel and width of the river at Tivoli cannot deal with the larger vessels and it is logistically difficult to deal with more than 1 container vessel at a time.

Constraints at the Tivoli site which preclude the redevelopment of the existing container facility to accommodate larger ships include:

- Quay lengths are not long enough to accommodate more than one large vessel at a time. The overall maximum combined length of container vessels that can be handled effectively at one time is 240m. As shipping trends continue to change the Tivoli container quay will become unsuitable, with increased delays and consequential loss of competitiveness inevitable.
- The maintained depth in the approach channel to Tivoli is 6.5m, which means that only vessels with a draft of less than 6m can navigate without restriction. Depth can never be increased due to the presence of the Jack Lynch tunnel.
- Depth alongside at Tivoli is 6.9m Chart Datum in the eastern berth and 8.8m Chart Datum in the western berth. Depending on the height of tide at low water, drafts at the eastern berth can be limited to approximately 6.3 meters. The trend is towards vessels with a draft in excess of 7 meters and a vessel at this draft could not lie afloat at all stages of the tide in the eastern berth.
- The turning circle at Tivoli is 160m in diameter, which allows vessels of up to 154m to turn. The turning circle cannot be increased as it is bounded on the north side by the guayside and on the south side by the Marina. If the Port of Cork cannot respond to



changes in ship length and draft the Port will become uncompetitive and ultimately lose business to other Ports.

Increased freight traffic has an associated increase in demand of back-up lands, both in terms of immediate storage and in terms of developing the ability to locate distribution activities close to the port site. The trend in port logistical operation is to provide land banks adjacent to port facilities to foster these benefits, which cannot be adequately achieved in the Upper Harbour locations.

The relocation of Port activities from the Upper Harbour, including City Quays, is also necessary to allow the redevelopment of the Docklands and Tivoli for residential and employment uses. The City needs these lands to achieve its population growth targets and spatial planning objectives for the Region. The Port of Cork must release the value of lands in the Upper Harbour to fund their infrastructural and operational requirements from their own funds, in line with Government policy.

#### [3.2] Alternatives

Various alternatives have been considered in the course of preparing plans for the proposed redevelopment.

The 'do nothing' option has been ruled out as a failure to construction Cork Container Berth 2 and Deepwater Berth Extension will impact the Port of Cork's ability to service the needs of the bulks sector. Various alternatives have been considered in the course of preparing plans for the proposed development.

Alternatives have been considered in the context of the operational requirements of the port in establishing facilities to meet projected needs and the physical characteristics of alternative locations. This process has been informed by various previous studies including work undertaken during the preparation of the Port of Cork's Strategic Development Plan Review 2010 (SDP) and an assessment of the case for rail freight connectivity to the Port, Volume IV-Appendix 2.2

The assessment builds on the assessment of alternatives in the original EIS for the port redevelopment.

The drivers and factors which influenced choice of location included;

- Anticipated volumes of future trade
- Anticipated need to service the offshore renewable energy industry
- Anticipated increase in vessel size
- Vessel characteristics and berth requirements
- Flexibility and future proofing

Key criteria which would need to be met for a site to be considered potentially suitable for port related development included;

- The site must provide access to deep water and have the potential to be deepened to at least -11m Chart Datum (CD)
- The site must be adequately sheltered from sea and weather conditions



- The site must be within reasonable distance of existing port locations to ensure effective communications and efficient operations
- The site must be geographically situated to ensure it is suitable to continue to service effectively the main areas associated with the Port of Cork's current operations and existing customer base
- The site must be able to be linked to main transportation networks
- The site must not represent a fundamental conflict with planning policy or environmentally sensitive designated areas

From this a shortlist of alternative sites, the four most suitable sites for each mode of trade was identified.

Rank	Containers	Bulk Solids/General Cargo
1	Ringaskiddy East	Ringaskiddy West
2	Adjacent Ringaskiddy Ferry Terminal	Adjacent Ringaskiddy Ferry Terminal
3	Marino Point B	Marino Point B
4	Dogsnose Bank	Dognose Bank

Based on a review and comparison of the shortlisted sites which were brought through from the original development within Cork Harbour it was concluded that the optimal location for the current development should be Ringaskiddy East CCT and Ringaskiddy West DWB.

These locations were already associated with considerable port activity and port related development would be consistent with the CDP and Local and Regional Planning and Transportation policy objectives and Port of Cork Masterplan. Consolidation will have considerable benefits in terms of port operations and the relocation of both containers and bulks to this location will minimise the need to rely on more than one major road upgrade scheme.

For completion of the development, the optimal location for Berth 2 and DWB extension is at the location proposed as it would not be considered to be economically feasible to locate the extension facilities distant from the Ringaskiddy Redevelopment site.

A dedicated container terminal is located at Ringaskiddy East on port lands adjacent to the Ringaskiddy Ferry Terminal with bulks and general cargo operations primarily being located at Ringaskiddy West adjacent the existing DWB and ADM Jetty and there are significant economies of scale with location of an additional container berth there.

Thus, the works proposed for CCT2 and DWB extension under this EIAR comprise the relocation of further container operations from Tivoli and some initial accommodation of bulks at Ringaskiddy West by the implementation of the following elements: (and as described more comprehensively in Chapter 3 – Project Description).

At all stages throughout the development of the proposed works, where appropriate, consideration was given to alternatives in terms of both physical layout and port operations.



Key aspects and conclusions included:

- Berth locations and alignment are heavily influenced by the existing land configuration, bathymetry, access to the navigable water and the need to maintain access to existing berths and there is no realistic alternative to those positions proposed.
- The container terminal boundary/general arrangement is largely defined by the extent of existing lands and established activities and as such limited alternatives are available.
- Various options for the arrangement of the port access junction at the N28 were investigated and a signal junction identified as the most appropriate solution.
- The development of additional bulk cargo facilities can only practically be provided at Ringaskiddy west as a linear extension of existing DWB.
- Various methods of handling containers in the container yard were considered and the use of rubber tyred gantry cranes was identified as most suitable allowing accommodation of the anticipated throughput on the limited area available and being consistent with existing container operations on the Deepwater Berth providing for optimisation in maintenance, servicing and spares.
- Various options for the handling of bulk materials on the existing DWB including the proposed extension have been reviewed. The use of closed conveyor systems have been considered however a number of constraints to the implementation of this type of handling system including difficulties in servicing multiple receivers, physical constraints and some receiver facilities and the need to maintain a multi-purpose berth operation at this location. Given these constraints it is the intention of the Port of Cork that the current method of handling cargoes be continued and extended to service the proposed berth extension. The Port will continue to adopt best practice and will actively review with the receiving companies what other measures might be implemented to control release of dust during unloading operations.

### [4] Environmental and Planning Policy

#### [4.1] European Policy

#### [4.1.1] European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296/2018)

These Regulations extensively amend the Planning and Development Act 2000 and the Planning and Development Regulations 2001 in order to transpose into Irish law the provisions of Directive 2014/52/EU amending Directive 2011/92/EU of the European Parliament and of the Council on the assessment of the effects of certain public and private projects on the environment.

The publication of the Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment (2018) coincided with the making of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 in order to transpose the Directive into Irish planning law.



#### [4.1.2] EU Water Framework Directive

The EU has developed the Water Framework Directive (WFD) which establishes a legislative framework for the protection of all waters including rivers, lakes, estuaries, coastal waters and groundwater, and their dependent wildlife and habitats. Specifically, the WFD aims to:

- "protect/enhance all waters (surface, ground and coastal waters),
- achieve 'good status' for all waters by December 2015,
- manage water bodies based on river basins (or catchments),
- involve the public, and
- streamline legislation".

The objectives and targets required by the WFD are set out in the statutory River Basin Management Plan (RBMP) for Ireland 2022-2027(gov.ie, 2022). The RBMP requires that all member states adopt a comprehensive integrated basin-based approach to water management.

Rivers, lakes, estuaries and coastal waters (surface waters) can be awarded one of five statuses i.e., 'High', 'Good', 'Moderate', 'Poor' and 'Bad whereas groundwater can be awarded only 'Good' or 'Poor' status. Ecological status for surface water bodies is primarily driven by the Biological Quality Elements (BQEs) which includes fish, aquatic flora, macroinvertebrates and phytoplankton. Standards for general physio-chemical parameters, specific pollutants and hydro morphology are set at levels in order that they are sufficient to support the status of the BQEs (Catchments.ie, 2021).

The proposed scheme is obligated to ensure that it does not result in the reduction of WFD quality statuses or prevent the restoration of those assets awarded a status below 'good'.

#### [4.1.3] EU Habitats Directive and Birds Directive

EU Directive 92/43/EEC on the Conservation of Habitats and Wild Flora and Fauna (known as the 'Habitats Directive') protects habitats and species of European nature conservation importance. Together with Directive 2009/147/EC on the Conservation of Wild Birds (the 'Birds Directive'), the Habitats Directive establishes a network of nationally important sites designated for their ecological status. These include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Internationally important wetlands designated under the 1971 Ramsar Convention are also afforded the same protection as SPAs and SACs.

The Project is subject to Appropriate Assessment (AA) in accordance with the EU Directive 92/43/EEC on the Conservation of Habitats and Wild Flora and Fauna (known as the 'Habitats Directive'), given the proximity to European Sites and the nature of the work resulting in potentially significant effects on these.

As such, a Natura Impact Statement (NIS) has been prepared for the Proposed Scheme and will accompany the Planning Application AA and NIS M1099-AY-ENV-R00.

#### [4.1.4] Trans-European Transport Network (TEN-T)

The EU's trans-European transport network policy, the TEN-T policy, is a key instrument for the development high-quality transport infrastructure across the EU. It comprises railways,



inland waterways, short sea shipping routes and roads linking urban nodes, maritime and inland ports, airports and terminals.

The TEN-T policy is based on Regulation (EU) No 2024/1679. This Regulation is currently being revised in order to make the network greener, more efficient and more resilient, in line with the European Green Deal and the Sustainable and Smart Mobility Strategy.

The trans-European transport network is designed according to an objective methodology. As set out in the current regulation, it consists of two layers, the core and the extended core network. The core network includes the most important connections linking major cities and nodes and must be completed by 2030. The comprehensive network connects all regions of the EU to the core network and needs to be completed by 2050. With the revision of the TEN-T Regulation, a third layer – the extended core network – should be added as an intermediate milestone, to be completed by 2040.

The trans-European transport network should be a Europe-wide network ensuring the accessibility and connectivity of all regions in the Union, including the outermost regions and other remote rural, insular, peripheral and mountainous regions as well as sparsely populated areas. The requirements for the infrastructure of the trans-European transport network should be set in order to promote the development of a high-quality network throughout the Union.

Significant grant funding has been awarded to progress the Port's strategic development proposals.

#### [4.2] National Policy

#### [4.2.1] Planning and Development Acts 2000 (as amended) & Planning and Development Regulations 2001 (as amended)

The Planning and Development Act 2000 (as amended) forms the basis of the planning system, setting out the detail for planning guidelines, obtaining planning permission and the process for EIA.

The requirements of the EIA Directive are transposed into Irish Law and included in the Planning and Development Act 2000, as amended, and Planning and Development Regulations 2001 as amended. The Planning and Development Regulations 2001 (Schedules 5 and 7) also identify certain types and scales of development, generally based on thresholds of scale, for which an EIA is mandatory. The requirements in respect of EIA are contained within the Planning Act and these are described in detail in Chapter 1 'Introduction, Scoping, Consultation'.

#### [4.2.1.1] Ireland 2040 Plan: National Planning Framework

In 2019, the Department of Housing, Planning, and Local Government is published the Ireland 2040 Plan: National Planning Framework (NPF), replacing the National Spatial Strategy. It is intended that the NPF will focus on integrating Ireland's economic development, spatial planning, infrastructure planning and social considerations. It promotes environmentally focused planning at local level to tackle climate change and the implementation of appropriate measures to mitigate existing issues, guiding regional and local development plans (Department of Housing, Planning and Local Government, 2018).

The NPF aims to align with the UN Sustainable Development Goals, by ensuring that the decision process will safeguard the needs of future generations. The NPF supports the



provision of infrastructure, services and amenities and advocates for the delivery of 'must have' physical infrastructure that defines quality of life and personal wellbeing.

These objectives are integrated as part of the National Strategic Outcomes (NSOs) in areas such as climate action, sustainable cities and innovation and infrastructure. The NSO 6: *High-Quality International Connectivity* has direct reference to the Ringaskiddy Port Redevelopment Project:

'This is crucial for overall international competitiveness and addressing opportunities and challenges from Brexit through investment in our ports and airports in line with sectoral priorities already defined through National Ports Policy and National Aviation Policy and signature projects such as the second runway for Dublin Airport and the Port of Cork - Ringaskiddy Redevelopment.'

Ringaskiddy Port, and improved access to the development (via the M8/N25/N40 Dunkettle Junction upgrade), is further outlined as a key 'future growth enabler' for the Cork City and Metropolitan Area

The National Planning Framework (NPF) 2018 underscores the strategic importance of ports in facilitating international trade and enabling economic growth. It emphasises the evolution of ports from facilitators of goods transportation to critical enablers of new industries, such as ORE). The NPF recognises that Ireland's economic growth is highly dependent on the quality and efficiency of its ports, more so than many of its trading partners. To sustain this growth, Ireland must deliver additional port capacity in a timely and predictable manner.

The NPF highlights that Tier 1 and Tier 2 ports, including Cork, Dublin, and Shannon, must lead the response to meet Ireland's future port capacity requirements. The expansion of Ringaskiddy Port is essential for aligning Cork's city growth strategies with national and regional objectives, ensuring the effective growth and sustainable development of the city region.

The expansion of the Port of Cork at Ringaskiddy is a key enabler of large-scale regeneration projects in Cork, particularly the redevelopment of former port sites in the City Docks and Tivoli Docks. This is outlined in **Chapter 3 "Effective Regional development" of the NPF**. National policy advocates for the transformation of these sites into sustainable, mixed-use developments, which is contingent on the successful relocation of existing port facilities to the Lower Harbour. The proposed extension at Ringaskiddy will facilitate this transition, minimising disruption to business and enabling the city's regeneration.

The NPF's Chapter 7, "Realising Our Island and Marine Potential", places strong emphasis on the maritime industry, particularly the role of ports in regional competitiveness. It identifies the maritime sector as a critical enabler of regional development and highlights the need for ports to support emerging industries, such as ORE. The expansion of the Ringaskiddy Cork Container Terminal and multi-purpose berth, aligns with these strategic priorities, ensuring that Cork remains a vital gateway for Ireland's international trade and emerging industries. The expansion will not only meet the immediate needs of port operations but also support the longterm strategic goals of the region, ensuring that Cork remains a key player in Ireland's economic and maritime landscape.

**National Strategic Outcome 6: 'High-Quality International Connectivity**' underscores the increasingly pivotal role that ports will play in Ireland's transport and international trade strategies. The NPF emphasises that Ireland's National Ports Policy, along with the hierarchical tiering of ports, recognises the global trend toward the consolidation of resources in the maritime sector. This trend is driven by the need to achieve optimum efficiencies of scale,



which has significant implications for port infrastructure, including the size of vessels, the required depths of water, and the scale of hinterland transport connections.

The proposed extension of the port facilities at Ringaskiddy is a strategic necessity that aligns with both European and national policies. It is crucial for accommodating the growing size of vessels, supporting Ireland's economic growth, and enabling the successful redevelopment of Cork City's Docklands. The development is in line with the National Planning Framework's objectives and is essential for maintaining the Port of Cork's competitiveness and efficiency in global trade. The expansion will not only meet the immediate needs of port operations but also support the long-term strategic goals of the region, ensuring that Cork remains a key player in Ireland's economic and maritime landscape.

A draft review of the NPF was published in July 2024. One of the key shifts in the national policy context for ports is increasing emphasis on support for infrastructure requirements needed to facilitate Off-shore Renewable Energy. See the planning policy statement which accompanies the application for further discussion.

#### [4.2.1.2] National Development Plan, 2021-2030

The National Development Plan 2021-2030 (NDP) was published in October 2021. It is the national plan setting out investment priorities to guide national, regional and local planning and investment decisions. The revised NDP sets out the ten-year capital ceilings to 2030 which will support economic, social, environmental and cultural development across all parts of the country under Project Ireland 2040, in parallel with the NPF (see Section [4.2.1.1] above) which sets the overarching spatial strategy for the next twenty years.

Under NSO 6: *High-Quality International Connectivity*, investment is not only focused on supporting international connectivity and competitiveness, but also the 'greening' of airports and ports, whereby pathways towards achieving net zero carbon emissions by 2050 are already being identified.

The importance of ports and airports in the context of regional connectivity continues to be of strategic importance. Significant investment in Ireland's airports and ports will play a major role in safeguarding and enhancing Ireland's international connectivity which is fundamental to Ireland's international competitiveness, trading performance in both goods and services and enhancing its attractiveness to foreign direct investment. The importance of this objective cannot be understated in the context of the UK's exit from the EU.

Three major capital infrastructure programmes in Tier 1 Ports are highlighted as ongoing including Dublin, Cork and Shannon Foynes. The aim is to enhance national and international connectivity, provide for future increases in trade and national port capacity requirements by facilitating more vessels, larger sized vessels and increased tonnage and throughput.

Strengthening access routes to Ireland's ports through investment to upgrade and enhance the road and rail transport network to improve journey times is and remains a government priority. The planned N28 Cork to Ringaskiddy Road is highlighted as a key example of this, to provide improved access to the Port of Cork.

The Ringaskiddy Redevelopment is given special mention (Box 11.1, Page 109):

'The Port of Cork is investing to redevelop the port's existing facilities at Ringaskiddy. Planning permission was granted in 2015 towards this development. Delays due to Covid 19 have pushed the completion date out to Q3 2021 with the new facility operational in Q4 2021. The development will enable the Port to accommodate larger vessels and further develop it as an



international gateway for trade. The project will alleviate the physical constraints (for example, water depths) of current operations at City Quays and Tivoli, allowing the Port to increase capacity and throughput, diversify customers, cater to the trend of increasing vessel sizes and free the City Quays and Tivoli properties for development and/or divestment.'

#### [4.2.2] National Ports Policy 2013

The core objective of the National Ports Policy (NPP) is to facilitate a competitive market for maritime transport services. The policy identifies that the long-term international trend in ports and shipping is toward increased consolidation of resources in order to achieve optimum efficiencies of scale.

On 19<sup>th</sup> October 2023, public consultation for the review of the National Ports Policy was launched.

The NPP introduces a clear categorisation of ports, namely: Ports of National Significance (Tier 1), Ports of National Significance (Tier 2) and Ports of Regional Significance. The Port of Cork is one of three ports identified as at Tier 1 'Port of National Significance (along with Dublin Port Company and

Shannon Foynes Port Company). It is noted that it is critically important that Ports of National

Significance (Tier 1 & 2) provide an efficient and cost-effective service to the economy. Tier 1 ports are identified as Ports that:

- "...are responsible for 15% to 20% of overall tonnage through Irish ports, and
- have clear potential to lead the development of future port capacity in the medium and long term when and as required." (NPP, .p13)

The NPP is not prescriptive as regards the location of future port infrastructure, but it notes that specific locations of future port capacity should be incorporated within the existing planning and development policy hierarchy. It also encourages active engagement between port companies and the relevant planning authorities to ensure that port masterplans and relevant planning and development strategies are complementary and consistent. In other words, while the NPP's core objective supports the expansion of port capacity, it is consider that locational issues are most appropriately addressed within existing spatial planning policy documents.

With specific reference to the Port of Cork the NPP notes that it is one of only two ports capable of handling traffic across all five principal traffic modes (LoLo, RoRo, Break Bulk, Dry Bulk and Liquid Bulk) and is second only to Dublin in its importance in the LoLo sector. The NPP states that:

'The Government endorses the core principles underpinning the company's Strategic Development Plan Review, and the continued commercial development of the Port of Cork Company is a key strategic objective of national Ports Policy.' (NPP, p.26)

In relation to the European unified transport network (TEN-T) the NPP notes that three ports are proposed for inclusion within the network – Dublin, Cork and Shannon Foynes. It also notes that efficient hinterland connections are critically important to a port's ability to facilitate large volumes of traffic. It states that TEN-T core ports must have a connection to both core road and rail networks, although it is acknowledged:

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'The vast majority of Ireland's freight movements to and from ports are via road. As acknowledged in the European Commission's White Paper, Roadmap to a Single European Transport Area – Towards a Competitive and Resource-Efficient Transport System, it is likely that "freight movements over short and medium distances (below some 300km) will to a considerable extend remain on trucks" (Commission of the European Communities 2011c).' (NPP, p.45)

In recognition of the likely continued focus on road freight in Ireland, the NPP states that the interconnections between the national primary road network and the commercial port network will continue to be of primary importance.

The NPP also identifies the relationship between ports and major cities, noting that as port facilities have shifted downstream over time it has allowed for the redevelopment of previously port-related lands for other commercial, residential or recreational uses. While it is acknowledged that this can be of mutual benefit to ports and local authorities, the NPP states that the cost of relocating and redeveloping port facility must be considered in any redevelopment plans. This point is made in the context of the government's policy to require ports to fund any infrastructure developments from its own resources. It is stated within the NPP that:

"...redevelopment proposals must take account of the need for sufficient replacement port capacity within the region. Any development proposals requires careful consideration by all relevant stakeholders, in particular the planning authorities, local communities, port authorities and port users."

The NPP sets a clear policy context for the future expansion of Port of Cork activities, emphasising the crucial role to be played in facilitating national economic growth.

#### [4.2.3] Harnessing Our Ocean Wealth 2012

The Organisation for Economic Development expect the global ocean economy to grow rapidly in the coming years. By 2030 they estimate that the ocean economy will provide 40 million jobs and double its contribution to global GDP (Ireland's Ocean Economy 2019).

As set out in HOOW, "managing our ocean wealth requires an overarching national marine 'spatial' plan underpinned by an efficient and robust planning and licensing framework". Since the launch of HOOW the EU Maritime Spatial Planning Directive was adopted in 2014. It established an EU-wide framework for maritime spatial planning (MSP). The Department of Housing, Planning and Local Government is currently leading the preparation of a National Marine Spatial Plan for Ireland to cover a 20-year period. The data generated in this report will inform the national level plan. As the maritime spatial planning process matures more regional specific plans will be developed. This will require a more nuanced understanding of the economic contribution of the ocean economy at a more refined spatial scale. This remains a gap in our knowledge for a number of the industries where currently only national level data is available. Integrating the ocean economic data with information/ models of changes in the marine environment is also an area requiring further research in order to deliver an effective maritime spatial plan and to ensure that the sustainable element of blue growth is front and central in marine policy development (Ireland's Ocean Economy 2019).

'Harnessing Our Ocean Wealth: An Integrated Marine Plan for Ireland' (IMP) was published in July 2012 by the Department of Agriculture, Food and the Marine. It sets out a roadmap for the government's vision, high level goals and integrated actions across policy, governance and business for the marine sector. The vision of the IMP is stated as:

"Our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner."

The IMP notes that:

*"Infrastructure includes fixed assets (e.g. ports, fisheries harbours, piers, slipways, buildings etc), mobile assets..., research, educational and innovation platforms... and datasets...* 

Maintaining, upgrading and providing these infrastructures is critical to our national economy (e.g. 99% of Ireland's exports and imports are transported through Ireland's ports); energy needs and export potential (e.g. grid infrastructure); ..." (IMP July 2012, p. 43)

The key actions for infrastructure include:

"No. 32: Put in place clear integrated policies and strategies for the development of new key strategic infrastructure to support job creation and economic growth (e.g. the gird and port infrastructure to support renewable energy and export potential).

No. 34: Carry out national regional and local initiatives aimed at tapping into the potential of new and existing coastal infrastructure to develop sustainable products, services and jobs. This would encourage investment along the coast. Initiatives include:

Supporting major national seaports in the implementation of their master plans to provide additional capacity and greater draft using their own resources. "(IMP July 2012, p. 43-44)

The provision of enhanced port infrastructure is identified as a critical action and clear policy support is provided for the implementation of port master plans (such as the SDP).

#### [4.2.4] Project Ireland 2040 – National Marine Planning Framework

The National Marine Planning Framework (NMPF) brings together all marine-based human activities, outlining the government's vision, objectives and marine planning policies for each marine activity.

The NMPF details how these marine activities will interact with each other in an ocean space that is under increasing spatial pressure, ensuring the sustainable use of our marine resources to 2040.

The NMPF is intended as the marine equivalent to the National Planning Framework. This approach will enable the Government to:

- set a clear direction for managing our seas
- clarify objectives and priorities
- direct decision makers, users and stakeholders towards strategic, plan-led, and efficient use of our marine resources
- describes enabling works for a thriving maritime economy

The NMPF has been prepared with an ecosystem-based approach and informed by best available knowledge. As part of the preparation of the NMPF, a Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) have been carried out.


Overarching Marine Planning Policies for Co-existence and for Infrastructure relate to economic objectives. Although there are just two economic policies it should be noted that these are supplemented by the sectoral Marine Planning Policies most of which are aimed at achieving economic objectives.

Coexistence Policy 1:

Proposals should demonstrate that they have considered how to optimise the use of the space, including through consideration of opportunities for co-existence and co-operation with other activities, enhancing other activities where appropriate.

*If proposals cannot avoid significant adverse impacts (including displacement) on other activities, they must in order of preference:* 

- a) minimise significant impacts
- b) mitigate significant adverse impacts, or
- c) if it is not possible to mitigate significant adverse impacts proposals should set out the reasons for proceeding.

#### Infrastructure Policy 1;

Appropriate land-based infrastructure which facilitates marine activity (and vice versa) should be supported. Proposals for appropriate infrastructure that facilitates the diversification or regeneration of marine industries should be supported.

The National Marine Planning Framework (NMPF) recognises that ports of national significance are key international gateways and facilitators of economic development. It highlights the ongoing phased infrastructure investments at Tier 1 ports, including the Port of Cork stating that,

'All three Tier 1 ports are currently engaged in significant phased infrastructure investment in relation to key elements of their masterplans... Supporting the existing and future development of ports in line with their approved master / strategic plans is essential to ensure the continued economic prosperity of the country'.

The policy document highlights that with the expected increase in freight volumes and vessel size, accessibility, capacity and navigational safety will bring significant challenges for Ireland's maritime sector. The expansion of port facilities at Ringaskiddy is a strategic response to these challenges.

The NMPF outlines its support for land-based infrastructure proposals that enhance the economic and social benefits of marine activities. The document refers to port infrastructure as essential for achieving this objective, including facilities for the landing, storage, and processing of catch or freight, as well as related transport infrastructure. The framework also acknowledges that certain primarily land-based developments and activities rely on associated marine infrastructure, which is essential for their effective operation. It states:

"This policy supports proposals for the development of land-based infrastructure that facilitates marine activity and the diversification or regeneration of marine industries. It also supports proposals for the development of marine infrastructure that facilitates land-based activity."

This is supported by Infrastructure Policy 1 which states that,



'Appropriate land-based infrastructure which facilitates marine activity (and vice versa) should be supported. Proposals for appropriate infrastructure that facilitates the diversification or regeneration of marine industries should be supported'.

The policy framework encourages the adaptation of existing marine infrastructure to support emerging industries, such as ORE and the diversification of marine industries.

#### ORE Policy 7 states:

"Where potential for ports to contribute to ORE is identified, plans and policies related to this port must encourage development in such a way as to facilitate ORE and related supply chain activity".

The policy framework requires that marine activities be managed in a way that protects the environment by ensuring that adequate space is allocated for the growth of new or emerging industries. It stipulates that if a proposal results in significant adverse impacts, such as displacement, that cannot be minimised or mitigated, the proposal must include a rationale demonstrating how space optimisation can be achieved.

It is also an objective of the NMPF that marine based activity addresses environmental considerations. The continued dredging in the River Lee, necessary to accommodate larger vessels, has been identified as having negative environmental impacts. This proposed development effectively responds to these environmental concerns by reducing the need for large commercial vessels to enter the upper part of Cork Harbour. By increasing capacity at Ringaskiddy, the number of vessels needing to dock at Tivoli or travel up the River Lee will decrease, minimising environmental impacts.

The NMPF sets out its policy framework for addressing environmental considerations in marine spatial planning. While shipping can lead to the introduction of non-native species, safe and efficient shipping offers significant environmental benefits. Conversely, unnecessary diversions of sea traffic can increase environmental impacts and the risk of maritime incidents. The Marine Planning Policy Framework supports the sustainable development of ports as a means to provide adequate capacity to meet present and future demand, while also adapting to the consequences of climate change.

The policy advocates for the protection of the shortest shipping routes to minimise environmental impacts and enhance navigational safety. By providing a more efficient and direct route to port facilities, the proposed Ringaskiddy development will contribute to reducing the overall carbon footprint of shipping activities.

# [4.2.5] Climate Action Plan 2024

The Climate Action Plan 2024 (CAP 2024) is the third update to Ireland's Climate Action Plan, prepared in compliance with the Climate Acts. It was approved by Government on 20 December 2023.

The CAP 2024 builds upon the previous CAP's (2019, 2021, and 2023) by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The CAP 2024 provides a roadmap for taking decisive action to halve Irelands emissions by 2030 and reach net zero by no later than 2050, as committed in the Climate Acts. It considers that by or before 2030, Ireland will achieve 80% of electricity demand from renewable sources and a projected decrease in GHG emissions of 75% in 2030 relative to 2018 levels. The CAP's objective is to assist in the delivery of the required GHG emissions abatement to meet climate targets.

# [4.3] Regional Policy

### [4.3.1] Regional Spatial and Economic Strategy for the Southern Region 2019-2031

The Regional Spatial and Economic Strategy (RSES) for the Southern Region is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives (RPOs). At this strategic level it provides a framework for investment to better manage spatial planning and economic development to sustainably grow the Southern Region to 2026 and 2031, with a long-term vision to 2040 (Southern Regional Assembly, 2020).

The principal statutory purpose of the RSES is to support the implementation of the NPF and NDP 2021-2030 and the economic policies of the Government by providing a long-term strategic planning and economic framework for the development of the Southern Region.

The RSES sets out the following Regional Policy Objectives regarding ports and connective infrastructure:

- RPO-76 Ensure alignment and consistency between land use and ocean-based planning and to ensure co-ordination which supports the protection of the marine environment and the growth of the marine economy.
- RPO 77 Support the integration of different uses in the marine environment and ensure consistency and alignment between high level plans such as the National Marine Planning Framework, regional based approaches to maritime spatial planning and localised coastal management plans and local integrated coastal zone management plans. It is important to be cognisant of the need to promote cross boundary management of coastal areas within the Region. Any development of plans in coastal zones should be informed by a Strategic Flood Risk Assessment.
- RPO 78 Support the sustainable development of the potential of the marine environment to foster opportunities for innovation in the marine economy and drive forward the Region as a first mover under maritime spatial planning while preserving the environmental and ecological conservation status of our marine natural resource. Initiatives arising from this objective shall be subject to robust feasibility and site selection which includes flood risk assessments and explicit consideration of likely significant effects on European sites and potential for adverse effects on their integrity in advance of any development.
- RPO 142 strengthen investment to deliver actions under National Ports Policy and investment in sustainable infrastructure projects that:
  - a) Strengthen and develop the strategic international, national and regional economic roles of our Tier 1 Ports (Port of Cork and Shannon Foynes Port) and Tier 2 Ports (Port of Waterford and Rosslare Europort) and support the strategic role of our Region's port and harbour assets under the National Marine Planning Framework.
  - b) Support the achievement of Ports or National Significance Tier 1 status for the Ports of Waterford and Rosslare Europort.



- c) Strengthen and develop the strategic regional economic role of other regional fishery harbours, ports and harbours.
- d) Support the export, fisheries, marine tourism and marine economy potential of port and harbour assets in the Southern Region as listed in Table 6.2 and support investment in the transition to smart technologies of port and harbour assets.
- e) Support the sustainable development of the 9 no. strategic development locations adjoining sheltered deep-water in line with the recommendations of the SIFP for the Shannon Estuary and subject to the implementation of mitigation measures outlined in the SEA and AA undertaken on the SIFP.
- f) Development proposals will be subject to environmental assessment, implementation of mitigation measures outlined in applicable SEA's and AAs and feasibility studies to establish that any expansions can be achieved without adverse effects on any European Sites and within the carrying capacity of the receiving ports.
- RPO 143 The critical role of the Region's port and airport assets will be protected by ensuring that local land-use policies subject to required planning and environmental processes facilitate and do not undermine their functions and their landside access capacity, subject to consideration of environmental concerns including water quality, flood risks, human health, natural and built environment.
- RPO 144 It is an objective to complement investment in port infrastructure by seeking the sustainable development of improved access infrastructure to ports from their regional catchments, including the promotion of rail access where practicable.
- RPO 145 It is an objective to support the development of a Ports and Harbour Strategy for the Southern Region to be prepared by the relevant stakeholders through consultation with the Department of Transport, Tourism and Sports, Local Authorities, port authorities, TII, NTA and other relevant stakeholders. The implementation mechanisms and monitoring structures to be established following the adoption of the RSES will identify the scope and role of the Ports and Harbour Strategy for the Southern Region and the appropriate timescale for its preparation. The requirements for a Strategic Environmental Assessment and Appropriate Assessment shall be considered, as appropriate, in relation to a Ports and Harbour Strategy for the Southern Region.
- RPO 146 It is an objective to achieve NSO: High Quality International Connectivity. The following port development actions are identified, subject to required appraisal, planning and environmental assessment processes and implementation of mitigation measures outlined in applicable SEAs and AAs while ensuring the protection of sensitive natural environments and the protection of natura sites, the protection of other harbour interests including recreation, tourism and residential amenity:
  - Continued development and improvement of ports by the relevant responsible commercial State-Owned Enterprises consistent with the sectoral priorities defined through National Ports Policy
  - Continued support for capital infrastructure projects in the Port of Cork's Strategic Development Plan including redevelopment of existing Port Facilities in Ringaskiddy and preparing City Docks and Tivoli for future regeneration.



- Continued support for the capital infrastructure projects in the Shannon-Foynes Port Company Infrastructure Development Programme including capacity extension works and infrastructure investment towards deep water berthage on Foynes Island and offshore resources.
- Continued support for Rosslare Europort and Port of Waterford (including the port's strategic plan and Port of Waterford Corporate Plans subject to the implementation of mitigation measures outlined in applicable SEAs and AAs to maintain and strengthen linkages with EU markets.
- Strategic Review of Rosslare Europort.
- Strengthening and maintaining access to ports through enhanced transport networks and improved journey times including support for M11 and N80 improved connectivity to Rosslare, N28 Cork to Ringaskiddy Road and N21/N69 (Foynes to Limerick Road Scheme including Adare Bypass).
- Investment in maritime services programmes to support aids to navigation, Coast Guards and pollution prevention activities.
- RPO 147 –It is an objective for all ports in the Region to:
  - Protect the marine related functions of ports in the Region including landside accessibility to ensure the figure role of ports as strategic marine related assets is protected from inappropriate uses. Harness sustainable economic opportunities from the ocean economy and the role of Ports in the region in realising the full potential of the ocean economy. Particular regard should be had to the Government's integrated plan for the marine industry – Harnessing our Ocean Wealth 2012, the National Marine Research and Innovation Strategy 2017-2021 (Marine Institute Ireland 2017 and Ireland's Ocean Economy (NUIG 2017) as well as the Marine Strategy Framework Directive and Ireland's Programme of Measures and Ireland's forthcoming National Marine Planning Framework subject to the implementation of mitigation measures outlined in the SEA and AA undertaken where necessary.
  - Support the role of ports where appropriate in facilitating the sustainable development and operation of off-shore renewable energy development.
  - Support sustainable and appropriate enabling infrastructure development to harness our ocean wealth at regional and local levels including grid, pier and port facilities to support renewable energy and export potential.
  - Undertake feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPA and SAC.
  - Port development in the Region must adhere to the European Commission guidelines on the Implementation of the Birds and Habitats



Directive in Estuaries and Coastal Zones in order to protect the European Sites around them.

 Any economic activity which utilises the marine resource shall also have regard to Ireland obligations under the Marine Strategy Framework Directive (MSFD) which requires achieving and maintaining Good Environmental Status (GES) of coastal and marine waters (Comprising both the water column and the seabed beneath it).

### [4.4] Local Policy

#### [4.4.1] Cork Metropolitan Area Strategic Plan (MASP)

Cork Metropolitan Area Strategic Plan (MASP) is detailed within the Regional Spatial and Economic Strategy for the Southern Region which covers the Cork Metropolitan Area to provide a vision and strategy for the development of the Cork City Region up to 2020. MASP identified the Port of Cork to be of strategic location of natural amenities, port activities, tourism, heritage and harbour settlements:

"As Europe's largest natural harbour, Cork Harbour is a special character area and strategic asset. It is a location sharing port activities, strategic employment uses, marine research, energy generation, tourism, heritage and residential communities in an environment with sensitive ecosystems and natural amenities (Cork Harbour SPA)." (Cork MASP, p.11)

Cork MASP considers the key economic role of Tier 1 Port of Cork.

'Tier 1 International Port of Cork is recognised as a strategic national and regional driver for economic growth. In 2017 the port of Cork handled over 10.3 million tonnes of trade traffic and 68 cruise liners visited bring over 142,000 passengers to the region.'

Indeed, the MASP states that its spatial strategy takes account of a number of policy objectives, including:

Cork MASP Policy Objective 13: - Port of Cork

- Support the sustainable development and investment in the Port of Cork balanced with the protection of the natural environment and Cork Harbour SPA and promote its role as a Tier 1 International Port and driver for the metropolitan, regional and State economy. To support this role the Cork MASP seeks the following subject to the outcome of the required feasibility assessment and environmental processes:
  - The sustainable development of port infrastructure and facilities under the port's strategic development plans balanced with the protection of Cork Harbour's natural environment. Improved quality of inter-regional transport connectivity and networks improving access to the Port of Cork particularly for the freight movement and the quality of the TEN-T Corridor. The delivery of strategic transport network improvements under Cork MASP Objectives 6-9 including improved strategic road access to the Port of Cork Ringaskiddy, Cobh, Marino Point and Whitegate is supported as a critical component for unlocking the full potential of the Port of Cork and to enable regeneration of the Cork Docklands:



- Investment in strategic transport corridors as reference in the CMATS and Cork MASP.
- The relocation of existing port activities from Cork City and investment in infrastructure to remediate sites and enable regeneration of the Cork City Docks and Tivoli.
- The appropriate location of SEVESO activities and the relocation of these activities from the city docklands subject to required planning and environmental processes.
- The sustainable development and strengthening of cruise tourism.
- Support the feasibility, in co-ordination with relevant stakeholders, to create and more integrated and streamlined approach between planning, environmental and foreshore consenting.
- Co-ordinate with the relevant Government departments and stakeholders to align the RSES and MASP with opportunities for the Region under Marine Spatial Planning.

Cork MASP's policy is supportive of the Port's proposals to relocate its inner harbour activities and of its preference to develop Ringaskiddy.

# [4.5] Cork County Development Plan 2022-2028

# [4.5.1] Port of Cork

The Cork County Development Plan Chapter 12 acknowledges Cork Harbour Area as a critical regional and national spatial asset and Cork Port as the second most significant port in the state, critical to the economic success of the South-West Region.

The plan also acknowledges the identification of Port of Cork as a Tier 1 Port of National Significance and as a Core Port within the TEN-T (European Union Trans European Network-Transport).

The Plan:

'Supports the Port of Cork's Expansion of facilities in Ringaskiddy so that port centered operations and logistics can become more efficient through the accommodation of larger ships so that port traffic can directly access the National Road Network without passing through the City Centre. The expansion of port facilities at Ringaskiddy is ongoing and will release dockland area close to the City for planned redevelopment in line with proposals set out in the City Council's development and local plan areas. The Cork Container Terminal for the Port of Cork Company is expected to begin operations in 2021.'

The Plan identifies in parallel that:

'the environmental, heritage and ecological values of the Harbour are very important. Developing the harbour in a sustainable manner to include the safeguarding of its key environmental and heritage resources will be critical if the full potential of the Harbour is to be realised. Development proposals will be subject to environmental assessment, implementation of mitigation measures outlined in applicable SEAs and AAs and feasibility



studies to establish that any expansions can be achieved without adverse effects on any European Sites and within carrying capacity of receiving environments of the port'

Finally, the Plan commits that:

'Investment in port infrastructure must be complemented by the sustainable development of improved access infrastructure. Transport connectivity priorities for the port supported by this plan are as follows:

- M8 Dunkettle Interchange
- N28 Cork to Ringaskiddy
- Upgrading of the R624 Regional Road Linking N25 Marino Point and Cobh to National Road Status
- Rail Connection to Marino Point ......'
- a) Future expansion or intensification of Port activities will have regard to environmental, nature conservation and broader heritage considerations at design, construction and implementation stages.

#### [4.5.2] Transportation and Mobility

The County Development Plan Objective TM 12-15 Port of Cork and Other Ports commits to:

- a) Ensure that the strategic port facilities at Ringaskiddy, Whitegate and Marino Point have appropriate road and transport capacity to facilitate their sustainable development in future years
- b) Ensure delivery of the upgrading and realignment of the N28 Cork to Ringaskiddy Road and the upgrading of the R624 Regional Road linking N25 to Marino Point and Cobh and designation to National Road Status to provide appropriate road transport capacity to facilitate sustainable development of port facilities at Ringaskiddy, Whitegate and Marino Point.
- c) Support the wider landside capacity of Port of Cork subject to consideration of environmental concerns including water quality, flood risks, human health, natural and built heritage.
- d) Support the relocation of port activities and other industry away from the upper harbour on the eastern approaches to the city.
- e) Support Ringaskiddy as the preferred location for the relocation for the majority of the port related activities having regard to the need for significant improvement to the road network. Also recognising the key role that Marino Point can play in providing an alternative relocation option for some of the port related uses that could best be served by rail transport, taking account of residential amenity, tourism, recreation and renewable energy. The Council is committed to engage with the Port of Cork and other relevant stakeholders in achieving this outcome.



### [4.5.3] Biodiversity and Environment

The CDP acknowledges the threat to biodiversity globally and includes within the definition of biodiversity, native plants, animals and the places (habitats and ecosystems) they occupy.

The overarching policy in relation to biodiversity in the CDP is to:

- a) Support and comply with the objectives of the National Biodiversity Plan 2017 2021 (and any future National Biodiversity Plan which may be adopted during the period of this plan as appropriate,
- b) Implement the current County Biodiversity Action Plan and any future updated Plan:
- c) Support and comply with the biodiversity policy set out in other national and regional policy documents as appropriate.

The CDP gives explicit mention of the obligation to protect sites, habitats and species with regard to:

- European Legislation,
- National Legislation and International Agreements.
- Special Areas of Conservation.
- Special Protection Areas.
- Marine Protected Areas.
- Natural Heritage Areas.
- Proposed Natural Heritage Areas
- Statutory Nature Reserves
- Refuges for Fauna and
- Ramsar Sites.

# [4.5.4] Summary

In summary, the 2022-2028 CDP policies relevant to the Port of Cork:

- Recognise the importance of the port and the need for its relocation and development to promote strategic employment growth in Cork City and County.
- Support the relocation of the Port of Cork to facilitate this strategic employment growth and to facilitate redevelopment of land within the city.
- Identify Ringaskiddy as the "preferred location" for the relocation of the port's inner harbour activities.
- Aim to protect land suitable for the expansion of port facilities from inappropriate development.

- Recognise the need to protect existing environmental, residential and recreational amenity in any redevelopment proposals.
- Recognise the benefit, in terms of promoting more sustainable transport, of removing freight transport from city centre routes and other major residential areas.
- Recognise the need to develop an integrated approach to the planning and development of the harbour, through the provision of a specific study to feed into the local area plan process.
- Require that any proposed development is screened for impact on any designated conservation areas and scenic amenity routes.

# [4.6] Cork City Development Plan 2022-2028

The Port of Cork is also identified by the Cork City Development Plan 2022-2028 (CCDP) as a major contributor to the city in terms of its economic, industrial, tourist and historical significance, it states that:

The CCDP supports the proposals for the relocation of the port activities to facilitate the redevelopment potential of existing port lands close to the heart of the city:

The relocation of port activities, particularly from City Quays and Tivoli, is seen as a key issue because the CCDP aims to benefit from released lands and use their potential for future development of the city:

"Tivoli has been identified in the MASP as an area with future potential for residential and employment uses. The City Council is committed to supporting the regeneration of the Tivoli area by the preparation of a Local Area Plan. Key issues to be resolved prior to regeneration of Tivoli include the timing of the relocation of port activities."

# [4.7] Summary

The proposal for finalising the final stages of Ringaskiddy redevelopment is consistent with European and national policy objectives, which identify high quality transport infrastructure, including port facilities, as essential for economic growth; maximising Ireland's ocean wealth; and ensuring competitiveness of Ireland and Europe.

At a European level, the TEN-T recognises the Port of Cork as a core network port; and significant grant funding has been awarded to progress the Port's strategic development proposals.

The 2013 National Ports' Policy (NPP 2013) establishes the policy framework for the development of port facilities in Ireland. It identifies the Port of Cork as one of 3 'Tier 1 – Ports of National Significance' and endorses the principles contained within the SDP. The NPP 2013 notes that identification of appropriate locations for port expansion should be addressed within spatial planning policy documents.

The 2019-2031 Regional Spatial Planning Guidelines (RPGs 2019-2031) highlight the importance of the relocation of the Port to the region's strategic spatial strategy; acknowledge the limitations of potential rail transport and state that future port facilities need to be well served by the road network.

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Spatial Planning Policy (Cork MASP, and County Development Plan (2022 -2028)) identify Ringaskiddy as the preferred location for the primary expansion of port activities and the application lands at Ringaskiddy are zoned to provide for the location of the Port of Cork's container and bulk goods facilities. This objective is reinforced within the Cork County Development Plan 2022-2028. The Cork City Development Plan 2022-2028 and the City Development Plan 2022-2028 both identify the critical need to relocate Port activities to facilitate the redevelopment of the Docklands and Tivoli and to maximise the potential of the Upper Harbour for other commercial and recreational uses.



# [5] Population and Human Health

This Population and Human Health chapter assesses the economic activity, social considerations including housing, land use, health & safety, recreation, amenities and tourism. Consideration is given to sensitive neighbouring occupied premises such as homes; schools; and commercial premises and to the transient population, such as drivers, boaters and tourists.

### [5.1] Baseline Environment

The proposed redevelopment is within Ringaskiddy village and close to Shanbally village. Ringaskiddy has a population of circa 570 people. The settlement is dominated by port and industrial uses, with relatively limited residential or amenity uses. Ringaskiddy is designated as a Strategic Employment Location, within the County and has developed into one of the most significant employment areas in the Country.

#### [5.2] Sensitive Receptors

The principal receptors that may be impacted by the proposed redevelopment include the neighbouring developments, school and university buildings, community facilities including religious and education facilities. Cork Harbour is well used for commercial and leisure activities including commercial shipping, and water based tourism, sailing and fishing.

The employees of the Port of Cork are also considered. There are 196 full-time employees at the Port of Cork Company. There are currently 90 people employed by the Port of Cork at the Ringaskiddy site with a further 17 people employed at the Tivoli site.

#### [5.3] Impact Assessment

In a 'do-nothing' scenario, the Port of Cork would continue to operate in its current locations. In the short-term Port activities at existing locations would intensify to respond to economic demands which would result in a growth in throughput of all trades and a consequential increase in traffic flows, albeit at a lower trajectory than could be facilitated by the proposed Ringaskiddy redevelopment. There would be significant long term and wide-reaching negative impacts related to competitiveness; regional economic growth; sustainable transport patterns; and strategic spatial development objectives. This would also result in a stifling of the strategic spatial development objectives for the South-West Region and limiting the potential of development land within Cork City as the development of Cork Docklands cannot be fully realised unless the Port of Cork activities are relocated from both the City Quays and Tivoli.

The construction of the port redevelopment will result largely in a positive impact to economic activity, including the creation of an estimated 849 construction jobs, as well as indirect jobs that can be attributed to the works. The proposed redevelopment will therefore have a moderate, positive, short-term impact on direct and indirect construction employment; construction suppliers and associated economic activity. Potential impacts to social considerations from the construction phase relate to traffic, noise and vibration, air and water emissions. These have been considered elsewhere in chapters 8, 9 and 10 respectively. With Health & Safety procedures in place, construction activities will have a negligible, neutral, short-term impact on health and safety.



The operation of the port redevelopment will also result in a positive impact to economic activity as the existing operations relocate from Tivoli and the City Quays. It is projected that there will be no increase in employment during the operational phase in the short term. As trades are relocated, staff will be redeployed from Tivoli and the City Quays. Overall Port operations support about 600 jobs - between the Port of Cork and wider service providers linked with the port's activities (stevedoring, haulage and other service providers, but excluding ferry and cruise activities). As port trades grow there may be a need to increase direct employment by the port, and there will be a related growth in employment linked to the port's activities. The operational phase of the proposed redevelopment is therefore considered to have a slight, positive, medium-term impact on direct port related employment; growing to a moderate positive long-term impact as trade activity grows. It is anticipated that the proposed redevelopment will have no impact on population change of Ringaskiddy village or surrounding settlements due to the current employees largely commuting from Cork City and the environs and will not result in an increased demand on community facilities in Ringaskiddy village.

Further, during the operational phase of the proposed redevelopment health and safety impacts will be related to port operations; pest control; and road and sea traffic. The project design has considered necessary health and safety requirement for port operations as set out in national Health and Safety legislation and has minimised any increased health and safety risk associated with the development. Consequently, increased port operations will have negligible, neutral permanent impact on health and safety. The increase in bulk goods storage results in an increased risk of pest nuisance.

Continued implementation of the Port's 'Integrated Pest Management' procedures will, however, ensure that no additional risks of pest nuisance arise as a result of increased trade. There is also a potential enhanced risk of accidents related to the increase in road and sea freight traffic. The design of the proposed redevelopment and implementation of existing road and sea traffic management operational procedures will ensure that increased traffic has no negative impact on health and safety resulting in a negligible, neutral permanent impact on health and safety.

The primary effect of the Project on Population and Human Health is of a positive nature as the redevelopment of Ringaskiddy port will deliver direct and indirect benefits to the local economy. However, negative impacts are also noted, mainly associated with construction activities impacting temporarily upon human health.

# [6] Cultural Heritage

The Port of Cork proposes to undertake works in Ringaskiddy East and Ringaskiddy West that include new quay walls, capital dredging and improvements to the road system and related surface facilities. An aerial view of the Port of Cork Lands at Ringaskiddy is shown in Figure 6.1. All figures accompanying this Chapter are contained in EIAR Volume III. All appendices accompanying this Chapter are contained in EIAR Volume IV. The redevelopment proposals are described in Chapter 3 of this EIAR.

The Archaeological Diving Company Ltd. (ADCO) were appointed to carry out the cultural heritage assessment. Cultural Heritage assessment seeks to identify and record the location, nature, and dimensions of any archaeological and architectural features, fabric or artefacts that may be impacted by a development's proposed works. Assessment includes an examination of existing sources and the acquisition of new data arising from site inspections and surveys. The assessment gauges the level of development impact and includes detailed recommendations for the mitigation of any archaeology present within the development area.



In January 2024 Mizen Archaeology were additional appointed to undertake and Underwater Archaeological Impact Assessment (UAIA) of the two proposed capital dredge pockets in the Ringaskiddy basin and berths at Ringaskiddy.

For both studies, a comprehensive review of existing sources was completed, and extensive new data sets have been acquired based on non-intrusive survey and recording above and below the waterline.



Figure 4 Extract from OS 6-inch map (1841-2), showing the proposed dredge locations.

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Figure 5 Extract from the 25-inch OS map (1928-9), showing the proposed dredge locations.



# [6.1] Recorded Monuments and known sites: RMPs and SMRs

#### Figure 6 Locations of RMPs and SMRs surrounding proposed dredge pockets.

There are no SMR/RMP listings within the proposed dredge pockets. There are six listings within a 1km radius (Appendix 3.1). The closest of these was an ecclesiastical site, located c. 550m to the west of the proposed northwest dredge pocket, which was recorded to date back to c. 1100 AD, although it now lies in an industrial complex with no surface traces recorded.



There are no listings within the vicinity of the proposed disposal site.

Archaeological monitoring of dredging operations was undertaken during 2018 and 2019. The dredged material was exceptionally sterile, and overall, there was very little debris noted. The material varied between silty clay, silty sand, and gravels. Two timbers were retrieved for close inspection, one during dredging works and the other during rock breaking activities.

#### [6.2] Shipwrecks

56 ships are recorded as lost within or in proximity to Cork Harbour. No wreck is listed specific to 'Ringaskiddy' in the National Monuments Service's Wreck Inventory Database of Ireland (WIID). However, as many of the recorded losses are approximate, giving location details as general as 'Cork Harbour' or 'near Cork Harbour', it is not possible to say with certainty the no vessels were wrecked in Ringaskiddy or its immediate surrounds (Figure 8). What can be said is that the figures for ship loss high, as a result of the intense maritime activity in the Lower Harbour. Notably, many of the wrecks occurred in the Lower Harbour. Therefore, there is high potential for evidence of these losses, either as sites, residual wreck material or artefactual material, to be found in the deep waters of Cork Harbour.

Two unknown wrecks, W10714 and W10715, are located in reclaimed land of the port. No details are provided as to the probable date of either of these wrecks.

A full list is provided of the recorded wrecks for Cork Harbour below.

Two underwater obstructions fall within the northwest limit of the proposed disposal site (Table 1; Figure 9). Admiralty charts noted an 'obstruction' in the area, which was confirmed by the UK Hydrographic Office (UKHO) survey, and it appears that these two separate records refer to the same anomaly. The UKHO records it as an anomaly, measuring 35m long x 20m wide and rising 1.6m from the seabed. The record also states that it is a probable natural feature (Port of Cork 2015, Section 6.6.3). Multiple geophysical surveys have been carried out at the disposal site (Irish Hydrodata, 1999; INFOMAR 2008; and Irish Hydrodata 2013), which confirm the obstruction as a natural feature, possible a high-relief exposure of bedrock.

In addition, the Santo (SS) is located c. 350m northwest of the disposal site. The Santo (SS) was a 205-ton steel steam dredger from Glasgow, which encountered bad gales and foundered on the 26th December 1900. Of the 17 crew onboard, 12 were lost, and the dredger itself was a total loss (WreckViewer).

Name	Number	Туре	Place of loss	Date of loss	Coordinates
Unknown	W11313	Unknown	Passage West, Co Cork/ Cobh, near	Unknown	51.84333 -8.32944
Unknown	W10715	Unknown	Ringaskiddy Terminal	Unknown	51.83250 -8.32028
Unknown	W10714	Unknown	Ringaskiddy	Unknown	51.83083 -8.32695
Alison (SS)/ Allison	W05372	Steamship	Cork, Haulbowline	22/10/1928	51.84333 -8.30167



Trident	W13086	Unknown	Cork Harbour	04/02/1804	
Unknown	W13439	Unknown	Cork Harbour	17/01/1825	
Joseph	W13626	Unknown	Cork Harbour	15/02/1838	
Alert	W13634	Unknown	Cork Harbour	16/02/1838	
Unknown	W13971	Unknown	Cork Harbour	05/12/1830	
Eglinton	W14001	Unknown	Cork Harbour	10/02/1840	
Clio	W14126	Unknown	Cork Harbour	20/03/1844	
Welcome Return	W14138	Unknown	Cork Harbour	16/09/1844	
Favourite	W14237	Unknown	Cork Harbour	26/12/1844	
Clifton	W14252	Unknown	Cork Harbour	24/03/1845	
Unknown	W14333	Schooner	Cork Harbour	03/10/1846	
Mary Elliot	W14367	Schooner	Cork Harbour	19/11/1846	
Eneas	W14369	Schooner	Cork Harbour	19/11/1846	
Unknown	W14401	Motor Boat	Cork Harbour	19/11/1934	

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Figure 8 Recorded wreck sites (red) in the vicinity of the proposed dredge areas (orange).



Figure 9 Recorded wreck sites (green) within and surrounding the disposal site (red).

Table 1 Locations of unknown wrecks within the northwest corner of the disposal site.



Wreck No.	Wreck Name	Location (ITM)
W09127	Unknown	E 588488m, N 553919m
W10422	Unknown	E 588422m, N 553923m

# [6.3] Study Conclusion

While there are no recorded wrecking events within the proposed dredge pockets at Ringaskiddy, the silts of the seabed have to the potential to preserve unrecorded archaeological material. The intensity of maritime activity in and around Cork Harbour throughout history also increases the likelihood of a wrecking event having occurred within the dredge pockets. Although much of the Ringaskiddy area has been subject to previous dredging, the proposed dredge pockets are within virgin ground, where there is a higher potential for encountering archaeological material.

However, the entirety of the proposed dredge pockets have been subject to previous archaeological survey- whether geophysical, intertidal, dive, or a combination of these. No archaeological material has been identified within the proposed dredge pockets by these surveys.

The historic disposal site has been subject to repeated investigations since the late 1990s.Geophysical surveys have indicated that, despite the significant amounts of material dumped on the site, it has been largely unchanged. Notably, two records on the WreckViewer are located in the northwest corner of the disposal site, though repeated geophysical survey has indicated that these anomalies are likely natural in origin. Another geophysical anomaly has been identified just over 100m outside the northern boundary of the site.

# [6.4] Potential Impacts

The three principal elements of the proposed works include construction in Ringaskiddy East quay wall extension, Ringaskiddy West construction and dredging, and improvements to the road entrance to the Terminal. In all cases, the greatest impact will arise from dredging works. The fact that the landward sides of the development areas are on land reclaimed in the twentieth century suggests it is unlikely that new work will encounter levels of archaeological interest, unless it is intended to excavate to below the depth of reclamation. Any works that extend to below the depth of reclamation would represent excavation into unrecorded levels and would require an archaeological resolution.

Dredging is proposed in Ringaskiddy East and will extend from the current level of c. -1.5m CD at the shoreline to a level of -13m CD, which is 1.25m below the general basin level of 11.75m. It represents the removal of seabed deposits right along the full western extent of the quay. It is a significant direct permanent impact on the seabed and will require an archaeological resolution.

Reclamation is proposed in Ringaskiddy West to provide a new 182m long extension to the existing DWB, where a filled quay will extend seaward to be in line with the edge of the existing berth. The affected area measures approximately 0.8 ha in size.

Dredging is proposed in Ringaskiddy West. The dredging will extend the width of the 182mlong extension of the existing DWB, and will reach seawards along the length of the ADM Jetty.



Dredging will extend from the current level of c. -0.4m CD at the shoreline to a level of -13.4m CD at the new berth, and to -11.75m CD on the approach to the berths, to facilitate navigational access to the new facilities. The dredging will be a significant direct permanent impact on the seabed and will require an archaeological resolution.

Any fill material used for reclamation will be imported from local land sources.

While there are no recorded wrecking events within the dredge pockets and the only feature shown on the mapping within the boundaries is 'Ballybricken Hard', on the early 20th century OS map, there is still potential for any of the wrecking events generally recorded as being in 'Cork Harbour' to have occurred there. As such, there is a potential for archaeological material to survive within the subsea sediments of Cork Harbour. Potential negative impacts on virgin ground where the level is to be dredged lower than historic levels, remains low, as a range of previous archaeological survey has covered the entirety of the proposed dredge pockets.

No potential impacts are identified at this moment during the operational phase as it is anticipated that the archaeological environment will have been resolved during the construction phase.

# [6.5] Mitigation Measures

The principal recommendation of the cultural heritage assessment is that archaeological monitoring is conducted by a suitably qualified and experienced maritime archaeologist, licenced by DAHG. The monitoring should extend to include all seabed and intertidal/foreshore disturbances associated with the development.

The construction mitigation measures relevant to cultural heritage are also deemed necessary for the operational phase of the development during capital dredging works (if any).

The cultural heritage assessment completed has been extensive and comprehensive, employing a wide range of resources and non-intrusive survey to make a coherent assessment of the cultural heritage risk associated with the present project. There are no upstanding remains of archaeological or architectural significance within the proposed development area. The locations remain areas of cultural heritage potential but there is no cultural heritage reason why the development should not proceed. The development will include direct impacts on the land surfaces and seabed areas, and archaeological monitoring is recommended as the most effective mitigation strategy to resolve further cultural heritage issues that may arise during construction and dredging works.

While there are no recorded wrecking events within the dredge pockets and the only feature shown on the mapping within the boundaries is 'Ballybricken Hard', on the early 20th century OS map, there is still potential for any of the wrecking events generally recorded as being in 'Cork Harbour' to have occurred there. As such, there is a potential for archaeological material to survive within the subsea sediments of Cork Harbour. Potential negative impacts on virgin ground where the level is to be dredged lower than historic levels, remains low, as a range of previous archaeological survey has covered the entirety of the proposed dredge pockets.

It is recommended that archaeological monitoring by a suitably gualified and experienced maritime archaeologist licensed by the DAHG is conducted during all seabed, intertidal/foreshore and terrestrial disturbances associated with the development. Licence applications take a minimum of three weeks to process through the Department, and advance planning is required to ensure that the necessary permits are in place before site works commence.



The monitoring will be undertaken in a safe working environment that will facilitate archaeological observation and the retrieval of objects that may be observed in the course of the works that require consideration.

# [7] Landscape and Visual

The Ringaskiddy Port Redevelopment is located within a landscape character area identified as Estuarine Harbour-based Industrial and Maritime Landscape Character Area. This landscape character area has been identified as having a low sensitivity to change. During construction the predicted magnitude of landscape change will be low and the significance of landscape impact will be slight adverse due to limited change in landscape resource and the existing site already consist of port facilities that are a feature of this landscape. At the operational stage such uses are consistent with the character of this facility.

As with all the settlements located around the Harbour there are large areas of Ringaskiddy that will not have views of the proposal due to intervening vegetation and buildings but due to the terraced nature of the settlement there will be direct views from a number of properties on the northern side of the built form. Overall, the predicted significance of visual impact is slight adverse for the residential properties at Ringaskiddy who will have a view.

#### Photomontages:

A series of photomontages were prepared by Chris Shackleton Consulting to represent, as accurately as possible, the physical and visual characteristics of the proposed development from a variety of distances and directions around the site. Priority was given to views from the public domain, such as main roads and to views from potentially sensitive locations such as from scenic routes. The location of all views are shown on Figure 7.15. For each of the visuals, an existing and a proposed view is presented and where the proposed development is not visible in the view the elements of the development will be shown as a red outline.

# [7.1] Baseline Environment

The subject site is located in an area zoned as 'Industry' and the CCDP 2022-2028 contains the following objective in relation to this land use zoning:

The CCDP 2022-2028 contains specific objectives relating to the Port of Cork lands in Ringaskiddy:

"Development Objective RY-I-18: Port Facilities and Port Related Activities. This zone adjoins the Cork Harbour SPA and Monkstown Creek proposed Natural Heritage Area pNHA. Areas within this zone are used Special Conservation Interest bird species for which the Cork Harbour SPA is designated. Account will be taken of this when considering new development proposals in this area. Any development on this site will need to take account of the biodiversity sensitivities of the site and area."

While the majority of the lands that border Cork Harbour' and 'Landscape Character Type 1 – City Harbour and Estuary' are designated as 'High Value Landscape', the Port of Cork lands in Ringaskiddy are not designed as a 'High Value Landscape', as shown on Figure 7.2. High Value Landscapes are described as:

*"Landscape Character Types which have a very high or high landscape value and high or very high landscape sensitivity and are of county or national importance are considered to be our most valuable landscapes and therefore are designated as High Value Landscapes (HVL)."* 

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# [7.2] Potential Impacts

There are no existing trees or hedgerows located within the subject site and therefore the anticipated that there will be no impact on the existing trees and hedgerows.

It is anticipated that the proposed redevelopment works within the subject site will be appropriate to the site's setting. During the construction phase, due to the presence of machinery and cranes required to carry out the modifications to the quay wall, container storage area and the dredging works at Ringaskiddy West, it is anticipated that there may be a slight and negative impact on the landscape setting. However, during the operational phase as the proposed redevelopment works will be experienced within the context of the existing port activities and structures, it is considered that the proposed redevelopment is consistent with the existing land use and developments in this area. Therefore, it is anticipated that the surrounding landscape has the capacity to absorb a redevelopment of this scale and nature without any significant and negative impacts in terms of visual and landscape character.

# [7.2.7] Impact on Views

Construction Phase:

During the construction phase, the following elements of the proposed redevelopment of the subject site have the potential to cause visual impacts, they will however be short term in duration:

- Temporary site works:
- Lighting
- machinery and cranes required to carry out the modifications to the quay wall, container storage area
- dredging works at Ringaskiddy West
- Construction traffic dust and emissions
- Laying of site services

#### **Operational Phase:**

The principal elements which are likely to give rise to landscape and visual impact visual impact in the long term are:

- Modifications to the quay wall and installation of the link-span pontoon and bridge
- Expanded container storage area and associated lighting and gantries
- Additional lighting and fencing

#### [7.1.1] Impacts on Scenic Routes

#### S54 - Road between Passage West and Ringaskiddy:

• This scenic route/ N28 runs along the southern boundary of the Port of Cork and along western side of Cork Harbour. The anticipated impacts from this scenic route are discussed in Section 7.6.9.3 - Visuals 1, 5,6,7 & 10.

#### S53 - Road between Cobh and Belvelly:



 This scenic route is located to the north of the subject site, across Cork Harbour, in Cobh. The anticipated impacts from this scenic route are discussed in Section 7.6.9.3 – Visual 18.

### S51 - Road from Ballynacorra via East Ferry to Whitegate and Roche's Point:

- Scenic route S51 runs along the eastern side of Cork Harbour
- The majority of this scenic route, the R630, is located more than 5km east of the subject site and therefore it is anticipated that the proposed redevelopment works will not be visible from this location.
- The other section, Fort David Road, while closer to the subject site, views from this route looking towards the subject site would be obscured by the structures within refinery at Corkbeg Island in the foreground and by Spike Island closer to the subject site.
- It is anticipated that there will be no visual impact on this scenic route imperceptible and neutral.

#### [7.2.7.1] Impact on Visibility into the site

For this visual impact assessment, viewpoints were selected to represent the likely visual impact from a variety of distances and direction around the site. Priority was given to views from the public domain, such as main roads and to views from potentially sensitive locations such as scenic routes and from the amenity areas. Photomontages were compiled from the viewpoints shown on Figure 7.15 (the visual analysis section below should be read in conjunction with the baseline and proposed visuals produced by Chris Shackleton Consulting, refer to Appendix 10.1 EIAR Volume IV).



Elaura 7 1: Viewpoint Location Man (CSC 2024)

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It is anticipated that there will be views of the modifications to the quay wall, the linkspan pontoon, the expanded container storage area and the proposed gantries from this location. None of these proposals will break the skyline when viewed from this area and will be seen within the context of the existing structures and activities of the working port.

# Construction Phase:

During the construction phase it is anticipated that there will be partial views of the machinery and cranes required to carry out the modifications to the quay wall, installation of the new gantries and the dredging works at Ringaskiddy East and West, resulting in a moderate and negative impact.

#### **Operational Phase:**

During the operational phase the impact on views from this location will be slight and negative as the development is consistent with the existing land use and developments in this area.

Consideration was given to the avoidance of impacts wherever possible during the design of the proposed scheme. However, as with any development some degree of impact is inevitable and wherever possible measures have been proposed to mitigate the adverse nature of these impacts.

# [7.2] Mitigation Measures

# [7.2.1] Construction Phase

It is proposed that careful attention will be paid to avoiding any potentially adverse constructionrelated effects on the local residences and to the wildlife associated with Cork Harbour. Operating a well-managed, organised and planned construction site, with adequate control of construction traffic and working activity, is key to avoiding/minimising such impacts.

Lighting:

- Any lighting required during the construction phase should be located sensitively to avoid unnecessary light spill into the surrounding residential areas and into Cork Harbour.
- Roadway lighting and lighting of construction compounds will be by means of high quality, modern standing fixtures. They will include full cut-off (FCO) and energy efficient lighting where practicable to reduce the impacts of light pollution on the surrounding area and sky.
- The use of flashing, moving, strobe, or blinking lights should be kept to a minimum

# [7.2.2] Operation Phase

The careful and considered approach to the layout of the proposed redevelopment is to minimise negative visual impact both locally and from the wider surrounding area.

The key mitigation measures include:

Trees & hedgerows:

• Due to the nature of the redevelopment works and the current operations within the port there is no opportunity for the implementation of a softworks/ planting scheme to assist in the integration of the proposed structures into the landscape.



Colour of Tall Structures:

• While the visual appearance of the containers cannot be mitigated against, as the colours depends upon on the owner of the containers, the appearance of the gantries that are located above them, can be managed. The visual appearance of the gantries can be lessened by the use of appropriate colours. The colour shall be based on mid-grey in colour, similar to the colour of the tall cranes installed during Phase 1 of the redevelopment works.

Lighting:

- Roadway lighting and lighting of working areas will be by means of high quality, modern standing fixtures. They will include full cut-off (FCO) and energy efficient lighting where practicable to reduce the impacts of light pollution on the surrounding area and sky.
- The use of flashing, moving, strobe, or blinking lights should be kept to a minimum

# [8] Traffic and Transportation

SYSTRA have been appointed by Port of Cork to prepare a baseline report outlining the current traffic scenario at Ringaskiddy, Tivoli and City Quays locations. The study area for this topic includes all roads connecting to Ringaskiddy and its connecting roads to the Cork City Quay locations with a special focus on the N28 traffic.

To assist with the preparation of this chapter, a series of site visits were undertaken in October and November 2024. These site visits noted current traffic management arrangements and different road user types including pedestrians, cyclists, cars, buses and heavy goods vehicles, amongst other observations. Additionally, traffic surveys were taken in November 2024 to understand the existing traffic conditions with the following noted Junction Turning Counts, Automatic Traffic Counts and Journey Times.

# [8.1] Baseline Environment

Due to its land use of largely industrial and employment-related, there are national primary roads passing through the study area, including:

- N28 Cork City to Ringaskiddy: This route offers connections from the wider national road network via the N40 to the major employers based in Ringaskiddy and Carrigaline, as well as to the national sea freight port and passenger terminal in Ringaskiddy;
- N40 Cork South Ring Road: This major national distributor road allows access to the wider national road network, including the M8/N8 and the N25, via the Dunkettle interchange; the N27 via the Kinsale Road Interchange; the N20 via the N27 and the City Centre; and the N22 and N71 via the Bandon Road Interchange.
- M8/ N8 Cork City to Dublin;
- N20 Cork City to Limerick City;
- N22 Cork City to Tralee/ Killarney to the west;
- N25 Cork City to Waterford/ Rosslare Europort to the east; and



• N27 – Cork City to Cork Airport.

Additionally, there is one Secondary Route, the N71 between Cork and Bandon, and several regional routes (R6610, R618, R635, R639).

Census data for the greater Ringaskiddy area shows an increasing population, with even distribution across most age ranges below 65 indicating the area is relatively young, home to many families in active age ranges, and thus experiences relatively busy work and school traffic. Car ownership in Ringaskiddy is relatively high, with 42.4% of households having two cars and 34.5% having one car, indicating a reliance on private car transportation.

Traffic flows examined by SYSTRA show a significant amount of traffic at Shannonpark Roundabout in all directions, with the N28 movements being the highest. Traffic from Carrigaline is significant at peak hours with higher traffic movement towards the Ringaskiddy port at morning peak and more traffic from it during the evening peak hours.

Annual Average Daily Traffic (AADT) data, provided by TII for a number of locations associated with the transportation routes in the study area and compared against modelling carried out by RPS for the 2014 EIS show capacity for increases in traffic associated with the Port Redevelopment.

# [8.2] Potential Impacts

Having identified the baseline environment, the available data was considered in the identification of potential effects to the local road network used for the Haul Route as a result of the Development.

Construction impacts with be most notable on the N40 and N28 as these roads are currently experiencing congestion during the morning and evening peaks. The largest impacts on traffic will come from the HGV's delivering concrete which is anticipated to be 5-6 truck loads per day for small quantity pours, although on rare occasions, there would be up to 25 truck loads in a single day. The pours will be of short duration. If infill material is required, these will be imported at a rate of 5-10 loads per day. The importation of steel required for construction will be via sea delivery, and the disposal of dredged material will be at sea and therefore will have no impact upon the traffic and transportation. Construction workers are expected to increase the movement of vehicles by 25 per day, likely entering and exiting at peak travel times.

Considering this, the impact of construction traffic generated by the redevelopment of Port of Cork is anticipated to be negligible.

Operational impacts are not anticipated given the vast majority of berth operations are now in place, with this application for an expansion of space, rather than an intensification of development. There is significant spare road capacity to cater for the development traffic levels along the N28. The development therefore is considered to have a negligible impact.

# [8.3] Mitigation Measures

During construction, the contractor will ensure that the number of vehicles entering the road network during morning and evening peak will be limited to 12 and 14 per direction respectively. These vehicles will be required to use the N28 and N40 and will be restricted from using local roads. Following mitigation, there will be no major impacts during the construction phase of the proposed redevelopment.



The mitigation measures required during operational phase may be categorised as traffic control measures. The Ringaskiddy Mobility Management Plan will be required to reduce port traffic volumes during peak morning and evening periods. All additional Port generated HGV traffic arising from the proposed redevelopment would be managed to operate in the non-congested inter-peak period of the day where there is significant spare road capacity available. It is important to note that currently less than 15% of all Port related HGVs travel during the AM and PM peak periods, whereas the remaining 85% currently travel outside of these times. Only a small proportion, therefore, of HGVs generated by the Port (i.e. only 15% of the additional HGV's generated by the proposed redevelopment require managing).

The Ringaskiddy Mobility Management Plan will be implemented long-tern by the Port of Cork to monitor HGV volumes.

# [9] Noise and Vibration

# 2013 RPS Noise Survey

Noise monitoring was undertaken in 2013 at 19 locations to determine the existing noise environment prior to development of CCT1 at the nearest noise sensitive properties and to inform predictive noise modelling for the proposed construction of CCT1. Noise monitoring at each location was conducted in the format of one 24-hour unattended measurement and short-term day and night-time attended measurements. Subjective observations were recorded during each of the short-term measurements.

#### 2024 MKO Noise Survey

In addition to the above an updated attended baseline noise survey was carried out in 2024 by MKO Ltd to establish any potential for a change in background noise levels between the original noise surveys and time of writing. Alignment in this case would reinforce the suitability and continued applicability of the CADNA noise model, being previously validated to ambient measured noise levels from 2013.

Further to this, attended noise surveys were carried out at 11 of the original 19 noise baseline locations. These 11 locations were considered to be representative of the 19 due to proximity and comparability between several of the original 19 locations. Results of these updated baseline surveys are presented in Appendix 4.4.

There is comparable agreement at these locations between 2013 and 2024 surveys particularly in the case of background noise levels. Any locations that showed variance in the  $L_{Aeq}$  values (between 2013 and 2024 surveys) were noted during the survey to have proximate and transient passing sources, such as idling buses and street sweepers during 2024 surveys. In the locations where these transient noise sources elicited variance in the  $L_{Aeq}$  values, the LA90 (background noise) levels remained directly comparable in the 2013 and 2024 surveys, confirming no significant change in background noise levels between the survey periods at these locations. As such it is deemed that the CADNA model and its predictions remain applicable and relevant to this assessment.

In general, the baseline noise monitoring survey illustrated that road traffic noise is the most dominant noise source at the majority of locations. This is supplemented to a greater or lesser extent by a number of different noise sources including various industrial activities, the Port activities, various human activities and birdsong.

The proposed redevelopment was modelled in 2014 by RPS using CadnaA noise modelling software. The CadnaA noise modelling software package uses the ISO9613 prediction

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methodology along with a range of topographical and ordnance data collected on the surrounding area to build up a picture of the noise environment in the vicinity of sensitive receptors in the study area. The software was used to build a 3-dimensional model of all features which may affect the generation and propagation of noise in the vicinity of the existing and proposed Port.

In order the characterise the noise levels associated with the unloading of the Maersk vessel, a noise monitoring survey was undertaken on the morning of Friday 14th March 2014 by RPS. Noise monitoring was undertaken at various locations around Ringaskiddy village, Monkstown and inside the Port itself adjacent to the unloading activities.

In terms of subjective observations, noise from the Port activities were audible at all locations in Ringaskiddy village with alarm noises and banging from container handling being the most prominent noise sources at all locations. Although the alarm noise and banging were audible, the Port noise was not the dominant noise source at any of the locations.

For properties adjacent the existing N28 in the village, road traffic noise was clearly the most dominant noise source with Port noise becoming more audible in between car passing events. For locations behind the properties adjacent to the N28 road, birdsong was observed in real time to be the dominant noise source in terms of influencing the recorded noise level. In Monkstown, the noise from the Maersk unloading was barely audible with only the alarm noise being easily discerned (albeit quite faint) when no road traffic noise was passing on the R610.

A similar noise profile for this activity is anticipated following implementation of the proposed development.

### [9.1] Baseline Environment - Noise

Compliance monitoring data for 2023 was reviewed to determine and further describe the baseline noise environment as current in 2024 (Representative of present day CCT1 and DWB noise emissions). All annual noise monitoring is within the specified limits.

On receipt of a noise complaint, an NTi system is used to review complaints expeditiously. An external consultant reviews the noise data gathered in relation to any such complaints. In 2023 the Port received 47 nr noise complaints in relation to port/vessel operations at Ringaskiddy Port (incorporating the Deepwater Berth, Cork Container Terminal and RoRo terminal.

The Port has noted a downward trend in noise complaints year-on-year since 2022.

Additional noise surveys representative of specific activities within Ringaskiddy Port are presented in Section 9.2.4 of the EIAR.

# [9.2] Potential Impacts

The quay walls at the berths of the proposed redevelopment are likely to be Combi-wall type comprising large tubular steel piles separated by sheet piles. The tubular piles for Phase 1b and Phase 2 combined will be about 1.4m in diameter and range from 32m in length numbering 225 in total. Piles driven in water give rise to noise levels normally well above ambient. Tubular piles such as those which will be used in the project give rise to higher noise outputs than sheet piles and the following assessment will concentrate on the potential impacts from these piles.

Impact pile driving entails use of a heavy weight (hammer) to ram piles into the substrate at a strike rate of about one every 1.5 seconds. The noise generated is intermittent consisting of discrete noise outputs for each hammer impact. The sound generated also has several features, which characterise it. Firstly, it is a loud sound i.e. it generally has high amplitude. It is also a sharp sound with a very short rise time to reach peak pressure (measured in milliseconds). It has a broad spectrum i.e. the sound is spread over a wide range of frequencies from a few hertz (Hz) to several thousand hertz. Sound is measured in units of pressure i.e. Pascals. Sound is generally expressed in decibels (dB), which is a log scale of the ratio between a reference pressure to the actual measured pressure.

While there are a significant number of sensitive receptors in the vicinity of the proposed activities that have the potential to be impacted by construction phase noise associated with the proposed redevelopment 2014 modelling for the CCT1 berth construction which was by the same methodology has shown that construction noise is likely to be within the threshold limits set out in the NRA Guidelines and within applicable daytime limits. Sensitive receptors are generally grouped together in three approximate areas in relation to the Port, namely:

- South of the Port, along and south of the existing N28 Main Street.
- North-west of the Port in Monkstown and
- North and North-east of the Port in Cobh and the surrounding areas.

It is anticipated that construction noise impacts will be temporary and transient. Compliance monitoring shows that operational noise is currently within the threshold limits.

The main elements influencing noise emissions from any industrial site include traffic, intermittent noises, machinery noise, reverse alarms, etc. As this is not a green field site but an existing industrialised port, background noise levels are already in existence, and it is likely that background noise from the adjoining M28 traffic will be the dominant noise source that could be generated on this site (especially given existing design mitigations).

The most significant effects from this additional plant at the DWB will be an increase in the noise levels of 2-5dB(A) at noise sensitive receptors in Monkstown. However, these increased noise levels from the DWB activity will not result in any significant alteration to the daytime noise levels experienced at sensitive receptors in Monkstown as they are significantly below the existing permitted noise levels (AER 2023). (EIAR Volume III - Figures 9.1 to 9.4).

The main elements influencing noise emissions from any industrial site include traffic, intermittent noises, machinery noise, reverse alarms, etc. As this is not a greenfield site but an existing industrialised port, background noise levels are already in existence, and it is likely that background noise from the adjoining M28 traffic will be the dominant noise source that could be generated on this site (especially given existing design mitigations).

In terms noise emitting plant/equipment, all of the plant/equipment operating at the proposed Berth 2 will be new plant/equipment to the Port.

In Monkstown, worst-case predicted night-time noise levels from the proposed upgraded CCT with alarms will be in the lower to middle portions of the range of background noise levels currently recorded in the area and above or at the upper portion of the range of background noise levels (RPS 2014).

Without the additional alarm noise, worst-case predicted night-time noise levels is expected to be below or at the lower end of the range of existing ambient noise levels and will be below or at the lower end of existing background night-time noise levels. In the context of the existing noise environment at Monkstown, worst-case predicted noise levels from the proposed



upgraded CCT are expected to be a low-level contributor to background noise levels at nighttime in Monkstown. However, with alarm noise, worst-case predicted noise levels will become a prominent and audible part of the night-time ambient noise levels in Monkstown. Mitigation measures for the noise from the proposed upgraded CCT are discussed further in section 9.6.

The assessment of traffic noise impacts concludes that there will be no significant traffic noise impact on sensitive receptors in the study area as a result of the proposed redevelopment.

### [9.3] Mitigation Measures

The assessment of the worst-case predicted construction noise levels using the ABC Method (BS5228:2009) and the TII Guidelines (2004) indicates that worst-case construction noise levels will be within the required threshold limits cited in these guidance documents with mitigation.

There will be an onus on the contractor to reduce construction noise levels from the construction phase to the lowest possible levels to ensure that no significant noise impact is experienced at the nearest noise sensitive receptors.

A complaints procedure must be operated by the Contractor throughout the construction phase and all efforts should be made to address any noise issues at the nearest noise sensitive properties.

A number of other mitigation measures are proposed as part of the works.

The assessment of the proposed CCT 2 and DWB extension illustrated that there was limited potential for significant additional operational day and night-time noise impacts at the nearest noise sensitive properties.

Notwithstanding, there is some potential for significant isolated increases in noise levels, particularly during the night-time period, if mitigation measures are not in place to reduce noise from the proposed redevelopment to the lowest possible levels.

One of the most prominent features of the detailed noise assessment of activities associated with the proposed redevelopment is that alarm/beacon noise is a major contributory factor to creating potential significant noise impacts at properties in all areas under consideration in this assessment. If alarm/beacon noise was significantly reduced, a large proportion of potentially significant noise impacts associated with the proposed redevelopment would be eliminated.

The need for alarms is clearly a health and safety issue and therefore, the use of an alternative alarm system cannot compromise the required health and safety standards for the Port. In recent years, various technological solutions have been developed in terms of modifying alarm systems or developing new alarm systems that significantly reduce the noise impact at adjacent sensitive receptors. Options include visual warning systems, proximity sensor alarms, self-adjusting or smart alarms, focussed tonal alarms, broadband alarms and directional alarms. Of the potential alternatives to standard 'beeper' alarms that are listed above, self-adjusting 'smart' alarms and broadband alarms offer the most significant improvement in terms of noise impacts.

# [10] Air Quality

Existing operations at the site involve the handling of bulk grains and container handling and the site had previously examined fugitive dust release issues although this has been addressed through comprehensive mitigation measures defined by the Port of Cork. These



existing operations and measures of control are detailed further in this chapter. There are three Bergerhoff dust monitoring gauges at the Port of Cork which were compliant with EPA Dust Limits in 2023.

Impacts to air quality will arise during the construction phase of the proposed redevelopment, such as from the generation of construction dusts. In addition, potential sources of other air quality impacts such as odours from dredging have been identified. The construction activities have been examined to identify those that have the potential for emissions to the atmosphere. Where applicable, a series of suitable mitigation measures have been listed.

During the operational phase discharges to the air will be in the form of slightly increased exhaust emissions from engines (including road traffic, internal Port vehicles/engines and shipping) and ongoing dust from bulk grain handling the Deepwater Berth (DWB) at Ringaskiddy West.

Harbour mobile cranes will be used for cargo handling in line with existing activities, with loose bulk materials being lifted using a grab bucket and deposited via hoppers into awaiting lorries. The materials will then be transferred into bulk stores situated in the existing hinterland areas. A series of detailed mitigation measures are in operation at the existing DWB and will continue to be applied at the new extended portion of Ringaskiddy West. These are discussed and detailed in the Air Quality EIAR Chapter.

Increased air emissions through dust and increased potential for odour are considered to be imperceptible during construction. Potential impacts will be managed through a site dust minimisation plan – ongoing dust monitoring and preparation of an odour management plan for the facility.

# [11] Climate

Climate change has been addressed in EU Directives surrounding EIAR, specifically Directive 2014/52/EU which specifies that:

Climate change will continue to cause damage to the environment and compromise economic development. In this regard, it is appropriate to assess the impact of projects on climate (for example greenhouse gas emissions) and their vulnerability to climate change.

EU Guidance on integrating climate change and biodiversity into EIA (2013) recommends that climate change should be addressed in an EIAR through the following approach:

- Consider climate change at the outset of a project;
- Analyse evolving environmental baseline trends by using a vulnerability assessment to help assess the evolution of the baseline environment and identify the most resilient alternative;
- Take an integrated approach to planning and assessment, investigating relevant thresholds and limits;
- Seek to avoid biodiversity and climate change effects from the start, before considering mitigation or compensation;
- Assess alternatives that make a difference in terms of climate change and biodiversity;

- Use ecosystem-based approaches and green infrastructure as part of project design and/or mitigation measures; and
- Assess climate change and biodiversity synergies and cumulative effects, which can be significant.

In addition to assessing the vulnerability of a project to climate change, it is important to assess whether a project is adaptable under changing climate conditions. Climate change mitigation and adaptation actions are framed and informed by policy from within the UN, EU, and have been transposed into Irish Law.

Impacts to climate during the construction phase include emissions from transport of materials to the site, embodied  $CO_2$  in construction materials (such as cement, steel, etc.), emissions from plant machinery and other ancillary areas such as contractor compounds, waste management, etc. These emissions have been quantified using the Environment Agency carbon calculator for construction sites and the results are presented in Table 11.3.

It is predicted that the greatest contribution of GHG emissions during the construction phase will be due to the movement of HGVs to and from the site. Emissions of GHG will also occur as a result of the use of diesel-fuelled generators onsite, and of plant during the construction phase. This is assessed in Chapter 13, Air Quality and is not considered to be significant.

Secondary contributions as a result of embodied  $CO_2$  in construction materials (such as cement, steel, etc.) will also occur. At present, these emissions cannot be quantified, as details of material use are not available, however in terms of national emissions, are unlikely to be significant.

The results indicate that the main emissions of Greenhouse Gas are from the removal of material from the area (including dredging by sea and other materials by road). The total estimated Greenhouse Gas emissions associated with the proposed construction is calculated at 210,600 tonnes of  $tCO_{2eq}$ 

For operation phase, the principal pollutants related to shipping are those from internal combustion engines. These are CO, VOC, NOx and PM derived from soot which mainly have to do with engine technology, and CO<sub>2</sub>, SOx, heavy metals and further PM (mainly sulphate-derived) which originate from the fuel speciation. On a European scale, SO<sub>2</sub> and NOx emissions from national shipping can be important with respect to total national emissions.

In relation to wider impacts with regard to climate change, the implementation of the proposed development will not impact significantly on levels of Greenhouse Gases emitted on a national scheme. Regional impact assessment has been completed using the DMRB Screening Model. The change in regional atmospheric levels is not significant with the proposed development in place and percentage increases are all below 5%.

# [12] Soils, Geology and Hydrogeology

The assessment of soils, geology and hydrogeology was based on a desk study of publicly available information such as geological maps, historical borehole logs and historical maps.

The desk study identified that the site is underlain by fill material, sands, silts and gravels and limestone bedrock.



The groundwater beneath the site is classified as being Locally Important. There are currently no potable groundwater abstraction wells within the 1km radius of the site, therefore drinking water supplies are not likely to be affected by the development. Given the development is on hardstanding there are considered to be no contaminant transport pathways to groundwater as a result of the development.

The proposed redevelopment will not have any substantial negative impacts on the soils, geology and hydrogeology of the area provided all recommended mitigation measures are adopted and implemented.

# [13] Coastal Processes

The EIAR examines how the proposed development could affect hydrodynamic and sediment transport during both the construction and operational phases. These potential impacts were analysed using numerical modelling techniques. This chapter references information, findings and results from the modelling study reports supplied by RPS (RPS 2014, 2024).

The RPS (2014) study was conducted to investigate the potential impact of the redevelopment, which includes the phase 1a, 1b, 2, and 3. Their model assessed the overall impact of the re-development rather than evaluating the construction phases separately. As such, the RPS (2014) report is essential in 2024 for assessing the impacts of the redevelopment at operational stage. RPS (2014) showed no significant cumulative impact from the re-development at Paddy's point and Ringaskiddy, and the 2014 results and findings can be applied in 2024 to demonstrate the effects of the re-development at Ringaskiddy.

The impact of the proposed re-development was quantified in terms of the changes in the current regime for the proposed re-developments at Ringaskiddy. The proposed construction will not impact on tidal current regime beyond the immediate vicinity of the re-development. The general sediment transport regime will remain unchanged.

Sediment plume and deposition modelling were undertaken for dredging during the construction phase of the Ringaskiddy East and West sites, which showed minimum levels of deposition outside the immediate vicinity of the dredging envelope. Suspended sediment levels associated with the dredging programme showed that the turbidity levels would be increased within the local area, but peaks would only persist for short periods of the tide.

During the construction phase, best environmental practices will be followed in order to mitigate for greenhouse gas emissions. These are detailed in Chapter 10, Air Quality. The emissions to air from berthed shipping will be controlled by strict international limits. Good cargo unloading practices will minimise the impact of exhaust fumes from HGVs. The emissions modelled for this report are based on a worst-case scenario. It should also be recognised that the vehicular emissions from any generated traffic are predicted to decrease over time due to improvements in engine efficiency and stricter enforcement of vehicle emission standards. Bulk grain cargo unloading will be undertaken in a manner that minimises cargo spillage. All loading/unloading will be subject to appropriate operation specific control and containment protocols as adhered to by Port of Cork and detailed in section 11.3.2.1 of this Chapter. The current method of handling cargoes will be continued and extended to service the proposed berth extension and dust monitoring at site peripheries will be continued.

# [14] Water Environment

This Chapter examines the likely significant effects associated with the construction, operation and maintenance of the Proposed Scheme on surface water quality and the existing hydrological regime. The elements of the water environment that are assessed in this Chapter



with regard to the proposed Ringaskiddy Port Redevelopment include water quality, flood risk and sewage and storm water infrastructure. The information is based on the analysis and interpretation of data acquired during the baseline assessment as part of the previously prepared EIA, as well as more recently available information.

Potential impacts related to the construction and operational phases of the proposed Ringaskiddy Port Redevelopment are assessed and mitigation measures proposed to reduce significant adverse impacts on the receiving water environment. Chapter 3 of the EIAR sets out a full description of the elements of the proposal considered in the completion of this assessment.

The footprint of the proposed redevelopment is relatively large, and with construction works taking place both within and immediately adjacent to Cork Harbour there is an inherent risk of having a direct and indirect impact on water quality within the Harbour.

The key issues identified with regard to water quality are associated with the physical disturbance in the marine environment and adjacent lands due to construction activities and the required dredging. The potential impact arising from the physical disturbance includes sediment, concrete or fuel/chemicals entering Cork Harbour. During the operational phase the potential for the proposed structures associated with the Ringaskiddy Port Redevelopment to impact on water quality at Cork Harbour when considering additional pressures associated with sewage, storm water drainage and accidental spillages.

It will be important that the proposed redevelopment works and operational stage do not further contribute to the pressures causing the water body to fail its objectives under the WFD or introduce additional / cumulative pressures that may deteriorate the condition of the water body. Mitigation measures are presented for implementation in order to ensure that the residual impacts on water quality are minimised and avoided where possible.

The proposed redevelopment does not alter the existing levels of the application site. This means that the proposed redevelopment will not increase the existing flood risk, and therefore the flood zones will remain unchanged.

Mitigation has already been undertaken during the design phase of the scheme to minimise the potential impact of the project on the water environment. Design of the new quay wall structures, the existing DWB extension and the construction of the new CCT2 have been undertaken to result in least possible loss of habitat.

Storm water runoff from the site will be collected in a dedicated storm water drainage system. The storm water drainage system will collect rainwater incident upon the site for discharge to Cork Harbour waters via a series of oil interceptors.

As the storm water systems will not be connected to the existing local public network, there will be no impact on the local wastewater infrastructure from the storm water drainage. The impact on water quality of the receiving waters is considered to be negligible given the discharge via oil interceptors.

Water quality monitoring will be carried out by the main contractor- continuous in-situ monitoring will be carried out in advance of the works to establish a water quality baseline and during the dredging activities to ensure effective response to any incidents that may impact on water quality at sensitive sites.



# [15] Marine Ecology

This Environmental Impact Assessment Report (EIAR) chapter is informed by desk studies and field surveys of marine habitats and species. The 2024 marine surveys provide an update on the information collected for an Environmental Impact Statement (EIS) produced in 2012, which was carried out prior to the start of construction, which formed part of the biological and environmental assessments. This current chapter follows the Environmental Protection Agency's Guidelines for Environmental Impact Assessment Reports (EPA, 2022).

Validity of Biological Survey information for an EIAR: Biological survey data should be recent and reflect current site conditions. Surveys typically remain valid for up to two years, but timelines may vary based on project specifics or the species studied. Outdated data may require supplementary surveys to ensure accurate and current ecological information. This is vital to meet the requirements of Directive 2014/52/EU, ensuring that decision-makers have reliable data when evaluating the environmental impact of projects.

Ringaskiddy Port is an operational ferry and cargo hub. Its perimeter consists of a number of built structures, with a 480m quay along the western side and 1400m of rock armour along the rest. The inner basin features several mooring dolphins and Roll-on and Roll-off ramps. The port is separated from the tidal flats of Monkstown Creek by the 600m ADM Jetty and a 430m rock armour breakwater (the ADM Training Wall), much of which sits in the intertidal zone. The basin entrance, from the end of the ADM Jetty to the eastern rock armour, spans 320m. Most of the Ringaskiddy Basin consists of subtidal open water, with a soft sediment bottom extending between 7 and 13m in depth.

A desktop study review was carried out of existing data and records for fish, protected aquatic species and habitats (including Annex II species and aquatic Annex I habitats), and invasive species listed under the Third Schedule of S.I No. 477 of 2011, European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)) on watercourses at or hydrologically connected (*i.e.*, downstream) to the development on the National Biodiversity Data Centre (NBDC) and National Parks and Wildlife Service (NPWS) websites.

During the summer of 2024 field studies were carried out across intertidal, subtidal, marine mammal, and fisheries components to assess biodiversity and ecosystem health. The purpose of these surveys in 2024 was to update the biological elements of the survey work undertaken in 2012 and assess the impacts of the proposed redevelopment on both the intertidal and subtidal benthic habitats at Ringaskiddy Port. The primary focus was on the Ringaskiddy Basin, and the area just outside the harbour area.

Subtidal Benthic Survey: A subtidal benthic grab survey took place on the 23<sup>rd</sup> of July 2024 using a 0.1m<sup>2</sup> Day Grab on board the Port of Cork vessel the *Denis Murphy*. Each station provided a faunal sample and a sediment sample for particle size and organic carbon analysis, following NMBAQC guidelines.

Intertidal Survey Campaign: The Phase I walkover survey of the two intertidal transect locations took place at low tide on the 24<sup>th</sup> of July 2024. Initially it was planned to carry out the Phase II quantitative transect survey on foot to take core samples from the littoral zone. A dynamic risk assessment was carried out on site, and it was determined that the sediment type was not suitable to traverse across on foot and alternatively a decision was made to achieve the required grab samples from a vessel at high tide on the 12<sup>th</sup> of September 2024.

Drop-Down Video (DDV) Survey: On the 24th of July 2024, 27 drop-down video (DDV) recordings were carried out in the vicinity of the proposed development at Ringaskiddy. A high-resolution drop-down video system was deployed at 27 locations to characterise the flora and



fauna in the area. AQUAFACT adhered to NMBAQC and JNCC guidelines for the best practice acquisition of video stills imaging of benthic substrata and epibenthic species.

Beam Trawl Survey: Beam trawl surveys were undertaken on the 27<sup>th</sup> of June and the 22<sup>nd</sup> of July 2024 in the vicinity of Ringaskiddy. The survey utilised a two-metre-wide beam trawl equipped with a tickler chain and an 11 mm, which was towed at a speed of 1.5 to 2.5 knots from the A-frame at the stern of a vessel. Seven trawls were undertaken near the project area to collect data on fish species and other marine organisms.

Marine Mammal Observations: Over five days days between the 22nd of July 2024 and the 1<sup>st</sup> of August 2024, qualified observers carried out marine mammal monitoring to assess activity and potential impacts on these species. The assessment of potential impacts is based on observations conducted during five surveys between July and August 2024 for the proposed development. Monitoring involved five land-based vantage point (VP) watches was used to describe the use of the site by marine mammals, as well as their distribution and relative abundance.

The Cork Harbour SPA (004030) and Great Island Channel SAC (001058) are both located within Cork Harbour, with Great Island Channel SAC largely overlapping Cork Harbour SPA (Figure 15.1 EIAR Volume III), thus sharing similar conservation values. The proposed project is situated between Monkstown Creek, Lough Beg, and Whitegate Bay, which are all designated areas within Cork Harbour SPA (Figure 15.1 EIAR Volume III).

The Cork Harbour SPA (site code: 004030) is a large site encompassing several protected pockets across Cork Harbour. It covers 27 km<sup>2</sup>, of which 91% is marine, and protects 35 species under the Nature Directives. The SPA includes the main intertidal zones of Cork Harbour, including all of the North Channel (which overlaps with Great Island Channel SAC), the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek, and the Rostellan and Poulnabibe inlets. Cork Harbour is a sheltered harbour with extensive intertidal mudflats, rich in macro-invertebrates that serve as an important food source for wintering birds. The salt marshes provide high tide roosts, making it an area of international and national significance for birdlife, supporting over 20,000 wintering waterbirds and 22 nationally important wintering populations of bird species.

Great Island Channel SAC (site code: 001058) protects 20 species under the Nature Directives and four habitat types under the Habitats Directive. It covers an area of 14 km<sup>2</sup>, of which 87% is marine, and stretches from Little Island to Midleton, with Great Island forming its southern boundary. The estuaries of the Owennacurra and Dungourney rivers, which overlap this SAC, are the main sources of freshwater inflow into the North Channel. This part of Cork Harbour is relatively undisturbed compared to other areas and features extensive intertidal mudflats and salt marshes that provide valuable estuarine habitat. Cork Harbour is recognised as a wetland of international importance, and the Great Island Channel SAC includes three key areas for wintering waterbirds. The predominant land use within this site is aquaculture, specifically oyster farming. Major threats to its conservation value have been identified as roadworks, land infilling, sewage discharges, and potential marina developments.

The 2024 Marine Mammal Observer surveys provide a robust baseline for the assessment of marine mammals present within the proposed development area. Of note, there is a greater number of harbour seal (*Phoca vitulina*) recorded within the area than previously noted in 2013, with the greatest number of species found in one haul-out location adjacent to the port jetty. Grey seal (*Halicheros grypus*) and otter (*Lutra lutra*) were also recorded during the 2024 surveys showing their presence in the proposed development area. Notably, a range of seabirds were recorded as incidental species, indicating the use of the area for foraging and commuting purposes for these species


Under the EU's Environmental Impact Assessment (EIA) Directive (2011/92/EU as amended by 2014/52/EU), major building or development projects in the EU must first be assessed for their impact on the environment.

The Ringaskiddy development includes significant upgrades to its East and West areas. Ringaskiddy East will feature a new a 200m container berth, dredging to -13m CD, crane installations, and surface improvements for operational areas. Ringaskiddy West will extend the Deepwater Berthing pocket by 182 m, and quayside area by 231m with dredging for navigation, quay structures, and lighting. Road improvements will improve access between East and West and connect to the N28. The completed Paddy's Point Amenity Area now offers a public pier, slipway, and landscaped spaces for public use. Environmental and waste control systems will be in place during both construction and operations.

Ringaskiddy East will operate using Lift-on-Lift-off (LOLO) for container cargo, with RTG cranes servicing stacked containers. General cargo and Roll-on-Roll-off (RORO) freight will be handled using mobile cranes and a dedicated ramp. Minimal maintenance is expected, with dredging integrated into the Port's regular schedule. Pollution control includes drainage systems and waste management through the Port's Environmental Management System. No decommissioning phase is planned, as the Port is designed for long-term use.

This Environmental Impact Assessment Report (EIAR) chapter is informed by desk studies and field surveys of marine habitats and species. The 2024 marine surveys provide an update on the information collected for an Environmental Impact Statement (EIS) produced in 2014, which was carried out prior to the start of construction, which formed part of the biological and environmental assessments. This current chapter follows the Environmental Protection Agency's Guidelines for Environmental Impact Assessment Reports (EPA, 2022).

The assessment of potential impacts on marine ecology and biodiversity for the Ringaskiddy development was carried out in three stages. 1) a desk study reviewed ecological data from various sources, including the National Parks & Wildlife Service (NPWS) and the Irish Whale and Dolphin Group (IWDG). 2) site visits and field surveys by ecologists, involving intertidal and subtidal habitat surveys, benthic grab sampling, drop-down video (DDV) footage, and beam trawl surveys for fish. Marine mammal observations were also conducted over five days. 3) The gathered data was assessed to establish the existing ecological conditions and potential pressures of the planned development on biotopes, fish and marine mammals. The report then provided recommendations for mitigation measures, ongoing environmental monitoring to track changes in benthic community structures, and management of sediment disturbance from dredging to maintain ecological balance. These efforts align with the EU's Environmental Impact Assessment (EIA) Directive to ensure the sustainability of marine habitats throughout the project.

The area of habitat loss is negligible (construction phase) and will not have any significant effects on the structure, ecological functioning. These minor effects are with a gradual recovery after construction is completed.

The potential for noise pollution is short term (construction and operational) and manageable with no long-term impact.

The risk of pollutants being discharged during the construction and operational phase is low, and the implementation of best practice measures outlined in the OCEMP will further minimise this risk. With mitigation in place, there will be no adverse impacts on designated sites overlapping the project area.

Table 15.9 provides a summary of the construction and development phase stages, aspects of the impact assessed, receptors, consideration of mitigation and significance.

# [16] Terrestrial Ecology and Ornithology

The proposed redevelopment site was visited in May 2012, September 2013 and January 2014, in order to carry out a Flora and Habitat Survey. The survey methodology followed that outlined by the Heritage Council's Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011). All terrestrial habitats i.e. above the mean high-water mark (MHWM) encountered within the survey area were mapped and an intensive search was undertaken for protected and invasive flora species. Habitat assessment categories used were consistent with those outlined in A Guide to Habitats in Ireland (Fossitt, 2000). Reference was also made to CIEEM Technical Guidance Series Guidelines for Preliminary Ecological Appraisal (CIEEM, 2013).

On the 6<sup>th</sup> of August 2024 an Ayesa Ecologist conducted a general assessment of the site. The site assessment aligned with the Heritage Council's Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011) and habitats were classified to level 3 of the Fossitt (2000) classification system. To illustrate the general habitat quality, photographs were taken using a digital camera. Grid references were recorded using a GPS handset. Site evaluation is based on the guidelines of the Chartered Institute of Ecology and Environmental Management (CIEEM 2019).

For non-volant Mammals – particularly otters, deer, badgers, pine martens, hedgehogs, Irish stoat, and pygmy shrews, the ecologist searched and took note of the following evidence (if observed):

- Direct sightings of mammals (live or dead);
- Burrows, setts, dens, holts, otter couches and slides;
- Prints;
- Prey/food remains;
- Faeces;
- Scratching posts at the base of tree trunks;
- Snuffle holes (small scrapes where badgers have searched for insects, earthworms, and plant tubers); and
- Trails, paths, runs.

APEM Ireland were commissioned by AYESA to provide support for updated bat surveys and report for the Ringaskiddy Port Development in Ringaskiddy, Co. Cork. This report along with the associated results can be seen in Appendix 9.7 of this report.

Flynn Furney Environmental Consultants produced the Wintering Bird Survey Report for 2023/2024 on behalf of Ayesa. The survey methodology was based on that used by the British Trust for Ornithology's (BTO) Wetland Bird Survey (WeBS) and the Irish Wetland Bird Survey (I-WeBS).



These surveys were conducted from three vantage points: Monkstown, Ringaskiddy and Rocky Island. The Wintering Bird Survey was conducted monthly from October 2023 to March 2024.

All surveys were performed by Ronan O'Driscoll.

- 1. High Tide Waterbird Counts were undertaken within two hours either side of high tide, to record the distribution, numbers and behaviours of waterbirds the survey area during high tide conditions; and
- 2. Low Tide Waterbird Counts were undertaken within two hours either side of low tide, to record the distribution, numbers and behaviours of waterbirds within the survey area during low tide conditions.
- 3. In May 2024, a further count area (Count Area 4) was added at Rocky Island, facing east towards Spike Island.
- 4. Within each count area, all waterbirds seen were recorded and dominant behaviours noted as either feeding (F) or engaged in other activity such as roosting, resting, washing or preening (R). Birds moving through the area only are indicated with (M). Note, gulls were not recorded in the Breeding Bird Survey (May-August).
- 5. Birds flying over were ignored unless they subsequently went onto land within the survey area.
- 6. Equipment used: 20-60 zoom scope, 7X42 binoculars, tripod.

A full copy of the survey report, which contains detailed survey methodologies and survey areas, is provided in Appendix 9.6 of the EIAR Volume IV.

XFlynn Furney Environmental Consultants produced the Breeding Wetland Bird Survey Report for 2023/2024 on behalf of Ayesa. The survey methodology was based on that used by the British Trust for Ornithology's (BTO) Wetland Bird Survey (WeBS) and the Irish Wetland Bird Survey (I-WeBS).

These surveys were conducted from three vantage points: Monkstown, Ringaskiddy and Rocky Island. The Breeding Bird Surveys were conducted monthly May 2024 to August 2024.

All surveys were performed by Ronan O'Driscoll.

- 1. High Tide Waterbird Counts were undertaken within two hours either side of high tide, to record the distribution, numbers and behaviours of waterbirds the survey area during high tide conditions; and
- 2. Low Tide Waterbird Counts were undertaken within two hours either side of low tide, to record the distribution, numbers and behaviours of waterbirds within the survey area during low tide conditions.
- 3. In May 2024, a further count area (Count Area 4) was added at Rocky Island, facing east towards Spike Island.
- 4. Within each count area, all waterbirds seen were recorded and dominant



behaviours noted as either feeding (F) or engaged in other activity such as roosting, resting, washing or preening (R). Birds moving through the area only are indicated with (M). Note, gulls were not recorded in the Breeding Bird Survey (May-August).

- 5. Birds flying over were ignored unless they subsequently went onto land within the survey area.
- 6. Equipment used: 20-60 zoom scope, 7X42 binoculars, tripod.

A full copy of the survey report, which contains detailed survey methodologies and survey areas, is provided in Appendix 9.6 of the EIAR Volume IV.

Habitats recorded in the study area are listed in Table 16.7 below. They are listed in the order that they appear in 'A Guide to Habitats in Ireland' (Fossitt, 2000) rather than in order of abundance.

### Table 16-1. Habitats recorded within the study area.

Habitat Name	Habitat Code (as per Fossitt, 2000)
Spoil and bare ground	ED2
Recolonising bare ground	ED3
Buildings and artificial surfaces	BL3
Sea walls, piers, and jetties	CC1
Scrub	WS1
Treelines	WL2

The key construction phase impacts assessed are:

- Habitat loss/degradation;
- Species loss (Flora);
- Disturbance to faunal species; and
- Reduction in water quality.

Potential direct and indirect impacts are discussed in detail below. Where potentially significant adverse impacts are identified, avoidance and mitigation measures are proposed to offset these impacts.

The proposed development will inevitably lead to some habitat loss/degradation in order to facilitate the construction of quay wall. However, it should be noted that most of this habitat consists of bare ground/recolonising bare ground. Although there is some risk to surrounding



areas of scrub and treelines, these are small in scale and the majority of these woody habitats are not located in the direct footprint for proposed development.

Water quality impacts arising from both the construction and the operation of the proposed development have the potential to affect habitats and species directly and indirectly. Accidental pollution events could result in sediment and pollutants entering Cork Harbour. Increased storm water overflow incidences could also result in increased pollutants entering Cork Harbour. Harbour.

Construction of the proposed development will result in temporary noise, vibration, lighting and visual disturbance and will affect species both within and outside the construction footprint.

Mitigations proposed include CEMP preparation, surface water protection measures, avoidance of tree clearing during the bird breeding season, siting of site compound at least 50m away from any watercourse, restrictions on refuelling, tank bunding where necessary, tree protection, noise restrictions and measures to avoid spread of invasives.

# [17] Material Assets

Roads:

There is an existing road network within the Port lands at Ringaskiddy and the proposed development includes a proposal for a road alignment to enhance connectivity to the M28.

The site is served by the L2545 road which is a continuation through Ringaskiddy village of the N28. The N28 is a National Primary Route which links Cork City to Ringaskiddy. Transport Infrastructure Ireland (TII), plans to construct a new road, the "M28 Cork to Ringaskiddy Project" which will run from the Bloomfield Interchange, near Douglas, to a new roundabout on the eastern side of Ringaskiddy. Permission for the proposed scheme1 was granted by ABP in July 2018. This new road will serve the future traffic needs of the area while removing traffic from Shanbally and Ringaskiddy villages.

The proposed M28 road will run in a north-south alignment to the south of the proposed development.

### <u>Utilities</u>

Utility providers that are known to have services within, or adjacent to the footprint of the proposed project includes the stormwater sewer – Irish Water and Cork County Council; and

### **Built Assets**

The existing Cork Container Terminal (CCT) was officially opened in September 2022. Large Panamax vessels can be accommodated along its 360m-long quay, where two Ship-to-Shore (STS) gantry cranes are installed. Trade vehicles are discharged at the linkspan in Ringaskiddy East, which also houses the Ferry Terminal. Ferry services are provided by Brittany Ferries to Roscoff.

With a total berth length of 485m and minimum berth drafts of 13.4m, the Ringaskiddy Deepwater Berth (DWB) (West) currently handles fully laden Panamax-size vessels (60,000 tonnes deadweight). Most of the animal feed trade is discharged through here, utilising specialist private-sector facilities. In addition, the DWB handles other bulk cargoes, such as molasses, cement, steel scrap, timber, and other project cargoes.

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The current infrastructure gives the port sufficient operational capacity up to 2029. However, a planning condition limits throughput at the Ringaskiddy Port facility to 322,846 TEU until such time as the M28 and Dunkettle road schemes are complete. The current application will consider the further traffic scenario for Port upgrades.

It is envisaged that, by 2036, the terminal will need major infrastructure upgrades to accommodate future container-related demand.

The current total storage area (land occupied) for Ringaskiddy East (land occupied) is 18ha. For Ringaskiddy West the total current storage area is 9.6ha

The Waste facilities within the jurisdiction of the Port Company are both Port owned and operated. The Port Company operates a large 23 m<sup>3</sup> garbage compactor at Ringaskiddy.



All other facilities, private and public are equipped with mobile bins and skips that are either removed to landfill sites when filled or are transferred to the port compactors which are emptied as required.

All skips and wheelie bins are clearly marked and labelled.

The system has been publicised through the agents and all parts of the waste management chain will have copies of this plan and an accompanying Contact Directory (with an amendment and update procedure).

Waste per ship will not automatically become one skip load but will be held until a skip is ready for disposal but this is to form part of the contractor's remit, not the port.

All vessels MUST discharge ship-generated waste before leaving The Port of Cork unless it can be demonstrated that storage space for such waste is sufficient. If retaining waste on board, a legitimate reason for not using the port reception facilities must be given. Failure to do so will result in detention in port until waste has been discharged.

It will be the responsibility of both the ship and the stevedore/cargo receiver to collect and dispose of all waste accumulated from the loading/discharge of cargo.

The project will bring about additional long-term activities including an intensification of activity at CCT as well as the requirement for on-going maintenance dredging. Any maintenance dredging which may be required in the longer term will be carried out as part of the Port of

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Cork's regular maintenance dredging programme. The material generated would likely be disposed of at sea at a licensed disposal site agreed in accordance with Port of Cork's maintenance dredging licence.

Overall, the CCT2 and DWB extension are considered to have a negligible impact on the built assets/utilities of the port and a significant positive impact on the built environment of the port post-construction.

During operational phase the addition of berths and the increase in container traffic is likely to result in additional waste ship waste arisings to port.

All waste associated with the proposed Ringaskiddy Redevelopment must take cognisance of the policies and actions outlined in the Southern Region Waste Management Plan 2015-2021.

The Southern Region Waste Management Plan 2015-2021 sets a target of 70% reuse, recycling and materials recovery rate of non-soil and stone construction and demolition waste to be achieved by 2020. It will be a requirement of the Contractor to achieve this target during the construction stage and the PoCC Waste Management Plan for operation phase.

Various mitigation measures have been proposed to ensure potential impacts on built assets and waste management are minimised.

## [18] Interactions and Cumulative Effects

The Table 18-1 below is a matrix table indicating the significant interactions that are likely to occur between the various environmental disciplines with regard to the proposed scheme.

The purpose of the table is to allow interaction between various disciplines to be recognised, although the level of interaction will vary in each case.

	Population and Human Health	<b>Cultural Heritage</b>	Landscape and Visual	Traffic & Transportation	<b>Noise and Vibration</b>	Air Quality	Climate	Soils, Geology and Hydrogeology	<b>Coastal Processes</b>	Water Environment	& Ornithology Marine Ecology	Material Assets	
Population & Human Health													
Cultural Heritage													
Landscape & Visual	Y	Y											
Traffic & Transportation	Y		Y										
Noise & Vibration	Y		Y	Y									
Air Quality	Y			Y									

#### Table 18-1 Interactions between Environmental Topics

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Climate											
Soils, Geology & Hydrogeology		Y			Y						
Coastal Processes	Y					Y					
Water Environment							Y	Y			
Marine Ecology							Y	Y	Y		
Terrestrial Ecology & Ornithology		Y		Y				Y	Y	Y	
Material Assets			Y								

Cumulative impacts are effects that result from incremental changes caused by other past, present or reasonably foreseeable developments together with the proposed development. Cumulative effects were assessed by looking at all current developments for which planning has been approved within 1km of the proposed site location. A consideration of development objectives in the current development plans in the area was also carried out. This cumulative assessment has considered cumulative impacts that are:

- a) Likely;
- b) Significant; and
- c) Relating to an event which has either occurred or is reasonably foreseeable together with the impacts from this development.

The following are potential sources of cumulative impact for this project.

### Discharge Licences

There are eight Integrated Pollution Prevention Consents near Ringaskiddy, two licensed surface water discharges under the Water Pollution Acts into the harbour. All of these discharges are currently regulated under by the EPA or Cork County Council and have emission limit values specified in their consent license to ensure that there is no significant impact on the receiving water. It is therefore anticipated that there will be no significant, cumulative adverse impacts on the water environment.

### Nutrient Inputs

Upstream nutrient input mainly from diffuse sources but also waste water treatment discharges are the key sources of dissolved inorganic nitrogen (DIN). DIN levels in Cork Harbour are above EQS, preventing the water body from achieving good ecological potential. The proposed port redevelopment will be serviced by the Cork Lower Harbour Main Drainage Scheme or, in the event that the scheme is not completed prior to the Port redevelopment, a dedicated wastewater treatment plant prior to discharge to coastal waters. The proposed redevelopment will therefore not have any cumulative adverse impacts on nutrient conditions in the Harbour.



### Road Drainage

Road drainage will be required from the sections of new road and upgrade works; it is proposed to discharge this to the harbour. The discharge has the potential to carry contaminants derived from either wear and tear of vehicles' mechanical parts, or from combustion of fuel or oil leaks. Generally the concentration of contaminants in surface water run-off from a roads scheme increases with traffic density (NRA, 2008). The road design will include for the use of highway grade petrol/oil interceptors prior to any discharge to the harbour waters. This represents an improvement over the existing situation and therefore represents a positive impact in terms of water quality.

- d) Port of Cork Maintenance Dredging
- e) The coastal process modelling has concluded that the redevelopment of the Port will not change the existing maintenance dredging requirements in Cork Harbour. The habitats directive screening statement prepared for the latest maintenance dredging application has also concluded that the current maintenance dredging regime will not have a significant impact on water quality. Therefore, based on the assessment of the capital dredging works proposed for the Port redevelopment and the maintenance dredging assessment no cumulative impacts are predicted.

## [19] Major Accidents and Disasters

The assessment of the vulnerability of the proposed scheme to major accidents and natural disasters is carried out in compliance with the EIA Directive whereby the chapter will seek to:

- Identify potential major accidents and/or disasters, if any, that the proposed scheme could be vulnerable to,
- Determine whether these major accidents and/or disasters are likely to result in significant adverse environmental impacts, and
- Define the measures in place, or need to be in place, to prevent or mitigate the possible significant adverse effects of such events on the environment.

The scope and methodology of this assessment is centred on the understanding that the proposed scheme will be designed, built and operated in line with best international current practice. As such, major accidents resulting from the proposed scheme will be very unlikely.

The pre-development scenario involves normal port operations at CCT and DWB.

The risk register/risk assessment for the construction and operation scenarios is set out in Table 19.3 and 19.4 below.

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### Table 19-1: Risk Register – Construction

Risk ID	Potential Risk	Possible Cause	Possible Impacts	Mitigation	
	Potential vulnerabil	ity to accidents and/or disasters			
R1	Flooding of site	Periods of extended rainfall/storms coinciding with high tide	Impacts to properties, utilities, facilities, human health, transportation networks, surface water, flora and fauna	ERP_01 Existing flood defences and stormwater drainage will be maintained	
	Potential to cause n	najor accidents and/or disasters			
R2	Vehicle collision	Human Error	Potential to cause harm, (injury) to community members.	ERP_02 The site construction operations will be designed and operated in line with best international current practice and with appropriate health and safety checks in place.	
R3	Fall from Height	Human Error/Lack of training	Human Health Impacts or loss of life	ERP_03 Appropriate training, qualifications, and risk controls in place	
R4	Structural collapse	Human error/Design issues	Human health impacts of loss of life	ERP_04 Safety in design criteria applied to design and build.	

### Table 19-2: Risk Register – Operation

Risk ID	Potential Risk	Possible Cause	Possible Impacts	Mitigation
	Potential vulnerability to a	accidents and/or disasters		

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R5	Flooding of site	Periods of extended	Impacts to properties, utilities, facilities, human	ERP_05 Existing flood defences and
		rainfall/storms	health, transportation networks, surface water,	stormwater drainage will be maintained
		coinciding with high	flora and fauna	
		tide		

	Potential to cause major accidents and/or disasters							
R6	Vehicle collision	Human Error	Potential to cause harm, (injury) to community members/workers.	ERP_06 The site operations will be designed and operated in line with best international current practice and with appropriate health and safety checks in place.				
R7	Crushing by Container/Machinery	Human error/interaction with machinery	Potential to cause harm to workers	ERP_07 The site operations will be designed and operated in line with best international current practice and with appropriate health and safety checks in place.				
R8	Chemical explosion/contamination of soils	Chemicals improperly managed. Failure to manage ignition sources.	Loss of life and damage to property	ERP_08 The site operations will be designed and operated in line with best international current practice and with appropriate health and safety checks and monitoring in place. Updated Fire Risk Assessment (FRA) to be carried out.				

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The potential risks identified have been assessed in accordance with the relevant classification (refer to **Error! Reference source not found.** and **Error! Reference source not found.**) and the resulting risk analysis is given in Table 19-5 and Table 19.6. The risk register is based upon possible risks associated the proposed scheme. The consequence rating assigned to each potential risk assumes that all proposed mitigation measures and safety procedures have failed to prevent the major accident and/or disaster.

#### Table 19-3: Risk Scores

Risk ID	Potential Risk	Likelihood Rating	Consequence Rating	Risk Score <sup>2</sup>
Construc	tion Phase			
R1	Flooding of site	1	3	3
R2	Vehicle Collision	2	5	10
R3	Fall from a height	2	4	8
Operatio	nal Phase			
R5	Flooding of Site	1	3	3
R6	Vehicle Collision	2	5	10
R7	Crushing by container/machinery	2	5	10
R8	Chemical explosion/fire	3	4	12
R9	Environmental Incidents	4	3	12

### Table 19-4: Risk Matrix

	Very likely	5						
Rating	Likely	4			R9			
F poor	Unlikely	3				R8		
Likelił	Very unlikely	2				R2	R7	
	Extremel y Unlikely	1			R1, R5			
			Minor	Limited	Serious	Very Serious	Catastrophic	
			1	2	3	4	5	
			Consequence Rating					

<sup>1</sup> Risk = Likelihood x Severity

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# [20] Conclusion

This document summarises the contents of the EIAR for Ringaskiddy Port Redevelopment Project Stage 1b to Stage 3. The Schedule of Environmental Commitments is contained in Chapter 20 of the EIAR.



Ringaskiddy Port Redevelopment

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