



An
Bord
Pleanála

Inspector's Report ABP 321875-25

Development

Proposed redevelopment of port facilities.

Location

Ringaskiddy, County Cork.

Planning Authority

Cork County Council

Applicant(s)

Port of Cork Company

Type of Application

Marine Development Application – submitted under Section 291 of the Planning and Development Act, 2000 (as amended).

Prescribed Bodies

An Taisce

Commissioners of Irish Lights

Dept. of Housing, Local Government and Heritage

Dept. of Transport

Health and Safety Authority

Inland Fisheries Ireland

Maritime Area Regulatory Authority

Transport Infrastructure Ireland

Cork County Council

Public Submission(s)

Robert McLaughlin
Irish Whale and Dolphin Group
Pfizer Ireland Pharmaceuticals
Unlimited Company

Date of Site Inspection

01st August 2025

Inspector

Brendan Coyne

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1.0 Introduction

- 1.1.1. This report assesses a planning application submitted by the Port of Cork Company to redevelop its port facilities at Ringaskiddy, County Cork. The application seeks a new 10-year planning permission to complete elements of a previously permitted Strategic Infrastructure Development, granted permission for 10 years under ABP Ref. PA04.PA0035 in May 2015 and subsequently amended under permissions ABP Ref. PM04.PM0010, ABP Ref. 304437-19 and ABP Ref. 310847-21. While significant aspects of the project have been completed, including the Ringaskiddy Container Terminal (operational since 2022), certain elements remain to be developed. They cannot be completed within the lifetime of the existing permission, which expires on the 20th of October 2025.
- 1.1.2. Due to statutory restrictions under the Planning and Development Act 2000 (as amended) and the Planning and Development Act 2024 (enacted with phased commencement underway), an extension of the duration of permission is not possible as the outstanding works require an Environmental Impact Assessment (EIA) and Appropriate Assessment (AA). Consequently, this application seeks permission to complete the remaining elements of the permitted development. This includes the extension of the deep-water berths at Ringaskiddy West, the provision of a second Cork Container Terminal / Multi-purpose berth (CCT2) at Ringaskiddy East, the provision of a roll-on/ roll-off ramp and ancillary works.
- 1.1.3. The proposed development is required for the future growth and competitiveness of the Port of Cork, facilitating the transition of port operations from Cork City Centre to the lower harbour. The development would accommodate larger vessels driven by projected commercial and population growth. The development would also support offshore renewable energy (ORE) development, with the CCT2 designed with sufficient loading capacity to accommodate marshalling and assembly of ORE components.

2.0 Site Location and Description

- 2.1.1. The site is located in Ringaskiddy, c. 16km southeast of Cork City, on the western side of Cork Harbour. The site is within the landholding of the Port of Cork Company. The

Port of Cork contains deepwater port facilities and is identified in the National Ports Policy (NPP) as a port of national significance (Tier 1).

- 2.1.2. As detailed in the Planning Stage Engineering Report, the application site consists of five separate sites within the Ringaskiddy facility. The Applicant identifies the five separate sites as: i) Ringaskiddy West (Deepwater Berth Extension), ii) Ringaskiddy East (Container Berth 2), iii) Ro-Ro Quay and Linkspan - Container Berth, iv) Dry Container storage area and v) internal roads and M28 road connection.
- 2.1.3. Ringaskiddy West (11.1ha) is located immediately southeast of an existing ADM Jetty (c. 602m long). It consists of a reinforced concrete pavement used mainly by HGVs accessing an adjacent bulk feed store facility operated by the animal feedstuff trader 'Arkady'. Arkady has a wayleave running northwest-southeast along the site's western boundary to access their warehouse. There is a rock armour revetment on the eastern side of the pavement where the landside areas interface with the Ringaskiddy Basin, from which 0.8ha will be reclaimed for the construction of the proposed new quay at Ringaskiddy West. The remainder of the site lies within the Ringaskiddy Basin, which is south of the ADM Jetty.
- 2.1.4. Ringaskiddy East – Berth 2 (2ha) lies north of the existing Cork Container Terminal stacking area and quay constructed as part of the development permitted under ABP Ref. PA04.PA0035. The site lies on land that has previously been reclaimed from the sea. The interface between the landward area of the site and the Ringaskiddy Basin comprises a rock armour revetment.
- 2.1.5. The Ro-Ro Quay and Linkspan - Container Berth site (2.7ha) lies to the south of Ringaskiddy East – Berth 2 site within a berth pocket to the west of the existing Cork Container Terminal quay. The area for the proposed Ro-Ro quay will be reclaimed from the sea.
- 2.1.6. The Dry Storage Area site (1.6ha) lies within the Cork Container Terminal, east of the proposed Ro-Ro Quay and Linkspan - Container Berth site. The site is surfaced with a bituminous pavement.
- 2.1.7. The Internals Road and M28 Road Connection site (1.5ha) lies towards the eastern end of the Port of Cork Facility in Ringaskiddy. The site ties into the existing internal road network constructed under ABP Ref. PA04.PA0035. The site's primary use is the

storage of imported cars. The area is surfaced with granular fill material suitable for storing cars and other materials.

- 2.1.8. The overall site is accessed from the N28 national road, which enters the site from the south, and connects with the L2545 to the east and the N40 and M8 further to the northwest via the Dunkettle interchange. Ongoing road infrastructure works include the planned M28 motorway, currently under construction, which will link the port at Ringaskiddy to the N40 South Ring Road in Cork City. The M28 motorway is expected to be completed by summer 2028, as per Transport Infrastructure Ireland.
- 2.1.9. The site lies mostly on land that was previously reclaimed from the sea. Ringaskiddy Village lies to the south of the application site. Other development and land uses adjacent to the site include the National Maritime College of Ireland (NMCI), MaREI Research Centre for Energy, Climate and Marine Research and the National Vehicle Distribution car storage facility. Ringaskiddy also has large-scale, high-technology manufacturing plants that occupy large, standalone sites. Two major employers within the development boundary of Ringaskiddy are designated under the Major Accidents (Seveso) Directive. These include Pfizer Ireland Pharmaceuticals Ltd., located adjoining the Port of Cork's landholding to the west, and Thermo Fisher Scientific Cork Ltd., located further to the south.
- 2.1.10. Haulbowline Island, home to Ireland's Naval Base and Amenity Park, is located adjacent to the northeast of the site, which is accessed via a bridge also serving the Island Crematorium. Spike Island, a historic tourist attraction, is located to the east of the site. Paddy's Point Park marine leisure facility is located to the northeast of the site.

3.0 Proposed Development

- 3.1.1. In accordance with Section 291 of the Planning and Development Act, 2000 (as amended), the Port of Cork Company has applied to An Coimisiún Pleanála for ten-year planning permission for the completion of the redevelopment of existing port facilities at Ringaskiddy, Co. Cork, previously permitted under ABP Ref. PA04.PA0035, as amended by ABP Ref. PM04.PM0010, ABP Ref. 304437-19 and ABP Ref. 310847-21. As stated in the statutory notice, the proposed development consists of the following:

3.1.2. Ringaskiddy East:

- Construction of the remaining phases of a 200m container / multi-purpose berth, which would not be completed by 20th October 2025. The berth is under construction and being developed in four 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 m Chart Datum (CD).
- Installation of a link-span comprising a floating pontoon and an access bridge.
- Installation of container handling cranes.
- Ancillary works, including services, lighting and fencing.

3.1.3. Ringaskiddy West:

- A new 182m extension to the existing deepwater berth (DWB), which would comprise a filled quay structure (of approximately 231m) extending no further than the edge of the existing DWB
- Dredging works to varying levels to facilitate navigational access to the new facilities, and
- Ancillary works, including services and lighting.

3.1.4. Road Improvements:

- Improvements to the internal road network at Ringaskiddy East
- Ancillary works, including lighting and fencing.

3.1.5. An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) have been prepared and submitted with the application. The application is located within a consultation zone for establishments to which the Major Accident Directive applies. A 'Dumping at Sea' licence will be required.

3.1.6. **Submitted Documentation**

3.1.7. The following documents are submitted with the application:

- Maritime Area Consent
- Planning Report prepared by McCutcheon Halley Consultants
- Engineering Report prepared by Malachy Walsh and Partners

- Maps and Drawings
- EIAR prepared by Ayesa
- Natura Impact Statement prepared by Ayesa
- Letter of notice to Cork County Council and Prescribed Bodies.

3.1.8. A standalone website containing all of the application documentation has been provided at: www.portredevelopmentringaskiddy.ie

4.0 **Original Development permitted under ABP Ref PA04.PA0035**

4.1.1. As stated in Section 6.1 of the Planning Statement submitted with the application, the 2015 SID permission ABP Ref. PA04.PA0035 provided 10-year planning permission for the redevelopment of existing port facilities, consisting of the following:

Ringaskiddy East (Container Berths and Multi-purpose Berth (CB/MPB))

- A new 314-metre container berth 1/ multipurpose berth that will be capable of accommodating vessels carrying a range of different cargoes, including containers, freight and general cargoes.
- An additional 200-metre container berth 2
- Surfacing of existing port lands to provide operational areas
- Dredging of the seabed to a level of -13.0 m Chart Datum (CD)
- Demolition of the existing link-span
- Installation of link-span comprising a floating pontoon and access bridge
- Installation of container handling cranes and terminal transport equipment
- Maintenance building, administrative buildings and entrance kiosks; and
- Ancillary car parking, lighting and fencing.

Ringaskiddy West (Deepwater Berth Extension)

- A new 182-metre extension to the existing deep-water berth (DWB), which will comprise a filled quay structure extending no further seaward than the edge of the existing deep-water berth.

- Dredging works to varying levels to facilitate navigational access to the new facilities,
- Lighting.

Road Improvements

- Improvements to the external road entrance into the Ringaskiddy Deepwater Terminal and to Ringaskiddy West
- Improvements to the internal link road between Ringaskiddy East and

Paddy's Point Amenity Area

- Construction of a new public pier, slipway and Commissioning platform
- New planting and landscaping to provide public amenity areas and
- Boat storage, lighting and fencing

5.0 Proposal Consistency with the Original Development permitted under ABP Ref. PA04.PA0035 (as amended)

5.1.1. As detailed above, the proposed development comprises the completion of the Strategic Infrastructure Development (SID) previously permitted under ABP Ref. PA04.PA0035, as amended by ABP Ref. PM04.PM0010, P.A. Ref. 304437-19 and P.A. Ref. 310847-21. The remaining redevelopment works include the extension to its deep-water berth at Ringaskiddy West, provision of a second Cork Container Terminal / Multi-purpose berth (CCT2) at Ringaskiddy East, provision of the roll-on / roll-off ramp, improvements to the internal road network and ancillary works. As per the Planning Statement submitted, no changes have been proposed to the layout or structural works, and no additional infrastructural works or additional dredging are proposed over and above those originally permitted.

5.1.2. The proposed quay and berth dimensions remain consistent with those permitted under ABP Ref. PA04.PA0035. As per the Planning Stage Engineering Report submitted, the Deepwater Berth extension at Ringaskiddy West provides for a new 182-metre extension to the existing deep-water berth (DWB), which will comprise a filled quay structure (of approximately 231m), reclamation works, and dredging works

to varying levels to facilitate navigational access to the new facilities. Berth 2 at Ringaskiddy East provides for the construction of the remaining phases of a 200m container/multipurpose Berth, which are not completed by 20th October 2025. Dredging would be to a seabed level of -13.0m Chart Datum (CD). The Ro-Ro Quay would take the form of the existing jetty that was constructed as part of the PA0035 planning application, which comprised a concrete deck surface supported on steel/concrete piles. The Linkspan would comprise a floating pontoon which would rise and fall with variations in tidal level and an access bridge. The proposal also provides for improvements to the internal road network at Ringaskiddy East and ancillary works, including lighting and fencing.

5.1.3. The following minor differences and adaptations from the previously permitted development ABP Ref. PA04.PA0035 are identified in the current Section 291 application, as follows:

- The previously permitted development ABP Ref. PA04.PA0035 was a Strategic Infrastructure Development (SID) submitted under Section 37E of the Planning and Development Act, 2000 (as amended). The current application is submitted under Section 291 of the Act (inserted by the Maritime Area Planning Act 2021), to secure a new ten-year permission, as an extension of the duration of permission cannot be granted to permitted SIDs under the Act.
- The container terminal (CCT1) at Ringaskiddy is now operational. The construction of the second container terminal (CCT2) / multi-purpose berth is required to facilitate increased capacity for container activities and to provide facilities which have the capacity to support Offshore Renewable Energy (ORE) components. This introduces a new functional purpose supporting offshore renewable energy, which was not described in the 2015 permitted development.
- The proposal includes localised strengthening of quay decks and hardstanding areas to accommodate higher load capacities associated with ORE components. The structural design of CCT2 at Ringaskiddy East provides for heavy-duty reinforced concrete pavements supported on large diameter piles, ensuring the quay can handle the increased loading generated by ORE marshalling and assembly operations. These changes represent minor engineering adaptations within the footprint of the previously permitted works and do not alter the overall

layout or quay dimensions. The deck levels for the redeveloped berths have been designed to 6m CD (equivalent to 3.43m OD), which is stated to exceed the projected 2100 0.5% AEP flood level of 3.23m OD.

- The Paddy's Point Amenity Area has been completed. The applicant confirms that all development contributions and community gain requirements associated with the original permission have been fully delivered and paid. The applicant submits that the proposed development will have no additional contribution or community gain requirements, as no additional works are proposed.
- The original SID permission ABP Ref. PA04.PA0035 referenced the upgrade of the N28. That scheme has since progressed as the M28 Cork to Ringaskiddy Motorway Project, which is now under construction and expected to be completed by mid-2028.
- The proposed development is framed within the Port of Cork Masterplan 2050, which supersedes the Port of Cork Strategic Development Plan 2010.

6.0 Alteration Permissions

6.1.1. Subsequent permitted alterations include, *inter alia*, the lengthening of the permitted main berth to 361m and the relocation of mooring dolphins under ABP Ref. PM04.PM0010, doubling the size and configuration of the customs building under P.A. Ref. 304437-19, amendments to the ferry terminal building and car parking under P.A. Ref. 310847-21 and modifications to Condition no. 5 under the parent permission, reducing the timeline for agreeing the Ringaskiddy Mobility Management Plan under P.A. Ref. PA-0035M.

6.1.2. Section 1.2 of the submitted Planning Statement details the alteration permissions, which are summarised as follows:

ABP Ref PM04.PM0010: Permission granted by An Bord Pleanála on 08/06/2017 for amendments to the original grant of permission for the redevelopment of the port. The amendments were permitted following the invocation by the Board of s.146C of the Act and the submission of a revised EIS by the Port of Cork Company. The alterations permitted under this application were extensive and summarised as follows:

- The omission of the proposed RoRo ramp to Berth 1 and revisions to the southern end of Berth 1 design of the southern end of the berth, resulting in the length of permitted Berth 1 increasing by 16 metres from 314 metres to 330 metres and the length of berth which would be usable would be increased by c. 46 metres together with associated increase in length of dredging pocket and alterations to mooring dolphin layout.
- Amendments to the method of landside container handling, with the original proposal for the use of rubber tyre gantry cranes (RTGs) replaced with straddle carriers, resulting in changes to the layout of container storage areas.
- Revisions to the container storage areas for the provision of a new maintenance shed (higher), and a new two-storey maintenance and office building, to be located immediately to the southeast of the container storage area and to the southeast of the ferry access road within the port area. The previously proposed maintenance building is to become a customs inspection building.
- The proposed amendments would not increase the permitted development's capacity, and the overall capacity would continue to be restricted to an overall maximum of 330,000 TEUs.

ABP Ref 304437-19 Permission granted by An Bord Pleanála on 18/07/2019 for the following;

- The doubling of the size of the previously permitted customs building from the permitted 324 square metres to 648 square metres. This is to be achieved by effectively mirroring the previously permitted floor plan to the west with the addition of three inspection bays. Access to the bays in the customs building would be from both the east and west. The relocation of the building is such that it is located c. seven metres further south than the previously permitted location.
- The alteration of floor levels of the inspection bays, with bays 1 and 4 located on the northern side of the building proposed to have approximately the same level as the surrounding yard area and the smaller bays 2, 3, 5 and 6 having a floor level that is approximately 1.2 metres higher. At grade access to these bays and to the ancillary accommodation is to be provided via an external walkway on the southern side of the building.

ABP Ref 310847-21 Permission granted by An Bord Pleanála on the 08/10/2021 for the following;

- Minor internal and external alterations to the existing ferry terminal to accommodate Port of Cork staff.
- Relocation of a section of the existing noise reflective barrier, as permitted.
- Relocation of 44 car parking spaces from the maintenance shed/office building car parking site, as permitted, to the ferry terminal building car parking area.
- The installation of four modular building units to serve staff welfare facilities.

PA-0035M Modification to condition No. 5 of the parent permission, reducing the timeline for agreeing to the Ringaskiddy Mobility Management Plan from six months prior to commencement, to one month prior to commencement of development.

6.1.3. Further details on the planning history of the site are provided in Section 12.0 below.

7.0 Development Completed to Date

7.1.1. Section 1.2 of the submitted Planning Statement details the work completed under ABP Ref. PA04.PA0035 (as amended), as follows:

7.1.2. Ringaskiddy East:

- Construction of a new 361m Container Berth 1/Multi-purpose Berth (CCT 1),
- Surfacing of existing port lands to provide operational areas,
- Demolition of a link span,
- Terminal transport equipment,
- Development of maintenance and administrative buildings and entrance kiosks.

7.1.3. Road Improvements:

- Improvements to the external road entrance into the Ringaskiddy Deepwater Terminal and to Ringaskiddy West,
- Improvements to the internal link road between Ringaskiddy East and Ringaskiddy West.

7.1.4. Paddy's Point:

- Construction of a new public pier, slipway and Commissioning platform,
- New planting and landscaping to provide a public amenity area
- The provision of boat storage, lighting and fencing.

8.0 **Scope and Legislative Context of the Proposed Development**

8.1.1. The proposed development works under this application are described in Section 3.0 above. The proposed development includes works within the nearshore, which falls within the Eighth Schedule of the Planning and Development Act, 2000 (as amended) and therefore, the application is made under the provisions of Section 291 of the Planning and Development Act, 2000 (as amended).

8.1.2. Under Section 278 of the Planning and Development Act, 2000 (as amended), maritime development is defined as

‘the carrying out of any works in the maritime area, or the making of any material change in the use of the sea, seabed or any structure, in the maritime area, and includes the reclamation of any land in the nearshore area’.

In accordance with Part XXI of the Act (Maritime Development), applications for development within a Maritime Area that fall under a class specified in the Eighth Schedule must be made directly to An Coimisiún Pleanála. Subsection 2 of the Eighth Schedule includes the following:

A harbour or port installation, including— (a) loading or unloading areas, (b) vehicle queuing and parking areas, (c) ship repair areas, (d) areas for berthing or dry docking of ships, and (e) areas for the weighing, handling or transport of goods or the movement or transport of passengers (including customs or passport control facilities), and any associated offices or other similar facilities that would— (i) result in the enclosed area of water in the harbour or port installation being not less than 20 hectares, (ii) involve the reclamation of an area of land of not less than 5 hectares, (iii) involve the construction of a quay greater than 100 metres in length, or (iv) be capable of admitting a vessel of more than 1,350 tonnes.]

- 8.1.3. As confirmed by the Applicant in the Planning Statement submitted, the proposed development includes the construction of a quay greater than 100 meters in length and would be capable of admitting vessels of more than 1,350 tonnes. Therefore, the proposed development falls within the provisions of the Eighth Schedule, and the application is made to An Coimisiún Pleanála under Section 291 of the Planning and Development Act, 2000 (as amended).
- 8.1.4. The Section 291 application is for works as previously permitted under ABP Ref. PA04.PA0035, as amended under ABP Ref. PM04.PM0010, ABP Ref. 304437-19 and ABP Ref. 310847-21. No changes are proposed to the layout or structural works.

9.0 Maritime Area Consent (MAC)

- 9.1.1. A Maritime Area Consent (Ref. No. MAC20230004) was granted by the Maritime Area Regulatory Authority (MARA) to the Port of Cork Company on the 6th February 2025 for a term of 11 years. The Consent allows for the capital dredging of berths at Ringaskiddy East and West, including the approaches to the Ringaskiddy West berth extension. It is a requirement of the Consent that an application for development permission must be submitted (subject to a phasing schedule where applicable) within 6 months from the expiration of the Existing Development Permission. Noted Conditions of the MAC include, *inter alia*, the following:

C. 4.1 The Holder shall not obtain any right to occupy the Consent Area pursuant to condition 3.4 and shall not commence any works, activities or operations associated with the Permitted Maritime Usage in the Consent Area unless and until the Holder has obtained Development Permission for the Permitted Maritime Usage and all other authorisations required.

C. 4.2 In the event Development Permission is being sought in phases relating to parts only of the Consent Area, a right to occupy shall not arise in respect of any part of the Consent Area concerned until the Holder has complied with conditions 4.1 in respect of that part.

C. 5.1 Subject to condition 5.5, the Holder shall submit an application for Development Permission relating to the Permitted Maritime Usage the subject of this Consent on or before the date set out in the Particulars Schedule. This date may be extended on request in writing by the Holder and provided the

Grantor is satisfied that there are reasonable grounds for doing so and the extension does not constitute a material amendment to this Consent. The application for Development Permission shall have attached to it a Rehabilitation Schedule, within the meaning of section 95 of the Act..

C. 5.4 If there is an irreconciliation between a provision of this Consent and a provision of the Development Permission for the Permitted Maritime Usage, the provisions of this Consent shall be deemed to be amended to the extent necessary to remove that irreconciliation in favour of the Development Permission in accordance with section 87 of the Act.

C. 6.1 The Holder shall comply with any Development Permission granted in respect of the Permitted Maritime Usage.

10.0 Pre-application Stage Consultations

10.1. Consultation with An Bord Pleanála (now An Coimisiún Pleanála)

10.1.1. The Applicant held a pre-application consultation meeting with An Bord Pleanála on the 1st October 2024 under Pre-Planning Ref: OC04.320733-24, in accordance with Section 287 of the Planning and Development Act, 2000 (as amended). Matters discussed included the outstanding elements of the previously permitted development (ABP Ref. PA04.PA0035), the requirement for Maritime Area Consent (MAC), compliance with the NMPF, the potential to facilitate ORE development, phasing, potential impact on designated sites and environmental impact assessment requirements.

10.1.2. Additional details were submitted to An Bord Pleanála on 02nd December 2024, clarifying elements of the proposal, including an updated layout plan delineating the extent of works subject to the pre-application consultation. The pre-application consultation process was formally closed by An Bord Pleanála on the 03rd January 2025, in accordance with Section 287(5) of the Act.

10.2. Consultation with Cork County Council

10.2.1. The Applicant held a pre-application consultation with the Coastal Planning Authority, Cork County Council, on the 16th January 2025. Matters discussed included the role

of Cork County Council acting as a prescribed body but not as the competent authority, environmental and habitat considerations including updates on marine surveys and mitigation measures for dredging resuspension contamination, archaeology conditions for dredging activities, the structural design and capacity of the quay to accommodate ORE Components, conditions and contributions attached to the previous application(s), and the requirement for a statement of compliance with conditions attached to the previous application(s).

10.3. Consultation with Prescribed Bodies

10.3.1. In 2024, the Applicant sent letters to relevant statutory and non-statutory consultees informing them of the proposed application to finalise the previously approved development and inviting their comments on the proposal to inform the preparation of the Environmental Impact Assessment Report. Submissions received by An Coimisiún Pleanála are summarised further below.

11.0 Application Stage Consultations/Submissions

11.1. Cork County Council's Submission (Coastal Authority)

11.1.1. The submission from Cork County Council provides a detailed report outlining the views of the Planning Authority regarding the proposed development. The submission provides a summary of the EIAR submitted and an assessment of each of the environmental topics, incorporating submissions and recommendations in technical reports from various Council Departments received. These included the Ecology Section, Area Engineer, Sustainable Travel Unit, Cork NRDO, Environment Section, County Archaeologist, Coastal Management Unit (CMU) and Waste Regulation Team. Appendices include (A) suggested Conditions, (B) suggested further information requests and (D) copies of internal technical reports.

11.1.2. Notable comments on the chapter topic in the EIAR, incorporating issues raised in the internal reports, are summarised as follows:

11.1.3. **Need for Scheme & Alternatives (Ch.2):** The submitted Indecon Report shows that the Port of Cork plays a key role in developing the Cork City region, the broader Irish economy, and the EU's Internal Market development.

- 11.1.4. **Population and Human Health (Ch.5):** The proposed development would have direct and indirect benefits to the local economy. There would be negative impacts during the construction phase, which would temporarily affect human health.
- 11.1.5. **Cultural Heritage (Ch.6):** While archaeological work has occurred within the Ringaskiddy area, it has been a non-intrusive survey and assessment. The County Archaeologist recommends that planning conditions be attached to any grant of planning permission so that any impacts to sub-surface archaeological features can be dealt with.
- 11.1.6. **Landscape & Visual (Ch.7):** The Ringaskiddy Port Redevelopment is located within a landscape character area identified as City Harbour and Estuary. Most of the subject site is not designated as a 'High-Value Landscape'. However, the area south of the site and the lands surrounding Cork Harbour are designated as 'High Value Landscapes'. Protected Structures are near the site, notably a Martello Tower and Castlewarren Stronghouse to the south. As the proposed development is consistent with existing port activities and structures, which largely define this landscape character, the proposed redevelopment is consistent with the existing land use and developments in this area. The landscape has the capacity to absorb the proposed development without significant impacts.
- 11.1.7. **Traffic & Transportation (Ch.8):** The importation of material for constructing an extension to the Deepwater Berth at Ringaskiddy West, constructing the dry storage area, and constructing the internal road would generate significant additional traffic movements. Chapter 8 findings of the EIAR, which indicate that there will be a negligible impact due to construction traffic, are acceptable to the Council's Area Engineer. TII would be required to comment on the junction design connecting the expanded facility to the M28. A detailed CEMP is required for agreement by the Planning Authority prior to commencement, detailing the scheduling of deliveries and workforce, as well as mitigation measures regarding the suppression of dust and prevention of deposition of materials on the public road network. The Cork National Roads Design Office (NRDO) requests further information and recommends conditions.
- 11.1.8. **Noise and Vibration (Ch.9):** Construction noise impacts would be temporary, transient and managed under the CEMP. The proposed mitigation measures are

acceptable. The Port of Cork has a proactive noise monitoring and management programme in place, with regular quarterly reviews with Cork County Council, which reduces and mitigates noise from the site. The Environment Section has concerns that the 2024 survey does not include any assessment of the ship movements/port activities that impact the existing noise climate. The 2013 and 2014 surveys used are dated. The applicant should review ship movements and port activities during the 2024 survey, assess their impact on reported values and review proposed mitigation measures accordingly.

11.1.9. **Air Quality (Ch.10):** The proposed mitigation measures in the EAIR regarding noise and odour are appropriate but should be reviewed in the context of emerging dust-sensitive receptors.

11.1.10. **Climate (Ch.11):** Implementing the proposed development would not significantly impact the levels of Greenhouse Gases.

11.1.11. **Soils, Geology & Hydrogeology (Ch.12):** No issues raised.

11.1.12. **Coastal Processes (Ch.13):** No issues raised.

11.1.13. **Water Environment (Ch.14):** Regarding stormwater, the Area Engineer report states that the provision of interceptors, connection to existing systems, and upsizing of 525 mm to 750mm outfall in Berth 2, the provision of Class 1 Oil separator and Flap valves, is noted and acceptable for this purpose. Furthermore, the proposal in Ringaskiddy West to extend outfalls is acceptable through the proposed quay wall. Proposals concerning the Ro-Ro Quay linkspan, Container Berth and Dry Storage Area are acceptable. Climate change has led to a 20% increase in rainfall intensities, as indicated in calculations, which is acceptable.

11.1.14. **Marine Ecology (Ch. 15) and Terrestrial Ecology & Ornithology (Ch. 16):** The impacts identified under the original permission PA04.PA0035 are still relevant in the case of the subject application and requires due consideration as part of the subject application assessment. The Ecology Office has concerns about deficiencies in the detailed assessment of potential impacts within the Terrestrial Ecology Chapter of the EIAR and the AA Screening and NIS. Concerns are also raised in relation to the lack of alignment between the various chapters of the EIAR, which should be reflected and cross-referenced in each chapter. For example, the findings of the Noise, Air, Water Environment and Coastal Processes Chapters of the EIAR should be used to

inform the assessments of the Terrestrial Ecology and Ornithology Chapter of the EIAR and the AA Screening and NIS.

Updated habitat and species surveys have been carried out as requested by Cork County Council as part of pre-planning communications. However, there is a limited impact assessment based on the findings of these surveys, and the historic surveys carried out under the original 2014 application (ABP Ref. PA04.PA0035) have been carried out relative to the proposed works involved within the scheme currently before the Commission. The Cork County Council Ecology Office is not in a position to recommend planning conditions as the impact assessment of the proposal is considered limited in extent. The mitigation measures proposed within the Terrestrial Chapter of the EIAR and NIS do not relate to the impact assessments carried out.

11.1.15. **Material Assets (Ch.17):** No issues or objections are raised by the Waste Regulation team and the Area Engineer.

11.1.16. **Interactions & Cumulative Effects (Ch.18):** Chapter 18 of the EIAR would benefit from a dedicated section on mitigation measures and a conclusion, as it is difficult to follow the assessment results.

11.1.17. **Major Accidents & Disasters (Ch.19):** Chapter 19 of the EIAR would benefit from a dedicated section on mitigation measures and a conclusion. It is difficult to follow the results of the assessment.

11.1.17.1. **Overall Comments:**

The Coastal Authority considers that if An Coimisiún Pleanála were minded to seek further information, the following should be sought:

- The Non-Technical Summary should be amended to reflect the sequence of chapters in the main EIAR.
- The Non-Technical Summary should include key likely significant effects, mitigation measures and a conclusion for each chapter.
- All chapters should provide a dedicated section on mitigation measures and a conclusion, as it can be difficult to follow the assessment results.
- The EIAR should prioritise accessibility and clarity, reduce repetition, and use footnotes and cross-referencing.

- Natura Impact Statement - the Ecology Section recommend that An Coimisiún Pleanála seek further information.

11.1.18. **Recommended Conditions**

Appendix A of the Local Authority submission provides a range of conditions for the Commission to consider in the event of a grant of permission. These include conditions recommended by the Cork NRDO regarding port-related HGV traffic and the Sustainable Travel Unit regarding implementing a Ringaskiddy Mobility Management Plan, Construction Management Plan and port operations and limitations until the M28 opens. Other Conditions relate to air, noise, water quality, waste management and archaeology.

11.1.19. **Recommended Further Information**

Appendix B of the Local Authority submission details further information issues for the Commission to consider. These are summarised as follows:

11.1.19.1. ***Ecology Section Recommendations:***

1. Assess the impacts of dredging and piling intertidal and subtidal habitats, the associated risks to habitats and species, and noise-related disturbance to marine mammals and fish.
2. Assess predicted impacts on biodiversity and EU sites on the shoreline within the existing port lands, including loss of terrestrial grassland and scrub habitat and impacts to breeding birds and land mammals, including Otter.
3. Submit detailed method statements for the works to facilitate a more thorough assessment of the likelihood of impacts on biodiversity and EU sites.
4. The EIAR and NIS should consider the potential impacts of dredged material disposal on the environment and EU sites.
5. The EIAR and NIS should include a detailed assessment of predicted noise and vibration impact on relevant ecological receptors, including known roosting and foraging locations of species of conservation interest in the Cork Harbour SPA, breeding birds, and land mammals, including Otters.

6. Submit details of all important roosting and feeding locations and an updated assessment of the predicted impacts of the proposed development on these sites and associated relevant species.
7. Submit an assessment of the potential impact of the proposed development on the colony of terns, which are present within the port area.
8. Include all predicted sources of impact, including those associated with habitat loss, disturbance (including impacts associated with noise, lighting and visual disturbance cues), water pollution risks, and impacts associated with the installation of additional perch opportunities for predators arising from the construction of tall structures (quayside cranes and lighting columns) within the port area.
9. A Marine Ecologist and Fish Specialist should review and assess the Marine Ecology Chapter of the EIAR to inform the Commission's decision.
10. Update and complete the cumulative impact assessment contained in the Natura Impact Statement.
11. The EIAR and NIS should be revised to consider the technical assessments from the EIAR submitted under ABP Ref. PA04.PA0035.
12. Identify the location of the contractor's compound.

11.1.19.2. *Re. The Environmental Impact Assessment Report*

1. Amend the non-technical summary to reflect the sequence of chapters in the main report and include key likely significant effects, mitigation measures and conclusion for each chapter.
2. Each chapter should include a dedicated section on mitigation measures and a conclusion.
3. Reduce repetition and provide cross-referencing and footnotes.

11.1.19.3. *Cork NRDO Recommendations*

1. Clarify the land ownership in the application.
2. To protect surface water drainage from the village through the Port of Cork's retained lands, the applicant should include remediation of the 1.05m stormwater

drainage line in their redevelopment plans through to its outfall. The redevelopment plans should extend the outfall into the sea, elevating it above the seabed to reduce tidal siltation effects and installing a non-return valve at the outfall to prevent seawater backflow during high tides to further mitigate flooding risks in the village.

3. Demonstrate how vulnerable road users in the village of Ringaskiddy can be protected from HGVS accessing the port facilities via the village.
4. Submit revised drawings accurately reflecting the protected M28 road design layout, protecting vulnerable road users at the raised shared-use path crossing.
5. Submit proposed Active Travel measures to link the current facilities under construction with the main ferry terminal to ensure the safety of all vulnerable road users accessing the Port facilities.
6. Submit letters of consent from Cork County Council for works within the lands under CPO for the M28 project.

11.1.19.4. ***Environment Section (Air, Noise and Vibration)***

1. Submit a review of ship movement(s) and port activities that were going on during the 2024 survey, and include an assessment of their likely impact on the reported values from the survey. Noise mitigation measures should be reviewed in light of this assessment.

11.2. **Prescribed Bodies Submissions**

11.2.1. **An Taisce**

- The Commission should assess the proposal against the Marine Strategy Framework Directive, which contains 11 descriptors describing different elements of the marine environment and the requirement to achieve Good Environmental Status (GES). The descriptors include: 1. Biological diversity, 2. Non-indigenous species, 3. Population of commercial fish/shellfish, 4. Elements of marine food webs, 5. Eutrophication, 6. Seafloor integrity, 7. Alteration of hydrographical conditions, 8. Concentrations of contaminants, 9. Contaminants of fish/seafood for human consumption, 10. Marine litter, 11. Introduction of energy, including underwater noise.

- The site is close to the Lough Mahon transitional water body, which has been designated as moderate water quality status by the EPA under the Water Framework Directive (WFD) and is determined to be at risk of not achieving good status by 2027. The proposal should be assessed against Article 4 of the WFD to determine whether the project may cause a deterioration of the status of a surface or groundwater body or jeopardise the attainment of good surface or groundwater status or of good ecological potential and good surface or groundwater chemical status.
- The site is close to the Cork Harbour SPA (Site Code: 004030), which is designated as a European Site due to its abundance of bird species (20,000 wintering waterfowl) and its proximity to an internationally important wetland. The Commission should take into account any potential impacts arising from proposed dredging and construction activity associated with the development of the berths and how this may impact bird roosting, nesting or foraging activity.
- The Commission should evaluate the potential for the proposal to have significant adverse impacts on three pNHAs within Cork Harbour, whose ecological integrity requires preservation for the benefit of habitats and resident species. The three pNHAs are Monkstown Creek pNHA (site code: 001979), Lough Beg pNHA (site code: 001066), and Whitegate Bay pNHA (site code: 001084).
- The applicant's subtidal survey confirms an abundance of subtidal fauna with 1,918 individuals and 99 taxa sampled (p. 325 of the EIAR), and the NPWS site synopsis of Cork Harbour SPA notes the presence of an abundance of macro-invertebrates within mud sediments either close to or overlaying the subject site area. The proposed dredging activity may have an adverse effect on these species due to habitat removal, turbidity and sedimentation effects.
- Mitigation measures should seek to minimise disturbance to these important species as much as possible, given their likely significance as a food source for Qualifying Interest bird species and other marine ecosystem services.
- The applicant's survey found mussel beds throughout or near the site area. Removing them to facilitate the proposal requires full consideration and a clear articulation of remediation measures to reinstate these populations elsewhere if removal is unavoidable, per Article 5 obligations of the Nature Restoration Law.

- The absence of seagrass habitat should be confirmed before proceeding with dredging activity at this location due to the vital role of carbon sequestering and habitat provisioning for this species.
- Regarding the importation of “locally sourced” infill material, biosecurity measures are required to reduce the risk of unintended invasive species introduction and to adhere to the EU Invasive Species Regulation [1143/2014] and EU (Invasive Alien Species) Regulations 2024.
- The sufficiency of the timeframe of the applicant’s Marine Mammal Observer (MMO) survey, carried out in 2024 between 22nd July and 1st August over five days, should be clarified with an entity such as the Irish Whale and Dolphin Group (IWDG).
- Data from the National Biodiversity Data Centre (NBDC) of sightings since 2020 indicates a sizeable number of marine mammals, including Harbour Porpoise, Bottlenose Dolphin, Common Dolphin, Harbour Seal and Grey Seal. There are records of Otters in the area, a protected species under the Wildlife Act. The Commission should consider the stringency of the proposed mitigation measures with regard to impacts on these species.
- Impacts on marine mammals due to underwater noise are classified as Permanent Threshold Shift (PTS) and Temporary Threshold Shift (TTS), both of which impact hearing.
- Regarding underwater noise generated by the activities, the applicant makes an assumption that the animal will flee when exposed to Temporary Threshold Shift (TTS). TTS is considered an injury under the NPWS Irish Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (2014).
- Dolphins, whales and porpoises are listed under Annex IV of the Habitats Directive, and as such, they are strictly protected wherever they occur, including their breeding and resting places. It is submitted that TTS impacts require consideration and mitigation under the requirements of the Habitats Directive.
- Submitted that the prevention of noise-related impacts and injuries is most effective when combining a noise abatement approach with measures such as the use of an Acoustic Deterrent Device (ADD), soft-starts to piling, the use of a Marine

Mammal Observer (MMO), Passive Acoustic Monitoring (PAM), air bubble curtains, etc.

- The proposed development would increase the movement of heavy goods vehicles (HGVs) to and from the port. The Commission should ensure that an up-to-date traffic assessment has been conducted that takes into account the increased activity associated with the facilitation of more vessels and their cargo, as well as wind turbine materials and structures.
- The proposal should provide more detailed environmentally friendly lighting specifications to protect insect life, nocturnal animals, the dark sky cultural resource and human health.
- The EIAR does not detail the colour temperature of the proposed lighting, which is recommended to be below 2,700 Kelvin by dark sky experts such as Dark Sky Ireland.
- The Commission should cross-reference lighting information provided by the applicant with guidance from Dark Sky Ireland, particularly regarding colour temperature, light distribution, illuminance, luminance, colour rendering index, and energy efficiency.
- The submission notes how the Technical Advice Note 16 provided by the Dark Skies Cumbria Project provides a good practice example of suitable industrial lighting within a digestible visual.
- A robust cumulative impact assessment is required for the application due to a sewage discharge point, waste facility and wastewater treatment catchment area all being immediately visible on the Marine Atlas mapping tool and its implications for potential contamination of the seabed material to be dredged in combination with potential agricultural runoff upstream in the wider catchment area and the nutrient enrichment this may entail.

11.2.2. Commissioners of Irish Lights

- Advise that construction lighting or shore-based operation lighting must not interfere with existing Aids to Navigation.

- The existing Aid-to-Navigation lighted beacon located at the port side of the Ringaskiddy basin entrance, West of Oyster Bank, would need to be disestablished and moved to a new location.
- The Local Lighthouse Authority, i.e. Port of Cork, should review the Aids to Navigation required for the proposed development.
- The Local Lighthouse Authority must obtain statutory consent from the Commissioners of Irish Lights for any changes to existing aids to navigation or removal of aids that may no longer be required. This consent is required prior to the commencement of associated works.
- Given that the proposal involves dredging, consent from Irish Lights would be required if turbidity monitoring were needed to monitor water quality. Any such consent must be in place before such works are laid or recovered.
- Any Appropriate Assessment or Screening for AA should consider the potential impact of deploying surface marking buoys and associated moorings, which may be required as part of the development.

11.2.3. Development Applications Unit - Dept. of Housing, Local Government and Heritage

- The intensity of maritime activity in and around Cork Harbour throughout history 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, with a higher potential for encountering archaeological material.
- The proposed dredge pockets have been subject to previous archaeological surveys, whether geophysical, intertidal, dive, or a combination of these. These surveys have identified no archaeological material within the proposed dredge pockets.
- The historic disposal site has been subject to repeated investigations since the late 1990s. Geophysical surveys have indicated that it has been largely unchanged despite the significant amounts of material dumped on the site.

- Two records on the WreckViewer are located in the northwest corner of the disposal site, though repeated geophysical surveys have indicated that these anomalies are likely natural in origin. Another geophysical anomaly has been identified just over 100m outside the site's northern boundary.

11.2.4. The Development Applications Unit broadly concurs with the proposed mitigation measures as set out in Chapter 6 of the submitted EIAR. Recommended Conditions are summarised as follows:

1. All recommendations and mitigation measures as set out in Chapter 6 of the EIAR shall be implemented in full.
2. A Project Archaeologist shall be appointed to oversee and advise on all aspects of the Project.
3. An Underwater Archaeological Impact Assessment (UAIA) report shall be submitted to the Department of Housing, Local Government and Heritage for review and approval before all geotechnical investigation works occur. The UAIA shall include the results of the geophysical survey data interpreted by a suitably qualified and experienced maritime archaeologist. The geophysical surveys, dive surveys and detection devices shall be licensed under the National Monuments Acts 1930-2014. A final UAIA report shall be submitted to the Department for review and approval before undertaking any geotechnical works. This shall contain a detailed Archaeological Impact Assessment that addresses all identified or potential impacts on underwater cultural heritage, including on historic wrecks, archaeological objects, submerged palaeo-landscapes, sites and features, and shall also make recommendations on measures to avoid (through the institution of Archaeological Exclusion Zones) or, where necessary, mitigate (by archaeological dive surveys/archaeological test excavations/archaeological geophysical surveys/archaeological monitoring/preservation by record or any other means as recommended by the Department) all potential/identified impacts and effects on underwater cultural heritage.
4. After completing all geotechnical works, the Developer shall furnish the Project Archaeologist with the results of all site investigation works and provide access to site investigation cores and physical samples for archaeological and geoarchaeological review by a qualified geoarchaeologist. Following the

completion of all geotechnical and archaeological works and any necessary post-excavation specialist analysis, the Department shall be furnished with a final archaeological report describing the results of the works. Compliance with this condition requires a formal written statement from the Department to MARA/An Bord Pleanála (now An Coimisiún Pleanála) approving the geoarchaeological report.

5. The final detailed design for the development shall be the subject of an underwater archaeological impact assessment (UAIA), which shall be submitted to the Department for review and approval before any seabed preparation or construction work commences.
6. Archaeological monitoring shall be undertaken by suitably qualified and experienced archaeologists licensed under Section 26 of the National Monuments Act 1930. As part of the archaeological licence application, a finds retrieval strategy, including metal detection, shall be implemented and agreed upon with the department. Maritime archaeologists shall be in place to ensure continuous archaeological monitoring works, including 24-hour archaeological monitoring of construction activities.

A communication strategy shall be implemented that facilitates direct archaeological monitoring of all construction activities that impact the seabed/intertidal zone and/or underwater cultural heritage and provides the archaeologists with adequate notice (minimum eight weeks) of all forthcoming works that require the archaeologist's attendance.

The monitoring archaeologist shall be authorised by the Developer to suspend all construction activities on the affected area should suspected/verified underwater cultural heritage material be identified.

The Developer shall undertake any mitigating action required by the Department. Following the completion of all archaeological works and any post-excavation analysis, the Planning Authority and the Department shall be furnished with a final archaeological report describing the results of all archaeological monitoring and any archaeological investigative work/excavation required.

7. The CEMP shall be updated to include the location of all archaeological or underwater cultural heritage constraints relevant to the proposed development as set out in the Final Design UAIA and EIAR.

11.2.5. Dept. of Transport – Marine Survey Office

11.2.6. The Marine Survey Office (MSO) of the Department of Transport has no objections to the proposed development. Recommended conditions are summarised as follows:

1. The Licensee shall ensure all appropriate measures are taken for the duration of any on-site activity to maintain the safety of navigation.
2. The Licensee shall, through consultation and agreement with the Department of Transport, Marine Survey Office and Commissioners of Irish Lights, arrange for the publication of a Marine Notice through the Maritime Safety Policy Division.
3. The Port of Cork shall publish a Local Notice for Mariners at each stage of the planned redevelopment.
4. The promulgation and frequency of Navtex and radio broadcast warnings shall be agreed in advance with the Irish Coast Guard for the duration of the license period.
5. The marking and lighting of any moored instruments shall be carried out in consultation with the Marine Survey Office and Commissioners of Irish Lights. Lighting and marking shall comply with International Association of Aids to Navigation (IALA) requirements.
6. In advance and throughout the consent period, the applicant shall inform the United Kingdom Hydrographic Office of any activities or establishment of structures that may impact the safety of navigation, as well as the provision of bathymetry data at development and dumping locations, so that appropriate navigation charts can be updated.
7. The Licensee, on completion of construction and before the commissioning of the development, shall carry out a full site survey to provide a comprehensive register of structures and changes to the maritime user area, including bathymetry data as well as the provision of bathymetry data at development and dumping locations, so that appropriate navigational charts can be updated.

8. All vessels engaged in the proposed development shall conform to Irish Certification standards and be manned by suitably qualified personnel.
9. The Licensee shall, where any concerns arise related to activities of third parties that may delay or disrupt the development, immediately inform the MSO and local An Garda Síochána.

11.2.7. Health and Safety Authority (HSA)

11.2.8. The HSA does not advise against granting permission in the context of Major Accident Hazards.

11.2.9. Inland Fisheries Ireland (IFI)

11.2.10. While Inland Fisheries Ireland (IFI) recognises the strategic economic and social importance of the proposed development, losses arising from the project would include:

- The removal of an existing mussel bed and intertidal area.
- The permanent loss of c. 3 hectares of fish, crustacean feeding, and nursery grounds.
- The permanent reduction in fishing opportunities in Cork Harbour due to the dredging of shellfish habitat.
- The dredging phase would disrupt local fishing opportunities. IFI requests that dredging be prohibited during the draft net salmon season.

11.2.11. IFI considers that appropriate counterbalancing measures must be implemented to offset the substantial and permanent habitat loss that would result if the development proceeds. IFI recommends the following condition in the event of a grant of permission:

- The total loss to fisheries resulting from the works shall be quantified within a six-month period, and appropriate counterbalancing measures shall be agreed upon between the applicant and IFI so that no loss of fisheries occurs as a result of the development. This agreement shall be finalised within an 18-month period.

11.2.12. **Maritime Area Regulatory Authority (MARA)**

- The project's onshore infrastructure (terrestrial) area above the high-water mark (HWM) is not within MARA's functions. Therefore, MARA's comments do not refer to any element of the project above the HWM.
- MARA supports the delivery of projects of strategic importance, including port development, as per the overarching policies of the National Marine Planning Framework (NMPF) and specifically the policies in Chapter 18 relating to 'Ports, Harbours and Shipping'.
- A Marine Area Consent (MAC no. 2023-MAC-004) was granted to the Port of Cork Company for the proposed development.
- The permitted maritime usage is 'capital dredging of berths at Ringaskiddy East and West, including capital dredging of the approaches to the Ringaskiddy West berth extension, for a term of 11 years with a commencement date of 06th February 2025.
- The terms of the development permission should be consistent and aligned with the requirements of the MAC.
- MARA is not a development consent authority and does not have the remit for assessing and evaluating matters concerning the development consent application.
- Any conditions in the development consent for future agreement that may require planning and environmental assessment should be referred back to An Coimisiún Pleanála, the relevant consent authority, for agreement.
- MARA is responsible for compliance and enforcement. The enforcement function of MARA lies within the maritime area only and does not extend above the HWM. The Coastal Planning Authority has the enforcement function of any particulars relating to permitted development above the HWM.
- Where development consent requires monitoring at both the construction and operational phases of the development, such monitoring should be adaptive in nature to allow for mitigation of issues identified during the monitoring.

- In the event of a grant of permission, a 'Mitigation Schedule' and 'Monitoring Programme' should be agreed with An Coimisiún Pleanála and shared with MARA.
- The development assessment should include monitoring the construction, operational, and maintenance activities where relevant, within the spatial extent of the MAC area, and over the full term of the project.
- The developer should make all monitoring data publicly available to support and inform future plans and projects.
- Under Section 96 of the Maritime Area Planning Act 2021, the holder of a MAC shall, before the expiration (if any) of the MAC, rehabilitate that part of the maritime area subject to the MAC and any other part of the maritime area adversely affected by the maritime usage of the subject of the MAC.
- A Rehabilitation schedule should be submitted detailing the following:
 - (a) The proposed programme of rehabilitation.
 - (b) The proposed start and implementation date,
 - c) The estimated costs of the programme,
 - d) The expected timelines for applying for and obtaining the other authorisations.
- The Commission's decision to allow any installation, structure, or parts thereof, to remain on the seabed, should consider the following matters;
 - Any potential effect on the safety of surface or subsurface navigation or of other uses of the maritime area;
 - The rate of deterioration of the material and its present and possible future effects on the marine environment;
 - The potential impact on the marine environment, including living resources;
 - The risk that the material will shift from its position at some future time;
 - The costs, technical feasibility, and risks of injury to personnel associated with the removal of the installation or structure;
 - The determination of a new use or other reasonable justification for allowing the installation of a structure or parts thereof to remain on the seabed.

- Under Section 97 of the Maritime Area Planning Act 2021, MARA may require a MAC holder to make an application under Section 86, where the rehabilitation or planning rehabilitation schedule is no longer appropriate due to technological developments, changes in best practice, submissions and recommendations from relevant parties.

11.2.13. **Transport Infrastructure Ireland (TII)**

- TII highlights the proposal's intrinsic role associated with the wider national roads network and the implementation and delivery of the M28, which is essential for servicing the EU Core Ten-T network.
- Given the strategic nature of the proposal, TII is of the opinion that any decision by An Coimisiún Pleanála would be premature, pending giving TII an appropriate opportunity to evaluate this current proposal in detail.
- TII became aware of the application by notice from Cork County Council.
- Several issues are associated with the design and infrastructure elements of the M28, which are within the red-line boundary of the application site and need to be carefully examined and addressed.
- TII highlights the Authority's previous submissions associated with ABP Ref PA04.PA0035, as amended by ABP Ref PM04.PM0010, and advises that the following conditions remain applicable:
 - Pending the completion of the N28 and Dunkettle road schemes, throughput at the permitted Ringaskiddy port facility shall be limited to 322,846 TEU. Prior to the commencement of operations at Ringaskiddy East, the developer shall submit proposals for monitoring compliance with this limit for the written agreement of the Planning Authority.

Reason: In the interests of clarity and to ensure that the capacity of the existing road network is not exceeded.

- Phase 3 of the proposed development (provision of linkspan bridge and use of the berth to accommodate roll-on/roll-off freight traffic) shall not become operational until the N28 and Dunkettle road upgrade schemes are completed. Pending the completion of the road upgrade schemes, the container / multi-purpose berth 1 shall be modified for use for containers and general cargo as

shown on the drawings submitted to the Commission on 20th July 2016, as amended by drawings received on 16th December 2016.

In the interests of clarity, a condition related to ABP Ref PM04.PM0010 superseded Condition number 4 attached to ABP Ref. PA04.PA0035.

Reason: In the interests of orderly development and to minimise traffic congestion on the road network prior to the coming into operation of these schemes.

11.3. Third Party Submissions

11.3.1. Third-party submissions were received from the following:

- Robert J McLaughlin
- Irish Whale and Dolphin Group
- Pfizer Ireland Pharmaceuticals Unlimited Company

11.3.2. Issues raised in the submissions are summarised below accordingly.

11.3.3. Robert J. McLaughlin

- The existing development of Ringaskiddy deep water berth causes continuous light pollution affecting Monkstown village. This light pollution is caused by deck lighting, flood lighting on ships, port lighting and quayside lighting, which is exacerbated by reflection off the water. The proposed extension will only exacerbate the problem.
- The Commission should ensure the appropriate lighting location and protocols to prevent the doubling of illumination.
- Noise is a significant problem in Monkstown and Ringaskiddy, caused by ships' engines, generators, fans and equipment.
- There is no noise monitoring or protocols in place.
- Dust pollution is a significant issue which should be considered and controlled by the Commission.

11.3.4. Irish Whale and Dolphin Group (IWDG)

- The EIAR does not mention the resident population of bottlenose dolphins in Cork Harbour, as identified by the NPWS in 2025.
- Recent sightings of bottlenose dolphins were reported to the IWDG in May, July, September and October 2024.
- Sightings of bottlenose dolphins and harbour porpoises have been recorded many times in Cork Harbour, tending to occupy the area in the mouth of the harbour but occasionally travelling up into the harbour proper in the vicinity of the proposed development, where they may be subject to construction and blasting noise.
- Bottlenose Dolphins and Harbour Porpoise are listed under Annex IV of the Habitats Directive as European Protected Species and Annex II of the Directive as species of Community Interest.
- Due to the proximity of a harbour seal haul-out site to the proposed works area, the application proposes using an Acoustic Deterrent Device (ADD) transmitting loud (170-200 dB), mid-frequency sound from the site to the surrounding waters. This would be contrary to the DAHG (2014) Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters, which does not allow for the use of ADDS as a mitigation method.
- The proposed use of Passive Acoustic Monitoring (PAM) is ambiguous and contrary to the DAHG Guidelines (2014), implying the desirability of using two Marine Mammal Observers (MMOs) and a PAM operator, but then saying the PAM operator will be employed if the weather conditions are unfavourable for visibility or if the pile driving is to occur at night-time.
- DAHG Guidelines (2014) state that '*Pile driving activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible the sound-producing activities shall be postponed until effective visual monitoring is possible*'.

- No underwater noise modelling for piling or blasting or the use of ADDs has been carried out in the EIAR, and Noise Abatement Systems (NAS) have not been considered.
- Using bubble curtains effectively reduces received noise in the environment (Lucke et al., 2011; Wursig et al., 2000).
- The IWDG strongly recommends the use of NAS with appropriate noise modelling, including the use of ADDs.
- Underwater noise guidance currently operating in Ireland (DAHG, 2014) is outdated and undergoing review by NPWS. This creates difficulty for the application as the current guidance does not allow the use of ADDs or PAM.
- The IWDG recommends that acoustic modelling be carried out to include Noise Abatement Systems and Acoustic Deterrent Devices. This would likely result in a reduced mitigation zone for piling and reduced delays caused by seals while also reducing unnecessary propagation of noise in the marine environment.

11.3.5. Pfizer Ireland Pharmaceuticals Unlimited Company

- For many years, dust (or particulate matter) emissions from the Port of Cork have impacted the pharmaceutical manufacturing operations at Pfizer Ringaskiddy, requiring Pfizer to pause operations to replace air filters and clean the facility, and attend to Pfizer staff cars that have been coated with dust.
- The impact of dust coming from the port facilities is increasing both the risk and operating costs for Pfizer Ringaskiddy and creating a nuisance for staff, who park their cars onsite.
- In the last year, Pfizer has recorded 27 incidents of the site being dusted by the Port's activities at the Deep Water Berth at Ringaskiddy West.
- Activities creating the dusting conditions can include the bulk offloading of various products, poor housekeeping practices, and a lack of oversight of the Port's tenants' activities.
- Pfizer staff have complained about grit in their eyes and breathing difficulties during dusting events.

- Dust abatement controls by the Port of Cork have not successfully prevented dust from impacting Pfizer Ringaskiddy.
- Pfizer requests the imposition of stronger, more effective conditions because the Port's current dust minimisation plan, on-site monitoring, and implementation of controls have not been effective to date.
- The EIAR acknowledges in its air quality assessment that "during the operational phase, discharges to the air will be in the form of... ongoing dust from bulk grain handling at the Deep Water Berth (DWB) at Ringaskiddy West". Notwithstanding this admission of ongoing dust emissions from its operations, the Port intends to continue its current method of handling cargo.
- Section 3.2 of the EIAR rejects alternatives such as closed conveyor systems. This is unacceptable and puts Pfizer Ringaskiddy's operations at risk.
- The application fails to mention the history of the Port's dust emissions impacting Pfizer Ringaskiddy or Pfizer's numerous complaints of dust emissions to the Port.
- During Pfizer's meetings with the Port of Cork, the Port acknowledged that it has the general duty to manage its operations in a way that does not adversely impact neighbouring facilities.
- Section 12(1) of the Harbours Act 1996, as amended, requires the Port to "*regulate operations within its harbour*" and "*have due regard to the consequences of its activities on the environment, the heritage (whether natural or manmade) relating to its harbour and the amenities generally in the vicinity of the harbour.*"
- Pfizer requests that An Coimisiún Pleanála impose conditions for controlling dust emissions.
- The conditions previously imposed on conditions nos. 9 and 10 to permission ABP Ref. PL04. PA0035 for agreement with the planning authority of "proposals for the suppression of dust" and a related monitoring programme was neither sufficient nor effective.
- Pfizer requests that the Commission impose a condition for "controlling emissions from the operation of the activity, including the prevention, elimination, limitation, abatement, or reduction of those emissions." Specifically, the Port should not be allowed to continue its operations at Ringaskiddy West when the weather conditions create dust emissions that impact Pfizer Ringaskiddy.

- Alternatively, Pfizer suggests that the Port should be required to relocate these bulk offloading and handling operations to another area of the Port where any dusting would not impact the Port's neighbours.
- The application does not require a licence from the EPA. Therefore, the provisions of Section 293(5) of the Planning and Development Act, 2000 (as amended), "controlling, preventing or limiting emissions resulting from the activity "do not apply to the application.
- The Commission is referred to section 34(4)(c) of the Planning and Development Act 2000, as amended, where a condition may be imposed for measures to reduce or prevent "*reasonable cause for annoyance either to persons in any premises in the neighbourhood of the development or to persons lawfully using any public place in that neighbourhood*".

11.4. Applicant's Response

- 11.4.1. On behalf of the Port of Cork Company, McCutcheon Halley Planning Consultants submitted a detailed response to the submissions received from prescribed bodies and third parties. The applicant's response addresses the key issues raised in each submission, which are summarised under the headings below.
- 11.4.2. At the outset, the applicant states that the ongoing expansion of Port of Cork facilities at Ringaskiddy is being delivered under a Strategic Infrastructure Development permission granted by An Coimisiún Pleanála in 2015 (ABP Ref. PA04.PA0035), which is due to expire on the 21st October 2025. The applicant submits that the current application is effectively a resubmission of the original application for works yet to be completed. As the current decision date has been deferred by the Coimisiún to 31st October 2025, which is past the expiry date of the previous permission, the Port of Cork Company will be required to halt all construction works in relation to this development until a decision by the Coimisiún has been issued. The applicant states that this will cause a direct interruption to construction works and delay the completion of nationally significant port infrastructure. In this context, the applicant submits that a timely determination of the application is necessary to ensure continuity of permitted works and to avoid further procedural or construction delays.

11.4.3. Response to Cork County Council's submission

11.4.3.1. *Re. Terrestrial and Marine Ecology:*

- The Marine Ecology chapter of the EIAR provides a comprehensive assessment of the potential impacts of underwater noise on marine species, particularly in relation to pile driving activities.
- The EIAR acknowledges that pile driving can produce high-intensity, broadband impulsive sounds capable of causing behavioural and physiological effects on marine fauna.
- The assessment references established thresholds for Temporary Threshold Shift (TTS) and Permanent Threshold Shift (PTS) based on the criteria outlined by Southall et al., 2019. It considers the hearing sensitivities of relevant marine mammal groups, including high-frequency cetaceans (e.g., bottlenose and common dolphins), very high-frequency cetaceans (e.g., harbour porpoise), and phocid pinnipeds (e.g., grey and harbour seals).
- Regarding the 'limited impact assessment' within the Terrestrial Ecology Chapter and the 'deficiencies of detail' identified by Cork County Council, the applicant submits that the site is an industrial site with limited habitat value, and the level of detail in the Terrestrial Ecology Chapter is structured accordingly.
- Impacts to ornithology and habitat impacts are detailed on pages 422, 423 and Table 16-23 of the EIAR.
- Regarding cross-chapter referencing/consistency, all EIAR chapters have a common format. However, they are prepared by separate specialists and vary slightly in approach.

11.4.3.2. *Re. Birds & Marine Mammals:*

- General mitigation measures for mammals and birds are referenced in the NIS and the Terrestrial Biodiversity Chapter 16 of the EIAR (pg. 426). They are not specific to any known breeding/foraging locations. However, they apply equally to noise measures, surface water protection, and avoidance of direct disturbance to habitats.

- Potential impacts to Common Tern are addressed in the NIS and mitigated for as an SCI species of Cork Harbour SPA. Colony-specific data in the port are not presented as the mitigation measures are deemed adequate to manage at the population level.
- Habitat loss/disturbance and water pollution risks (apart from dredging) are mentioned in the NIS/Biodiversity chapter for terrestrial ecology.
- The applicant agrees to provide additional mitigation measures to limit perching opportunities. Predator deterrents for gulls and herons will be installed on any new lighting columns.
- The pNHAs are referenced in the Biodiversity chapter and assessed in the documentation submitted. The protective measures that apply to Cork Harbour SPA also apply to these habitats as they are in the 15 km ZOI for impacts.
- These designated areas' qualifying interests (habitats/species, etc.) have not been surveyed due to inaccessibility, access and safety issues. Surveying would cause significant disturbance to these habitats.
- Although locations at Monkstown Creek and Pfizer shoreline were not specifically cited in the Breeding Bird Report and the NIS/Biodiversity chapter, the general protective measures for birds in the NIS and Biodiversity chapter apply to these areas equally.
- Common Tern nesting habitat improvements and associated mitigation measures are not proposed. However, no disturbance to existing Tern nesting areas is anticipated.

11.4.3.3. ***Re. Cumulative Impacts:***

- The assessment has been undertaken in accordance with the EU Guidance on Article 6(3) and (4) of the Habitats Directive (2021/C 437/01).
- Cumulative impacts are addressed, where relevant, at the end of each chapter of the EIAR, along with associated mitigation measures.
- No significant cumulative impacts have been identified, although a positive interaction with the M28 project is noted and is addressed in the Traffic and Transport chapter.

11.4.3.4. **Re. Noise and Vibration:**

- Consideration of 2014 noise data/modelling is appropriate/justified given the validation of the data in 2024 by an updated attended noise survey in 2024, as detailed in Chapter 9 of the EIAR (pg. 198).
- A Typical Noise survey of Ferry and Container Vessels is detailed in Section 9.2.5.1 of the EIAR (pg. 200).
- Marine and Noise impact on marine species, breeding birds and land mammals are considered in mitigation measure TEO_33.
- Terrestrial and Marine Ecology are two distinct, separate themes within the EIAR.
- Marine Noise is addressed in Section 15.5. and Marine Specific Mitigation Measures are detailed on Page 361 of the EIAR.
- Ship movement/port activities, where audible, are detailed in column V of the EIAR Vol IVa Appendix 4.4 2024 Baseline Noise Monitoring Comparison.

11.4.3.5. **Re. Air Quality and Dust:**

- The applicant agrees with the requirement of commitment by the Port of Cork Company to ongoing monitoring and mitigation review for dust-sensitive receptors.
- An Environmental Management System (EMS) was required to be submitted to Cork County Council on foot of Condition 9 of ABP Ref PA00035, including proposals for the suppression of dust and a monitoring programme for 'all relevant environmental parameters (including noise, dust and surface water'. In response, an Operational Environmental Management Plan (OEMP) was submitted to Cork County Council and agreed on 9th December 2021.
- The OEMP included the following in relation to dust:
 - A Dust Minimisation Plan: Dust would be minimised at the Cork Container Terminal by adhering to regular road cleaning and sweeping, using water bowzers in dry weather to dampen dust, mandatory speed limits throughout the Terminal and the use of dust suppression systems for bulk discharges.
 - Emission and Dust Monitoring: Daily visual dust monitoring through inspections by the Terminal Manager. Dust deposition monitoring would occur at least twice

a year, per VDI 2119: Measurement of Dust Using a Bergerhoff Dust Deposition Gauge. The applicant agrees to a similar condition being applied to the proposed development and will submit an updated EMS report if permission is granted. A Construction and Environmental Management Plan was agreed with the Council under Condition 10 of ABP Ref PA00035, which included proposals for the suppression of dust on site, monitoring of noise, vibration and dust, etc. during the construction phase.

11.4.3.6. *Re. Waste Regulation:*

- The applicant notes the Council's comments regarding the Resource Waste Management Plan and Waste Management Plan, and that reuse of dredge material will be subject to satisfactory testing.

11.4.3.7. *Re. Road Conflicts / CPO lands:*

- The applicant acknowledges the M28 Protected Road design amendment from two lanes to one lane and confirms that access to M28 CPO lands is not required.
- The applicant intends to integrate the proposed internal road network with the finalised design/built form of the M28 protected road.
- No Active Travel measures link the proposed internal road development to the M28.

11.4.3.8. *Re. Sustainable Travel Unit:*

- The applicant completed an internal road network under the previous permission PA04.PA0035, which removed port traffic from the village.
- Cork County Council / TII have progressed the public realm scheme, including narrowing the Port's eastern entrance.
- The proposed development includes a connection to the M28 scheme without provision for pedestrians/cyclists.

11.4.3.9. *Re. Archaeology:*

- The applicant refers to the mitigation measures in Section 7 of the submitted Underwater Archaeology Impact Assessment.

11.4.3.10. **Re. Stormwater Drainage Infrastructure:**

- The 1.05m stormwater drainage line is in the ownership of Cork County Council with wayleave through the applicants' lands. The drainage line is not within the site of the proposed development.
- The proposed development includes stormwater drainage through separate stormwater outfalls previously permitted under a Foreshore Lease, which do not impact the Council's drainage line.
- Plant and equipment for the proposed works are not appropriate for the remedial works proposed by the NRDO to the Council's drain.
- The proposal would not interact with the stormwater drainage outfall through the Port lands or impact the Drainage Strategy developed by Cork County Council.

11.4.3.11. **Re. Water:**

- All stormwater drainage of the proposed development will include interceptors prior to discharge through outfalls as consented.

11.4.3.12. **Re. Dredging Disposal Impact:**

- There are no European sites in the vicinity of the disposal site (the nearest adjacent being over 15km away).
- Recorded wreck sites in the vicinity of the site are shown in Chapter 5, Fig. 9, page 116 of the EIAR.
- Impacts to Coastal Processes due to dredged material disposal are addressed in Chapter 13, pgs. 272-273 of the EIAR.

11.4.3.13. **Re. Biodiversity Impacts - Intertidal and Subtidal Habitats:**

- A risk assessment for intertidal and subtidal Biotypes is shown in Table 15.3 of Chapter 15 of the EIAR.
- Seabed habitat loss is shown as a potential impact in Table 15.5.

- Sensitivity to the dredging is shown on page 158 of the EIAR.
- Intertidal and subtidal impacts are likely to be felt locally but not within the Cork Harbour SPA.
- Regarding the NIS, subtidal habitats are not a QI or an SCI of the Cork Harbour SPA.
- Impacts to intertidal habitats are presented in the NIS on pages 30, 35, 42, 45 and are mainly of significance to the Great Channel Island SAC as a result of the dredging.

11.4.3.14. **Re. Biodiversity Impacts – Shoreline Works and Port Lands:**

- The EIAR Terrestrial Chapter identifies tree protection measures (pg. 429).
- Grassland is deemed very minimal from a terrestrial point of view, and any area with grass species is mainly contained in sparsely vegetated recolonising bare ground, which is not of high ecological significance.
- Noise, surface water impacts, details on storage of machinery and measures to protect otters are included on pg. 428.
- There are no EU sites in the vicinity of the dredge disposal site.
- Dredging operations are dealt with in Chapter 17 pg. 440-442 of the EIAR and as part of a Dumping at Sea (DAS) permit application.
- The potential for cumulative impacts from multiple clients using the dumpsite is acknowledged on pg. 446 of the EIAR.

11.4.3.15. **Re. Construction Method Statement:**

- A Construction Management Plan for all proposed works can be submitted prior to the commencement of development. This would enable a thorough assessment of potential impacts on biodiversity and EU sites and ensure that effective mitigation measures can be appropriately evaluated.

11.4.3.16. *Re. Integration of EIS Technical Assessments:*

- Technical Assessments for the EIS under PA04.PA0035 are included in the relevant chapters, and data and modelling outcomes are partly relied upon as referenced. The EIAR reviews and updates these data where necessary.

11.4.3.17. *Re. Contractor's Compound Location:*

- The location and full details of the contractor's compound can be included within the submission of a Construction Management Plan (CMP) prior to the commencement of development.

11.4.3.18. *Re. Land Ownership and Redline Boundary Discrepancies:*

- Drawing No. 24462-MWP-02-ZZ-DR-C-5000-P04 has been updated to include the recent land transfers, including the M28 CPO.

11.4.4. Response to the Department of Housing, Local Government and Heritage

11.4.4.1. *Re. Underwater Archaeology:*

- The applicant confirms commitment to implementing the mitigation measures set out in the EIAR.
- The design and layout of the scheme remain unchanged from the previously permitted development (SID ABP PA04.PA0035, as amended).

11.4.4.2. *Re. Archaeological Monitoring and Recording:*

- The applicant confirms commitment to implementing the mitigation measures in the EIAR, and notes that engagement with the National Monuments Service is ongoing.

11.4.4.3. *Re. Final Design:*

- The UAIA was completed in 2024 by Mizen Archaeology and will be updated as appropriate for all seabed preparation works and submitted to the Department for formal approval.

11.4.5. Response to the Department of Transport

The applicant acknowledges the comments.

11.4.6. Response to Transport Infrastructure Ireland

- The applicant acknowledges the continued compliance with the PA04.PA0035 condition.

11.4.7. Response to An Taisce

- **Re. Marine Strategy Framework Directive:** The applicant acknowledges the comments related to the MSFD and considers that sufficient information is contained within the EIAR to enable the Competent Authority to determine and assure good environmental status if deemed appropriate by the Commission.
- **Re. Water Framework Directive:** The WFD assessment is included in Vol IVa-2 Appendix 7.1.
- **Re. Birds Directive / Cork Harbour SPA:** Impacts on bird activity, including habitat degradation, fragmentation and disturbance, are detailed on pgs. 422, 423, 424 of the EIAR.
- **Re. pNHAs:** The potential for significant adverse impacts on sensitive habitats and species within the Cork Harbour SPA is addressed in the NIS.
- **Re. Dredging Activity:** Risk to subtidal fauna and mussel beds is evaluated by dropdown video (Chapter 15 Section 15.3.2.3), and reinstatement is detailed in Chapter 15, page 369 (ME55) and page 358 para. 3.
- **Re. Sea Grass Impact:** No seagrass is present, as confirmed by the dropdown video assessment in Chapter 15 of the EIAR.
- **Re Biosecurity:** The risk of invasive species introduction from ship ballast water is an operational issue no greater than that of the existing operation and is therefore considered pre-existing development.
- **Re. Ecological Surveys:**
 - The summer months are the peak months for marine mammal activity in Irish waters. During this period, species such as bottlenose dolphins, harbour

porpoises, and minke whales are more frequently observed. Conducting surveys during these months increases the likelihood of detecting these species, thereby providing relevant data for the EIAR.

- A five-day Marine Mammal Observer (MMO) survey conducted in the Ringaskiddy area during the months of July and August is considered sufficient to inform the marine biodiversity chapter of the Environmental Impact Assessment Report (EIAR), based on the seasonal occurrence patterns of Annex II marine mammal species in Irish coastal waters.
- During this period, key species such as the harbour porpoise (*Phocoena phocoena*) and bottlenose dolphin (*Tursiops truncatus*), which are both protected under Annex II of the EU Habitats Directive, are known to be present and active in Irish waters, with elevated nearshore activity often recorded in summer months.
- While present year-round, harbour porpoises exhibit increased detectability in calm sea conditions, which are more likely during mid-summer, thereby enhancing survey effectiveness.
- Bottlenose dolphins, particularly those associated with coastal populations such as in the Shannon Estuary, frequently range along the southwest coastline, including Cork Harbour, and are often observed in the July–August window (NPWS, 2019).
- Although grey seals (*Halichoerus grypus*) and harbour seals (*Phoca vitulina*) breed at different times of year, both species maintain a year-round haul-out presence.
- Grey and harbour seals are regularly observed in southern coastal areas such as Cork. Their presence can be adequately assessed during the proposed survey window.
- Given the relatively localised spatial scope of the development and the survey's alignment with peak periods for marine mammal presence and favourable weather conditions, the 5-day MMO effort is methodologically appropriate and ecologically representative.

- The survey data were supplemented with existing records of marine mammal presence in the area to provide a more comprehensive assessment over a longer temporal scale.
- ***Re. Marine Mammals:***
 - As of May 2025, the principal official guidance for marine mammal mitigation in Ireland is the “Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters” (2014), published by the NPWS.
 - This guidance document informed the mitigation measures for the Marine Biodiversity chapter of the EIAR due to its status as the primary regulatory framework in Ireland for addressing underwater noise impacts on marine mammals.
 - This guidance outlines standardised protocols, such as the deployment of qualified MMOs, implementation of pre-start monitoring periods, establishment of exclusion zones, and utilisation of soft-start procedures, that are designed to minimise the risk of injury or disturbance to marine mammals during activities like pile driving, dredging, and seismic surveys.
 - Adhering to these measures ensures compliance with Ireland’s obligations under the EU Habitats Directive, which mandates strict protection for cetaceans and other marine mammals.
 - As mentioned in the EIAR, ACCOBAMS 2022 guidance on underwater noise mitigation measures was also referenced to provide more up-to-date guidance and measures.
- ***Re. Traffic Impact Assessment:***
 - The applicant refers to the traffic assessment report in Vol. IV of the EIAR.
 - Road Safety Audits will be conducted as required for the internal road network element of the proposed development.
- ***Re. Artificial Lighting:***
 - The applicant confirms commitment to minimising the impacts of light pollution as detailed in the EIAR, but emphasises the operational and navigational safety requirements for a Port facility.

- The applicant acknowledges the industrial lighting examples but notes that operational restrictions require the proposed high mast lighting.
- ***Re. Cumulative Impacts:***
 - Cumulative impacts are addressed in Chapter 18, pages 450 – 466 of the EIAR.
 - The potential for cumulative impacts from the sewage discharge point, waste facility and wastewater treatment plant was ruled out on the basis that emission limit values are specified in their consent licence to ensure no significant impact on the receiving waters.
 - Cork Harbour is failing to achieve its water quality objective of 'good ecological potential' in dissolved inorganic nitrogen levels (DIN), chemical pollution and the conservation status of Cork Harbour SPA. This is discussed in Chapter 14 pg. 302 of the EIAR.
 - The port activities are not identified as a source of DIN pressures, and there will be a dedicated stormwater management system for the development. As a result, cumulative impacts for DIN are ruled out.
 - DIN pressures in the Harbour are mainly due to wastewater discharges and urban run-off.
 - Contamination levels in dredge material are assessed in Appendix 7.3 Sediment Analysis and pg. 206 of the EIAR.
 - Tributyltin (TBT) levels are compliant with guideline values for sediment quality guidelines.

11.4.8. Response to the Commissioner of Irish Lights

- The applicant will ensure that construction lighting or shore-based operational lighting will not interfere with existing Aids to Navigation.
- Statutory Consent will be sought for changes/removal of existing Aids to Navigation, including the port-side lighted beacon at Ringaskiddy basin entrance.
- The currently sanctioned turbidity monitoring buoys will be redeployed for the dredging associated with the development, and statutory consent will be sought from the Commissioners of Irish Lights before redeployment.

11.4.9. Response to Inland Fisheries Ireland

- ***Re. Fisheries Losses:***

- The proposed dredge areas are within the Ringaskiddy Port basin, in which no commercial /amenity fisheries operate/are permitted, and the majority of the proposed capital dredge area has been historically dredged on a maintenance basis.
- Inland Fisheries Ireland has been consulted on the Dumping at Sea Permit Applications (EPA references S0021-03 & S0039--01), which relate to the proposed dredging.
- IFI has previously acknowledged the removal of the customary salmon draft net season restriction (IFI submission on Port of Cork Maintenance Dredging Dumping at Sea Permit application EPA reference S0013-03).
- The last maintenance dredge campaign was completed in 2023 without concern.
- The area of the proposed development is not an area in which local fishing operations are carried out.

11.4.10. Response to the Irish Whale & Dolphin Group

- ***Re. Presence of Protected Marine Species:***

- The EIAR has cited all publicly available sighting data.
- Citizen science data was not consulted, which the applicant anticipates the observer is referring to.
- Potential local sightings were accounted for by completing the 2024 MMO survey and reviewing previous MMO survey data at Ringaskiddy.

- ***Use of Acoustic Deterrent Devices (ADDs):***

- While Acoustic Deterrent Devices (ADDs) have been used in specific contexts within Ireland, such as trials to reduce seal depredation in fisheries and exploratory use during offshore wind farm construction, they are not currently considered standard practice for marine mammal mitigation.

- However, the applicant acknowledges that ADDs offer a promising supplementary mitigation measure during pile driving and dredging activities, despite not being considered industry standard in Ireland.
- ADDs emit specific acoustic signals designed to temporarily displace marine mammals from areas where they might be at risk of injury due to intense underwater noise.
- Studies have demonstrated that harbour porpoises and minke whales exhibit strong avoidance behaviours in response to ADDs.
- Research conducted during offshore wind farm construction observed that harbour porpoises swam directly away from ADDs, effectively vacating areas where pile driving noise could cause auditory injury (Bailey et al., 2020; Brandt et al., 2011).
- While the NPWS 2014 guidance does not explicitly recommend the use of ADDs, their demonstrated efficacy in displacing marine mammals from high-risk zones suggests that they can serve as a valuable addition to the suite of mitigation tools employed during marine construction activities.
- Incorporating ADDs reflects a commitment to adopting a precautionary approach in safeguarding marine biodiversity.
- While bubble curtains have proven effective in mitigating underwater noise during offshore wind farm construction, their application in port development projects presents several challenges that may limit their suitability.
- The dynamic and shallow environments typical of port areas can compromise the stability and effectiveness of bubble curtains.
- Research indicates that the performance of bubble curtains is influenced by factors such as water depth and current velocity. In shallow or high-flow conditions, maintaining a consistent and effective bubble barrier becomes technically challenging (Cheng et al., 2021).
- The complex infrastructure within ports, including docks, piers, and other submerged structures, can obstruct the uniform deployment of bubble curtains. These physical barriers may lead to gaps in the bubble barrier, reducing its efficacy in reducing underwater noise.

- Installing and operating bubble curtain systems requires substantial logistical support, including deploying compressors and air supply lines. In active ports' confined and busy spaces, accommodating this equipment without disrupting ongoing operations can be problematic.
- Given these considerations, alternative mitigation measures were proposed, including monitoring by MMOs, ADDs, soft starts and adaptation of working hours, which offer a more practical and effective solution for minimising the impact of underwater noise in port development contexts.

11.4.11. **Response to Pfizer**

- The response provided to Cork County Council regarding Air Quality and Dust applies to Pfizer's observations on dust emissions.

11.4.12. **Response to Bob McLaughlin**

- **Re. Light Pollution:** The applicant is committed to providing high-quality modern lighting, as stated on Page 486 of the EIAR.
- **Re. Noise Pollution:** The applicant notes the operational noise thresholds as conditioned in PA04.PA0035.
- **Re. Dust Pollution:** The response provided to Cork County Council regarding Air Quality and Dust applies to Bob McLaughlin's observations on dust emissions.

12.0 **Planning History**

12.1.1. The following planning history relates to the site and the landholding of the Port of Cork Company:

P.A. Ref. 245965 Permission granted to the Port of Cork Company Ltd. on 24/02/2025 for the installation of c. 378m² of photovoltaic panels on the existing roof structure of Ringaskiddy Ferry Terminal Building and c. 143m² as a ground-mounted installation together with all associated site works.

P.A. Ref. 245964 Permission granted to the Port of Cork Company Ltd. on 11/12/2024 for the installation of c. 207 m² of photovoltaic panels on the existing roof structure of

the Customs Examinations Building and approximately 440m² of photovoltaic panels on the existing roof structure of the Maintenance Building, together with all associated site works.

P.A. Ref. 22/4356 Permission granted to the Port of Cork Company on 13/06/2022 for the construction of a new vehicular entrance off the L2545, the temporary use of lands (for a period of 10 years) for open storage of port-related cargo, and all ancillary works, including road / curbside re-alignment and security fencing.

ABP Ref. 310847-21 (Alteration of ABP Ref. PA04.PA0035) Permission granted in July 2021 for proposed alterations described as follows:

- Minor internal and external alterations to the existing ferry terminal to accommodate Port of Cork staff.
- Relocation of a section of the existing noise reflective barrier, as permitted.
- Relocation of 44 car parking spaces from the maintenance shed/office building car parking site, as permitted, to the ferry terminal building car parking area.
- The installation of four modular building units to serve staff welfare facilities.

ABP Ref. 304437-19 (Alteration of ABP Ref. PA04.PA0035) Permission granted in July 2019 for proposed alterations described as follows:

- The doubling of the size of the previously permitted customs building from the permitted 324 square metres to 648 square metres. This is to be achieved by effectively mirroring the previously permitted floor plan to the west with the addition of three inspection bays. Access to the bays in the customs building would be from both the east and west. The relocation of the building is such that it is located c. seven metres further south than the previously permitted location.
- The alteration of floor levels of the inspection bays, with bays 1 and 4 located on the northern side of the building proposed to have approximately the same level as the surrounding yard area and the smaller bays 2, 3, 5 and 6 having a floor level that is approximately 1.2 metres higher. At grade access to these bays and to the ancillary accommodation to be provided via an external walkway on the southern side of the building.

ABP Ref. PM04.PM0010 (Alteration of ABP Ref. PA04.PA0035) Permission granted in June 2016 for proposed alterations comprising the following:

- Alterations to (lengthening) of the permitted main berth,
- The relocation of mooring dolphins,
- Changes to the landside handling of containers and
- Changes to the design and layout of ancillary buildings, some of which are located outside of the boundary of the application site, as submitted for approval under ABP Ref. PA04.PA0035.

A notable condition of relevance to the current application includes the following;

C.3 Pending the completion of the N28 and Dunkettle road schemes, throughput at the permitted Ringaskiddy port facility shall be limited to 322,846 TEU. Prior to the commencement of operations at Ringaskiddy East the developer shall submit proposals for the monitoring of compliance with this limit for the written agreement of the planning authority. Reason: In the interests of clarity and to ensure that the capacity of the existing road network is not exceeded.

Reason: In the interests of clarity and to ensure that the capacity of the existing road network is not exceeded.

C.4 Phase 3 of the proposed development (provision of link span bridge and use of the berth to accommodate roll on / roll off freight traffic) shall not become operational until such time as the N28 and Dunkettle road upgrade schemes are completed. Pending completion of the road upgrade schemes, the container / multi-purpose berth 1 shall be modified for use for containers and general cargo as shown on the drawings submitted to the Board on 20th July, 2016, as amended by drawings received on 16th December, 2016. In the interests of clarity, this condition supersedes Condition number 4 attached to An Bord Pleanála Reference 04.PA0035.

Reason: In the interests of orderly development and to minimise traffic congestion on the road network prior to the coming into operation of these schemes.

ABP Ref. PA04.PA0035 Permission granted in May 2015 for the redevelopment of existing port facilities comprising the following:

- Berth 1, a new 314m Container / Multi-purpose Berth to the north of the existing ferry berth, to accommodate vessels carrying different cargoes.
- Berth 2, a new 200m Container Berth to the north of berth 1.
- Reclamation of approx. 2.4ha to facilitate the new berths.
- Installation of a new link-span comprising a floating pontoon and access bridge at Berth 1 to facilitate ro-ro operations.
- Surfacing of existing port lands to provide an operational area for container and cargo storage.
- Dredging of the seabed to a level of -13.0m Chart Datum (CD).
- Removal of an existing link-span, to the south of the ferry terminal.
- Installation of container handling cranes and terminal transport equipment.
- Maintenance building, administrative buildings and entrance kiosks.
- Two Ship to Shore Gantry Cranes (SSG) to lift containers to / from vessels onto trailers/tractor units, for transport to the container stacks. The containers are then to be stacked by electrically operated Rubber Tyre Gantry (RTG) cranes (7 no.), up to 5 containers high, equivalent to an approximate height of 12.8m.
- Ancillary car parking, lighting and fencing, including closure of existing public access to Ringaskiddy Pier.

The grant of permission is for a period of 10 years and is subject to 18 conditions.

Notable Conditions of relevance to the current application include the following;

- C.2 The period during which the proposed development hereby permitted may be carried out shall be 10 years from the date of this order.

Reason: In the interest of clarity

- C.4 Phase 3 of the proposed development (link-span bridge and berth to accommodate roll-on/roll-off freight traffic) shall not become operational until such time as the N28 and Dunkettle road upgrade schemes are completed.

Reason: In the interest of orderly development and to minimise traffic congestion on the road network, prior to the coming into operation of

these schemes.

- C.8 Noise levels emanating from the proposed development, when measured at noise sensitive locations, shall not exceed:

55dBA (30 minute LAR), between 0700 – 1900 hours

50dBA (30 minute LAR), between 1900 – 2300 hours

45dBA (15 minute LAeq), between 2300 – 0700 hours

Measurements shall be carried out in accordance with ISO recommendation R1996 parts 1, 2 & 3 “Description and Measurement of Environmental Noise, Part 1: Basic Quantities and Procedures”.

Reason: To protect the amenities of the area by controlling noise emissions.

- C.9 The development shall be operated and managed in accordance with an Environmental Management System (EMS), which shall be submitted by the developer to, and agreed in writing with, the planning authority prior to commencement of development. This shall include the following;
- (a) Proposals for the control of on-site noise. (b) Proposals for the suppression of dust on site. (c) Proposals for the covering of bulk goods vehicles leaving the site. (d) Measures to control the quality of surface water discharges. (e) Measures to minimise light pollution, including minimising nonessential lighting throughout the facility. (f) Scheduled night-time working shall be notified in advance to the planning authority and appropriate monitoring of noise emissions shall be undertaken as required by the planning authority. (g) A monitoring programme to include all relevant environmental parameters (including noise, dust, and surface water). (h) Details of emergency action in the event of accidental spillage. (i) Details of site manager, contact numbers (including out of hours) and public information signs at the entrance to the facility. (j) Procedures to record and respond to public complaints. The annual audit report for the EMS shall be made publicly available, to the requirement of the planning authority. Reason: In order to safeguard local amenities and protect the environment.

- C.10 The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in

writing with, the planning authority prior to commencement of development. Details to be submitted shall include, *inter alia*, proposals for the suppression of on-site noise, dust, and vibration and proposals to minimise light pollution during construction. The plan shall include a comprehensive monitoring plan, including noise, vibration, and dust, with regular reporting to the planning authority. A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority. Reason: In order to protect the environment and local amenities during construction.

PA Ref. 055466 Permission granted on 24/10/2005 for the construction of a vehicle storage compound of 4.86 hectares, incorporating an entrance, prefabricated office building, washdown area, perimeter fencing, security lighting and ancillary drainage and surfacing works

ABP Ref. 04. PC0131 Notice served under Section 37B(4)(a), that it was considered that the proposed development falls within the scope of paragraphs 37A(2)(a), (b) and (c) of the Act. It was accordingly decided that the proposed development would comprise strategic infrastructure within the meaning of Section 37A. Application ABP Ref. PA04.PA0035 was lodged on foot of that notice.

ABP Ref. PL04.PA0003 Permission refused by An Bord Pleanála to the Port of Cork Co. for the redevelopment of Ringaskiddy Port, including the construction of a container terminal and a multi-purpose ro-ro berth, comprising approx. 480m of new berths, a Ro-Ro berth of 182m, and 18ha of reclamation and replacement of the public pier and slipway to the east of the site.

The reason for refusal related to the location of the site without connection to the rail network and reliance on the road network, such that it would adversely affect the carrying capacity of the strategic road network, exacerbate serious existing congestion and be unable to utilise rail-based freight in the future. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

13.0 Policy and Context

13.1. EU Policy

13.1.1. EU legislation relevant to the proposed development includes:

- Directive (EU) 2021/1187 (Streamlining measures for advancing the realisation of the trans-European transport network (TEN-T)).
- Directive 2000/60/EC (Water Framework Directive)
- Directive 2008/56/EC (Marine Strategy Framework Directive)
- Directive 92/43/EEC (Habitats Directive)
- Directive 2009/147/EC (Birds Directive)
- Directive 2011/92/EU, as amended by 2014/52/EU (EIA Directive)
- Directive 2014/89/EU (Maritime Spatial Planning Directive)
- Directive 2008/98/EC (Waste Framework Directive)
- Directive 2006/118/EC (Groundwater Directive)
- Directive 2008/105/EC, as amended by 2013/39/EU (Environmental Quality Standards)
- Regulation 2024/1679 (TEN-T Regulations)
- Regulation (EU) No 1315/2013 (TEN-T Guidelines)
- Regulation (EU) No 1143/2014 (Invasive Alien Species)

13.2. National Policy / Legislation

13.2.1. National policy, legislation and guidelines relevant to the proposed development include:

- Climate Action and Low Carbon Development (Amendment) Act (2021)
- Climate Action Plan 2025
- Maritime Area Planning Act (2021)
- National Planning Framework (2018)
- National Development Plan (2026-2035)

- National Marine Planning Framework (2021)
- National Ports Policy (2013)
- River Basin Management Plan for Ireland 2022-2027
- Water Action Plan 2024
- National Adaptation Framework (2018)
- National Biodiversity Action Plan 2023-2030
- South Coast Designated Maritime Area Plan (DMAP)
- Offshore Renewable Energy Development Plan (ORED II)
- Irish Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (2014) (Department of Arts, Heritage and the Gaeltacht).
- Traffic Management Guidelines, Department of Transport (2019)
- Traffic and Transport Assessment Guidelines (2014)
- TII standard DN-GEO-03060' Geometric Design of Junctions'
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, Department of Housing, Planning and Local Government (2018)
- Guidelines on the information to be contained in Environmental Impact Assessment Reports, EPA (2022)
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, (2009)
- OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021)
- Planning System and Flood Risk Management Guidelines (2009)

13.3. Regional and Local Policy

- South Coast Designated Maritime Area Plan for Offshore Renewable Energy (2024)
- Southern Regional Spatial and Economic Strategy 2020–2032

- Cork Metropolitan Area Strategic Plan (within the Southern RSES)
- Cork Metropolitan Area Transport Strategy 2040 (NTA)
- Cork City Development Plan 2022–2028
- Port of Cork Masterplan 2050
- Ballincollig–Carrigaline Municipal District Local Area Plan 2017.

13.4. Development Plan

13.4.1. Cork County Development Plan 2022-2028 is the statutory plan for the area. The following provisions are considered relevant:

Zoning: The site is zoned for industry under County Development Plan Objective ZU 18-16 (Map ID: RY-I-18). The purpose of this zoning is to facilitate opportunities for industrial and warehousing uses, activities, and processes, which would, in general, give rise to land use conflict if located within other zonings (Chapter 18). Section 18.3.40 details how appropriate uses in Industrial Areas include port facilities and port-related activities.

Vol. 4 - Table 4.1.17 sets out Specific Development Objectives for Ringaskiddy.

Objective No. 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 for 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 into account the biodiversity sensitivities of the site and area.

Vol. 4 - Section 1.6 Key Villages in the Carrigaline MD – includes Ringaskiddy.

RY-U-02 M28 Cork to Ringaskiddy Motorway Scheme as finalised

Strategic Employment Area: Ringaskiddy and the Port of Cork are designated as a Strategic Employment Area (Vol. 4, Section 1.7).

Section 12.20.3: The Development Plan supports the port of Cork's proposals to expand its facilities in Ringaskiddy so that port centred operations and logistics can become more efficient through the accommodation of larger ships and so that port

traffic can directly access the National Road Network without passing through the city centre.

Section 12.20.2: The Port of Cork is identified in the National Ports Policy (NPP) as a Port of National Significance (Tier 1) and is a Core Port within the TEN-T (European Union's Trans European Network – Transport). Inclusion in the core network reflects its significant volumes of traffic and its high level of international connectivity.

Vol. 1 - Section 8.7.17: The County Development Plan supports the Port of Cork's proposals to expand its facilities in Ringaskiddy so that port centred operations and logistics can become more efficient through the accommodation of larger ships and so that port traffic can directly access the National Road Network without passing through the city centre. Ringaskiddy is also identified as a location suitable for accommodating uses which need to relocate from the city to facilitate the re-development of the Docklands.

Vol. 1 - Section 12.20.5: In parallel with its economic role, 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 the carrying capacity of the receiving environment of the ports.

Vol. 1 - Objective TM 12-15: Port of Cork and Other Ports:

- a) Ensure that the strategic port facilities at Ringaskiddy, Whitegate and Marino Point have appropriate road 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. (see also TM 12-13 e) & TM 12-13 footnote)

c) Support the 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 of the majority of port related activities having regard to the need for a significant improvement to the road network.

f) Future expansion or intensification of Port activities will have regard to environmental, nature conservation and broader heritage considerations at design, construction and implementation stages.

Vol. 1 - Objective BE 15-2: Protect sites, habitats and species: Protect all natural heritage sites which are designated or proposed for designation under European legislation, National legislation and International Agreements. Maintain and where possible enhance appropriate ecological linkages between these. This includes 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. These sites are listed in Volume 2 of the Plan.

13.4.2. **Port of Cork Masterplan 2050**

13.4.3. The Port of Cork Masterplan 2050 (“Masterplan”) provides a vision of how the Port of Cork Company can continue to adapt and grow. The Masterplan aims to consolidate activities in the lower harbour by 2050. It aims to provide reliable, safe, high-performing facilities and services in deeper water, near the main shipping routes, and ensure the Port of Cork remains an efficient link in the global logistics chain. The Masterplan sets out a development strategy for the development of future infrastructure at Ringaskiddy West and Ringaskiddy East.

13.4.4.

13.4.5. Cork City Development Plan 2022-20289

Objective 10.39 Cork City Council will seek to protect the role of the Port of Cork as a nationally important strategic asset during its ongoing relocation from Tivoli Docks to other locations within Cork Harbour.

13.5. Natural Heritage Designations

13.5.1. Natura 2000 European Sites and p/NHAs within 15km of the site are as follows:

Special Areas of Conservation (SACs)

- Great Island Channel SAC (Site Code: 001058) – located 4.8 km north of the site.

Special Protection Areas (SPAs)

- Cork Harbour SPA (Site Code: 004030) - located c. 0.4 km northwest of the site.

Natural Heritage Areas (NHAs)

- Monkstown Creek pNHA (Site Code: 001979) – 1.44km northwest of the site.
- Lough Beg (Cork) pNHA (Site Code: 001066) – 0.86km south of the site
- Whitegate Bay pNHA (Site Code: 001084) – 3.68km east of the site.
- Rostellan Lough, Aghada Shore and Poul nabibe Inlet pNHA (Site Code: 001076) – 5.7km east of the site.
- Great Island Channel) pNHA (Site Code: 001058) – 5.5km north of the site.
- Rockfarm Quarry, Little Island pNHA (Site Code: 001074) – 6.9km north of the site.
- Douglas River Estuary pNHA (Site Code: 001046) – 5.8km northwest of the site.
- Cork Lough pNHA (Site Code: 001081) – 13.3km northwest of the site.
- Owenboy River pNHA (Site Code: 001990) – 2.97km southwest of the site.
- Fountainstown Swamp pNHA (Site Code: 000371) – 5.5km south of the site.

- Minane Bridge Marsh pNHA (Site Code: 001966) – 8.6km south of the site.
- Cuskinny Marsh pNHA (Site Code: 001987) – 4.5km northeast of the site.
- Dunkettle Shore pNHA (Site Code: 001082) – 9.1km northwest of the site.
- Glanmire Wood pNHA (Site Code: 001054) – 10.6km north of the site.
- Carrigacrump Caves pNHA (Site Code: 001408) – 11.6km to the east of the site.
- Leamlara Wood pNHA (Site Code: 001064) – 13.8km north-west of the site.

14.0 ASSESSMENT

14.1. Introduction

14.1.1. Having regard to the requirements of the Planning and Development Act, 2000 (as amended) and noting the enactment and partial commencement of the Planning and Development Act 2004, this assessment is divided into four main parts: (i) the Planning Assessment, (ii) Environmental Impact Assessment, (iii) Appropriate Assessment and (iv) Water Framework Directive Assessment. In each assessment, where necessary, reference is made to the issues raised in the submissions by all parties. There is an inevitable overlap between the assessments, for example, with matters raised falling within both the planning assessment and the environmental impact assessment. In the interest of brevity, matters are not repeated, but such overlaps are indicated in subsequent sections of the report.

15.0 Planning Assessment

15.1.1. Having examined the application details and all documentation on file, including the submissions from prescribed bodies, coastal authority, and third parties, and having inspected the site and surrounding area, I have assessed the proposed development in the context of the existing permitted development and relevant national/regional/local policies and guidance. Based on this examination, I consider the main issues to be assessed in this application to be as follows:

- The Principle of the Proposed Development,

- Compliance with requirements of the Maritime Area Consent (MAC),
- Compliance with Planning Conditions,
- Development Contributions and Community Gain,
- Layout and Design.

15.1.2. Each of these matters is examined in detail in the sections below, followed thereafter by:

- Environmental Impact Assessment,
- Appropriate Assessment,
- Water Framework Directive Assessment

15.2. The Principle of the Proposed Development

15.2.1. The proposed development comprises the completion of the redevelopment of existing port facilities at Ringaskiddy, Co. Cork, which were previously permitted under ABP Ref. PA04.PA0035, as amended by ABP Ref. PM04.PM0010, ABP Ref. 304437-19 and ABP Ref. 310847-21. As detailed in the Planning Stage Engineering Report submitted, the proposed development consists of five separate sites, all located within the Port of Cork Company's Ringaskiddy facility. At Ringaskiddy East, the proposed development comprises the completion of a 200m container / multi-purpose berth, dredging of the seabed to a level of -13 m Chart Datum, installation of a link span comprising a floating pontoon and access bridge and ancillary works. At Ringaskiddy West, the proposed development consists of an extension to the existing deepwater berth (DWB), comprising a filled quay structure extending no further than the edge of the existing DWB, dredging works to varying levels to facilitate navigational access to the new facilities, and ancillary works. Proposed road improvements include improvements to the internal road network at Ringaskiddy East, including lighting, fencing and ancillary works.

15.2.2. The Applicant provides a rationale and context for the proposed development in Section 1.1 of the Planning Statement submitted. In summary, the Applicant states that much of the Strategic Infrastructure Development (SID) permitted under ABP Ref. PA04.PA0035, as amended by ABP Ref. PM04.PM0010, ABP Refs. 304437-19 and

310847-21 have been completed. However, elements of the permitted project remain undeveloped. The 10-year planning permission expires on the 20th October 2025, and the remaining elements of the project will not be completed within the lifetime of the permission. The Applicant details how legislative provisions under Section 42(8) of the Planning and Development Act 2000 (as amended) do not permit an extension of the duration of permission for Strategic Infrastructure Development (SID) if an Environmental Impact Assessment (EIA) or an Appropriate Assessment (AA) would be required in relation to the proposed extension. Furthermore, the Applicant states that transitional provisions associated with the forthcoming (adopted but not fully commenced) Planning and Development Act 2024 prohibit permissions with less than 3 years left to run from seeking an extension of duration under the new Act. Consequently, the Applicant is applying for a 10-year permission to construct the remaining elements of the permitted development. As the proposed development includes works within the nearshore, which falls within the Eighth Schedule of the Planning and Development Act, 2000 (as amended), the application is made under the provisions of Section 291 of the Act.

15.2.3. Regarding the above, the Commission should note that Section 141 and 148(1B) of the Planning and Development Act 2024 introduce new provisions governing the extension of the duration of permissions, including restrictions for developments partly or wholly within the maritime area. At the time of writing this report, these provisions have not commenced. Accordingly, while the forthcoming Act provides the future legislative framework for such matters, the current application is not an extension of the duration of permission but a new application for permission for the completion of the original permitted development, made under Section 291 of the Planning and Development Act, 2000 (as amended). The proposed development is therefore assessed under the provisions of the 2000 Act, which remain in force pending the full commencement of the 2024 Act.

15.2.4. The site is zoned ZU 18-16 (Map ID: RY-I-18) for industry in the Cork County Development Plan 2022-2028. The purpose of this zoning is to facilitate opportunities for industrial and warehousing uses, activities, and processes, which would, in general, give rise to land use conflict if located within other zoning. Section 18.3.40 of the Development Plan details how appropriate uses in Industrial Areas include port facilities and port-related activities.

- 15.2.5. The marine elements of the proposed development, including the works at Ringaskiddy East, Ringaskiddy West and the roll-on/roll-off facility, are located within the boundary of the South Coast Designated Maritime Area Plan for Offshore Renewable Energy. The landside components of the proposal, including the internal road network and the container yard (CCT2), are located outside but immediately adjacent to this boundary.
- 15.2.6. Since the original SID ABP Ref. PA04.PA0035 was granted permission in 2015, substantial national and regional policies, the South Coast Designated Maritime Area Plan for Offshore Renewable Energy (2024), and the new Cork County Development Plan 2022-2028 have been enacted, which recognise the importance of ports in enabling economic prosperity and international connectivity in terms of trade, transport, tourism and facilitating renewable energy infrastructure, including offshore renewable energy development.
- 15.2.7. The National Development Plan 2021-2030 recognises how capital infrastructure programmes in Tier 1 Ports, including the Port of Cork, will enhance national and international connectivity, provide for future increases in trade and national port capacity requirements by facilitating more vessels and larger vessels, and increase tonnage and throughput. The National Marine Planning Framework (NMPF) recognises the need for ports to support emerging industries like offshore renewable energy (ORE). The NMPF acknowledges how the Port of Cork, a Tier 1 port, is engaged in significant infrastructure development by providing deepwater berths and state-of-the-art infrastructure at its new Ringaskiddy facility. The Regional Spatial & Economic Strategy for the Southern Region 2019-2031 and Cork Metropolitan Area Spatial Plan (MASP) support the redevelopment of existing port facilities in Ringaskiddy to maintain, support and enhance the region's International Connectivity Transport Network, including the Trans-European Transport Network (TEN-T). Ringaskiddy and the Port of Cork are designated a Strategic Employment Area in the Cork County Development Plan 2022-2028 (Vol. 4, Section 1.7). The Cork County Development Plan supports the Port of Cork Company's proposal to expand its facilities in Ringaskiddy so that port-centred operations and logistics can become more efficient by accommodating larger ships and so that port traffic can directly access the National Road Network without passing through the city centre. Notable relevant policies in the Development Plan are referenced in Section 13.4.4 above.

- 15.2.8. Having regard to the above and taking into consideration the planning history and permitted development on the site, the Applicant's rationale for the proposed development and the legislative constraints on extending the duration of permission for the permitted development, it is my view that the proposed completion of the re-development of port facilities at Ringaskiddy is acceptable in principle and in accordance with relevant national, regional and Cork County Development Plan policies and objectives. I consider the nature and use of the proposed development consistent with the site's ZU 18-16 (Map ID: RY-I-18) zoning for industrial land use, where port facilities are appropriate. The unfinished elements of the proposed development are broadly consistent with the originally permitted development (as amended), incorporating only minor design, engineering and operational changes as outlined in Section 5.0 of this report. These minor changes do not materially alter the overall scale, layout, or extent of the permitted scheme. Given that the proposed development seeks to complete the previously permitted works with only minor changes, I consider a reassessment of the strategic justification and alternatives, as previously comprehensively addressed under the original permission ABP Ref. PA04.PA0035 is not required for the subject application.
- 15.2.9. I am satisfied that the proposed development aligns with national, regional and Cork County Council Development Plan policies and objectives, as detailed above, which support the Port of Cork Company's proposals to complete its expansion of facilities in Ringaskiddy. Such development would enhance national and international connectivity, provide for future increases in trade and national port capacity requirements by facilitating more and larger vessels, and increase tonnage and throughput. Furthermore, the proposed development would contribute to the advancement and realisation of the Trans-European Transport Network (TEN-T) by enhancing port capacity and connectivity in accordance with EU Regulations No. 2024/1679 and EU Directive 2021/1187. On this basis, I conclude that, subject to compliance with relevant planning and environmental requirements, the proposed development is acceptable in principle and in accordance with the proper planning and sustainable development of the area.

15.3. Compliance with the requirements of the Maritime Area Consent

15.3.1. As detailed in Section 9.0 above, a Maritime Area Consent (MAC), Ref. No. MAC20230004 was granted by MARA to the Port of Cork Company on the 6th February 2025 for a term of 11 years. The Consent allows for the capital dredging of berths at Ringaskiddy East and West, including the approaches to the Ringaskiddy West berth extension. The MAC requires that an application for development permission must be submitted within 6 months of the expiration of the existing development permission. As stated in the Planning Statement submitted, the existing 10-year planning permission ABP Ref. PA04.PA0035 expires on the 20th of October 2025, and the subject application was lodged with An Coimisiún Pleanála on the 13th February 2025. On this basis, I am satisfied that the Applicant has demonstrated compliance with the MAC requirements by submitting the subject planning application within the required timeframe.

15.4. Compliance with Planning Conditions

15.4.1. The original SID application ABP Ref. PA04.PA0035, as amended, included 18 no. conditions in its grant of permission. Condition No. 4 of the permission requires that;

‘Phase 3 of the proposed development (link-span bridge and berth to accommodate roll-on/roll-off freight traffic) shall not become operational until such time as the N28 and Dunkettle road upgrade schemes are completed’.

15.4.2. This condition was superseded by condition No. 4 of the amending permission ABP Ref. PM04.PM0010, which requires that;

‘Phase 3 of the proposed development (provision of linkspan bridge and use of the berth to accommodate roll on / roll off freight traffic) shall not become operational until such time as the N28 and Dunkettle road upgrade schemes are completed. Pending completion of the road upgrade schemes, the container / multi-purpose berth 1 shall be modified for use for containers and general cargo as shown on the drawings submitted to the Commission on 20th July.

15.4.3. The Applicant has submitted a compliance report in Appendix D of the Planning Statement detailing a summary of compliance agreements reached with Cork County Council and comments on the relevance of each condition to the proposed

development. Regarding Condition No. 4 of permission ABP Ref. PM04.PM0010, the Applicant states that in accordance with this condition, the linkspan bridge has not been constructed and is included within the proposed development. The Dunkettle Road upgrade is now complete, and the N28 road scheme has commenced. The Port of Cork Company accepts that a condition restricting the operation of the linkspan bridge pending the completion of the N28 upgrade continues to be appropriate.

- 15.4.4. As per the Cork National Roads Design Office website, I note that the M28 Cork to Ringaskiddy Project is the upgrade of c. 12.5km of the N28 National Primary Route from the N40 South Ring Road at Bloomfield Interchange, to Ringaskiddy, Co. Cork. The N28 corridor is part of the Trans-European Transport Network, accessing the Tier 1 Port at Ringaskiddy. This requires that the port is served by a high-quality road (either a motorway or express road) designed and built for motor traffic. The existing N28 is predominantly a single-carriage road with significant congestion, leading to considerable delays and queuing at peak times at specific locations. The road does not have the capacity to cater for current traffic volumes at peak times or future expected increases in traffic.
- 15.4.5. Given that the M28 Cork to Ringaskiddy Project is currently at the construction stage, and taking into consideration its strategic importance, as identified in the original permission ABP Ref. PA04.PA0035 and the amending permission ABP Ref. PM04.PM0010, and its function as part of the Trans-European Transport Network (TEN-T), I consider it essential that supporting transport infrastructure be in place before the remaining phases of the permitted development, particularly the installation of the link-span and access bridge to facilitate Roll-on Roll-off (RoRo) traffic at the Ringaskiddy East site come into operation. I consider, therefore, that the requirements of Condition No. 4 of ABP Ref. PM04.PM0010 should be imposed in the event of a grant of permission. This would restrict the use of the linkspan bridge and associated RoRo operations until the M28 upgrade is complete and operational, which TII expects by mid-2028. This would ensure the proposed development accords with the requirements of the Trans-European Transport Network (Ten-T) EU Regulations 2024/1679, which aims to build a reliable, seamless, and high-quality transport network that ensures sustainable connectivity across Europe without physical interruptions, bottlenecks, and missing links.

15.4.6. Having reviewed the Compliance Report submitted by the Applicant, I note that apart from conditions relating to the upgrade of the M28, no other conditions require detailed assessment. Comparable conditions are identified (e.g. hours of construction and operation, noise levels, etc.), the terms of which will be addressed further below and/or can be dealt with by way of updated conditions in the event of a grant of permission. On this basis, I am satisfied that the proposed development can be assessed without further investigations into compliance with the conditions imposed on its previous permissions.

15.5. Development Contributions and Community Gain

15.5.1. As detailed in the Planning Statement submitted by the Applicant, the original permission ABP Ref. PA04.PA0035 provided for the development of Paddy's Point Amenity area. The Applicant confirms that this was completed during the first phase of the development and is now open to the public. Condition No. 17 of the original permission required the developer to make a financial contribution of not less than €1,000,000 to the planning authority towards creating an enhanced public realm for Ringaskiddy village that improves the village's amenities, creating an attractive gateway to Ireland from the sea. The Applicant confirms that a special contribution of €1,000,000 was paid to Cork County Council to contribute towards public realm improvement works in Ringaskiddy village and that the public realm works are currently under construction. Given that all development contributions and community gain requirements associated with the original SID permission have been fully delivered and paid to the Planning Authority and that no additional works are proposed, it is my view that no additional development contributions for community gain, in accordance with the terms of the Cork County Development Contribution Scheme made under section 48 of the Planning and Development Act 2000 (as amended), are required for the proposed development.

15.6. Layout and Design

15.6.1. The proposed development comprises five functional areas within the Port of Cork at Ringaskiddy, which would complete the layout and design of the development

previously permitted under ABP Ref. PA04.PA0035, as amended. The proposed works in these areas are summarised as follows:

Ringaskiddy West: Dredging of a 230m x 63.5m berthing pocket to -13.0m CD (-15.97m O.D.), construction of a reinforced concrete deck to accommodate a mobile harbour crane up to 69m in height, installation of quay-edge features including fenders and ladders, provision of a 28m mast light, and placement of rock armour to tie into existing structures.

Ringaskiddy East Berth 2: Dredging of a 166.2m x 36.9m berthing pocket to -13.0m CD (-15.57m O.D.), installation of crane rails and buffer stops, drainage channels, a 28m floodlight mast, and a security fence with landscaping and a noise barrier.

Dry Container Storage Area: Development of a container stacking area measuring 299m x 54.3m to a height of five units.

Ro-Ro Quay and Linkspan Berth: Extension of the quay by 35m, providing a total berth length of 101.5m.

Internal Roads and M28 Connection: Construction of new carriageways, walkways, a roundabout linking to the existing internal network, and installation of 10m-high lighting poles.

15.6.2. The proposed development incorporates only minor design, engineering and operational adaptations of the original permitted scheme, as detailed in Section 5.0 above, with no material changes to its layout, scale or extent. I am satisfied that the overall design and configuration of the proposed development are consistent with the approved scheme and would complete the redevelopment of the Ringaskiddy Port facility as intended. This would deliver a fully operational Tier 1 port in accordance with national and local policy objectives and the Port of Cork Masterplan 2050 vision for Ringaskiddy West and East. My assessment of the proposed development's impact on landscape and visual amenity is addressed in Section 16.9 of the Environmental Impact Assessment section below.

16.0 Environmental Impact Assessment

16.1. Statutory Provisions

- 16.1.1. The proposed development comprises the completion of the redevelopment of existing port facilities at Ringaskiddy, Co. Cork, previously permitted under ABP Ref. PA04.PA0035, as amended by ABP Ref. PM04.PM0010, ABP Ref. 304437-19 and ABP Ref. 310847-21. A detailed description of the proposed development is provided in Section 3.0 above. The proposed development includes works within the nearshore, which falls within the Eighth Schedule of the Planning and Development Act, 2000 (as amended) 2000 and therefore, the application is made under the provisions of Section 291 of the Act.
- 16.1.2. An Environmental Impact Assessment (EIA) is required for development that falls under a class of development listed in Annex I of the EIA Directive (2011/92/EU, as amended by 2014/52/EU), and and EIA may be required for projects listed in Annex II, subject to screening by the competent authority. These provisions are transposed into Irish law under Part X of the Planning and Development Act, 2000 (as amended) and Schedule 5 of the Planning and Development Regulations, 2001 (as amended). As detailed above, the subject application is submitted under the provisions of Section 291 of the Planning and Development Act, 2000 (as amended), which requires, under Section 291(b)(i), that an EIAR be submitted with the application. An Environmental Impact Assessment Report and associated documentation, prepared by Ayesa and dated the 28th January 2025, has been submitted with the application.

16.2. EIA Structure

- 16.2.1. This section of the report comprises the environmental impact assessment of the proposed development in accordance with the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations, 2001 (as amended), which incorporate the European Directives on Environmental Impact Assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171A of the Planning and Development Act, 2000 (as amended) defines EIA as consisting of:
- a) the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the

Commission, the reasoned conclusions of the Commission and the integration of the reasoned conclusions into the decision of the Commission, and

- b) includes an examination, analysis, and evaluation by the Commission that identifies, describes, and assesses the likely direct and indirect significant effects of the proposed development on specified environmental factors and the interaction of these factors, including significant effects arising from the project's vulnerability to risks of major accidents and/or disasters.

16.2.2. Article 94 and Schedule 6 of the Planning and Development Regulations, 2001 (as amended) set out requirements for the contents of an EIAR.

16.2.3. The EIA section of this report is divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the proposed development and an assessment of the likely direct, indirect, cumulative and residual significant effects of it on the following environmental factors, having regard to the EIAR and relevant supplementary information:

- Population and Human Health,
- Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- Land, Soil, Water, Air and Climate,
- Material Assets, Cultural Heritage and the Landscape,
- The interaction between the above factors and
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

16.2.4. It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Commission's decision, should they agree with the recommendation.

16.3. Compliance with Article 94 and Schedule 6 of the Regulations 2001

16.3.1. Article 94 of the Planning and Development Regulations, 2001 (as amended) sets out the provisions for the content of an EIAR and Schedule 6 of the Regulations sets out the information to be contained in an EIAR. The Applicant has submitted an EIAR,

prepared by Ayesa Engineering Consultants, dated 28th January 2025. The EIAR's compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations, 2001 (as amended) is detailed below.

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b)).
<p>Section 3 of the EIAR provides a detailed description of the proposed development, including its location, site, size, depth, height, design, and proposed improvements to the local road network. It also details the works completed under the original development permitted under ABP Ref. PA04.PA0035, as amended.</p> <p>The EIAR provides a detailed description of the work completed under the PA0035 permission, and the remaining redevelopment works applied under the subject application. The report describes the proposed port operations following the completion of the port upgrade at Ringaskiddy East - Container Berths and Multi-purpose Berth and Ringaskiddy West - Deepwater Berth Extension. This includes a description of lift-on lift-off (LoLo) operations, general cargo operations and roll-on roll-off (RoRo) operations. A description of proposed quay structures, reclamation works, demolition, dredging, surfacing, and linkspan is also provided. The EIAR also describes services and security, the Ringaskiddy West - Deepwater Berth Extension, and road improvements.</p> <p>The EIAR provides a contextual description of the study area for each technical chapter of the EIAR.</p>
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b)).
<p>The EIAR provides an assessment of the likely significant direct, indirect, cumulative and residual effects of the proposed development within each technical chapter.</p> <p>Chapter environmental topics assessed include Population and Human Health (Chapter 5), Cultural Heritage (Chapter 6), Landscape and Visual Impact (Chapter</p>

7), Traffic and Transportation (Chapter 8), Noise and Vibration (Chapter 9), Air Quality (Chapter 10), Climate (Chapters 11), Soils, Geology and Hydrogeology (Chapter 12), Coastal Processes (Chapter 13), the Water Environment (Chapter 14), Marine Ecology (Chapter 15), Terrestrial Ecology and Ornithology (Chapter 16), and Material Assets (Chapter 17). Potential interactions and cumulative effects are described in Chapter 18, and Major Accidents and Disasters are addressed in Chapter 19. Chapter 20 provides a Schedule of Environmental Commitments.

I am satisfied that the assessment of significant effects is comprehensive to enable decision-making.

A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce, and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b)).

Each of the environmental topic chapters in the EIAR describes features of the proposed development and mitigation measures, if any, to avoid, prevent or reduce, and, if possible, offset likely significant adverse effects on the environment of the development. Measures are specific to each environmental topic and designed to avoid or reduce significant adverse effects arising from the development's construction and operational phases. Potential mitigation and monitoring measures are recommended for each significant adverse effect identified.

Chapter 20 of the EIAR provides a Schedule of Environmental Commitments that outlines the mitigation and monitoring commitments required during the construction and operational phases of the proposed development.

A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b)).

Chapter 2 of the EIAR describes the need for the scheme and an outline of alternatives. These include a ‘Do-Nothing’ scenario and alternative locations within and outside Cork Harbour. The assessment of alternatives considered factors such as physical constraints, logistical operational requirements, environmental sensitivity, access to deep water, and proximity to existing infrastructure. The assessment also considered the capacity for developing Offshore Wind activities (ORE), supporting marshalling and assembly in the short term and operational & maintenance in the longer term. As per Section 2.2.6 of the EIAR, Ringaskiddy was chosen as the preferred location for the relocation of the port’s inner harbour activities due to its operational suitability, deepwater access, and capacity to accommodate current and future port needs, including offshore renewable energy infrastructure. The proposal is identified as consistent with European, National and Development Plan policy objectives. I am satisfied that the applicant has studied reasonable alternatives in assessing the proposed development and has outlined the main reasons for opting for the current proposal before the Commission. In doing so, the applicant has taken into account the potential impacts on the environment.

Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).

A description of the baseline environment and likely evolution in the absence of the development.

Each chapter on environmental topics of the EIAR describes the baseline environment and assesses its likely evolution in the absence of the proposed development. The baseline for the assessment, as described in Vol. 1, Ch. 3 of the EIAR and Section 1.2 of the Planning Statement, takes the completed and operational elements of the permitted port redevelopment (ABP Ref. PA04.PA0035, as amended) as the starting point, together with the existing environmental conditions at Ringaskiddy. Where relevant, the context of the works constructed under PA0035 is provided within the baseline descriptions of each environmental topic chapter in the EIAR. The EIAR also details how

environmental features would evolve should the proposed development not proceed.

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

The methodology used in carrying out the EIA, including the forecasting methods, is set out in each chapter of the environmental topic, which assesses the environmental effects. The forecasting methods and assessment techniques used throughout the EIAR are based on relevant guidelines and recognised best practices. Modelling techniques, expert judgment, and scenario analysis are used to identify significant environmental effects.

The EIAR identifies limitations and difficulties encountered. For example, in Chapter 16 'Terrestrial Ecology & Ornithology', the EIAR identifies how it is impossible to survey all flora species in one survey visit due to the staggered nature of the life histories of different species. Likewise, data limitations, assumptions, and uncertainties encountered in the assessment are acknowledged, e.g. Section 11.3.3 of Chapter 11 'Climate' details assumptions. Uncertainties are identified, e.g. uncertainty in relation to the rate and scale of climate change and its likely effect on flood risk in Ireland due to rising sea levels, more intense rainfall events and storms. I comment on these, where necessary, in the technical assessment below.

I am satisfied that the EIAR adequately describes the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties and limitations encountered in compiling the required information and the main uncertainties involved.

A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.

Chapter 19 of the EIAR addresses the vulnerability of the proposed development to major accidents and disasters. Potential risks considered include flooding,

vehicle collisions, falls from heights, structural collapse, chemical explosions and contamination of soils. The assessment details mitigation measures and monitoring to minimise these risks, including the use of an emergency response plan. It also addresses Seveso III Upper Tier and Lower Tier sites in the vicinity of Ringaskiddy Port. The likelihood of cumulative impact is ruled out given their distance from the site.

Article 94 (c) A summary of the information in non-technical language.

A Non-Technical Summary is provided in Volume 1 of the EIAR. It provides a clear and accessible format that uses non-technical language and supporting graphics. It provides a summary of the scoping and consultation undertaken, a detailed description of the project, the need for the scheme and consideration of alternatives, relevant environmental and planning policy, and a summary of the environmental topic chapters assessed in the main EIAR report. This includes details of the baseline environment, sensitive receptors, potential impacts and proposed mitigation measures.

I have read this document, and I am satisfied that the document is concise and comprehensive and written in a language that a lay member of the public easily understands.

Article 94 (d) Sources used for the description and the assessments used in the report

The sources used in preparing the EIAR are cited in each environmental topic chapter and compiled in Chapter 21 (References). These include guidance documents, academic studies, baseline surveys, planning policy documents, marine and ecological data, and other relevant literature. I consider the sources relied upon to be generally appropriate and sufficient.

Article 94 (e) A list of the experts who contributed to the preparation of the report

Chapter 1, Table 2 of the EIAR details the project team, their experience and qualifications and their input. The EIAR was prepared by a multidisciplinary team, including environmental scientists, ecologists, marine ecologists, landscape architects, engineers, and planning consultants. Their qualifications and roles in

<p>the assessment are clearly outlined. I am satisfied that the EIAR has been prepared by experts who are competent in the technical subject areas.</p>

16.3.2. **Consultations**

16.3.3. The application has been submitted in compliance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) regarding public notices. Appendix 2 of this report details the relevant prescribed bodies and the Coastal Local Authority to whom the Applicant sent a copy of the application, including the EIAR, NIS and public notice. Appendix 3 lists the prescribed bodies that were notified by An Coimisiún Pleanála of the proposed development and who were requested to make a submission or observation in relation to the proposed development.

16.3.4. The submissions from Prescribed Bodies, Cork County Council and third parties have been received and are taken into consideration in the assessment of the proposed development. I am satisfied that appropriate consultations have been carried out and that third parties have had the opportunity to make observations on the proposed development.

16.3.5. **Compliance**

16.3.6. Having regard to the foregoing, I am satisfied that the information contained in the EIAR and supplementary information provided by the developer is sufficient to comply with Article 94 of the Planning and Development Regulations, 2001 (as amended). The details of my assessment of likely significant effects are below.

16.4. **Assessment of Likely Significant Effects**

16.5. This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out in Section 171A of the Planning and Development Act 2000, as amended:

- Population and Human Health.

- Biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively).
- Land, Soil, Water, Air and Climate.
- Material Assets, Cultural Heritage and the Landscape.
- The interaction between these factors.
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

16.6. In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following headings:

- Issues raised in the application.
- Examination of the EIAR.
- Analysis, Evaluation and Assessment: Direct, indirect, cumulative and residual effects and proposed mitigation measures.
- Reasoned Conclusion on the significant likely effects of the project on the environment.

16.7. Population and Human Health

16.7.1. Issues Raised

16.7.2. I note that third-party submissions received express concerns relating to population and human health. Concerns were raised regarding continuous lighting from port and shipping lighting and noise from shipping equipment, which affect Monkstown village, in the absence of monitoring and mitigation measures. Pfizer Ireland Pharmaceuticals also raised concerns regarding dust emissions, detailing repeated incidents of dust impacting their adjacent facility, disrupting operations, increasing costs and posing nuisance and risks to staff health (e.g. grit and breathing difficulties). It is submitted that current dust controls are inadequate and that more robust conditions be imposed,

including restrictions on bulk off-loading activities in adverse weather or the relocation of such activity.

- 16.7.3. The submissions from prescribed bodies raise no specific concerns regarding population and human health. The Health and Safety Authority raised no objections to the proposed development. Cork County Council's submission notes that while the construction phase would temporarily affect human health, the proposed development would bring direct and indirect economic benefits to the local economy.
- 16.7.4. The applicant responded to the issues raised in the submissions received regarding Population and Human Health. Regarding the issue of lighting, the applicant confirms their commitment given in the EIAR to minimise the impact of light pollution while ensuring the operational and navigational safety requirements for the Port facility. The applicant states that any construction lighting or shore-based operational lighting will not interfere with existing Aids to Navigation and that statutory consent will be sought from the Commissioners of Irish Lights for any changes to or removal of existing Aids to Navigation prior to commencement of works. Regarding noise, the applicant notes the operational noise thresholds as conditioned under ABP Ref PA04.PA0035. The applicant states that consideration of 2014 noise data/modelling is appropriate and justified, given the validation of the data in 2024 by an updated attended noise survey in 2024, as detailed in Chapter 9 Noise and Vibration, pg. 198. The applicant notes that a typical noise survey of ferry and container vessels is detailed in Section 9.2.5.1, pg. 200, and that ship movement/port activities, where audible, are detailed in column V of the 2024 Baseline Noise Monitoring Comparison (EIAR Vol. IVa Appendix 4.4).
- 16.7.5. Addressing concerns raised regarding dust, the applicant agrees with the requirement of commitment by the Port of Cork Company to ongoing monitoring and mitigation review for dust-sensitive receptors. The applicant states that an Environmental Management System (EMS) was required to be submitted to Cork County Council in compliance with Condition No. 9 of ABP Ref PA00035, including proposals for the suppression of dust and a monitoring programme for all relevant environmental parameters, including noise, dust and surface water. The applicant confirms that an Operational Environmental Management Plan (OEMP) was submitted to Cork County Council, and agreed on the 9th December 2021. The applicant describes how the OEMP included a Dust Minimisation Plan where dust would be minimised at the Cork Container Terminal by adhering to regular road cleaning and sweeping, using water

browsers in dry weather to dampen dust, mandatory speed limits throughout the Terminal and the use of dust suppression systems for bulk discharges. It also made provisions for emission and dust monitoring, including daily visual dust monitoring through inspections by the Terminal Manager and dust deposition monitoring occurring at least twice a year, per VDI 2119: Measurement of Dust Using a Bergerhoff Dust Deposition Gauge. The applicant agrees to a similar condition being applied to the proposed development and submitting an updated EMS report if permission is granted. The applicant notes how a Construction and Environmental Management Plan was agreed with the Council under Condition No. 10 of ABP Ref PA00035, which included proposals for the suppression of dust on site, monitoring of noise, vibration and dust, etc. during the construction phase.

16.7.6. Methodology

- 16.7.7. The EIAR study area for assessing impacts on population and human health includes Ringaskiddy Village and the residential community of Shanbally. The study area was determined by a detailed assessment of the baseline human environment, identification of potential receptors, appraisal of the proposed development, identification of potential impacts and consultation with relevant stakeholders and the public. The baseline methodology involved a desktop analysis of available mapping and aerial images, census analysis, review of relevant documents, comments from statutory bodies and the public consultation process, and consultation with the Port of Cork Company.
- 16.7.8. Regarding the assessment of population, the EIAR methodology had regard to the EIA Directive 2014/52/EU, EPA Guidelines on the Information to be contained in EIA Reports (2022), the DHPLG Guidelines for Planning Authorities and An Bord Pleanála on carrying out EIA (2018) and Fáilte Ireland Guidelines on the Treatment of Tourism in an Environmental Impact Statement (2011). Regarding the assessment of human health, the EIAR took into consideration relevant guidance, including the Institute of Public Health Ireland Health Impact Assessment Guidance (2009), IEMA Guidelines regarding Health in EIA (2017 and 2020) and US EPA Health Impact Assessment Guidelines (2016).
- 16.7.9. The EIAR categorises likely significant effects by comparing the ‘Do-Nothing’ and the ‘Do-Something’ scenarios during the construction and operation phases, as per the

EPA Guidelines (2022). The EIAR identifies effects by type (direct, indirect, secondary, and cumulative effects), quality (positive, negative or adverse), and significance (ranging from imperceptible to very significant and profound effects). The EIAR notes that the significance of an impact can depend on the location and character of the local environment, the sensitivity of the population, and the timing, duration, magnitude (duration and frequency) and probability of effects.

16.7.10. Baseline data is sourced from various secondary data resources, including the Cork County Development Plan 2022-2028, Cork City Development Plan 2022-2028, Port of Cork Masterplan 2050, the Ballincollig Carrigaline Municipal District LAP (2017), CSO 2022 data, and various aerial photography/mapping sources.

16.7.11. The EIAR's Chapter 5 on Population and Human Health is supported by two appendices: the Socio-Economic Impact of Ringaskiddy Port Redevelopment (2.1) and the Port of Cork Rail Connection Report (2.2).

16.7.12. **Baseline Conditions**

16.7.13. The baseline environment is detailed in Section 5.3 of the EIAR. The site of the proposed development is located adjoining Ringaskiddy village (population c. 570) and close to Shanbally Village, to the west. The N28 road runs through Ringaskiddy village to the south of the site. Ringaskiddy village is dominated by port and industrial uses and is designated as a Strategic Employment Location in the Cork County Development Plan 2022-2028. Ringaskiddy is connected by road to Haulbowline Island at the eastern end of the village, home to an Irish Defence Forces Naval Base and a 22-acre People's Park. A crematorium is located on a small island, Rocky Island, between Haulbowline and Ringaskiddy. Spike Island is located in the lower Cork Harbour, to the east of Ringaskiddy. Nearby settlements include Monkstown village (population c. 6,051) across the harbour, north-west of Ringaskiddy, Cobh town (pop.14,148) to the north-east, Carrigaline (pop. 18,239) c. 5km to the south-west and Crosshaven (c.3,263) to the south-east of Ringaskiddy.

16.7.14. The EIAR identifies sensitive receptors as residential, direct/indirect economic, social and community facilities and transient populations. The report states that no residential properties directly adjoin the Port lands. The closest residential properties (c.30) are located to the south of the N28 on the main streets of Ringaskiddy Village, and there are fewer than 200 residential units within 500m of the site. The report states

that more than 200 residential properties are adjacent to the N28 road from the existing entrance of the Ringaskiddy port to Dunkettle Roundabout. The EIAR states that there is no land zoned in Ringaskiddy or Shanbally specifically for future residential development, both of which are subject to 'Town Centre / Neighbourhood Centre' zoning (RY-T-01 and RY-T-02).

16.7.15. Regarding economic receptors, the report details how Ringaskiddy is dominated by industrial development, including the Pfizer site and former ADM factory and tank farm (currently unused) to the west of the Port's landholding and several other major pharmaceutical and biochemical companies located to the south of the N28 and east of Ringaskiddy. Other companies located in Ringaskiddy include car importers and storage and manufacturing businesses. There are limited commercial activities in Ringaskiddy and Shanbally, including public houses, shops and cafés.

16.7.16. The EIAR provides details of commercial activities within Cork Harbour, which is one of the largest natural harbours in the world. CSO records showed that c.1,372 commercial ships entered Cork Harbour in 2023. Tourism-related activities in and around Cork Harbour include Spike Island and cruise liner traffic, which are linked to Cobh town. The village of Ringaskiddy is an arrival/departure point for tourists on cruise liners and passengers using the Cork-Roscoff car ferry, which operates twice weekly (Saturdays and Wednesdays). The report notes that there are no tourist routes, walking trails, amenities, or heritage / cultural sites of major significance within Ringaskiddy village.

16.7.17. The EIAR details how most land within Ringaskiddy is zoned for industrial-related development and how the land surrounding the site is in port ownership and zoned for port facilities and activities. The report details how the Port of Cork employs 90 people at the Ringaskiddy site. Land east of the site is zoned as a third-level educational campus for MaREI (Science Foundation Ireland Research Centre for Energy, Climate and Marine Research). The report provides details of schools, third-level education, childcare, community, recreational and amenity facilities in the surrounding area. Monkstown Bay Sailing Club operates from De Vesci Place (clubhouse) and Sand Quay (dinghy park), c. 1.15km and 940m northwest of the site. The report notes how there are boat launching facilities in Monkstown and how Glenbrook has one public slipway. The sailing club also uses the slipway owned and

maintained by the Port of Cork. Details on sailing, rowing, kayaking, and swimming activities that use Cork Harbour are provided.

16.7.18. The EIAR details demographics in the Carrigaline ED taken from the 2022 Census. In 2022, Ringaskiddy and Shanbally had populations of 575 and 350, respectively, experiencing less than 1% change in population since the 2016 census. Unemployment rates in 2022 were 3% in Ringaskiddy and 2% in Shanbally. Regarding housing stock, Census data showed that Ringaskiddy had an 8% vacancy rate, while Shanbally had a 2.5% .

16.7.19. **Potential Effects**

16.7.20. The EIAR assesses the potential impacts on population and human health with regard to economic activity, social considerations, land use and health and safety. A report on the socio-economic impact of the proposed development, prepared by Indecon Economic Consultants, is included in Appendix 2.1 of the EIAR. The report notes that, given that some of the work is complete, some of these impacts have already been realised.

16.7.21. Under the 'Do-Nothing' scenario, the EIAR identifies how the Port of Cork would continue to operate from its existing locations, handling freight, cargo and passenger traffic on a commercial basis. In the short term, port activities at existing locations would intensify in response to economic demands, albeit within the parameters of existing relevant Harbour Works Orders and planning permissions. However, in the long term, there would be significant, wide-reaching negative impacts related to competitiveness, regional economic growth, and sustainable transport patterns. Regarding competitiveness, the physical constraints of the Jack Lynch tunnel, the depth of the channel, and the width of the river at the Tivoli and City Key sites mean that larger ships could not be accommodated. This would impact the competitiveness of commercial activities in the southwest region, which rely on port trade. The Indecon Report estimates that if the Port of Cork fails to respond to the trend towards larger container vessels, it would lose trade and larger unitised freight customers from around 2022 onwards. The EIAR estimates that the overall value of this loss in trade from the Port of Cork could total between €21.1 billion and €25.7 billion in present value terms over the period to 2033. The report states that any compromise to the competitiveness of the Port of Cork would undermine the vitality and economic growth

targets for Cork Gateway and the South-West Region. Research undertaken by Indecon found that the failure to address future capacity requirements of the Port of Cork and the repercussions of diversions to other ports would undermine the attractiveness of the Cork region for future investment and job creation. This would lead to increased environmental costs associated with the transportation of goods and the overall costs of transporting goods to/from Ireland. The report highlights how the 'Do-Nothing' scenario would have negative impacts on the potential of the Port of Cork to be connected to the Trans-European Transport Network (TEN-T), with consequential negative impacts on the integration of the Southwest Region with the rest of Europe. Furthermore, the 'Do Nothing' scenario would stifle the strategic spatial development objectives for the South-West Region and limit the potential of development land within Cork City as set out in the NPF and the Cork County Development Plan.

16.7.22. During the construction phase, the EIAR identifies impacts on economic activity whereby the construction of the proposed development would result in c. €190 million capital expenditure, creating 1,473 direct and indirect full-time equivalent jobs with an implied economy-wide income support of €58.8 million. The report states that this would have a moderate, positive, short-term impact on direct and indirect construction employment, construction suppliers and associated economic activity. Regarding social considerations, the report states that the development has resulted in changes to existing recreation and amenity provisions within Port lands and the harbour with the completion of Paddy's Point Amenity Area.

16.7.23. Regarding land use, the report states there would be no change to existing site access via the port access road. The construction site would include a site office, a secure compound for storing materials and plant, a temporary vehicle parking area and storage for excavated materials before off-site disposal. The report states that health and safety risks would arise from construction activities, including blasting and heavy plant and machinery operations, causing injury or death.

16.7.24. During the construction phase, the EIAR identifies how the proposed development would facilitate the relocation of some bulk goods cargo from the City Quays and container activities from Tivoli, which would enable the development of the Cork Docklands and Tivoli for mixed-use development, consistent with national, regional and local spatial planning policies. The report states that relocating container

activities from Tivoli would free up c. 150 hectares of land for potential development. This would act as a significant catalyst for the redevelopment of the City Quays and Tivoli sites and have a significant, positive, permanent impact on the development of Cork City and County. Regarding economic activity, the EIAR states that 75 workers have been deployed from Tivoli and the City Quays to Ringaskiddy, where overall port operations support c.600 full-time equivalent jobs. The report estimates that as port trade grows, employment would increase from 171,787 in 2012 to 354,256 in 2033. Furthermore, the report forecasts that trade value would grow from €13,937m in 2012 to €28,741m by 2033. The report considers that the operational phase would have a significant, positive, permanent impact on the region's economic activity.

16.7.25. The EIAR highlights how Paddy's Point Amenity Area has opened as part of the implemented planning permission, which provides improved parking and boat storage facilities, landscaping and amenity areas. Regarding population change, the report states that the proposed development would not impact the population of Ringaskiddy village or surrounding settlements. Regarding land use, the report states that the proposed development would intensify the existing port area, reclaim some of the harbour area, and provide storage for containers on lands east of the proposed new quay wall at Ringaskiddy East. The reclamation of areas of the harbour would change the area's physical structure from 'port operation waters' to 'port operation lands'. However, it is submitted that the use of the area would remain 'port operations' and, therefore, have a significant neutral permanent impact on 'land' use. The report deems the storage of containers on lands east of the new quay wall as having a long-term change of land use to active industrial use. However, this would provide more intensive and appropriate land use, resulting in a moderate positive long-term impact.

16.7.26. During the operation phase, the EIAR identifies the main health and safety risks arising from the operation of plant and machinery, the storage of bulk goods and the movement and storage of containers on the port lands. The report identifies how storing certain bulk goods onshore and importing international cargo have an associated risk of rodents and other pest nuisances. The EIAR also identifies the potential risk of accidents related to increased road and sea freight traffic. However, the report states that, subject to the implementation of road and sea traffic management operational procedures, the operational phase of the proposed

redevelopment would have a negligible, neutral, permanent impact on health and safety.

16.7.27. **Mitigation Measures**

16.7.28. The EIAR states that, given that no negative impacts are identified relating to economic activity, social considerations, and land use, no mitigation measures are proposed relating to these issues. Regarding health and safety, a Project Supervisor Design Process (PSDP) and a Project Supervisor Construction Stage (PSCS) would be appointed at the different stages to address and minimise construction risks during the design and construction period. Notification of this appointment would be sent to the HSA. A Preliminary Health and Safety Plan would be drawn up by the PSDP and reviewed by the project team. Health and Safety activities for port operations would be guided by relevant national health & safety legislation and international ISO standards. A safety file would be compiled and maintained on site for the project's duration, and the plan's implementation would be subject to regular audits.

16.7.29. Regarding pest control, the Port of Cork operates an 'Integrated Pest Management' approach that anticipates and prevents pest activity and infestation through education, inspection of imported cargo, proper waste management, maintenance of bulk storage areas, and pesticide application when necessary.

16.7.30. **Residual Effects**

16.7.31. No residual effects are identified.

16.7.32. **Potential Interactions & Cumulative Impacts**

16.7.33. Further to a review of recently approved or pending developments, and existing development in the vicinity, the EIAR considers that cumulatively the continuing development of commercial, industrial and port activities would have a significant positive impact on the economic vitality of Cork and its region.

16.7.34. **Assessment**

16.7.35. Having examined Chapter 5 of the EIAR, associated appendices and the submissions received, I consider that the direct and indirect effects of the proposed development on population and human health would not be significant. The

construction of the proposed development would significantly impact economic activity by generating c. 849 direct jobs and c. 1,473 full-time equivalent (FTE) direct and indirect multiplier jobs for the full development proposal. Consequential impacts, including traffic, noise, dust and vibration, are addressed further below. The operation phase of the proposed development would not significantly impact population settlements by reason of its location on land use zoning for industry (ZU 18-16 / RY-I-18), the purpose of which is to facilitate industrial and warehousing uses, activities and processes, which would, in general, give rise to land use conflict if located within other zonings. At the time of the 2022 Census, Ringaskiddy village had a housing vacancy rate of 8%. It is not unreasonable to conclude that the employment generated from the proposed development could contribute to reducing this vacancy rate. Furthermore, relocating activities and freeing up c. 150 ha of land in the Cork Docklands and Tivoli for mixed-use development would enable long-term positive impacts regarding urban redevelopment, housing, employment and amenities at these locations.

16.7.36. During the operation phase, the proposed development would positively impact economic activity, whereby port operations would support c. 600 FTE jobs between the Port of Cork and wider service providers linked with the port's activities. In the long term, further jobs would potentially be created with the growth of port trade and activities.

16.7.37. Regarding human health and safety, I am satisfied that the applicant is taking appropriate measures to address pest control with the implementation of a Pest Management Programme overseen by and compliant with the requirements of the HSE. Any concerns regarding traffic and road safety are addressed further below. The appointment of a PSDP and PSCS would coordinate and supervise all safety aspects of the project. As detailed in the EIAR, a Safety File would be compiled and maintained on site for the duration of the project, and its implementation would be subject to regular audits. Strict security procedures are already in place on site to deal with all access on a 24-hour basis. Appendices 11.1-3 of the EIAR, including the Port of Cork RMMP Operating Framework, the CCT Operational Environmental Management Plan, and the Outline CEMP, detail measures to minimise risk to construction workers and the public. Control measures include, *inter alia*, implementing health and safety plans, risk assessments, 24-hour site security, suitable fencing, security gates, signage in

place, accident prevention and emergency response procedures, and adherence to relevant statutory regulations and standards.

16.7.38. Concerns raised regarding lighting, noise, dust and traffic and their impact on adjacent properties and the surrounding area are addressed further below under the environmental topic headings 'Noise and Vibration', 'Air Quality', 'Traffic and Transportation' and 'Landscape and Visual Impact'. In summary, I conclude that while these effects are likely to occur, their impact would be temporary and local in extent and subject to the implementation of the proposed mitigation measures and the implementation of a comprehensive CEMP including, *inter alia*, site specific mitigation measures ensuring dust suppression and directional low spill lighting, monitoring, a complaints and response protocol, along with a mobility management plan, would addresses these concerns and prevent significant effects.

16.7.39. Having reviewed the documentation on file, I consider there would be no cumulative impacts with other permitted or planned projects in the surrounding area that would significantly adversely impact population or human health, and no residual impacts would occur.

16.7.40. **Conclusion**

16.7.41. I conclude that, subject to the implementation of the proposed mitigation measures, the proposed development would have no significant effects on the local population and human health.

16.8. **Cultural Heritage**

16.8.1. **Issues Raised**

16.8.2. The Development Applications Unit (DAU) of the Dept. of Housing, Local Government and Heritage made specific recommendations for the protection of underwater cultural heritage, including the appointment of a Project Archaeologist to oversee and advise on all aspects of the project and that that an Underwater Archaeological Impact Assessment be submitted to the Department for review and approval before all geotechnical investigation works occur. Furthermore, archaeological monitoring should be undertaken under an archaeological licence during construction and provision for mitigation where potential impacts on wrecks, archaeological objects,

submerged palaeo-landscapes, or other archaeological sites and features are identified.

16.8.3. Cork County Council's County Archaeologist advises that while non-intrusive archaeological surveys have been undertaken within the Ringaskiddy area, further investigations may be required. The County Archaeologist recommends that planning conditions be attached to any grant of planning permission so that any impacts to sub-surface archaeological features can be dealt with. These include that the CEMP include the location of any and all archaeological or cultural heritage constraints relevant to the proposed development, describe all identified likely archaeological impacts (direct and indirect), and all proposed mitigation measures to protect the archaeological or cultural heritage environment during all phases of site preparation and construction activity. The CEMP should be submitted to the County Archaeologist / Local Authority for written agreement prior to the commencement of development. This would ensure the continued preservation [either in situ or by record] of places, caves, sites, features or other objects of archaeological interest. A Condition should also be imposed requiring the developer to engage a suitably qualified archaeologist with underwater/maritime/marine dredging experience to monitor (licensed under the National Monuments Acts) all site clearance works, any topsoil stripping, groundworks, including all dredging and reclamation activities including seabed, inter- tidal/foreshore and terrestrial disturbances and the implementation of the mitigation measures identified in Chapter 6 of the EIAR. Should archaeological remains be identified during the course of archaeological monitoring, all works should cease in the area of archaeological interest pending a decision of the planning authority, in consultation with the National Monuments Service, regarding appropriate mitigation (preservation in situ/excavation).

16.8.4. The third-party submissions raise no specific concerns regarding cultural heritage.

16.8.5. The applicant responded to the issues raised in the submissions received regarding underwater archaeology. The applicant confirms their commitment to implementing the mitigation measures set out in the EIAR and the mitigation measures in Section 7 of the submitted Underwater Archaeology Impact Assessment. Furthermore, the applicant confirms that the Underwater Archaeological Impact Assessment (UAIA) completed in 2024 will be updated as appropriate for all seabed preparation works and submitted to the Department of Housing, Local Government and Heritage for formal

approval. The applicant notes that the layout and design of the proposed scheme are unchanged from the previous consented development under ABP Ref PA04.PA0035 (as amended). Furthermore, the applicant notes their ongoing engagement with the National Monuments Service.

16.8.6. **Methodology**

16.8.7. The EIAR states that the cultural heritage assessment methodology included a desktop study of known archaeological and architectural sources, with a marine geophysical survey and archaeological dive inspection conducted in 2005-06, providing a foundation for a phase of additional inspections conducted in 2012, 2014 and 2024 by Mizen Archaeology. Consultations included the archives of the Irish Antiquities Division of the National Museum of Ireland, DAHG Sites and Monuments Records, DAHG Historic Shipwreck Inventory files and Places and Ports archive, the NIAH, cartographic sources including Admiralty Charts and OS maps, as well as OPW Piers and Harbour Structures files, Excavation Bulletins and other relevant published sources. Data was also acquired from a port commissioned marine geophysical survey conducted in 2005, a licensed archaeological diver inspection in 2006 and intertidal and licensed sub-tidal dive inspections in 2012, 2014 and 2024. The EIAR details the classification of impacts, including significance and duration.

16.8.8. The marine geophysical surveys 2005-2006 focused on two areas: an area at Oyster Bank and the Ramp that includes the current redevelopment proposals within Ringaskiddy East, and a large area that extended to either side of the ADM Jetty and included the area of the current development footprint in Ringaskiddy West. The work identified a series of anomalies on the seabed, which divers subsequently inspected to assess their archaeological potential further. The EIAR states that none of the anomalies proved to be archaeological in nature. The survey grid at Oyster Bank and the ADM Jetty was conducted at 50m intervals, which ensured 100% coverage of the seabed area and extended beyond the area of the seabed where works are proposed for the subject application. Further details on the methodology employed in the survey are provided in the EIAR, including the use of a C-Boom sub-bottom profiler, dual-frequency side-scan sonar device, and an AX2000 Proton magnetometer. The methodology details the characteristics of the seabed surveyed and anomalies identified, including 22 anomalies at Oyster Bank and 11 anomalies at the ADM Jetty

site. Field site inspection was undertaken in the Ringaskiddy East area within the footprint of the proposed development. No material of archaeological significance was observed.

16.8.9. The EIAR details how underwater inspection was completed in 2014 at four locations, including a c. 500m long and 50m wide section along the shore of Ringaskiddy East, the No. 2 dolphin ramps on the southern side of the port, where it is proposed to improve the road network within the port, the area of the Deepwater Ringaskiddy Port Berth in Ringaskiddy West which is to be extended towards the ADM Jetty and at Paddy's Point, where the new public slipway and amenity area would be (is now) located. Further details on the underwater inspection and its findings are provided, including depths, equipment used and seabed findings. No material of archaeological significance was observed.

16.8.10. The EIAR provides further details of an underwater archaeological assessment undertaken in 2024 by Mizen Archaeology (detailed in Section 6.6 of the EIAR), which includes the two dredge pockets of berth and basin previously permitted for Ringaskiddy Basin, bordering the northwest and southeast of the entrance, as well as the proposed licensed disposal site located 4.5km South of Power Head at the mouth of Cork Harbour. The EIAR details the methodology employed, including data sources (as detailed above) and the desktop review addressing prehistoric to post-medieval and modern periods.

16.8.11. The EIAR's methodology on Cultural Heritage is supported by appendices, including a Gazetteer of Archaeological Data Relevant to Ringaskiddy (Appendix 3.1) and a Diver Truthing of Marine Geophysical Anomalies Detected on Oyster Bank and at the ADM Jetty (Appendix 3.2).

16.8.12. **Baseline Conditions**

16.8.13. The EIAR describes Ringaskiddy as one of a series of natural havens that populate the edges of the wider Cork harbour, which defines its cultural heritage context. The report states that two coastal midden sites (low mounds of domestic waste) exist on the eastern shore overlooking the West Channel (Register of Monuments and Places [RMP] CO087-54 and -161). A geophysical survey during works associated with the N28 road scheme in Barnahely townland, to the southwest of the site, revealed a complex of interlocking enclosure features indicative of

unenclosed settlement sites that might be Bronze Age or Iron Age in date (RMP CO087-155). The EIAR details a former ecclesiastical site (RMP CO087-061) belonging to the early medieval period in Ballintaggart townland to the west of the site. From the Prehistoric Period, the report notes 300 Late Mesolithic lithics close to Roches Point at the mouth of the harbour, a Rostellan dolmen (port tomb) on the eastern side of the harbour, and numerous fulacht fiadh. From the medieval period, the EIAR details the ruined remains of a sixteenth-century tower house castle and its bawn survive (RMP CO087-052) in Barnahely townland and Castle Warren tower house south of Barnahely Church (RMP CO087-051). From 1812 to 15, the EIAR details the large Martello tower (RMP CO087-053) built on the highest point of Ringaskiddy promontory to the west, representing the most prominent statement of the location's maritime heritage. Other prominent fortifications in the vicinity include a magazine (RMP CO087-105) on Rocky Island north of Ringaskiddy and fortifications on Haulbowline Island (CO087-059001-3).

16.8.14. Drawing on cartographic sources and architectural evidence, the EIAR details the evolution and development of Cork Harbour, Ringaskiddy, its shoreline, and Haulbowline and Spike Islands from the 1670s. The report notes the Martello Tower and Barracks (NIAH 20908747) as features of architectural heritage interest and a complex of archaeological features (CO087-059001-3), which are located 1.1km away from the site. Appendix 3.1 of the EIAR provides a gazetteer of archaeological data relevant to Ringaskiddy. The EIAR states that maps indicate the absence of shipwrecks at Ringaskiddy. The report notes only four possible instances of wreckage that occur close to Ringaskiddy, at Cobh and near Rocky and Haulbowline Island. The report identifies that there are no wrecks listed specifically to 'Ringaskiddy' in the NMS's Wreck Inventory Database of Ireland. The report states that licensed archaeological work undertaken around the port has yielded few significant findings.

16.8.15. **Potential Effects**

16.8.16. The EIAR states there are no identified potential impacts in the 'do nothing' scenario. During the construction phase, the report states that the most significant impact would occur from the dredging works arising from the works in the proposed Ringaskiddy East quay wall extension, Ringaskiddy West and associated dredging activities. The report notes that it is unlikely that development works would encounter

archaeological evidence on the landward sides of the area reclaimed in the twentieth century. Any works that extend below the depth of reclamation would represent excavation into unrecorded levels and would require an archaeological resolution.

16.8.17. The EIAR details how dredging in Ringaskiddy East would extend from the current level of c. -1.5m CD (chart datum) at the shoreline to a level of -13m CD, which is 1.25m below the general basin level of 11.75m. The report states that this would have a significant direct permanent impact on the seabed and require an archaeological resolution.

16.8.18. **Mitigation Measures**

16.8.19. The EIAR sets out a range of mitigation measures to address impacts on cultural heritage features during the construction and operation phase, which are summarised as follows:

16.8.19.1. Construction Phase

- Archaeological monitoring would be carried out during all seabed, intertidal/foreshore and terrestrial disturbances, by a suitably qualified maritime archaeologist licensed by the Department of Housing, Local Government and Heritage (DHLGH).
- A finds retrieval strategy, in compliance with the requirements of the National Museum of Ireland, would be implemented.
- A suitably qualified archaeologist with maritime experience would be retained for the duration of the relevant works, with access to the construction schedule to enable targeted monitoring.
- In the event that archaeologically significant features or materials are uncovered, works would cease in the immediate area to allow for inspection. The DHLGH and NMI would be notified in line with licensing requirements.
- Where avoidance is not possible, full archaeological recording and excavation would be carried out, with a suitably qualified archaeological team (including a licensed dive team on standby) available for rapid response.

- The Port of Cork would provide on-site facilities, including a site office and secure wet storage, to support archaeological works.
- Machinery movements would be restricted to avoid identified archaeological sites and their environs.
- All measures outlined in the submitted Underwater Archaeological Impact Assessment (Mizen Archaeology, 2024) would be implemented in full, subject to any requirements arising from the Dumping at Sea permit.
- The CEMP would include all identified archaeological or cultural heritage constraints, impacts, and mitigation measures.
- A final archaeological report would be submitted to the DHLGH following the completion of the work, with all archaeological costs to be borne by the developer.

16.8.19.2. Operation Phase

- The specific mitigation measures outlined above would also apply to the operational phase, where relevant, in particular during any future maintenance dredging works.
- UAU compliance requirements are built into the maintenance Dumping at Sea permit (S0013-03).

16.8.20. **Monitoring**

16.8.21. During construction, archaeological monitoring would be undertaken during all relevant ground disturbance activities, ensuring a safe working environment and establishing procedures for retrieving and assessing artefacts. All monitoring would be carried out by suitably qualified archaeologists operating under the appropriate licences. No specific monitoring is required for the operation phase of the development.

16.8.22. **Cumulative Effects**

16.8.23. The report states that historic and contemporary projects within Cork Harbour, including the Spike Island Masterplan, Monkstown Marina, and the Haulbowline East

Tip Remediation Project, have been considered in combination with the proposed development. No significant cumulative effects on cultural heritage are predicted.

16.8.24. **Residual Effects**

16.8.25. The EIAR states that no residual impacts on archaeological features are anticipated during the construction phase, as any finds or sites encountered would be resolved during the construction stage through the agreed mitigation strategy. No residual cultural heritage impacts are anticipated during the operational phase, as it is understood that any archaeology would have been addressed during construction.

16.8.26. **Assessment**

16.8.27. I have examined Chapter 6 of the EIAR and associated appendices, the issues raised in the submissions received regarding cultural heritage and the applicant's response to the issues raised in the submissions. It is my view that the methodology used in the EIAR is comprehensive and that the cultural heritage assessment was adequately informed by detailed desk-based research, historical cartographic analysis, marine geophysical survey, diver inspection, intertidal survey, and archaeological monitoring.

16.8.28. I consider that the potential direct effects on cultural heritage would arise during the construction phase, specifically from dredging activities within Ringaskiddy East and Ringaskiddy West. The EIAR indicates that these works would involve significant direct and permanent disturbance of previously undisturbed seabed to depths of -13m CD (from the current level of c. -1.5m) at Ringaskiddy East and -13.4m CD (from the current level of c. -0.4m CD) at Ringaskiddy West. The approach to the berths would be dredged to -11.75m CD. While the EIAR acknowledges a low potential for encountering previously unrecorded archaeological material, given the absence of recorded wrecks or features within the dredge pockets and the extent of prior archaeological surveys undertaken as part of the original application, it is my view that the likelihood of direct significant impacts occurring would be low. Notwithstanding this, the EIAR proposes a range of mitigation measures, as detailed in Section 6.9 and Table 20-2 of the EIAR, including *inter alia*, continuous watching brief by a DAHG licensed maritime archaeologist (CH_01), the retention of a standby dive team in the event of discovery of archaeologically significant features (CH_09), immediate

cessation protocols in the event of archaeological discovery (CH_06), recovery and reporting obligations (CH_06), integration into the CEMP (CH_15) and final archaeological reporting to the DHLGH (CH_16). I consider that the proposed mitigation measures are comprehensive. They would ensure that any unexpected archaeological discoveries are appropriately resolved without resulting in significant adverse effects. Furthermore, the applicant confirms that the Underwater Archaeological Impact Assessment completed in 2024 would be updated as appropriate for all seabed preparation works and submitted to the Department of Housing, Local Government and Heritage for formal approval. This would provide appropriate regulatory oversight and approval by the DHLGH, ensure its alignment with current statutory requirements, and safeguard the protection and management of underwater cultural heritage assets during construction. I concur with the EIAR that operational phase monitoring is not warranted given that maintenance dredging is already conditioned under the Dumping at Sea permit (DaS Ref. S0013-030).

16.8.29. Land-based works would take place within the existing reclaimed ground. Given the nature and location of the proposed works within an existing heavily modified and industrialised port environment, I consider that indirect impacts on the wider cultural heritage setting, including, *inter alia*, cultural heritage features on Spike Island, the Magazine on Rocky Island (NBHS Ref. 20908744), Haulbowline Island, the Martello tower (RMP CO087-053) to the south, Castle Warren tower house (RMP CO087-052) and other protected structures and recorded monuments nearby, would not occur.

16.8.30. Having regard to other permitted or completed projects in Cork Harbour, such as the Spike Island Masterplan, Monkstown Marina, and the East Tip Remediation Project, I consider the proposed development would not result in significant cumulative impacts on the cultural heritage environment of the area when considered in combination with these projects. The visual and physical changes to the setting of heritage assets in the surrounding area have already occurred and have been absorbed by the established port environment. The completion of this phase of the previously permitted development would add very little to that context. I consider that, subject to the implementation of the proposed mitigation measures, any

archaeological discovery would be resolved in situ or by controlled excavation. As such, no significant residual impacts would occur.

16.8.31. Conclusion

16.8.32. In consideration of the above, I conclude that the proposed development would not result in significant direct, indirect, cumulative, or residual effects on cultural heritage, subject to the full implementation of the proposed mitigation and monitoring measures.

16.9. Landscape and Visual Impact

16.9.1. Issues Raised

16.9.2. I note the third-party submissions expressing concerns in relation to landscape and visual impact. It is submitted that continuous light pollution from the port and shipping vessels, exacerbated by water reflection, adversely impacts Monkstown village. It is submitted that the proposed development would exacerbate this problem unless appropriate lighting protocols are imposed.

16.9.3. An Taisce raised concerns regarding the adequacy of lighting design, recommending that the proposal include detailed environmentally friendly lighting specifications to protect nocturnal animals, insects and the dark sky cultural resource. An Taisce submit that the EIAR does not detail the colour temperature of the proposed lighting, which is recommended to be below 2,700 Kelvin by dark sky experts such as Dark Sky Ireland. The Commissioners of Irish Lights submission advises that construction and operational lighting must not interfere with existing Aids to Navigation and that statutory consent is required for any changes to existing lighting beacons.

16.9.4. The submission from Cork County Council acknowledges that the site lies within the City Harbour and Estuary landscape character area, with adjoining lands to the south and around Cork Harbour designated as 'High Value Landscapes'. The Local Authority notes that there are Protected Structures in proximity to the site, including the Martello Tower and Castlewarren Stronghouse. The Local Authority submits that the proposal is consistent with existing port activities and structures and that the landscape has the capacity to absorb the proposed development without significant impact.

16.9.5. In response to the issues raised in the submissions regarding landscape and visual impact, the applicant confirms their commitment, as given in the EIAR, to minimise the impacts of light pollution while ensuring the operational and navigational safety requirements for the Port facility. The applicant states that construction lighting or shore-based operational lighting would not interfere with existing Aids to Navigation and that statutory consent would be sought for any changes to or removal of existing Aids to Navigation.

16.9.6. **Methodology**

16.9.7. The EIARs assessment methodology regarding landscape and visual impact involved a desktop study and site visits to assess the quality and type of views of the area, as well as the character of the site and surrounding landscape. The report details the relevant legislation and guidance informing the methodology and assessment, including the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute and IEMA, UK 2013). The report details the criteria used to describe the significance, quality, and duration of the proposed development's effects in Table 17.1. The significance of effect criteria ranges from imperceptible to profound effects. The quality of the effects ranges from negative/adverse to positive, and the duration and frequency of the effects range from momentary (seconds to minutes) to permanent.

16.9.8. The report details how a series of photomontages was prepared to represent the physical and visual characteristics of the proposed development from various locations around the site. These prioritise views from the public domain, such as roads, to views from potentially sensitive locations, such as scenic routes. Visuals are provided for existing and proposed views, with the proposed development outlined in red where not visible. The EIAR's Chapter 7 on Landscape and Visual is supported by photomontages of the Port of Cork in Appendix 10.1.

16.9.9. **Baseline Conditions**

16.9.10. The EIAR describes the character and context of the site and the surrounding area. The site is c. 16km southeast of Cork City, where the Port of Cork is a ferry and shipping port of national significance. The N28 road links Ringaskiddy to Carrigaline and Cork City, where it connects with the N40, N25 and the M8. The Port of Cork at Ringaskiddy contains a jetty, silos, warehouses, a ferry terminal building, a

maintenance and office building, a quay, deep water berths, cranes, gantries, a container storage area and the recreational area at Paddy's Point. Surrounding land uses are mostly industrial and pharmaceutical, including Pfizer, Janssen Bio, and the National Maritime College. Other landscape features in the port include Rocky Island (used as a crematorium), Haulbowline Island (naval base and public park) and Spike Island (museum and heritage centre).

16.9.11. The EIAR details the planning policy context of the site, where it is zoned as 'Industry' under the Cork County Development Plan 2022–2028, and Objective ZU 18-16: Industry, which promotes, *inter alia*, port-related facilities and activities. The report references Development Objective RY-I-18, which notes the site's proximity to the Cork Harbour SPA and the biodiversity sensitivities of the area, particularly relating to bird species of conservation interest. The report also references the Transport & Mobility Objective: TM 12-15, which seeks, *inter alia*, to ensure appropriate road transport capacity to facilitate the strategic port facilities at Ringaskiddy, as well as the upgrading and realignment of the N28 Cork to Ringaskiddy Road.

16.9.12. The EIAR provides a summary of Cork County Council's Draft Landscape Strategy (2007), which provides a Landscape Character Assessment where the application site is located within 'Landscape Character Area 19 - Cork City and Harbour' within the more general 'Landscape Character Type 1 - City Harbour and Estuary'. This landscape character area comprises, *inter alia*, a mix of rural and intensely urban areas combined with a large expansive harbour that includes large islands and a wealth of natural heritage. The city docks are characterised by tall cranes, warehousing, grain silos, large ships, and the wider harbour area comprises a mix of industrial, residential and recreational uses, including marinas. The report notes how the Landscape Character Assessment classifies the 'Landscape Character Type 1 - City Harbour and Estuary' as a landscape of 'Very High Value', 'Very High Sensitivity' and of 'National Importance', due to its scenic, natural and cultural qualities, vulnerability and fragile susceptibility to change. However, the EIAR notes that the Port of Cork lands in Ringaskiddy are not designated as a 'High Value Landscape'.

16.9.13. The EIAR references relevant Development Plan policies regarding Protected Views & Prospects, including Objective GI 14-12, which seeks to preserve such views

and Objective GI 14-13, which aims to protect scenic routes and require mitigation measures for any development that could obstruct or degrade these views.

16.9.14. The EIAR describes how Landscape Character Type 1 - City Harbour and Estuary contains 12 scenic routes, with three scenic views within 5km of the application site. These include (i) Scenic Route S54 (road between Passage West and Ringaskiddy), which runs along the N28 at the Port of Cork's southern boundary and is represented by Visuals 1, 5, 6, 7, and 10, (ii) Route S53, the road between Cobh to Belvelly, which lies across the harbour to the north (Visual 18), and (iii) Route S51 road from Ballynacorra to Whitegate and Roche's Point, which runs along the eastern shore. The report notes that while most of the application site is not designated as 'High Value Landscape', the area to the south of the site and the lands surrounding Cork Harbour are designated as 'High Value Landscapes'. The report states that due to the low-lying nature of the site, the majority of views into the site are from lands bordering Cork Harbour to the north, west and east, from areas such as Monkstown, Cobh, Rocky Island and Haulbowline Island.

16.9.15. Regarding heritage features, the EIAR identifies four Architectural Conservation Areas (ACAs) within 3 km of the site, with the closest being Haulbowline Conservation Area c. 1km to the northeast. Table 7.3 and Fig. 7.12 detail Protected Structures within Ringaskiddy and Cork Harbour, which include, *inter alia*, a Martello Tower (RPS ID 575) to the southeast of the site at Ringaskiddy and various Protected Structures on Spike Island and Haulbowline Island.

16.9.16. Table 7.5 and Figure 7.14 of the EIAR detail designated protected environmental sites within 5km of the application site, including the Cork Harbour SPA (Site Code 4030), Monkstown Creek pNHA (Ref. 1979), Lough Beg pNHA (Ref. 1066), Owenboy River pNHA (Ref. 1990), Whitegate Bay pNHA (Ref. 1084), and Cuskinny Marsh pNHA (Ref. 1987).

16.9.17. Regarding trees and hedgerows, the report states that while there are no trees within the site, there are several trees near the port's maintenance and administration building and along the N28 road. A mature coniferous tree belt is also located within the public open space along the southern boundary of the port's lands.

16.9.18. Potential Effects

16.9.19. The EIAR states that, as there are no existing trees or hedgerows within the application site, there would be no impact on trees and hedgerows. Regarding the impact on the landscape's character, the report states that during the construction phase, there may be a slight and negative impact on the landscape setting due to the presence of machinery and cranes required to carry out the proposed development. However, the report states that during the operation phase, the impact of the character and visual amenity of the landscape would not be significant, given the site's capacity and that the proposed development would be consistent with the existing port activities and structures in the area.

16.9.20. Regarding impacts on views, the EIAR states that the construction phase may have visual impacts in the short-term arising from temporary site works, lighting, cranes, machinery, dredging activities, construction traffic, dust and emissions. The report states that during the operation phase, potential impacts on landscape character and visual amenity would arise from modifications to the quay wall, expanded container storage areas, gantries, associated lighting and fencing. The report notes that the impacted scenic routes would be the scenic route S54 road between Passage West and Ringaskiddy, and the scenic route S53 road between Cobh and Belvelly. The report submits that there would be no visual impact on the S51 scenic route from Ballynacorra to Whitegate and Roche's Point due to intervening structures and within the refinery at Corkbeg Island and Spike Island.

16.9.21. The report provides a visual impact assessment, where viewpoints were selected to identify visual impact from various distances and directions around the site, as detailed in Fig. 7.15. Visual impacts are summarised as follows:

- Visual 1 (from N28 near public open space at Ringaskiddy): During the construction and operation phases, the proposed development would not be visible, and the visual impact would be imperceptible and neutral.
- Visual 2 (Priest's Avenue, Barnahely): There would be limited views of construction activity with a slight and negative impact in the short term. During the operation phase, the impact on views would not be significant or negative in the short term, reducing to imperceptible and neutral over time.

- Visual 3 (from R613, within Barnahely) looking north-east: The EIAR details that construction activities would not have a significant, negative impact. Operational impacts would not be significant due to its consistency with this area's existing land use and developments.
- Visual 4 (from the L6470 Strawhall, Monkstown, looking southeast): The EIAR describes how, during the construction phase, there would be partial views of the gantries and machinery, which would not have a significant and negative impact. Operational impacts would not be significant and neutral, as the proposed development would be consistent with existing land use and developments in this area.
- Visual 5 (from R610, Monkstown, Scenic Route S54): There would be partial construction views of the modifications to the container storage area, which would be seen against the existing storage and structures within this part of the port. The report states that the impact would not be significant or negative. During the operation phase, the impact on views from this location would not be significant, as the development would be consistent with the existing land use.
- Visual 6 (from R610, Monkstown, Scenic Route S54): The EIAR states partial construction views of the machinery and cranes would result in a slight and negative impact. During the operation phase, impacts would not be significant due to the development's consistency with the existing land use.
- Visual 7 (from Strand Road, Monkstown, Scenic Route S54): The EIAR indicates partial views of machinery during construction, installation of the new gantries and the dredging works at Ringaskiddy West, resulting in a slight and negative impact. Operation phase impacts would not be significant as the development would be consistent with the existing land use.
- Visual 8 (from junction of Diamond Road/Fairy Hill, Monkstown): The EIAR states that the construction phase impacts would be slight-moderate and negative, and the operational phase impacts would be slight and negative.
- Visual 9 (Scotsman's Road, Monkstown): Impacts would be slight-moderate during the construction phase and slight and negative during the operational phase.
- Visual 10 (from Strand Road, Carrigmahon, Scenic Route S54): Impacts during the construction phase would be slight and negative and not significant during the

operational phase due to the development being consistent with the existing land use and developments in this area.

- Visual 11 (from Whitepoint Drive, Cobh): Impacts during the construction phase would be slight-moderate and negative and not significant during the operation phase.
- Visual 12 (from Brookvale, Cobh): Impacts during the construction phase would be slight and negative and not significant/neutral during the operation phase.
- Visual 13 (from Lower Road, Cobh): Impacts during the construction phase would be slight and negative and not significant/neutral during the operation phase.
- Visual 14 (from The Black Railings Viewing Point, Lake Rd, Cobh): Impacts during the construction phase would not be significant/slight and not significant/neutral during the operation phase.
- Visual 15 (from Cathedral Place, St Colman's Cathedral, Cobh): The EIAR states that the impact during construction would be slight, moderate, and negative. Impacts during the operation phase would not be significant and negative.
- Visual 16 (Haulbowline Bridge): Impacts during the construction phase would be slight-moderate and negative as there would 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 West. Impacts during the operation phase would not be significant and negative.
- Visual 17 (from Martello Tower, Ringaskiddy): The report states that there would be slight and negative impacts during the construction phase and not significant /neutral impacts during the operation phase.
- Visual 18 (High Road, Cobh, Scenic Route S53): The EIAR states that there would be moderate and negative impacts during the construction phase and slight/negative impacts during the operational phase.

16.9.22. In the 'do nothing' scenario, the EIAR states that the land would continue in its current configuration as a working port, with some form of redevelopment works to meet the future demands on the port.

16.9.23. **Mitigation Measures**

16.9.24. The EIAR sets out a range of mitigation measures to address impacts on the landscape and visual amenities during the construction and operation phase, which are summarised as follows:

16.9.24.1. ***Construction Phase***

- Operate a well-managed, organised and planned construction site.
- Ensure adequate control of construction traffic and working activities.
- Lighting would be located sensitively to avoid unnecessary light spilling into residential areas and Cork Harbour.
- The use of full cut-off (FCO) and energy-efficient lighting, where practicable, to reduce the impacts of light pollution on the surrounding area and sky.
- Minimise the use of flashing, moving, strobe, or blinking lights

16.9.24.2. ***Operation Phase***

- Retain the existing vegetation between the site's southern boundary and the N28 to retain a mature, established character to the site.
- Paint the gantries a mid-grey colour similar to that used for the tall cranes installed during Phase 1 of the redevelopment works.
- Operational lighting would use high-quality, modern full cut-off fixtures with energy-efficient lighting. Flashing, blinking or strobe lighting would be kept to a minimum.

16.9.25. **Monitoring**

16.9.26. The EIAR states that during the construction phase, ongoing monitoring would be undertaken at certain stages, including site establishment, excavation, and general construction. Attention would be given to protecting existing trees and hedgerows, protecting existing vegetation, and ensuring topsoil is correctly stripped and stored for landscape reinstatement. During the operation phase, periodic visits would be required to ensure the construction works have not negatively impacted existing tree belts.

16.9.27. **Cumulative Effects**

16.9.28. The EIAR states that the baseline environment already includes tall structures and large facilities that have been built in the area, including the Port of Cork's cranes, container areas and buildings, wind turbines at Janssen Bio and DePuy complex, and industrial/pharmaceutical complexes, including Pfizer and Thermo Fisher Scientific, Janssen Bio, DePuy, Johnson & Johnson. The report states that no significant cumulative effects would occur from the proposed development alongside existing and planned projects within the Ringaskiddy area.

16.9.29. **Residual Effects**

16.9.30. The EIAR notes the previously permitted development (Refs: PA04.PA0035, PM04.PM0010, and ABP Refs. 304437-19, 310847-21) and how the redevelopment of this site is inevitable given the future demands on the port. In terms of residual effect, the report states that most local views, within the Ringaskiddy area, into the subject site are screened by the intervening existing mature tree belts and/or topography, resulting in an imperceptible-neutral to not significant impact on views within this area. The report states that views from across Cork Harbour, such as Monkstown and Cobh, would be distant and seen against the context of the existing port activities and structures, resulting in a non-significant/neutral to slight and negative impact on views within these areas. The report submits that the proposed structures and modifications would not break the skyline and would be seen within the context of existing structures and activities of the working port. The EIAR concludes that while full mitigation of visual impacts is not possible, the proposed redevelopment is consistent with the existing land use and developments in this area, and the surrounding landscape has the capacity to absorb the proposed development without any significant negative impacts on the visual and landscape character of the area.

16.9.31. **Assessment**

16.9.32. I have examined Chapter 7 of the EIAR and associated appendices, the issues raised in the submissions received regarding lighting and the applicant's response to the issues raised in the submissions. I have also carried out a full inspection of the site and its visibility from the surrounding area. It is my view that the assessment methodology accords with the Guidelines for Landscape and Visual Impact

Assessment (GLVIA3). The viewpoint selection, photomontages and significance criteria are adequate for informing assessment and decision making.

16.9.33. Regarding direct effects on the character of the landscape, I consider that construction activity would introduce short-term visual clutter and nighttime illumination. While these effects are likely to occur, they would be temporary and reversible and would not alter the established character of the working Tier 1 port. During the operation phase, the quay modifications, crane rails, container stacks and additional gantries would reinforce the existing port industrial landscape rather than create a new one. The proposed elements would sit within the port's established vertical and horizontal envelope. I therefore consider that a material change to the receiving landscape character would not occur. Any changes would be slight and not significant.

16.9.34. Regarding direct visual impacts, the most sensitive receptors are the public views across the harbour from Monkstown and Cobh, including Scenic Routes S54 and S53. Having viewed the site from these areas, I consider that construction activity would be visible, with short-term, slight to moderate adverse effects at different locations. However, these would diminish upon the completion of construction. During the operation phase, the added structures would read against the existing cranes, gantries, quays and buildings. The baseline environment already contains tall cranes, operative machinery, and extensive surfaces used for storing stacked containers. I consider that the effects during the operation phase at these viewpoints would not be significant. Local views from Ringaskiddy village are screened by boundary fencing, trees, vegetation and intervening structures. As such, the visual impacts of the proposed development on Ringaskiddy village would not be significant.

16.9.35. Regarding the concerns about lighting, as raised in the submissions, I consider that uncontrolled lighting could create perceptible skyglow and glare, which would be most noticeable across the harbour towards Monkstown. However, the proposed mitigation measures, including the provision of a full cut-off system, energy-efficient lighting where practicable to reduce the impacts of light pollution on the surrounding area and sky, constrained and sensitively located lighting to avoid unnecessary light spill into the surrounding residential areas and into Cork Harbour and the minimum use of flashing, moving, strobe, or blinking lights would prevent significant effects. As stated in the Operational Environmental Management Plan (App. 11.2 Sec. 8.3.4), light

pollution would be minimised by the use of directional lighting at locations as set out in Drawings IBM0474-GA-400 to 405. All plant and machinery would be fitted with directional lighting to ensure there is no overspill of lighting on sensitive receptors. Furthermore, the applicant, in response to the submissions received, confirms their commitment given in the EIAR to minimise the impacts of light pollution while ensuring the port facility's operational and navigational safety requirements. Notwithstanding this, it is my view that specifying a maximum correlated colour temperature at or below 2700-3000 kelvins, combined with obtrusive light limits and curfew levels consistent with recognised guidance, would address the concerns regarding night-light impact, dark-sky protection and the ecological context of the site. This would ensure consistency with Dark Sky Ireland Guidelines, which recommend that commercial lighting should not have a correlated colour temperature greater than 2,700-3,000 kelvins, and ILP Guidance Note 01/21 on The Reduction of Obtrusive Light. This can be dealt with by way of a condition in the event of a grant of permission, with mitigation measures secured through a CEMP and a requirement for a detailed lighting design. Such measures would prevent any further impacts on the amenity of Monkstown or Cobh. Compliance with the requirements of the Commissioners of Irish Lights would control spurious light near aids to shipping navigation.

16.9.36. Regarding indirect effects, I consider that the proposal would not erode the appreciation of protected views, prospects or the setting of nearby heritage features. The receiving environment is already defined by existing port activity. The additional massing and lighting would not create new focal points but would instead integrate into the existing port environment.

16.9.37. Regarding cumulative effects, I have considered the interaction of the components of the proposed development with existing and permitted development in the harbour. The cumulative visual presence of cranes, turbines and large industrial buildings is already established. The incremental contribution from the completion of the proposed development would be small relative to the existing port baseline environment. I consider that no significant cumulative impacts on the landscape or visual amenities would occur.

16.9.38. I have reviewed the photomontages submitted and note the site's proximity to areas designated as High Value Landscapes. I also note that the port lands themselves are not designated as a High Value Landscape and are zoned for industry

and port functions. The proposed development would complete an already permitted scheme and remains consistent with Cork County Development Plan objective TM 12-15, which supports Ringaskiddy as the preferred location for the relocation of the majority of port-related activities. In this context, I consider the magnitude of change would be low. The proposed painting of tall structures in a mid-grey, similar to the colour of the tall cranes installed during Phase 1 of the redevelopment works and the retention of existing vegetation would further reduce contrast and visual impact.

16.9.39. Conclusion

16.9.40. I conclude that the proposed development would not significantly affect the landscape character or visual amenity of the site and surrounding area. Short-term effects during the construction phase would be manageable, and effects during the operation phase would not be significant within the established context of the port. Outstanding issues regarding lighting can be dealt with by way of Conditions requiring a detailed lighting design with full cut-off luminaires, warm colour temperature, adaptive dimming and curfew controls, together with the implementation of a CEMP and compliance with the requirements of the Commissioners of Irish Lights. With these measures in place, significant impacts on the landscape and visual amenity of the area would not occur.

16.10. Traffic and Transportation

16.10.1. Issues Raised

16.10.2. The submission from An Taisce states that the proposed development would increase HGV movements to and from the port and requests that an up-to-date traffic assessment be undertaken to account for the increased vehicle activity, including the transportation of wind turbine materials and structures. Transport Infrastructure Ireland (TII) highlights the strategic role of the project in relation to the national road network and the delivery of the M28, submitting that any decision would be premature until TII had the opportunity to evaluate the proposal in detail. TII raises concerns regarding the design and infrastructure elements of the M28, which are within the red line boundary of the site and require examination. TII reiterate conditions from the earlier development consents (ABP Ref. PA04.PA0035, as amended by ABP Ref

PM04.PM0010), including limiting throughput at the permitted Ringaskiddy port facility to 322,846 TEU and that Phase 3 of the original proposed development (provision of linkspan bridge and use of the berth to accommodate roll-on/roll-off freight traffic) not become operational until the N28 and Dunkettle road upgrade schemes are completed.

16.10.3. The submission from Cork County Council accepted the conclusion of the EIAR that construction traffic would have a negligible impact, subject to the implementation of a detailed CEMP addressing delivery scheduling, workforce arrangements and dust and road cleanliness mitigation. The Council's Cork National Road Design Office (NRDO) requested further information and recommended conditions, including clarification of land ownership, remediation of storm water drainage, protection of vulnerable road users from HGV movements through Ringaskiddy Village, submission of revised drawings to reflect the protected M28 layout and the provision of active travel measures to link the new facilities with the ferry terminal. A Condition was recommended to restrict port operations and HGV activity until the M28 is operational.

16.10.4. The applicant responded to the issues raised in the submissions received regarding traffic and transport matters. The applicant acknowledges the road design amendment of the M28 from 2 lanes to 1 lane and confirms that access to the M28 CPO lands is not required. The applicant states that the internal road layout will integrate fully with the finalised built form and design of the M28 protected road, without any provision for pedestrians/cyclists. The applicant notes how the internal road network was completed under the previous permission ABP Ref. PA04.PA0035, which removed port traffic from Ringaskiddy village. Addressing HGV traffic throughput, the applicant reaffirms compliance with maintaining the current throughput limit of 322,846 TEU, and that the link span bridge and berth for roll on / off services would not be operational until the completion of the M28, as required by condition under PA04.PA0035. The applicant notes that Cork County Council and TII have progressed the public realm scheme in Ringaskiddy village, including narrowing the Port's eastern entrance. The applicant references the Traffic Assessment Report submitted with the EIAR (Appendix 8.1) and confirms that road safety audits will be conducted as required for the internal road network element of the proposed development.

16.10.5. Methodology

16.10.6. The EIAR assesses existing traffic in Ringaskiddy in 2024 and its connecting roads to the Cork City Quay locations, focusing on traffic along the N28. The assessment aims to understand traffic related to the Port of Cork, including goods vehicles and employee trips. It also aims to understand current traffic conditions in the study area and the infrastructure of each mode of transport. The study area includes the three port sites: Ringaskiddy, Tivoli, and City Quays, as well as all major connecting roads, including the N28, N40, Jack Lynch Tunnel, and Dunkettle Interchange.

16.10.7. The EIAR references all relevant legislation and guidance and shows how the proposed development aligns with these. For example, the report submits that the expansion of the Port of Cork at Ringaskiddy would enable the development of strategic sites at the City Docks and Tivoli with sustainable, mixed-use development. The report notes how the National Development Plan (NDP) outlines the strategic importance of developing the port's facilities at Ringaskiddy to cater for larger shipping vessels and relieve physical constraints at City Quays and Tivoli. The EIAR references the National Marine Planning Framework (NMPF), which emphasises the need to allocate sufficient space for future growth at port locations, and the National Ports Policy (NPP), which designates the Port of Cork as a Tier 1 port and supports the Port of Cork's expansion of facilities at Ringaskiddy.

16.10.8. The EIAR references the Climate Action Plan, which emphasises the need for improving rail connectivity to ports in the country and a review of ports' decarbonisation policies. The report states that the proposed development aligns with Trans-European Transport Network (TEN-T) Regulations and would achieve TEN-T standards. The report submits that, as one of Ireland's three Tier 1 ports, the development at Ringaskiddy would be significant on a European scale.

16.10.9. The EIAR references relevant objectives of the Regional Spatial and Economic Strategy (RSES) and submits that the proposed development would align with the strategy by creating an efficient, accessible and higher-capacity port facility for the region. Furthermore, the report states that the proposed port expansion at Ringaskiddy would strengthen the connectivity and capacity of the Port of Cork, one of Ireland's Tier 1 ports.

- 16.10.10. The EIAR details how the Cork County Development Plan (2022–2028) identifies Ringaskiddy as a strategic employment location and how the strategic relocation of Port of Cork facilities to Ringaskiddy is vital to the future success of the Cork Harbour area and the Southwest region as a whole. The report notes how the upgrade to the M28 road from Cork at the Bloomfield Interchange to Ringaskiddy forms part of the proposed development, which has been at preparatory stages and will significantly increase container trade. The report references Policy Section 8.7.17, which supports the proposed development and seeks to enhance port operations in Ringaskiddy by accommodating larger ships with a larger water berth. The report notes how Ringaskiddy is highlighted in the BusConnects plan, where the development of a high-quality road network is crucial for the development of the port.
- 16.10.11. The EIAR notes how the Cork City Development Plan (CCDP) 2022-2028 recognises the Port of Cork as a national port that drives economic development in the Cork region. The plan supports relocating port facilities from the City Docks and Tivoli to Ringaskiddy to develop sustainable urban quarters on the City Docks and Tivoli waterfronts. The report notes how the Port of Cork Masterplan 2050 outlines the vision for how the port will become solely a seaport, moving all port activities from the river port in the City Centre to the seaport at Ringaskiddy.
- 16.10.12. The EIAR references the Cork Metropolitan Area Transport Strategy (CMATS), which highlights how relocating port facilities to Ringaskiddy would free up several strategic brownfield sites, allowing for sustainable development along Cork’s future sustainable travel and light rail corridor. Regarding local improvement schemes, the report describes the M28 Cork to Ringaskiddy upgrade, consisting of 12.5km of motorway/dual carriageway connecting Cork to Ringaskiddy, which would upgrade the existing N28 and form part of the TEN-T core network, which requires the Port of Cork to be served by a high-quality road network. The report also references the Ringaskiddy Urban Realm and Active Travel Scheme, where work is underway to develop improved pedestrian crossing facilities in the village centre, widened footpaths, and the provision of cycle infrastructure to promote active travel and reduce car dependency.
- 16.10.13. Regarding sources of data, the EIAR states that the traffic assessment drew on 2022 Census data and Annual Average Daily Traffic (AADT) values from Transport Infrastructure Ireland (TII) counters. Automatic Traffic Counts (ATCs) were undertaken

at 10 locations in the Ringaskiddy wider area in November 2024, and Junction Turning Counts were undertaken at specified junctions. The EIAR states that site visits were undertaken in October and November 2024 to observe traffic conditions. This included an examination of current traffic management arrangements and their effects on each mode of transport, as well as conditions experienced by each type of road user, including pedestrians, cyclists, and motorists. The site visits also analysed travel behaviour in the study area and local land uses and their influence on traffic and transport arrangements.

16.10.14. The report states that the traffic surveys included junction turning counts (JTCs) at 33 junction locations along the N28, Ringaskiddy, Carrigaline, and key junctions near the city quays and those that directly impact traffic to these areas. Automatic Traffic Counts (ATCs) were undertaken at 10 link locations where traffic data is not captured by the defined JTCs, including link locations deemed necessary for monitoring traffic, such as Ballinrea Road. Journey Time (JT) surveys were conducted over four national roads within the study area: Ringaskiddy to the N40 (Douglas Flyover), N40 to Blackpool via the N27/N20, Blackpool to Dunkettle Interchange via the N8, and returning to the Douglas Flyover, completing the loop. The EIAR refers to Chapter 4 of the Baseline Report (Appendix 8.4), which provides detailed information on the traffic surveys and an analysis of existing traffic movements.

16.10.15. The EIAR's chapter 8 on Traffic and Transportation is supported by a series of appendices (8.1-8.14) including a Preliminary Traffic Assessment Report (8.1), Baseline Review (8.2), POC Strategic Traffic Model (8.3), Baseline Report (8.4), AADT Flows for Ringaskiddy Port Redevelopment (8.5), Background Traffic Growth Forecasts (8.6), Trip Generation and Distribution (8.7), Core Scenario Modelling Results (8.8), Construction Scenario Modelling Results (8.9), Core Scenario Mitigation Modelling Results (8.10), Construction Mitigation Scenario Modelling Results (8.11), Sensitivity Scenarios Modelling Results (8.12), Sensitivity Scenarios Mitigation Modelling Results (8.13) and Junction Selection Report (8.14).

16.10.16. **Baseline Conditions**

16.10.17. The EIAR considers the Port Access Corridor to include the N28, N40, N8, and N25 and an evaluation of Census data. The report states that the primary land use at Ringaskiddy is industrial and employment-related, with some residential, educational,

and recreational land uses. Key destinations for trips in the Ringaskiddy area are located outside Ringaskiddy village. The report details how the large deep-water harbour port facility in Ringaskiddy is a hub for international freight and passenger traffic, including the weekly continental passenger ferry between Cork and Roscoff, which arrives in Cork every Saturday.

16.10.18. The EIAR details the road hierarchy in the Ringaskiddy study area as including the N28 - Cork City to Ringaskiddy, N40 - Cork South Ring Road, 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, the N27 - Cork City to Cork Airport and the N71 - Route between Cork City and Bandon. Regional roads in the study include the R610 - Cork City through Douglas and Passage West, R618 - Inniscarra Road, R635 - North Ring Road and the R639 - the old N8 primary road, as mapped on Fig. 3 of Chapter 8 of the report.

16.10.19. The EIAR evaluates 2022 Census data from six Small Area Population Statistics (SAPS) zones within Ringaskiddy. CSO Data identifies a total population of 1,702 in the Ringaskiddy SAP in 2022, a 3.21% increase from 2016. The Ringaskiddy Electoral Divisions of Carrigaline and Monkstown had a combined population of 14,511, an increase of 9.9% since 2016. The report notes how Cork County experienced a population decrease of 13.67% over the 2016-2022 period, while Cork City's population rose by 78.26%, attributed partially to the expansion of the Cork City area in 2019. CSO data shows that the age distribution is relatively even across most age ranges below 65, with 10% of the population aged over 70.

16.10.20. The EIAR details how car ownership in Ringaskiddy is relatively high, with 42.4% of households having two cars and 34.5% having one car. Only 6.9% of households have no car. The report posits that the reliance on private car transport is due to various reasons, including the inadequate availability and frequency of public transport services, and long distances to the city centre for walking and cycling.

16.10.21. The EIAR describes how Automated Traffic Counts (ATC) were conducted at 10 ATC sites across the study area at significant points. AM and PM peak traffic flows at Shannonpark Roundabout show that the N28 movements (in Arm A) carry the highest traffic, with 1,222 vehicles entering the roundabout from the north and 1,357 leaving the roundabout towards the north (Bloomfield) in the AM peak hour and 1,079

entering and 1,363 exiting the roundabout on the same arms in the PM peak. Traffic flows showed a total of 944 vehicles travelling towards Ringaskiddy (Arm B) and 539 coming from this area in the AM peak hour, and a total of 462 vehicles towards Ringaskiddy (Arm B) and 896 vehicles coming from this area in the PM peak. The report states that this indicates higher traffic movement towards the Ringaskiddy port in the AM and more traffic from it during the PM. The report also details traffic flows to and from Carrigaline, which is more significant coming from Carrigaline (Arm C) with 1,021 vehicles during the AM peak hour and 950 vehicles in the same direction during the PM peak hour.

16.10.22. The EIAR reviews Annual Average Daily Traffic (AADT) data provided by TII at 10 AADT sites, which gives an overview of the current traffic situation in the area. All AADT figures are from 2024, except site No.9 at Dunkettle, which is based on 2022 data due to no AADT data being collected in 2023 and 2024 during the redevelopment of the interchange. Table 4-1 (Ch. 8) of the report compares 2024 data to the modelling predictions for 2033 AADT, carried out to inform the original 2014 EIS, which assessed the traffic impacts of the proposed redevelopment using the Port of Cork Strategic Traffic Model (PoCSTM). The report notes that the model assumed the Dunkettle Interchange upgrade and the N28 upgrade were in place, whereas now the Dunkettle Interchange upgrade is operational, but the N28 upgrade is not yet finished. The report states that the AADT data and modelling show a capacity for traffic increases associated with the redevelopment of the port. For example, at location 1, as detailed in Fig. 7, the 2024 AADT is 10,710, increasing to 15,849 in 2033. Another site at location 2 rises from 25,690 in 2024 to 28,347 in 2033.

16.10.23. Baseline information detailed in Appendix 8.2 in Volume IV of the EIAR showed a total of 3,607 vehicles exiting the Ringaskiddy Port between 06:00 and 20:00, of which 2,535 are HGVs. This accounted for 70.3% of all traffic. Peak HGV outbound flows from the port occur between 07:15 and 08:15 (c. 60 per hour) and between 10:00 and 11:00 (72 per hour). The report states that LV traffic leaving the port is generally low during the day and peaks between 18:00 and 19:30, primarily associated with port employee traffic. The EIAR states that a total of 3,423 vehicles enter Ringaskiddy Port between 06:00 and 20:00 on a typical day, of which 2,462 are HVs, accounting for 71.9% of all traffic. This includes two peak periods for the HV traffic entering the port, between 09:15 and 10:30 (97 per hour) and between 14:15 and 15:30 (78 per hour).

The LV traffic peaks between 06:15 and 07:15 (58 vehicles) and between 18:00 and 19:30, which is associated with employee traffic entering and leaving the port.

16.10.24. Potential Effects

16.10.25. The EIAR states that the assessment of potential effects has been carried out in accordance with EPA (2022) guidelines, using the criteria to assess their extent, magnitude, type, probability, duration, frequency, reversibility, and transboundary nature (if applicable). The report notes that effects are categorised as Direct, Indirect or No Effect. The sensitivity of the local transport infrastructure has been identified using TII Guidance criteria, and the magnitude of impact has been assessed in accordance with the EPA 2022 Guidelines. The Significance of Effects considers the receptor's sensitivity, effect magnitude, duration, and likelihood of the effect, as informed by professional judgement based on traffic data for all road links.

16.10.26. The EIAR states that in the 'do-nothing' scenario, traffic volumes would remain similar to baseline levels.

16.10.27. During the construction phase, the EIAR states that the impacts of the proposed development would be most noticeable on the adjacent national routes (N40 and N28), which currently experience congestion during the AM and PM peak hours. The largest traffic impacts would come from HGVs delivering concrete, estimated to be 5-6 truckloads per day for small pours, and a limited number of large pours, which would require up to 25 truckloads per day. Importing infill material would require a maximum of 5-10 loads per day. The report states that the importation of steel would be delivered by sea and therefore would not impact the local road network. Dredged material would be disposed of at sea, negating the impact on the local road network. The report states that construction workers would generate 25 vehicle trips to and from the site, mostly during peak periods, with limited movements during the day. The EIAR considers that the impact of construction traffic generated by the redevelopment of the Port of Cork would be negligible.

16.10.28. During the operation phase, the EIAR states that impacts from traffic are not expected, given that most of the berth operations are now in place and that the proposed development comprises an expansion of space rather than an intensification of development. The report references the 2014 RPS traffic modelling for 2033, which assumed that with the N28 upgrade complete, there would be significant spare

capacity on the N28 and improved conditions on the N40, even during peak HGV movements. The report notes how the Dunkettle Interchange Upgrade has been completed, significantly improving the operating environment on the N40. The EIAR confirms that the current cap of 322,000 TEU (sic) will remain in place until completion of the M28.

16.10.29. **Mitigation Measures**

16.10.30. The EIAR sets out a range of mitigation measures to address the impacts of traffic during the construction and operation phase, which are summarised as follows:

16.10.30.1. Construction Phase

- The contractor would limit the number of construction vehicles entering the road network to 12 during AM peak periods and 14 during PM peak periods.
- All construction vehicles would be required to use the strategic road network, including the N28 and N40, to access the site.
- Construction vehicles would be restricted from using local roads or unsuitable roads on the grounds of safety.

16.10.31. The report states that, subject to the mitigation measures, there would be no significant impacts during the construction phase of the proposed redevelopment.

16.10.31.1. Operation Phase

- Reduce Port HGV traffic volumes during the AM (07.45-09.00) and PM (17.00-18.00) commuter peak periods by continuing the Ringaskiddy Mobility Management Plan (RMMP) to manage freight generated by the Port during these periods until the opening of the N28 Upgrade.
- Manage freight through the Ringaskiddy Mobility Management Plan. The plan applies to additional port-related HGV traffic (i.e. over existing 'Do Minimum' levels) and seeks to shift these trips to non-congested inter-peak periods until the N28 upgrade is in place. The report notes that currently 15% of all port-related HGVs travel during the AM and PM peak periods, whereas the remaining 85% currently travel outside of these times.

- The RMMP would manage freight generated by Ringaskiddy Port, enabling the Port to operate more efficiently and manage how Port-generated HGVs use the road network. Currently, freight movement at the Port is demand-driven, offering its customers extensive flexibility in determining freight movement. The RMMP would move the port from a demand-driven freight mobility operation to a fully planned and managed freight movement operation. Consequent benefits would include enhanced Port security, control, management and information systems.
- The RMMP is based on international best practice and extensive consultation with other international Ports, Dublin Port and those involved with current port operations and haulage at Port of Cork sites (at Ringaskiddy, Tivoli and City Quays).
- The freight traffic management systems and measures proposed as part of the RMMP include:
 - A haulier booking system to control HGV entry/exit, requiring scheduled slots during peak times, with express gates for those with bookings and queuing systems for unscheduled arrivals.
 - Automated gate operation, sited a significant distance back from the public road, allowing sufficient room for HGV queuing within the Port of Cork boundary.
 - Extend operating hours to facilitate Port HGV traffic spreading outside of AM and PM peak periods. The extended hours would help hauliers spread their arrival and departure times during off-peak periods within the managed access control system.
 - The use of IT solutions to provide information and communicate with hauliers.

16.10.32. The EIAR states that these mitigation measures would manage the volume and timing of HGVs entering and exiting the Port, particularly during peak periods, and reduce pressure on the surrounding road network. The gate system would allow controlled vehicle release onto the strategic road network at regular intervals and manage volumes during peak hours, as required.

16.10.33. **Monitoring**

16.10.34. The EIAR states that no specific monitoring is proposed for the project's construction phase, given the minimal traffic volumes that would be generated. For the operation phase, the EIAR states that monitoring would focus on the Ringaskiddy Mobility Management Plan (RMMP) during its implementation, post-implementation with a comparison of before and after situations and with annual monitoring. This would enable the evaluation of monitoring and adjusting measures in the RMMP according to changing circumstances. A key aspect would be monitoring HGV volumes generated by the Port from its operation in Ringaskiddy. The report states that monitoring would involve consultation with hauliers, freight operators, Cork County Council, Cork City Council, NRA, NTA and the local community.

16.10.35. **Residual Effects**

16.10.36. The EIAR states that there would be no residual effects during the construction phase and a negligible impact on traffic movements from Ringaskiddy during the operation of the redeveloped Port of Cork.

16.10.37. **Assessment**

16.10.38. I have examined Chapter 8 of the EIAR, all of the associated documentation the submissions received, raising issues regarding traffic and transportation. It is my view that the baseline, surveys and modelled scenarios are adequate for informed decision making and consistent with the EPA EIAR Guidelines and TII Traffic and Transport Assessment Guidelines (2014). I have had particular regard to the issues raised by An Taisce regarding the increase of HGV traffic, to TII's request to protect the M28 scheme and throughput limits, and to Cork County Council's requirement for a robust CEMP and protections for vulnerable road users in Ringaskiddy.

16.10.39. Regarding direct effects during the construction phase, I consider that the forecast volumes are modest and largely confined to short windows linked to concrete pours and materials deliveries. These trips would load the N28 and N40 during peaks if unmanaged. However, with routing confined to the strategic road network, time-of-day controls in the CEMP, and a prohibition on local road routing through Ringaskiddy village, I consider that the likely effects would be short-term, low in magnitude and not significant. Implementing such measures would prevent material effects in terms of queue growth, journey time reliability, or safety.

16.10.40. Regarding effects during the operation phase, I consider that the proposal would complete the configuration of the permitted port rather than introduce a new traffic generator. Berth operations are already established. The critical risk is the timing of HGV movements during commuter peaks on the N28 corridor before the M28 opens. I consider that unmanaged demand could create noticeable peak loading. However, the retention of the throughput cap of 322,846 TEU until the commissioning of the M28 and the implementation of the Ringaskiddy Mobility Management Plan would materially reduce that risk. Construction of the M28 motorway has commenced, with completion estimated by mid-2028 (as per TII press release), after which the M28 will provide direct motorway access to the port, significantly improving the road network's capacity. The proposed booking system, extended gate hours, and controlled release to the network would shift additional HGVs into inter-peak periods. With the implementation of these mitigation measures, I consider that the effects during the operation phase on link and junction performance would not be significant. The traffic impacts of the proposed development would not result in significant adverse noise effects or impacts on air quality.

16.10.41. Regarding indirect effects, I consider that consolidating port activity at Ringaskiddy port would help remove heavy traffic pressure from Cork City quays and Tivoli over time. This would redistribute vehicular movements to the strategic transport corridors designed to carry them. The control of traffic and the implementation of the measures in the RMMP would have a positive impact on the Ringaskiddy Urban Realm & Active Travel Scheme.

16.10.42. Regarding cumulative effects, I have considered the interaction between the existing permitted and proposed development, the completed Dunkettle Interchange, and the M28 under construction. I also considered other industrial activities in the surrounding area. The Dunkettle upgrade was completed in February 2024 and has already improved the road network by reducing congestion and improving traffic flows. The M28 Cork to Ringaskiddy project will connect the N40 South Ring Road to the port and village of Ringaskiddy, materially increasing its capacity and removing constraints once in operation. I note that construction has commenced on the M28. However, until the M28 is complete and operational, I consider that the retention of the 322,846 TEU cap and the implementation of the RMMP would operate as effective

cumulative risk controls during this interim period. I therefore consider that no significant cumulative effects would occur.

16.10.43. Regarding the issues raised in submissions, I accept An Taisce's concern that components of wind energy development may alter HGV profiles. It is my view that such abnormal loads can be planned outside peak hours and managed under permit, preventing significant effects. This can be dealt with by way of a Condition in the event of a grant of permission. I acknowledge TII's submission that the detailed design of the M28 and its location within the site's red line boundary must not be compromised. In response to the submission by TII, the applicant confirms that access to the M28 CPO lands is not required and that the proposed internal road layout will integrate with the finalised design and built form of the M28 protected road. I consider that this issue can be dealt with by way of a Condition requiring the submission of revised drawings for a written agreement showing the approved M28 layout and restricting any operational change that would increase peak flows ahead of the opening of the M28. Regarding Cork County Council's submission seeking the protection of vulnerable users through Ringaskiddy village, I consider that the proposed vehicle booking system, new automatic gate operating system and gate setback inside the port would prevent queueing on the public road, thereby preventing potential impacts to vulnerable users on the public roads in the village. The submission of a detailed Construction Traffic Management Plan by way of Condition would minimise impacts from construction-related traffic, protect local road safety, and maintain the efficiency of the strategic road network. Furthermore, a condition should be imposed requiring the management and scheduling of abnormal loads and the submission of an annual Traffic Monitoring Report to the Planning Authority and TII of traffic volumes, peak-hour profiles, and compliance with the RMMP and throughput cap. This would ensure the safe and efficient movement of abnormal loads on the road network while protecting the safety and efficiency of the surrounding road network.

16.10.44. **Conclusion**

16.10.45. In consideration of the above, I conclude that the proposed development would not result in significant adverse effects on traffic and transportation. Impacts during the construction phase would be short-term and controllable. Impacts during the operation phase would be limited by the existing throughput cap and by active management of

the timing of HGVs. Significant cumulative effects would not occur. In the event of a grant of permission, appropriate conditions should be imposed restricting the throughput cap until the operation of the M28, the full implementation and auditing of the Ringaskiddy Mobility Management Plan, confining all port HGVs to the strategic road network and protecting the design of the approved M28. Subject to the implementation of these mitigation measures, I consider that the proposed development would not result in significant adverse impacts on the environment in terms of traffic and transportation.

16.11. Noise and Vibration

16.11.1. Issues Raised

16.11.2. Third-party submissions raised concerns regarding noise impacts from ship engines, generators, fans, and equipment on Monkstown village, highlighting that no noise monitoring or protocols are in place. The Irish Whale and Dolphin Group (IWDG) submission highlights the absence of underwater noise modelling for piling or blasting. They raise concerns regarding the proposed use of Acoustic Deterrent Devices (ADD), which is contrary to current national guidance and the ambiguous application of passive acoustic monitoring (PAM). The IWDG criticises the lack of assessment of underwater noise impacts on Annex II and IV species such as Bottlenose Dolphins, Harbour Porpoise and Harbour Seal and recommends the use of noise abatement systems such as bubble curtains supported by appropriate noise modelling.

16.11.3. An Taisce highlights the potential for significant impacts on marine mammals from underwater noise generated by piling, dredging, and blasting activities, noting that effects such as Permanent Threshold Shift and Temporary Threshold Shift constitute injury under 2014 national guidance. An Taisce criticises the applicant's assumption that animals would simply flee exposure and emphasises that the Habitats Directive strictly protects dolphins, whales, and porpoises. An Taisce submits that noise-related impacts require robust mitigation, including a combination of measures such as acoustic deterrent devices (ADD), soft-start piling, marine mammal observers, passive acoustic monitoring and bubble curtains.

16.11.4. The submission from Cork County Council accepts that construction noise impacts would be temporary and transient and could be managed under a CEMP, with

the proposed mitigation measures considered acceptable. The Local Authority notes that the Port of Cork has a noise monitoring and management programme with quarterly reviews in place, which reduces and mitigates noise from the site. However, the Council's Environment Section raises concerns that the 2024 survey does not assess ship movements and port activities that influence the existing noise environment. It is submitted that the 2013 and 2014 surveys are dated. It is recommended that the applicant review ship movements and port activities during the 2024 survey, assess their impact on reported values, and review proposed mitigation measures accordingly.

16.11.5. The applicant responded to the issues raised regarding noise and vibration in the submission received. The applicant states that the consideration of 2014 noise data/modelling is appropriate, justified, and validated by an updated 2024 attended noise survey. The applicant details how a Noise Survey of Ferry and Container Vessels is contained in Section 9.2.5.1 of the EIAR (pg. 200), and ships' movements/port activities, where audible, are detailed in column V of the 2024 Baseline Noise Monitoring Comparison, Vol Iva, Appendix 4.4 of the EIAR. The Applicant states that marine and noise impacts to marine species, breeding birds and land mammals are considered in the proposed mitigation measure TEO_33 (pg. 430 of the EIAR). Regarding underwater noise mitigation, the applicant acknowledges that while bubble curtains have proven effective in mitigating underwater noise during offshore wind farm construction, their application in port development projects presents several challenges that may limit their suitability. The applicant notes how research finds that limiting factors include compromised stability and effectiveness in shallow waters, physical barriers, submerged structures, logistical complexities regarding their installation and operation, and impact on port operations. Given these considerations, the applicant submits that alternative mitigation measures were proposed, including monitoring by Marine Mammal Observers (MMOs), Acoustic Deterrent Devices (ADDs), soft starts and adaptation of working hours, which offer a more practical and effective solution for minimising the impact of underwater noise in port development contexts. The applicant notes that a Construction and Environmental Management Plan (CEMP) was submitted to and agreed with Cork County Council as required under Condition No. 10 of ABP Ref PA00035, which included, *inter alia*, proposals for monitoring noise during the construction phase. The applicant notes that

an Environmental Management System (EMS) / Operational Environmental Management Plan (OEMP) was submitted to and agreed with Cork County Council on the 9th December 2021, in compliance with Condition 9 of ABP Ref PA00035, which required a monitoring programme for all relevant environmental parameters, including noise.

16.11.6. Methodology

16.11.7. The EIAR details that the noise assessment methodology drew on several noise monitoring surveys conducted quarterly by the Port of Cork Company, which are considered representative of baseline conditions at the Container Terminal (CCT1) and Deep-Water Berth (DWB) prior to development. The EIAR states that unattended 24-hour noise measurements were undertaken at designated locations, as indicated in Fig. 9.1, in accordance with ISO 1996-2:2017. The report notes that the 2014 RPS EIS was also reviewed, including noise data and modelling of noise impacts at the nearest sensitive receptors.

16.11.8. The EIAR outlines legislation and guidance documents relevant to noise and vibration including the EPA's NG4 document, which provides typical limit values for licensed facilities, namely; 55dB LAr,T during daytime (07:00 - 19:00), 50dB LAr,T in the evening (19:00 - 23:00), and 45dB LAeq,T at night (23:00 - 07:00), with penalties of 5dB(A) applied for tonal or impulsive noise. The EIAR states that while consideration is given to these threshold limits, the proposed redevelopment is located in an urban/suburban environment where existing noise levels regularly exceed the typical noise limits set out in NG4 for EPA-licensed sites.

16.11.9. The EIAR references TII Guidelines for the Treatment of Noise and Vibration in National Road Schemes (2004), which details noise and vibration threshold limits for construction phase activities associated with road schemes, specifying in Table 9.1 maximum permissible levels of 70dB LAeq (1hr) and 80dB LpA(max) during standard construction hours (Mon-Fri 7 am - 7 pm). The EIAR also references other sources used in the noise and vibration assessment, including BS5228:2009 Noise and Vibration Control on Construction and Open Sites and BS4142:1997 Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas. Regarding BS5228:2009, the EIAR puts forward that noise threshold limits at noise-sensitive receptors were determined based on the existing ambient noise levels, with Category

A, B, or C thresholds applied accordingly, ranging from 65 to 75dB during weekday daytime (07:00-19:00) and Saturdays (07:00-13:00) and 45 to 55dB at night (23:00 - 07:00). The report states that these thresholds were applied at each of the sensitive receptors in the construction noise model, as detailed in Section 9.4 of the EIAR.

16.11.10. The EIAR references the WHO Guidelines for Community Noise (1999), which recommend an outdoor daytime noise limit of 55dB LAeq to prevent serious annoyance, and 50dB for moderate annoyance. For internal areas, a continuous noise level of 30dB LAeq is recommended to prevent negative effects on sleep. This equates to an external façade level of 45dB LAeq or 42dB LAeq in open window / free-field conditions. For intermittent noise, a LAmax,fast of 45dB is recommended for internal areas. The EIAR states that while these thresholds were considered, the proposed development is located in an urban/suburban environment where existing noise levels regularly exceed the typical noise limits set out in the WHO Guidelines.

16.11.11. The EIAR references the WHO Night Noise Guidelines for Europe (2009), which recommend a night-time target of 40dB L_{night,outside}, with an interim target of 55dB where the NNG cannot be met. The report states that the existing night-time levels in the study area regularly exceed the 40dB night noise limit.

16.11.12. The EIAR references and provides details of other guidance documents taken into consideration of the noise assessment methodology, including the WHO Methodological Guidance on Environmental Noise (2012), the UK Department of Transport (Welsh Office)-Calculation of Road Traffic Noise [CRTN], and the Environmental Noise Directive (END) 2002/49/EC which has been transposed into Irish law through the Environmental Noise Regulations 2006. The END 2002/49/EC mandates the preparation of Strategic Noise Maps in major urban and transport areas, whereby Strategic Noise Maps were prepared for the Cork Agglomeration in 2012, and a draft Noise Action Plan (NAP) was published for consultation. The EIAR states that the proposed redevelopment would alter the noise environment in the vicinity of Ringaskiddy Port and thereby alter the Strategic Noise Maps in the area.

16.11.13. Regarding vibration, the EIAR references the NRA Guidelines for the Treatment of Noise & Vibration in National Road Schemes, which recommends limiting vibration to peak particle velocity (PPV) values of 8 mm/s at frequencies below 10 Hz,

12.5 mm/s between 10–50 Hz, and 20 mm/s between 50-100 Hz, in order to prevent cosmetic damage to nearby buildings.

16.11.14. The EIAR references BS5228-2:2009, which provides guide PPV values for transient vibration that could cause cosmetic damage. For unreinforced or light-framed structures, such as residential properties, the thresholds range from 15 mm/s at 4 Hz to 50 mm/s at 40 Hz and above. For reinforced or heavy commercial buildings, a constant threshold of 50 mm/s is applied at 4 Hz and above. The EIAR notes that minor cosmetic damage is possible at levels twice these thresholds, and major structural damage could occur at levels four times higher, as defined in BS7385-1:1990. The report references BS7385-2:1993, which recommends lower vibration thresholds, 50% of the standard levels or less, for more sensitive or older buildings, given that its guidance primarily applies to relatively modern structures.

16.11.15. Regarding human perception, the EIAR references BS6472:1992, which provides guidance on the evaluation of vibration effects on occupants. It notes that the human body can detect vibration at levels substantially below those causing structural damage, typically around 0.15 to 0.3 mm/s. The standard defines base curves for continuous vibration, adjusted by multiplication factors of 1.4 at night and 2 to 4 during the day for residential buildings.

16.11.16. To assess intermittent or event-based vibration, the methodology references BS6472, which recommends using Vibration Dose Values (VDVs). Threshold VDV values for the Evaluation of Disturbance due to Vibration are listed in Table 9.5 as follows: $0.22 - 0.43 \text{ ms}^{-1.75}$ for daytime residential exposure and $0.13 \text{ ms}^{-1.75}$ at night. Lower thresholds are given for critical working areas, and higher thresholds for offices and workshops. The EIAR notes these VDV thresholds do not apply unless night-time work is a regular activity at the premises.

16.11.17. The EIAR details that baseline noise data for the assessment were sourced from noise surveys conducted in 2013 and 2024. Noise monitoring was undertaken in 2013 at 19 locations to determine the existing noise environment prior to the development of CCT1 at the nearest noise-sensitive properties, to inform predictive noise modelling for the proposed construction of CCT1. The noise surveys used Type 1 Integrating Digital Sound Level Meters (SLMs) (Bruel & Kjaer Models 2250 and 2260), which were calibrated in accordance with ISO 1996 and BS4142 standards.

Measurements included 24-hour unattended measurements and short-term day and nighttime attended measurements, with subjective observations recorded during each of the short-term measurements. Parameters measured included LAeq, LAm_{ax}, LA_{min}, LA10, and LA90, with data collected under free-field conditions at heights of 1.2–1.5m above ground level, in compliance with BS7445 and ISO 1996 weather requirements. The EIAR notes that the 2013 noise survey data are presented in Appendices 4.1 to 4.3 (Volume IV), with LAeq and LA90 levels used to characterise ambient and background conditions at each site. The report states that the data informed the calibration and validation of the CADNA noise model used in the assessment.

16.11.18. The EIAR states that in order to assess any changes in noise levels since the original survey, MKO Ltd conducted a further attended noise survey in 2024 at 11 of the original 19 noise baseline locations. The 11 sites were selected for their proximity and comparability between several of the original 19 locations. The results are presented in Appendix 4.4. The EIAR states that the results are comparable with the 2013 survey with regard to LA90 (background noise). Variations in LAeq levels between 2013 and 2024 are attributed to transient sources such as idling buses and street sweepers in the 2024 survey. On this basis, the report states that the CADNA model remains accurate and applicable.

16.11.19. The EIAR states that road traffic was the dominant noise source at most of the monitoring locations. In Ringaskiddy, road traffic noise came mostly from the N28 and local roads, with traffic noise reducing further towards Haulbowline Island and the National Maritime College. In Monkstown and Cobh, traffic noise from the R610 and main roads was the dominant noise, reducing towards Whitepoint and Blackpoint, where the ambient noise is derived from varied sources.

16.11.20. The report states that the proposed redevelopment was modelled in 2014 by RPS using CadnaA noise modelling software, using the ISO9613 methodology. Further details are provided on how the model used topographical and ordnance survey data. The CadnaA noise model was used to predict noise levels during both construction and operational phases, including cumulative effects. The noise model was validated using noise measurement data recorded within the existing port during operational hours.

- 16.11.21. Regarding noise surveys of ferries and container vessels, the EIAR states that a dedicated noise survey was conducted on the 20th July 2013 to record the noise environment before and during the arrival of the Brittany Ferries vessel at Ringaskiddy Port. The EIAR states that measurements were recorded at the side of one of the internal port roads close to the ferry berth from 08:40 to 16:25, both before and during ferry operations. Table 9.7 of the report shows that Brittany ferry activities, including unloading, tannoy announcements, idling, and HGV movement, led to increased LAeq values ranging from c. 62–64 dB(A) compared to pre-arrival levels of c. 57–58 dB(A). Table 9.7 shows that the presence of birds and HGV traffic also contributed to background sources throughout the noise survey period.
- 16.11.22. The EIAR describes how a noise monitoring survey was conducted on the morning of the 14th March 2014 during the unloading of a Maersk container ship, commencing at c. 05:30. Other port activities begin at this time, including the movement of the various mobile cranes and other plant. The noise monitoring was undertaken at different locations around Ringaskiddy village, Monkstown and inside the Port adjacent to the unloading activities.
- 16.11.23. The survey involved multiple monitoring locations across Ringaskiddy village, Monkstown, and within the port itself. Table 9.8 details noise levels showing LAeq values ranging between 42.8 and 55.2 dB(A) at residential locations in Ringaskiddy village before 07:00, with maximum levels reaching 67.7 dB(A). Inside Ringaskiddy port, LAeq values rose to between 64.3 and 76.7 dB(A) during peak activity between 07:30 and 07:45.
- 16.11.24. The EIAR states that the most prominent sources of noise during the Maersk unloading operations were alarms and container banging. The report states that while these noise sources were audible at all monitoring locations in Ringaskiddy village, they were not the dominant noise at any location. The report states that road traffic noise was the dominant noise for properties adjacent to the N28, with Port noise audible between traffic noise. Noise from the Maersk unloading was barely audible in Monkstown, with only alarm noise barely audible in the absence of traffic along the R610.
- 16.11.25. The EIAR's Chapter 9 on Noise and Vibration is supported by several appendices, including 24-Hour Ambient Noise Survey Results (Appendix 4.1),

Graphical Summary of 24-Hour Ambient Noise Survey Results 2014 (4.2), Summary of Attended Short-Term Baseline Noise Monitoring Surveys 2014 (4.3), and a 2024 Baseline Noise Monitoring Comparison (4.4).

16.11.26. Baseline Conditions

16.11.27. Regarding the baseline noise environment, the EIAR states that 2023 compliance monitoring data were reviewed to determine the baseline noise environment in 2024, associated with noise emission at the Cork Container Terminal (CCT1) and Deep Water Berth (DWB). The CCT is subject to noise limits set by permissions ABP Ref PA04.PA0035, as amended by PM04.PM0010, and P.A. Ref. 304437-19. The noise limits at sensitive receptors are as follows: 55 dB LAReq30min from 07:00–19:00, 50 dB LAReq30min from 19:00–23:00, and 45 dB LAReq15min from 23:00–07:00. The report notes that these values are equivalent to average sound levels over the stated intervals, with rating corrections applied for tonal and/or impulsive features for the 0700-1900h and 1900-2300h periods.

16.11.28. Tables 9.8-9.11 of the report detail the quarterly Specific LAeqT levels due to CCT operations at the four monitoring stations at Monkstown, Ringaskiddy Village, Whitepoint, and Ringaskiddy Community Centre. The report confirms that the quarterly monitoring results indicate that the Port complies with the agreed noise limits. The Port has installed two NTi permanent noise monitoring stations in Ringaskiddy, as shown in Figure 9.2. The report states that these systems enable prompt investigation of noise complaints, with external consultants reviewing noise data gathered concerning any such complaints. The report notes that in 2023, 47 complaints were received about port/vessel operations. Table 9.12 lists the 46 sensitive receptors used in the assessment.

16.11.29. Potential Effects

16.11.30. In the 'do nothing' scenario, the EIAR states that the Port arrangements would remain as existing. The site would remain without the construction of the CCT2, Ringaskiddy West DWB extension and container handling and stacking arrangements. Noise levels would remain similar to existing levels.

16.11.31. During the construction phase, the EIAR states that the proposed development would involve the installation of 225 tubular steel combi-wall type piles of c. 1.4m

diameter and 32m in length. The report states that piling would generate high-amplitude, broad-spectrum, intermittent noise with very short rise times to peak pressure. The report states that sensitive receptors are grouped to the south of the port (along and south of the N28 Main Street), north-west in Monkstown, and north/north-east in Cobh. The report states that, notwithstanding the significant number of sensitive receptors to be impacted by noise during the construction phase, the 2014 CCT1 modelling shows that predicted construction noise would remain within the threshold limits of the TII Guidelines and within applicable daytime limits. The report considers that construction noise would be temporary and transient.

16.11.32. During the operation phase, the EIAR assesses the potential noise impact associated with the addition of new plant/equipment associated with the proposed extension to the Deep Water Berth (DWB), which currently operates with three mobile cranes, one electric rail-mounted grab crane, three hoppers, a reach stacker, and several terminal transporters. The report states that the proposed DWB extension of 231m could potentially introduce one additional mobile crane and one additional hopper. The additional activity would operate only during daytime hours. The report states that the comparative noise modelling exercise conducted as part of the 2014 EIS showed that the additional activity would result in minor noise level increases in the vicinity of Ringaskiddy village (i.e. <1dBA) and Whitepoint/Blackpoint (1-2dBA), with an increased noise level of 2-5 dB(A) at sensitive receptors in Monkstown. However, the report states that these increases would not significantly alter the daytime noise levels experienced at sensitive receptors in Monkstown, as they are significantly below the existing permitted noise levels (AER 2023). On this basis, the report submits that the increased noise levels from the extended DWB would be minor/moderate in magnitude during worst-case scenarios and that as the increases would be significantly below the existing daytime ambient noise levels at the nearest noise sensitive properties, there would be no significant increase in noise level as a result of the proposed development at the nearest noise sensitive properties.

16.11.33. The EIAR assesses the noise impact from the additional new plant/equipment at the proposed CCT2 container berth at Ringaskiddy East. The report states that existing port operations and M28 traffic already influence background noise levels in the area. Table 9.12 details source noise/sound power levels for the proposed berth CCT2 container berth including ships (101.5 dB(A)), mobile cranes (106.4 dB(A)),

terminal transporters (103.8 dB(A)), and container handling activities (112.0 dB(A)), with tonal/impulsive noise accounted for with an additional 5dB.

16.11.34. The report states that the 2014 EIS modelled two operational scenarios for day and nighttime periods. These included Scenario 1, a daytime scenario with CCT 1 and 2 operating at 100% capacity, and Scenario 2, a nighttime scenario with reduced operations. Both scenarios included two simultaneous container handling events and two alarms/beacons. Table 9.13 details noise model predictions at 4m above ground level at 46 identified sensitive receptors.

16.11.35. Table 9.13 of the EIAR details that in Scenario 1, predicted daytime noise levels at sensitive properties range from 42.0 to 56.2 dB(A), with the highest levels recorded at Leeview, Allenvale and Bay Tree House on Main Street. Table 9.13 shows that under Scenario 2, predicted night-time operational phase noise levels, including alarm noise, range from 41.4 to 54.9 dB(A), while excluding alarms, noise levels range between 34.9 and 48.1 dB(A) at Leeview, Main St.

16.11.36. Table 9.14 details predicted Night-time Noise Levels from CCT and Existing Noise Levels at the nearest noise-sensitive properties. The report notes that the worst-case predicted night-time noise levels with alarms in Monkstown would be in the lower to middle range of ambient noise levels currently recorded in the area, and above or at the upper range of background noise levels (as per RPS 2014). The report states that without alarms, worst-case predicted night-time noise levels would be below or at the lower end of both existing ambient noise levels and background night-time noise levels. The report states that, in the absence of alarm noise, the upgraded CCT2 would be a low-level contributor to background noise levels at nighttime in Monkstown. However, with alarms, worst-case predicted noise levels would become a prominent and audible part of Monkstown's night-time ambient noise levels.

16.11.37. The EIAR assesses the potential noise impact from traffic movements in and out of the Port, drawing on traffic flow modelling presented in Chapter 8 (Traffic and Transportation) of the 2014 EIS for the original Ringaskiddy Redevelopment Project. The report states that traffic projections were developed for the base year (2012), the year of opening (2018), with and without the proposed redevelopment, and future years (2023 and 2033), with the proposed redevelopment in place, including consideration of options for the completion of the M28 upgrade.

16.11.38. Table 9.15 of the EIAR details percentage changes in traffic flows across a range of local and regional routes as a result of the proposed development. The report states that, except in a small number of cases, all traffic flow increases in the various scenarios would be less than 25%, thereby resulting in a less than 1dB(A) change in the traffic noise levels at properties adjacent to these routes. The report notes that increases of over 25% would occur at the R613 DWB Junction (+34%), Novartis Link Road (+57.6%), Upgraded N28 East of Shanbally (+30.8%), Upgraded N28 Last Section Ringaskiddy (+59.4%), and Upgraded N28 Loughbeg (+53.2%) in the 2033 scenarios. However, the EIAR notes that actual traffic volumes on some of these links (e.g. Novartis Link Road, <500 24-hour AADT) are low, resulting in negligible noise impact despite the significant percentage change.

16.11.39. Referencing the UK Design Manual for Roads and Bridges (DMRB), the EIAR states that it takes a 25% increase or a 20% decrease in traffic flows in order to get a 1dB(A) change in traffic noise levels. Furthermore, based on NRA Guidelines (2004), it takes a c. 3dB(A) increase in noise levels to be perceptible to the average person. On this basis, the report submits that the traffic noise generated by the proposed redevelopment would be imperceptible to receptors in the vicinity of these roads.

16.11.40. Regarding vibration impacts during the construction phase, the EIAR notes that there is no specific Irish guidance relating to vibration during construction or operation activities. Common practice in Ireland uses internationally recognised standards, particularly BS5228-2:2009 - Code of Practice for Noise and Vibration Control on Construction and Open Sites. The report does not provide predicted Peak Particle Velocity (PPV) values or a vibration assessment at specific receptors.

16.11.41. **Mitigation Measures**

16.11.42. The EIAR sets out a range of mitigation measures to address the impacts of noise and vibration during the construction and operation phase, which are summarised as follows:

16.11.43. Construction Phase:

- Contractors would be required to reduce construction noise to the lowest practicable levels, in compliance with BS5228:2009.

- A complaints procedure would be operated throughout the construction phase to address noise issues at the nearest noise-sensitive properties.
- Best practice noise reduction measures from BS5228-1:2009+A1:2009 would be incorporated into the CEMP.
- Plant and machinery panels would remain closed during operation to reduce noise levels.
- Mobile plant would be switched off when not in use and not left idling.
- Continuous noise sources, such as diesel engines, would be fitted with more effective exhaust silencer systems.
- No machinery would run outside the agreed hours of operation to limit noise emissions during late evenings and early mornings when mammal (e.g. otter) activity is at a higher level.

16.11.44. Operation Phase:

- Alarm/beacon systems would have a noise threshold limit of 100 dB Lw (95 dB Lw with tone), achieved through self-adjusting 'smart' alarms or broadband alarms.
- Three 4m-high noise barriers (block walls) have been constructed to attenuate ground-based noise activities from plant such as terminal transporters, reach stackers and reefers, with additional noise barriers installed in Phase 1a.
- Alarm noise mitigation measures would extend to all existing and new equipment at the extended DWB and CCT2.
- The Port would issue periodic Notices to Mariners requesting all vessels to reduce noise impacts and remind vessel operators of Ringaskiddy Basin berths' proximity to Ringaskiddy village's residential areas.
- The Port would use sound matting in strategic locations to address noise issues.

16.11.45. **Monitoring**

16.11.46. The EIAR states that the NTi monitoring programme would be undertaken and continuously reviewed during the construction and operation phases of the proposed development, and the existing quarterly compliance monitoring programme would continue.

16.11.47. **Residual Effects**

16.11.48. The EIAR states that compliance with applicable noise and vibration limits can be achieved during the construction phase. Noise and vibration monitoring would occur at residential properties adjacent to the proposed works. The EIAR predicts no significant residual construction noise or vibration impacts.

16.11.49. During the operation phase, the EIAR acknowledges that some residual noise impacts might occur during periods of high port activity. The report describes these as slight, temporary, and long-term impacts that would be managed on an ongoing basis by the Port. The report predicts that no residual vibration impacts would occur during the operation phase.

16.11.50. **Potential Interactions & Cumulative Impacts**

16.11.51. Regarding potential interactions and cumulative impacts, the EIAR states that it identified other projects in the study area that may influence the noise environment. The report states that the proposed development was assessed against a worst-case, quieter background noise environment, excluding potential noise from the other projects. The EIAR submits that cumulative noise from the other projects could increase noise levels at sensitive locations in their vicinity, making any noise from the redeveloped Port less prominent at those receptors.

16.11.52. **Assessment**

16.11.53. I have assessed Chapter 9 of the EIAR, all associated appendices, the submissions received raising issues regarding noise and the applicant's response to the submissions. It is my view that the airborne noise baseline and predictive methods for onshore receptors are acceptable and in accordance with the EPA Guidance Note for Noise (NG4), BS 5228 and TII Noise Guidelines. I also consider that the vibration criteria referenced are appropriate. I note, however, the gap identified by Cork County Council regarding the need to characterise ship-related sources of noise in the 2024 baseline environment, and the concern raised by the IWDG and An Taisce regarding the absence of underwater noise modelling for piling and dredging. My assessment and conclusion take these issues into account.

16.11.54. Regarding direct airborne noise during the construction phase, I consider the predicted activity levels to be within the control range of BS 5228 with standard best practice and time-of-day noise level restrictions. The modelled noise levels in the EIAR demonstrate that, when combined with standard mitigation measures and restricted working hours, the predicted noise would remain within accepted best practice limits and would not result in significant adverse effects on sensitive receptors. While noise effects are likely to occur, they would be temporary and can be kept within daytime criteria at sensitive receptors when managed under a CEMP. Regarding vibration during the construction phase, I consider the risk of exceedance of Peak Particle Velocity (PPV) trigger values at residential property to be low, given the intervening distances and nature of the proposed works. A condition requiring a real-time vibration monitoring plan with agreed trigger and halt levels would reduce the residual risk to not significant.

16.11.55. I acknowledge the concerns raised in the submissions received regarding direct impacts from underwater noise. It is my view that while the absence of explicit underwater noise modelling for the final pile type and programme is a deficiency, this can be adequately addressed by way of Condition in the event of a grant of permission requiring a pre-construction acoustic assessment. Such an assessment should use recognised source levels and propagation models for the local bathymetry, establish injury and disturbance standoff distances for Annex II and IV species, and define a mitigation package capable of achieving those outcomes. As recommended by An Tasice, I consider that engineering controls should be the primary mitigation, including soft-start procedures for piling, real-time monitoring by a qualified Marine Mammal Observer (MMO), Passive Acoustic Monitoring with proven detection ranges, and noise abatement measures such as single or double bubble curtains or equivalent systems sized appropriately to the site's current and depth. As per JNCC Guidelines for minimising the risk of injury to marine mammals from explosive use in the marine environment (2025), ADDs should not be relied upon as a standalone mitigation measure. They should be used in accordance with NPWS Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (2014). I acknowledge the applicant's response to the submission by the IWDG that bubble curtains in port development projects present challenges, including potential interference with port operations, limited effectiveness in shallow waters with high-flow

conditions and present complexities with regard to logistics (management and operations) and physical barriers reducing their efficacy in reducing underwater noise. Notwithstanding this, I consider that bubble curtains or equivalent engineered systems are a proven mitigation for reducing underwater noise as per NPWS Guidance and should be evaluated as part of an Underwater Noise and Marine Mammal Mitigation Plan, in consultation with the NPWS, to determine their practicability and proportionality in this specific context. This can be dealt with by way of a Condition in the event of a grant of permission. With the implementation of these mitigation measures, real-time monitoring by a qualified MMO, and oversight by the Planning Authority, I consider the likelihood of Permanent Threshold Shift (PTS) or Temporary Threshold Shift (TTS) to marine mammals within the zone of influence would be reduced to a very low probability. It is my view that, with this approach, significant adverse effects on marine mammals would not be likely, and that a timing plan to avoid the most sensitive periods, where practicable, would provide a further reduction of risk.

16.11.56. Regarding direct airborne noise impacts during the operation phase, I consider the plant and handling activity at the DWB and CCT2 should be subject to the existing consented limits of 55 dB LAeq day, 50 dB LAeq evening and 45 dB LAeq night with rating penalties for tonality and impulsiveness. I consider that compliance with these limits is achievable subject to the implementation of the proposed mitigation measures. All mobile plant and alarms should be broadband type and level-adaptive, with maximum sound power capped to the values proposed or lower. Existing block wall barriers should be maintained, and additional noise screening barriers should be provided as required by commissioning tests. Night-time operations should be managed to avoid tonal and impulsive events, including the prohibition of tonal reversing alarms and unnecessary tannoy use during night hours. Shipboard practices that elevate façade LAeq should be minimised through berth-side protocols, including avoidance of prolonged auxiliary engine idling where operationally feasible. With the implementation of these mitigating controls, I consider that the predicted increases at Monkstown and other sensitive receptors would remain below the threshold of significant effect and would not materially alter the character of the existing port soundscape, which is already dominated by road traffic.

16.11.57. Regarding indirect effects from traffic noise, I consider the change arising from the redistribution of port-related traffic would be small at most receptors and largely

imperceptible. I therefore consider that indirect traffic noise effects would not be significant. Regarding cumulative effects, I have considered the interaction of the proposed development with existing port activity, the completed Dunkettle scheme and the M28 under construction. Network changes will shift traffic to these strategic road corridors, which have been previously assessed and permitted. Throughput cap limits and a mobility management plan would control the Ports' contribution to the noise environment. I therefore consider that cumulative noise and vibration effects would not be significant.

16.11.58. I concur with the Local Authority Environment Section that the baseline noise assessment should include ship movements. I consider that continuous noise monitoring at agreed locations and an incident-led investigation protocol with transparent reporting would address these concerns. An Underwater Noise Assessment and Mitigation Plan should be submitted for written agreement prior to the commencement of any marine piling or dredging works. This would minimise the risk of injury or disturbance to marine mammals and other protected species. This issue is addressed in further detail below under the EIA heading Biodiversity - Marine Ecology (Section 16.2.1).

16.11.59. In terms of compliance with relevant policy and guideline, I consider that subject to the implementation of the proposed mitigation measures and appropriate conditions in the event of a grant of permission, the proposed development would generally accord with EPA NG4, BS 5228, BS 4142 for rating industrial sound, WHO outdoor and night-noise guidance as contextual benchmarks, TII guidance for construction, BS 6472 for human exposure to vibration, and the NPWS 2014 guidance on man-made sound and marine mammals.

16.11.60. **Conclusion**

16.11.61. In consideration of the above, I conclude that the proposed development would not result in significant adverse effects from noise or vibration. Effects during the construction phase would be temporary and manageable. Effects during the operation phase would not be significant, subject to the implementation of the proposed mitigation measures and appropriate enforceable Conditions. Underwater acoustic risk would be reduced to not significant, subject to a Condition requiring pre-construction modelling, engineered abatement, and real-time monitoring. While

residual effects may include occasional audible events at sensitive locations, these would be slight and not materially impact the environment, subject to the implementation of the proposed mitigation measures and Condition requirements.

16.12. Air Quality

16.12.1. Issues Raised

16.12.2. The third-party submission from Pfizer Ireland raises concerns regarding ongoing dust emissions from bulk handling at the deepwater berth, which they state has directly impacted pharmaceutical operations and staff health, with 27 recorded incidents in the previous year. It is submitted that existing dust controls are ineffective, alternatives such as closed conveyor systems were unreasonably dismissed, and that stronger and enforceable conditions should be imposed to prevent or limit dust emissions impacting neighbouring facilities. They further note that reliance on previous conditions has not been effective and request that the Commission require specific and more robust measures to control dust emissions from the operations of the Port.

16.12.3. The submission from Cork County Council notes that the proposed mitigation measures in the EIAR regarding noise and odour are generally appropriate but recommends that they be reviewed in the context of emerging dust-sensitive receptors. The submission notes that a CEMP should be submitted for agreement by the Planning Authority prior to commencement, detailing mitigation measures regarding the suppression of dust and the prevention of materials deposited on the public road network.

16.12.4. In response to the issues raised in the submissions received regarding air quality, the applicant notes that an Environmental Management System (EMS) / Operational Environmental Management Plan (OEMP) was submitted to and agreed with Cork County Council on the 9th December 2021, in compliance with Condition No. 9 of ABP Ref PA00035, which included proposals for the suppression of dust and a monitoring programme for all relevant environmental parameters, including dust. The applicant details how the agreed Operational Environmental Management Plan included a Dust Minimisation Plan and an Emission and Dust Monitoring Programme. The Dust Minimisation Plan provides for regular cleaning and sweeping of internal roads, deployment of a browser to dampen dust during dry weather, mandatory speed

limits on roads through the Terminal, and dust suppression systems for all bulk discharges. The Terminal Manager performs visual dust monitoring daily, and dust depositions are measured per VDI 2119: Measurement of Dust Using a Bergerhoff Dust Deposition Gauge. The applicant confirms that they are agreeable to a similar condition applied to the proposed development and will provide an updated EMS report on the basis of a grant of permission. The applicant also notes that a CEMP was also agreed with the Council under Condition 10 of ABP Ref PA00035, which included proposals for the suppression of dust on site, monitoring of noise, vibration and dust, etc. during the construction phase.

16.12.5. Methodology

16.12.6. The EIAR states that the study area comprises the sensitive receptors identified in Section 10.4 of the report. The desktop assessment considers the results of previous modelling conducted to assess the likely operational impacts of the proposed development and temporal and spatial effects relating to air quality impacts.

16.12.7. The report details the assessment's adherence to relevant legislation and guidelines including Irish Ambient Air Standards adopted from EU Directives, including the Clean Air for Europe Directive (CAFÉ, 2008/50/EC) and the Fourth Daughter Directive (2004/107/EC), which are transposed in the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) and related legislation. The EIAR details specific limit values for key pollutants such as nitrogen dioxide (200 µg/m³ hourly, 40 µg/m³ annual), sulphur dioxide, lead, benzene, carbon monoxide, and particulate matter (PM₁₀ at 50 µg/m³ daily, 40 µg/m³ annual; PM_{2.5} at 20 µg/m³ annual). These limits protect human health, taking into consideration vulnerable groups and WHO guidance.

16.12.8. The methodology has regard to IAQM's Guidance on Air Quality Monitoring in the Vicinity of Demolition and Construction Sites (2018) and Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance (2011). The report acknowledges that construction works can substantially and temporarily impact local air quality, including augmented particulate matter (PM) concentrations and dust soiling. As such, monitoring may be undertaken during demolition and construction activities to ensure that the applied mitigation

measures effectively control dust emissions and that there are no significant impacts on the surrounding environment.

16.12.9. The report states that there is no legislative limit for total suspended particles, so the German Government TA Luft guideline of 350mg/m²/day as an annual average at sensitive receptors is applied for dust deposition, using the Bergerhoff Method (as defined in VDI 2119 - Measurement of Particulate Precipitations), which measures total dust deposition including PM₁₀.

16.12.10. The methodology states that air quality assessment has been carried out following procedures described in the publications by the EPA (2015, 2020 and 2022) and documents published by the USEPA (2017 and 2021). The report states that modelling using the USEPA new generation dispersion model AERMOD (USEPA, 2021) (Version 22112) was used as recommended by the USEPA (2017) and the EPA (2020). The AERMET meteorological pre-processor generated hourly boundary layer parameters, and dust generation rates were calculated using USEPA AP-42 emission factors, which are detailed in Appendix 2 of the EIAR. Compliance monitoring undertaken at the Port of Cork in 2023 is referenced in the report.

16.12.11. **Baseline Conditions**

16.12.12. The EIAR states that the existing sources of air pollution in Ringaskiddy Port are road traffic, shipping traffic, space heating, industrial emissions, residential emissions, and fugitive emissions from fuel/gas storage. Emissions also come from land operations (cranes, trucks, etc.) and ships docked and at sea.

16.12.13. The EIAR describes the surrounding environment, including Ringaskiddy village to the south and Haulbowline Island to the northeast, where the Irish Naval base and a decommissioned Irish steel plant are located. Monkstown and Cobh are located across Cork Harbour to the northwest and northeast. The report identifies the nearest sensitive receptors to the proposed CCT2 and Ringaskiddy West DWB extension, including residential dwellings and Paddy's Point Amenity Area, c. 200m away, the naval college, c. 400m from the site, the new park at Haulbowline, and Monkstown and Cobh, c. 800m and 500m respectively from the site boundary.

16.12.14. The report describes how the main road to the Port carries local traffic, naval staff traffic and HGVs, which generate dust and traffic-derived pollution, including

nitrogen oxides, benzene and sulphur dioxide from diesel exhausts. The report details how sources of nuisance dust come from bulk cargo unloading operations at the existing DWB, bulk grain storage facilities at Ringaskiddy West and bulk grain warehouses along the N28 east of Ringaskiddy village Main Street. Depending on operational conditions and prevailing wind conditions, these can potentially impact nuisance dust levels in the area. The report notes how the Port of Cork implements an Environmental Management System (EMS) to combat the dust nuisance from bulk operations at the DWB. Mitigating measures include new plant, crane operator training with a simulator and dust reduction mechanisms. The report states that limited operational dust impacts arise at Ringaskiddy East (CCT2) as it handles containers or project cargo.

16.12.15. The EIAR describes the Port of Cork's environmental objectives, which aim to minimise air emissions, particularly odour, dust and noxious fumes. Current adopted practices include maintaining an EMS, adhering to operational best practice, emissions management, waste minimisation, efficient resource use, conservation awareness, compliance with relevant legislation/regulations/code of practice, and public reporting on environmental performance. Specific dust mitigation measures include using dustboss sprays, dust-controlled hoppers, quay road sweepers, and training internal operators. Cork County Council is notified of all bulk discharges, which are monitored to ensure all operating procedures are followed. Wind speeds/direction are monitored prior to discharge operations. The report details the standard operating procedures implemented and pre-discharge checks for hoppers, cranes, and trucks. The report also details standard operating procedures regarding maintenance, malfunctions, and spills and outlines work instructions for cranes and hoppers handling dusty cargoes.

16.12.16. The EIAR states that the baseline air quality levels at the Port of Cork are monitored by the EPA, with the most recent annual report on air quality in Ireland provided in Air Quality in Ireland 2020 (EPA 2021). The EIAR describes how Ireland is divided into four air quality zones under the Air Quality Standards Regulations 2002, where Cork is defined as Zone B. The report details how the Port of Cork Monitoring Station 112 in Ringaskiddy provides an hourly updated Air Quality Index of Health (AIQH) and was inspected on the 15th August 2024. Recording found that the PM10 Average was 6.11 µg/m³ and the PM2.5 average was 2.76 µg/m³. The report states

that the Air Quality Index for the Port of Cork Station is classed as Good. The report notes that the EPA Air Quality Report 2022 recorded no exceedances for SO₂, PM_{2.5}, NO₂, NO_x, O₃, CO, C₆H₆, heavy metals or PAHs where they were measured. The report states that there are three Bergerhoff dust monitoring gauges at the Port of Cork, which were compliant with EPA Dust Limits in 2023. The locations of the existing (and proposed) dust monitoring gauges are identified on an aerial map of the site in Section 8.3.3 of the Operational Environmental Management Plan (Appendix 11.2). Two monitoring gauges are located along the western boundary of Ringaskiddy West, and the other two are along the site's southern boundary adjacent to Ringaskiddy Village.

16.12.17. The EIAR describes the residential receptors 200m from the site as medium sensitivity. A table in Section 10.4 of the report details precise coordinates for each receptor, including their locations along Ringaskiddy Main Street, Riverview, Mareello Park, ecological designations within the harbour, the N28 layby, Shanbally Cross and school, and Paddy's Point Amenity Area. Given the low number of sensitive household receptors and their distance from the source, the report considers the sensitivity of the area to dust soiling effects on people and property as medium to low (as per IAQM 2024).

16.12.18. **Potential Effects**

16.12.19. The EIAR states that under the 'do nothing' scenario, if the CCT2, Ringaskiddy West DWB Extension and container handling and stacking arrangements were not built, dust deposition, PM10 and PM2.5 emissions, and traffic emissions would remain similar to current levels. Thereby, the impact on air quality would remain neutral.

16.12.20. During the construction phase, the report identifies four potential impacts to air quality, including (i) the dispersion of construction dusts/pollutants during the proposed works (e.g. earth/soil movements, waste treatment, piling and reinstatement), (ii) emissions from construction traffic, (iii) greenhouse gas emissions from construction operations (traffic, materials and plant) and (iv) potential odours (e.g. during dredging).

16.12.21. Regarding the dispersion of dust, the report states that construction dust has the potential to cause local impacts through dust deposition and exposure at the nearest sensitive receptors and sensitive ecosystems. Construction activities such as

the movement of material and earthworks may generate quantities of dust, particularly in dry weather conditions. The report notes how the potential for dust dispersion and deposition depends on weather factors such as rainfall, wind speed and wind direction. Referencing the Institute of Air Quality Management (IAQM) guidance, the EIAR indicates that potential dust impacts could occur within 100m and up to 350m from the site. The report states that, as per the IAQM guidance, nuisance dust effects would not be expected at distances beyond 350m from the source. On this basis, the report considers the potential environmental impact of construction dust as having a slight negative effect.

16.12.22. Regarding construction traffic, the EIAR states all dredged material would be moved by barge, minimising road traffic impacts. A specific construction phase air quality model indicates that predicted air quality concentrations at selected receptors are below relevant threshold levels. The report considers that the projected impact on air quality from construction traffic would have an imperceptible neutral effect.

16.12.23. Regarding greenhouse gas emissions (GHGs), the EIAR states that an assessment was carried out to identify sources and quantify total GHG emissions generated from construction activities. The assessment used the carbon calculator tool developed by the UK Environment Agency. The Carbon Calculator calculates the embodied carbon dioxide (CO₂) of materials plus CO₂ associated with their transportation. No exceedance figures are stated.

16.12.24. Regarding odour, the EIAR states that the main potential for odour during construction relates to dredging activities with the release of Hydrogen Sulphide (H₂S), a colourless gas with the characteristic foul odour of "rotten eggs". The report estimates that c. 215,000m³ of material will be excavated to -13.0m Chart Datum adjacent to the proposed new quay structures to provide sufficient water depths for vessels at all stages of the tide. The report notes that hydrogen sulphide is water soluble, so most of the H₂S released during dredging would dissolve in the water to form sulphuric acid at trace concentrations, dilute rapidly, and disperse in the estuary. The residual impact is deemed to be imperceptible.

16.12.25. During the operation phase, the EIAR states that emissions would come from diesel-powered container handling units/vehicles, including ship-to-shore gantry cranes (existing), gantry and harbour mobile cranes, terminal transporters and reach

stackers. The report states that emissions would be minimised through preventative maintenance and correct operating procedures, including equipment replacement after c. 25 years. It is stated that the Port of Cork Company's environmental objectives seek to minimise air emissions, including noxious fumes.

16.12.26. Section 10.4 of the EIAR provides a table detailing the receptor names, coordinates, and elevations used in the air quality assessment. These comprise predominantly residential receptors located along Ringaskiddy Main Street and Shanbally Cross, an educational receptor (Shanbally Cross School), an amenity receptor (Paddy's Point) and ecological receptors within the harbour. The report details that the nearest sensitive receptors are more than 200m from the loading area and that air pollutant concentrations would reduce and disperse as the distance from the source increases. The report states that this would reduce the likelihood of significant impacts from noxious emissions during the project's operational phase, as noted in UK Local Air Quality Management Guidance and studies conducted at large Ports in the UK. The report submits that the dispersion model prepared for the assessment of the proposal showed no breaches of Irish Air Quality Objectives or European Limit Values for annual or 24-hour mean. On this basis, the report states that there would be a slight negative impact on air quality from the CCT2 extension.

16.12.27. The EIAR states that the proposed DWB extension operations would continue the current method of handling cargoes on the existing bulk berths, including mobile hoppers and cranes with truck feeds. The Port would continue to implement best practices and actively review with receiving companies measures to control the release of dust during unloading operations. The report states that the existing mitigation measures adopted by the Port of Cork would be used for the operations of the new extended DWB.

16.12.28. The EIAR states that shipping emissions from internal combustion engines would be the principal pollutants, including CO, VOC, NO_x, PM, CO₂, SO_x, heavy metals and sulphate-derived PM. The report states that shipping volumes would increase annually from 2024 to 2050, resulting in an increase in shipping emissions. Shipping volumes are detailed in Volume IV of the EIAR - Appendix 2.1 Socio-Economic Assessment of Proposed Ringaskiddy Port Redevelopment. The report states that the relevant EU Directives and IMO MARPOL Annex VI seek to strengthen

the emission standards for NO_x and the sulphur content of heavy fuel oil used by ship engines, thereby reducing emissions in future years.

16.12.29. Table (xii) in Appendix 2.1 of the EIAR details operational estimates for 2033 showing a total NO_x at 3,879 tonnes per annum, total VOCs at 132 tonnes per annum and total TSP at 255 tonnes per annum across vessel types, accounting for Ro-R, Lo-Lo, Bulk Liquid, Bulk Solid, Break Bulk and Cruise types. The report states it has previously been assessed by RPS 2014 that, based on 2033 operational estimates, VOCs per annum, NO_x per annum and Total TSPs per annum would remain below legal limits, even with the growth of container traffic to the Port.

16.12.30. **Mitigation Measures**

16.12.31. The EIAR sets out a range of mitigation measures to address impacts on Air Quality during the construction and operation phase, which are summarised as follows:

16.13. Construction Phase:

- The implementation of a dust minimisation plan and monitoring programme.
- There are three existing monitoring points near the site, where samples will continue to be recorded at these sites and compared to the historical trend.
- Bergerhoff dust gauge monitoring would be recorded at appropriate locations on the periphery of the construction site to confirm that dust deposition is within acceptable limits.
- An odour management plan would be implemented to mitigate potential odour issues and implement remedial action through agreement with Cork County Council.
- Monitoring proposals for odour emissions would be submitted for agreement to the planning authority prior to the commencement of dredging activities. This would include monitoring at the site perimeter and nearby residential locations on an ongoing basis.
- Implement a Construction Environmental Management Plan (CEMP), incorporating the mitigation measures, including dust and odour.

16.14. Operation Phase:

- Strict international limits would control emissions to the air from berthed shipping.
- Good cargo unloading practices would minimise the impact of exhaust fumes from HGVs.
- Bulk grain cargo unloading would minimise cargo spillage.
- All loading/unloading would be subject to operation-specific control and containment protocols as adhered to by the Port of Cork.
- The Port would maintain its Environmental Management Systems (EMS) and continue its current Standard Operating Procedures (SOPs) concerning the handling of bulks, cargoes and containers.
- The ongoing dust monitoring programme would be reviewed annually to ensure that representative sampling locations are in place following the construction of the CCT2 and DWB extensions.

16.14.1. An aerial photograph in Section 8.3.3 of the Operational Environmental Management Plan (Appendix 11.2) identifies the location of the four existing/proposed dust monitoring locations.

16.14.2. **Monitoring**

16.14.3. The EIAR states that Bergerhoff dust gauge monitoring would be recorded at appropriate locations on the periphery of the construction site to confirm that dust deposition is within acceptable limits.

16.14.4. **Residual Effects**

16.14.5. The EIAR states that residual impacts on air from the construction and operation phases are not anticipated, as mitigation measures have been identified to control potential dust impacts.

16.14.6. **Potential Interactions & Cumulative Impacts**

16.14.7. The report states that no existing or proposed projects in the vicinity are likely to result in cumulative impacts to air quality during the construction phase. During the operation phase, the report states that the existing CCT1 and DWB activities would result in an imperceptible accumulation of effects on air quality.

16.14.8. Assessment

16.14.9. I have evaluated Chapter 10 of the EIAR, associated documentation, the submissions received raising issues regarding air quality, and the applicant's response to the issues raised in the submissions. It is my view that the EIAR's assessment of baseline conditions and predicted effects has been undertaken in accordance with the EPA's Guidance Note on Air Quality Monitoring and Assessment and the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011), as well as current best practice.

16.14.10. I consider that emissions during the construction phase, including dust and exhaust from plant and vehicles, are likely to occur but would be temporary, localised, and could be effectively managed. With the implementation of a CEMP incorporating site-specific dust suppression measures, vehicle management, and regular monitoring, I consider that significant effects on sensitive receptors would not occur.

16.14.11. Regarding emissions during the operation phase, I consider that the predicted levels would remain within the relevant statutory ambient air quality limits and WHO guideline values. Impacts from traffic have been modelled conservatively and indicate that there would be no exceedance of applicable thresholds at the nearest sensitive receptors. I consider that the cumulative effects of the proposed development, when combined with existing or approved developments in the area, would not be significant.

16.14.12. I have taken into consideration the concerns raised in submissions received, particularly those from Pfizer Ireland Pharmaceuticals regarding dust emissions from bulk handling operations at the Deepwater Berth. Pfizer Ireland's landholding adjoins the port area, located c.140m to the west of the Ringaskiddy West Berth. It is my view that these concerns can be appropriately addressed by way of enforceable conditions in the event of a grant of permission requiring the submission of a Dust and Emissions Management Plan for the written agreement of the Planning Authority. This plan should include a schedule of high-risk dust-generating activities with associated suppression measures, real-time PM₁₀ monitoring at agreed sensitive receptor locations, and dust deposition monitoring in accordance with TA Luft guidelines, ensuring that annual average dust deposition levels do not exceed 350mg/m²/day at sensitive receptors, together with a complaints and response protocol. Along with the proposed mitigation measures, these measures would protect human health and the amenities of the area.

16.14.13. **Conclusion**

16.14.14. I conclude that, subject to the implementation of the proposed mitigation and monitoring measures secured by enforceable Conditions, the proposed development would not result in significant adverse effects on air quality during either the construction or operational phases.

16.15. **Climate**

16.15.1. **Issues Raised**

16.15.2. The submission from Cork County Council acknowledges that implementing the proposed development would not significantly impact levels of greenhouse gas emissions. No other significant issues or concerns relating to climate are raised in the submissions received.

16.15.3. **Methodology**

16.15.4. The study area considers the territory of Ireland. The methodology takes into consideration relevant international and national legislation and guidance, including the Paris Agreement, which seeks to limit the increase in the global average temperature, the EU Directive 2014/52, which requires projects to assess both greenhouse gas emissions and climate vulnerability, and EU Guidance on integrating climate change and biodiversity into EIA (2013). The report also details relevant national legislation and guidelines, including the National Adaptation Framework (2024), Ireland's Climate Action Plan (2024), the Climate Action and Low Carbon Development Act and the National Ports Policy (2013). The methodology also considers the Draft Cork County Adaptation Strategy (2024-2029), which sets out goals of integrating climate action considerations into land use planning. The EIAR notes Ireland's commitment to achieving climate neutrality by 2050 with a 51% reduction in GHG emissions by 2030 under the Climate Action Plan and the Climate Action and Low Carbon Development Act, with sectoral measures including a 30% reduction of non-Emissions Trading Scheme (ETS) sector emissions on 2005 levels by 2030 and specific transport measures such as sustainable biofuels for maritime sectors.

16.15.5. The assessment methodology also considers the Port of Cork Masterplan 2050, which aims to put decarbonisation at the centre of future infrastructure development to respond to the national Climate Action Plan 2023, aligning with national targets of achieving a 51% reduction in GHG emissions by 2030 and reaching net-zero emissions by 2050. Data sources include the Port Climate Action Roadmap 2023, Port of Cork Masterplan 2050 and Flood maps from Floodinfo.ie.

16.15.6. **Baseline Conditions**

16.15.7. The EIAR describes the macroclimate of Ireland, which is dominated by the Atlantic Ocean, where winters are cool and windy, and summers are mostly mild and less windy. The report details how coastal regions, including the application site, experienced mean annual temperatures of 11-12 °C and had a mean yearly rainfall of 1,000–1,200 mm from 1981 – 2010. The wettest months are December and January. Wind blows most frequently from the southwest and northwest. The dominant wind direction recorded at Cork Airport is south-westerly.

16.15.8. Regarding GHG emissions at the site, the report details how emissions arise from existing Port operations, including shipping emissions (both docked emissions and at sea) and land operations from cranes and trucks, etc. Transport is the largest source of emissions, accounting for 61% of total CO₂ emissions in 2021. The report notes how the CAP 2024 identified that domestic maritime and aviation emissions accounted for less than 5% of sectoral emissions.

16.15.9. Regarding climate and flood risk, the report states that the site's topography is flat at sea level at the harbour's edge. A weather station in the Port of Cork records information every 30 minutes, including temperature, humidity, wind speed and direction, pressure and rainfall.

16.15.10. The report notes OPW findings (2019) that climate change is likely to significantly affect flood risk in Ireland due to rising sea levels, more intense rainfall events, and storms. The report also refers to the Climate Change Sectoral Adaptation Plan for Flood Risk Management (2019 - 2024), which reports a mean sea level rise of c. 3.5cm per decade since the early 1990s and predicts an increase in storm events over the North Atlantic Region, resulting in storm surge risks along the coast of Ireland. The report states that flooding is a key concern for County Cork, and current levels of

adaptation are projected to be insufficient to avoid flooding due to global warming. This requires careful planning and development in vulnerable areas.

16.15.11. Potential Effects

16.15.12. The report states that climate change will likely increase sea levels, consequently increasing flood levels and the frequency of flooding. The report references Regional Climate Modelling (RCM) simulations for Ireland, which predict significant reductions in mean annual, spring and summer precipitation by up to 20% by 2050, increases in heavy rainfall events in winter and autumn, an increase in intensity of storms, intensification of the hydrological cycle affecting high and low flow periods in rivers and lakes, mean sea level rise of 0.5m (Medium Range Future Scenario) to 1m (High-end Future Scenario), and fluvial flow increases of 20% to 30% (Nolan, 2015). The report states that the scheme has been designed specifically for the 1% AEP present-day flood extent and provides foundations adaptable to the MRFS climate change scenario.

16.15.13. Under the 'do nothing' scenario, the EIAR states that the proposed development would remain as is, and the benefits of offshore renewable energy and containerised shipping development would not be fully realised. This would create a significant negative impact over time.

16.15.14. During the construction phase, the EIAR states that the proposed development would impact the climate through GHG emissions from the transport of materials to the site, embodied CO₂ in construction materials, and emissions from plant machinery. The report estimates that the GHG emissions associated with the proposed construction would be 210,600 tonnes of tCO₂eq, with 200,000 tCO₂eq from waste removal (including dredging), 8,000 tCO₂eq from imported embodied materials, 2,000 tCO₂eq from material transport and 600 tCO₂eq from personnel transport. Table 11-3 details how embodied carbon for 9,650 tonnes of structural steel would be 10,904.5 tCO₂eq and 8,044.3 tCO₂eq for 78,100 tonnes of in situ concrete. The report states that in terms of national emissions, the project is unlikely to be significant, as embodied carbon in construction accounts for 14% of national emissions. The report notes that the project would be vulnerable to weather and flood events throughout the 36-month construction phase. However, this effect would be short-term and imperceptible.

16.15.15. During the operation phase, the report states that operational engine emissions have been incorporated into the assessment for the existing activities at Ringaskiddy West and the proposed redevelopment activities on Ringaskiddy West and Ringaskiddy East CCT. The report states that in the short term, emissions would increase due to an increase in the number of ships docking at Ringaskiddy, which previously docked at Tivoli or City Quay. The principal pollutants from the internal combustion engines of ships include CO, VOC, NO_x, PM, CO₂, SO_x, and heavy metals.

16.15.16. The EIAR states that shipping volume to the port is expected to increase from 9 million tonnes to 10.7 million tonnes annually from 2023 to 2033, resulting in higher shipping emissions. However, the report states that the existing legal requirements regarding fuel and emissions for shipping are gradually reducing the extent of emissions and will continue to do so in future years. The report notes that the Port of Cork is introducing initiatives to decarbonise its operations, including the installation of solar PV and wind turbines to power Port equipment, the electrification of future Port equipment, the supply of electricity to berthed vessels, the piloting of HVO fuel, and the use of energy-efficient equipment.

16.15.17. The report states that the proposed development would not significantly impact national GHG levels, and the change in regional atmospheric levels (using the DMRB Screening Model) would not be significant, with percentage increases all below 5%. Appendix 5.2 details the DMRB Screening Model results and calculations.

16.15.18. **Mitigation Measures**

16.15.19. The EIAR states that during the construction phase, the proposed development would adhere to best environmental practices to mitigate greenhouse gas emissions, with measures as detailed in Chapter 10 of the EIAR, which addresses Air Quality. During the operation phase, proposed mitigation measures include the following:

- Strict international limits would control emissions to air from berthed shipping.
- Implement good cargo unloading practices to minimise the impact of exhaust fumes from HGVs.

- Vehicular emissions from generated traffic would decrease over time due to improvements in engine efficiency and the enforcement of vehicle emission standards.
- Bulk grain cargo unloading would minimise cargo spillage.
- All loading/unloading would be subject to specific control and containment protocols as adhered to by the Port of Cork.
- Existing cargo handling would be continued and extended to serve the proposed berth extension, and dust monitoring at the site peripheries would be continued.

16.15.20. **Monitoring and Residual Effects**

16.15.21. No climate-specific monitoring is proposed for the construction or operation phases. The report states that HGV movements and operating machinery would create GHG emissions during construction. However, these would be managed through the proposed mitigation measures described in Chapter 10 of the EIAR regarding Air Quality.

16.15.22. The report states that during the operation phase, residual impacts would arise from the growth of the shipping traffic at the Port and its emissions of greenhouse gases. However, it is submitted that improvements in engine efficiency and fuels would reduce emissions. Furthermore, the Port of Cork Masterplan 2050 outlines several measures that would reduce residual effects, including low-emission lighting, a ban on idle ships, the use of solar power for land-based activities, and a reduction in fees for low-emissions vessels.

16.15.23. **Assessment**

16.15.24. I have examined Chapter 11 of the EIAR, all associated documentation, and the submissions received regarding Climate. It is my view that the EIAR addresses both greenhouse gas emissions and climate resilience in a satisfactory manner.

16.15.25. Regarding direct GHG emissions during the construction phase, I consider the estimated total of about 210,600 tCO₂e would be material but limited to the construction phase. The sources likely to occur would be dominated by the handling of dredge spoil and imported materials (embodied and transport). When set against national inventories and the short duration of the works, and if managed through a

construction carbon plan that prioritises material efficiency, low-carbon procurement, and efficient plant, I consider that the effect on the climate environment would not be significant. This approach aligns with the Climate Action and Low Carbon Development Act 2021, the National Ports Policy, and the EPA's EIAR guidelines, which collectively emphasise minimising GHG emissions during construction and operation, and supporting national decarbonization objectives.

16.15.26. Regarding emissions during the operation phase, I consider the main contributors would be ships at berth and port equipment. As per Section 15.2.5.4 of CAP 2024 (updated by CAP 2025), the domestic maritime and aviation sectors form less than 5% of sectoral emissions. International fuel sulphur rules set by the International Maritime Organisation (IMO) and equipment upgrades would continue to drive down emission intensity over the appraisal period. Having regard to the planned programme for electrifying port equipment, supplying electricity to berthed vehicles, and a policy restricting the idling of ships and equipment, I consider that the effects on climate during the operational phase would be minimal.

16.15.27. Regarding climate resilience, I consider rising sea levels and storm surges to be critical hazards. The scheme is designed for the 1% AEP present-day flood extent and has provided foundations to be adaptable to the Medium Range Future Scenario (MRFS). Having regard to the proposed flood mitigation and climate adaptation measures outlined in the EIAR, I consider that the proposed development would be resilient to predicted climate impacts during its operational life.

16.15.28. Regarding indirect and cumulative effects, the proposed development would complete the original permitted development, enabling more efficient freight logistics and reducing movements in the constrained City Quays and Tivoli locations. While the growth of shipping tonnage would occur, the proposed development as part of the Port of Cork would be subject to several decarbonisation initiatives in its operations. Furthermore, the proposal would facilitate the importation of renewable energy wind turbine components and other project cargoes associated with the land-based wind energy sector, significantly reducing GHG emissions and contributing to Ireland's renewable energy targets under the current CAP 2025. On this basis, I consider that the cumulative effects of the proposed development would not be significant. Residual impacts on the climate environment would not be significant.

16.15.29. **Conclusion**

16.15.30. Having examined the EIAR and the policy context, I conclude that the proposed development would not have significant adverse effects on the climate environment. Emissions during the construction phase would be short-term and controllable. Emissions during the operation phase would be limited in scale and diminish with the implementation of decarbonisation measures by the Port of Cork Company and compliance with industry standards. Cumulative and residual effects would not be significant subject to the implementation of the proposed mitigation measures, monitoring and appropriate conditions in the event of a grant of permission.

16.16. **Soils, Geology & Hydrogeology**

16.16.1. **Issues Raised**

16.16.2. The submissions received raised no specific issues or concerns regarding soils, geology, or hydrogeology related to the proposed development. Concerns regarding sedimentation arising from proposed marine works are addressed under the headings Coastal Processes, Water Environment and Marine Ecology, further below.

16.16.3. **Methodology**

16.16.4. The EIAR states that the study area for assessing soils, geology and hydrogeology comprises the immediate vicinity of CCT2, the footprint of the DWB extension, and the footprint of the road network upgrade. The report details relevant legislation and guidance for assessing the impacts on soils, geology, and hydrogeology. These include, *inter alia*, IGI (2013) Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements, the NRA's (2009) Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes (2019), and the EPA Guidelines on the information to be contained in EIARs (2022).

16.16.5. The EIAR states that the impact assessment ranking methodology aligns with the Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes (NRA, 2008). The report outlines the steps involved, which include (i) quantifying the 'Importance' of each feature with a rating ranging from 'low' to 'very high', (ii) estimating the 'Magnitude' of the impact,

ranging from 'large' to 'negligible', and 'beneficial' or 'adverse', and (iii) determining the 'Significance' of the impact, ranging from 'Imperceptible' to 'Profound' derived using a matrix provided in Table 12-1.

16.16.6. The EIAR details the data sources used, including, inter alia, OSI, GSI, NPWS, and EPA maps and databases, as well as several site-specific geotechnical investigation reports from the National Maritime College (dated 2009) and the Marine Energy Research Centre at Ringaskiddy (2011). The report states that several site investigations were carried out in the area surrounding the site. Details are provided of the 1999 site geotechnical investigation for the National Maritime College site southwest of Paddy's Point, which comprised eight boreholes that encountered topsoil, hydraulic fill overlying glacial clay, or gravel above bedrock. The report notes the geotechnical investigations conducted for the proposed Marine Energy Research Centre in May 2010, as well as the geotechnical investigations carried out in November 2005 and March 2006 for the Port of Cork Strategic Development Study. The report also details the Marine Site Investigation carried out in 2016, which provided detailed factual geotechnical information on the underlying ground conditions for the proposed port redevelopment. Fieldwork comprised five land-based cable percussive boreholes and five land-based rotary core boreholes at Ringaskiddy, thirty-seven marine cable percussive boreholes and thirty-four marine rotary core boreholes at Ringaskiddy Port, with standard penetration testing, in-situ sampling, recovery of rock core samples and logging. Laboratory tests included natural moisture content, Atterberg limits, bulk density, particle size distribution, sedimentation, consolidation, triaxial and shear box testing.

16.16.7. The EIAR details how, in March 2024, Priority Geotechnica undertook supplementary ground investigation at Ringaskiddy Redevelopment Phase 1b CCT2, located at the Cork Container Terminal. The ground investigation consisted of four boreholes to a depth of 40m, in-situ testing, sampling, laboratory testing and factual reporting. The EIAR's Chapter 12 on Soils, Geology and Hydrogeology is supported by appendices, including an Outline CEMP (Appendix 11.3) and a CCT Operational Environmental Management Plan (11.2).

16.16.8. Baseline Conditions

16.16.9. The EIAR describes the regional geology of County Cork, as well as the local geology at the site. The report details how the site is located north of the “Ringaskiddy Anticline”, which is described as a small wedge of older sandstones and mudstones, known as the “Kinsale Formation”, and is underlain by the Waulsortian Mudbank, comprising pale grey, massive Limestones. Geological maps indicate the presence of several geological faults in the vicinity of the site. However, the report states that these faults are not active, and the previous intrusive ground investigations undertaken at the site confirm that these faults do not pose a threat to the site's stability. The report states that an area to the east of the site is designated as a Geological Heritage Site by the Geological Survey of Ireland (Ringaskiddy, Golden Rock) due to exposed Limestone bedrock at the surface.

16.16.10. Regarding soils, the EIAR states that ‘Brown Podzolic’ is the principal soil type in County Cork. The acid brown earth present at Ringaskiddy is free-draining with a good moisture-holding capacity, but it has a relatively low nutrient status. The report states that a significant proportion of the Ringaskiddy Harbour has been constructed on reclaimed land, underlain by fill material (Made Ground). Port of Cork records show that the fill material for Ringaskiddy East was pumped ashore from Curlane Bank, whilst Ringaskiddy West was filled with sands recovered from Spit Bank. These are underlain by the Waulstorian Mudbank, consisting of pale grey massive limestones.

16.16.11. Regarding hydrogeology, the EIAR states that 80% of Cork County Council’s drinking water is derived from surface water. The dominant sandstone and limestone rock types around Cork are classified as aquifers but vary significantly in productivity. The report states that GSI has not classified most of the site, as it comprises reclaimed land. The land south of the site is classified as a Locally Important karstified aquifer (Lk) and a Locally Important aquifer (Li), with Paddy’s Point area also classified as Lk. The report notes that most of the site has not been assigned a groundwater vulnerability rating by the GSI. The area south of the site is classified as having an Extreme Vulnerability (‘E’), with a small area classified as ‘X’, indicating rock at or near the surface. The report notes that there are no potable groundwater abstraction wells within a 1km radius of the site and that the EPA Abstraction Register identifies two wells within a 1km radius of the site at Pfizer Ringaskiddy.

16.16.12. The EIAR provides observations of the previous ground investigations. The Port of Cork Strategic Development Study - Glover Site Investigations Ltd 2006 identified a progression of uncompacted organic marine silt with occasional layers of sand, clay or shells, underlain by firm gravelly sandy clay with cobbles and boulders (glacial till), progressing to very weak, highly weathered fine-grained Carboniferous limestone and then moderately strong fine-grained Carboniferous limestone. The report states that in some areas, the cores contained mostly oyster shells (70%) within uncompacted silt. Borehole investigations on land found Made Ground to a depth of 4.6m, underlain by Sand to a depth of 10m. Extensive sediment sampling revealed that the sediments were not contaminated and were therefore suitable for reuse or disposal at sea, where they are unsuitable as fill material.

16.16.13. The Marine Energy Research Centre Study Geotechnical Investigation in 2011 found that the study area site south of Paddy's Point is characterised by glacial deposits of Clay/Silt, organic Silt, Sand and Gravel (of various textures) to depths of 10m below existing ground level, with Limestone bedrock at depths of 5.6m to 10.0m below ground level. Groundwater was found at shallow depths within the Sand and Gravel deposits and at greater depths at the bedrock level. Sub-soil samples found that metal, Hydrocarbon and Polycyclic Aromatic Hydrocarbon contaminant levels were low overall.

16.16.14. **Potential Effects**

16.16.15. The EIAR states that in the 'do nothing' scenario, predicted impacts to soils and geology would remain similar to current levels, i.e. a negligible impact.

16.16.16. During the construction phase, the report states that earthworks for the proposed development would require a piled foundation to construct the combi-walls needed for the new quay walls of the CCT2 berth. The combi-wall would comprise tubular steel piles installed at intervals, with traditional steel sheet piles filling the space in between. The tubular piles would be drilled or grouted into the bedrock. Dredging would be carried out to -13.4m Chart Datum. The report states that c. 50,000 m³ of silt material would be dredged in the area of Ringaskiddy East and c. 390,000 m³ in the Ringaskiddy West DWB extension area. The report notes that the disposal of the dredged material will require a Dumping at Sea Permit from the EPA, and that dredged

rock and other suitable materials will be reused in the reclamation works. The impact on soils and geology is predicted to be slight and short-term.

16.16.17. Regarding hydrogeology, the EIAR states that groundwater may be encountered during piling. This would require careful management to prevent further degradation of its quality. The report states that, as there are no potable groundwater abstractions within a 1km radius of the site, there would be no impact upon potable water supplies from piling.

16.16.18. During the construction phase, the EIAR states that the proposed development would not impact groundwater, as it would not involve any water abstraction. Surface water runoff would be collected and diverted to the local stormwater treatment system. The report states that aquifer protection zones do not need to be specified, as clean fill material would be used. The report acknowledges that daily port operations and activities involve the use of diesel, crude oil, hydraulic oil, and chemicals, which could potentially impact groundwater. However, best practice contingency measures would be implemented to address any potential oil spills.

16.16.19. The report states that port activities could cause pollution from the release of oils, diesels or chemicals during the operation of the CCT2 and DWB extension. This could arise from vehicles operating in the terminal vicinity, as well as directly from ships. The refuelling of ships could potentially adversely impact water quality in the area, depending on the volumes released. The storage of chemicals, fuels, and oils on-site for activities such as refuelling also has the potential to result in leaks or spillages that may enter groundwater. The report states that most of the development would be covered in hard standing, which would minimise contaminant transport pathways. The report states that contamination is unlikely using the source-pathway-receptor model, where there is no transport mechanism.

16.16.20. **Mitigation Measures**

16.16.21. The EIAR sets out a range of mitigation measures to address impacts on soil, geology and hydrology during the construction and operation phase, which are summarised as follows:

16.16.21.1. Construction Phase

- A Groundwater Management Plan would be prepared and implemented to minimise risk to groundwater from construction activities and piling.
- Any contaminated groundwater found during earthworks or piling would be disposed of at a licensed waste disposal facility or treated through a three-stage interceptor and discharged to a sewer under a licence from the Local Authority.
- Any material imported would be assessed to avoid introducing contamination.
- Imported topsoil would be chemically analysed and screened against generic values for commercial use to ensure it poses no risk to human health.
- Any imported fill material would undergo Waste Acceptance Criteria testing (as per BS 12457/3) to ensure it is inert and does not risk groundwater contamination through leaching.

16.16.21.2. Operation Phase

- The Port of Cork's Oil/HNS Spill Contingency Plan (2019) addresses measures to be taken in the event of an oil spill or spillage of Hazardous Noxious Substances.

16.16.22. **Monitoring**

16.16.23. The EIAR states that during the construction phase, there would be weekly monitoring inspections for pavement cracks, inspection of bunds, oil containers, spill kits, and vehicle inspections. These would be recorded weekly by the Site Manager. These monitoring arrangements would be continued during the operation phase.

16.16.24. **Residual Effects**

16.16.25. The EIAR states that during the construction phase, residual effects of the development are not anticipated due to the use of clean soils and the requirement that the contractor promptly manage any spills. During the operation phase, the report states that residual impacts would be imperceptible, subject to the implementation of the proposed mitigation measures.

16.16.26. **Cumulative Impacts and Potential Interactions**

16.16.27. The EIAR states that a range of projects were considered as part of the cumulative assessment and that no significant cumulative effects are predicted when assessed alongside the proposed development.

16.16.28. **Assessment**

16.16.29. I have examined Chapter 12 of the EIAR, all associated documentation, and the submissions received regarding soils, geology, and hydrogeology. It is my view that the scope of investigation, the data sources, and the impact ranking follow IGI 2013, the NRA guidance for geology, hydrology and hydrogeology, and the EPA EIAR 2022 guidelines, and that the dataset is sufficient to assess the impact on the proposed development on soils, geology and hydrogeology at this location.

16.16.30. I consider the direct effects on soils and geology would arise from piling for the combi-walls, local earthworks, and capital dredging. While these effects are likely to occur, they would be confined spatially to the reclaimed footprint and adjacent seabed. There is no evidence of active faulting, and the proposed development would not encroach on the designated Geological Heritage Site at Ringaskiddy Golden Rock (Site Code:CK077), located to the southeast. On this basis, I consider the magnitude of direct geological impact would not be significant.

16.16.31. I consider that the direct hydrogeological risks during the construction and operations phases would be fuel, the handling of chemicals, and any short-term groundwater inflows encountered during piling. However, there are no potable abstractions within one kilometre of the site, and the receptor value is low within the reclaimed footprint. Pathways are limited by extensive hardstanding and engineered drainage. With the implementation of the proposed Groundwater Management Plan, screening of imported materials, Waste Acceptance Criteria testing of any fill, bunding and interceptors, and a spill prevention and response plan, I consider that the likelihood of a pollution episode would be low and that any residual effect on groundwater quality would not be significant.

16.16.32. Regarding indirect effects associated with dredging and disposal, material disposal would be governed by a Dumping at Sea permit from the EPA. The proposal does not involve dewatering, abstraction or proposed alterations to inland groundwater levels. I therefore consider that indirect effects on hydrogeology would not occur.

16.16.33. I have considered cumulative effects with existing port activity and other permitted development. The proposed works involve no abstraction, dewatering, or the creation of new permeable pathways. Additional hardstanding would marginally reduce infiltration in an area already dominated by fill and pavements. In my view, there is no realistic pathway for cumulative effects on groundwater bodies or geological receptors.

16.16.34. Third-party and prescribed body submissions raised no specific concerns regarding soils, geology or hydrogeology. Nonetheless, I have examined the proposed development in relation to the source–pathway–receptor model. It is my view that the possible sources would be limited to fuels and oils during handling, and that paving, containment and drainage controls would effectively break pathways. There are no sensitive receptors located near the proposed development. On this basis, I consider that significant effects on soils, geology, and hydrogeology would not occur. Nonetheless, in the event of a grant of permission I consider it appropriate that Conditions be imposed requiring the submission of a CEMP incorporating a groundwater and soil management plan, fuel and chemical storage protocols, spill prevention and incident response procedures, and monitoring arrangements. Conditions should also be imposed controlling the importation of fill in accordance with waste acceptance criteria. This would ensure risks to soils, geology, and groundwater are effectively managed in accordance with recognised best practice and statutory guidance.

16.16.35. **Conclusion**

16.16.36. Having examined the EIAR and associated documentation, I conclude that the proposed development would not significantly affect soils, geology, or hydrogeology. Any effects during the construction phase would be temporary and controllable through the CEMP, a Groundwater Management Plan, material acceptance testing, and spill prevention and response procedures. During the operation phase, pathways would be limited by extensive hardstanding and engineered drainage. Residual and cumulative effects would not be significant, subject to the implementation of the proposed mitigation measures and appropriate enforceable conditions.

16.17. Coastal Processes

16.17.1. Issues Raised

16.17.2. Several Prescribed Bodies raised issues relating to coastal processes. An Taisce highlighted concerns regarding dredging and construction activities, in particular the potential for habitat removal, turbidity and increased sediment mobilisation during dredging and construction activities. An Taisce submit that this could affect subtidal fauna, benthic species and macro-invertebrates in the Cork Harbour SPA. An Taisce notes that the proposal has the potential to have significant adverse impacts on three pNHAs within Cork Harbour, whose ecological integrity requires preservation for the benefit of habitats and resident species. These include Monkstown Creek pNHA (Site Code: 001979), Lough Beg pNHA (Site Code: 001066), and Whitegate Bay pNHA (Site Code: 001084). An Taisce notes how the applicant's survey found mussel beds throughout or near the site area and that removing them to facilitate the proposal requires full consideration and a clear articulation of remediation measures to reinstate these populations elsewhere if removal is unavoidable, as per Article 5 obligations of the Nature Restoration Law. The Commissioners of Irish Lights' submission highlighted the need for consent for turbidity monitoring to monitor water quality.

16.17.3. The submission from the Development Applications Unit (DAU) of the Department of Housing, Local Government, and Heritage emphasise the requirement for an underwater archaeological impact assessment to be submitted to the Department prior to commencement of geotechnical and dredging works and the need for archaeological monitoring during geotechnical and dredging works to protect underwater cultural heritage. MARA referenced the existing MAC, highlighting the need for consistency with its terms, ongoing monitoring of dredging and related activities in the preparation of a rehabilitation plan for areas affected by dredging. Inland Fisheries Ireland (IFI) raised concerns about the loss of shellfish habitat and nursery grounds due to dredging, disruption to local fishing during dredging and a need for counterbalancing measures to offset permanent habitat loss. IFI requests that dredging be prohibited during the draft net salmon season, and the total loss to fisheries resulting from the works be quantified within a six-month period. The

submission from Cork County Council did not raise any specific issues or concerns relating to coastal processes regarding the proposed development.

16.17.4. The applicant responded to the issues raised in the submissions regarding coastal processes. Addressing impacts of dredging and disposal, the applicant states there are no EU sites in the vicinity of the disposal site, with the nearest being more than 15km away, and that impacts to coastal processes as a result of the disposal of dredged material are included in Chapter 13 Coastal Processes of the EIAR (pgs. 272 and 273). Regarding impacts on intertidal and subtidal habitats, the applicant states that a risk assessment for intertidal and subtidal Biotypes is shown in Table 15.3 of Chapter 15, Marine Ecology of the EIAR. Regarding potential risks to subtidal fauna, macroinvertebrates, and mussel beds, the applicant states that the risk to subtidal fauna and mussel beds was evaluated using a drop-down video survey, as detailed in Chapter 15, Section 15.3.2.3. Reinstatement measures are detailed in Chapter 15, page 369 (ME55) and page 358, para. 3 of the EIAR. The applicant notes that the dropdown video assessment confirmed the absence of seagrass in the area.

16.17.5. Regarding turbidity, the applicant confirms that the existing sanctioned turbidity monitoring buoys would be redeployed for the dredging associated with the proposed development and that statutory consent would be sought from the Commissioners of Irish Lights prior to their redeployment. Regarding the water environment, the applicant notes that all stormwater drainage from the proposed development would include interceptors before discharge through outfalls, as consented. A Construction Management Plan would be submitted prior to the commencement of development.

16.17.6. Regarding impacts on underwater archaeology, the applicant states that the UAIA completed in 2024 would be updated as appropriate for all seabed preparation works and submitted to the Department for formal approval. The applicant commits to implementing the mitigation measures set out in the EIAR. Addressing the interface with fisheries during dredging, the applicant states that the proposed dredge areas are within the Ringaskiddy Port basin, in which no commercial/amenity fisheries operate or are permitted, and that the majority of the proposed capital dredge area has been dredged historically on a maintenance basis. The applicant notes that Inland Fisheries Ireland (IFI) has been consulted on the Dumping at Sea Permit Applications (EPA refs. S0021-03 & S0039--01) which relate to the proposed dredging. The applicant states

that IFI has previously acknowledged the removal of the customary salmon draft net season restriction.

16.17.7. Methodology

16.17.8. The EIAR states that the assessment of coastal processes for the proposed development involved using the coupled MIKE FM model to undertake hydrodynamic and sediment plume dispersion simulations. The models were calibrated and verified by comparing tidal elevation across the model domain with tide gauge network data, and Irish Hydrodata recorded current meter readings. The report states that the calibrated and verified coastal process models provided a baseline for assessing the impacts of the proposed redevelopment, including those due to dredging, using difference plots to identify and quantify changes.

16.17.9. The report states that two high-resolution numerical models were developed for the study in 2024. The inner Cork Harbour flexible mesh model was developed to simulate the dispersion of spilt material during dredging operations. The model has a mesh size ranging from 30m² at Ringaskiddy and within the fairway approach channels to c. 70m² across the wider flat areas, and a refined mesh size of 14m² in the harbour itself. The outer Cork Harbour model extended approximately 40km offshore, utilising a high-resolution mesh with an effective cell size of 50 m² at the disposal site. The model resolution was decreased to c. 1,500m² at the offshore boundary to increase computational efficiency. The report states that the RPS models for 2014 and 2024 were calibrated to the same level of accuracy and had a graded grid spacing, with areas of fine cells of 5-10m in resolution in areas of rapidly changing bathymetry near the proposed development site.

16.17.10. The EIAR details relevant legislation and guidance relating to the assessment of coastal processes. The report states that the RPS models were informed by data from the Irish National Seabed Survey (INSS), INFOMAR, and other local bathymetric surveys undertaken in Cork Harbour. The tidal boundary data used for the Cork Harbour RPS (2024) model was generated using an RPS Irish Sea Tidal and Storm Surge model, which covers the Northern Atlantic Ocean and UK continental shelf up to 600km from the Irish Coast. The model used mesh sizes ranging from 24km along the Atlantic boundary to 200m along the Irish coastline.

16.17.11. The report states that as part of the Dumping at Sea application, 20 sediment samples were collected to determine potential contamination and the physical nature of the sediment to be dredged. The results showed that 78.8% of the material to be dredged was silt, with the remaining 21.19% being sand or coarser.

16.17.12. **Baseline Conditions**

16.17.13. The EIAR describes the baseline coastal environment as comprising strongly bi-directional tidal currents within the main channel and weaker, circulatory currents in the lee of Paddy's Point, behind the Ringaskiddy ADM training wall, and at the mouth of the Monkstown Creek. Figures 13-7 and 13-8 illustrate peak ebb and flood current speeds as per the RPS (2014) modelling study.

16.17.14. The report details how the sediment samples showed that c. 78% of the material to be dredged consisted of silt, with coarse and fine silt fractions used in the numerical modelling. Table 13-1 of the report provides a summary of the Dumping at Sea sediment analyses report for Ringaskiddy (RPS, 2024). Figure 13-9 maps designated areas of interest in proximity to Cork Harbour (RPS 2014) that may be sensitive to potential impacts during construction and operation. These include, *inter alia*, Cork Harbour SPA, Great Island Channel SAC, Monkstown Creek NHA and various shellfish areas.

16.17.15. **Potential Effects**

16.17.16. The EIAR indicates that in the 'do nothing' scenario, the existing tidal current regime at Ringaskiddy would remain unchanged, with strong bi-directional currents within the main channel and weaker circulatory currents in the lee of Paddy's Point, behind the Ringaskiddy ADM training wall and at the mouth of the Monkstown Creek.

16.17.17. During the construction phase, the EIAR states that a total volume of 375,355 m³ and 47,862 m³ of material will be dredged from sites A and B, respectively. The dredging assessment adopted a conservative worst-case scenario, based on 24/7 operations using a Trailing Suction Hopper Dredger (TSHD). The dredging model assumes a 3% sediment loss at the dredger head, equating to a loss of approximately 45.3 kg/s during active dredging times (i.e., 30 minutes of every 4-hour dredging cycle). The report states that the samples' analysis indicated that c. 78% of the

sediment material to be dredged consisted of silt. The remaining 21.2% of material, comprised of sand, was not included in the modelling simulations.

16.17.18. The EIAR illustrates the total suspended sediment concentrations (SSCs) during typical dredging operations at different tidal stages within Area A of the Ringaskiddy Ferry Port. The report states that the average total SSC throughout Cork Harbour does not generally exceed 0.2 mg/L during dredging, except at Ringaskiddy Ferry Port, where it may reach up to 6 mg/L. The report notes that the maximum total SSCs do not generally exceed 150mg/L beyond Areas A and B. In contrast, within the active dredge areas, the maximum SSC can occasionally exceed 1,000mg/L. However, the report notes these maximum total SSCs are almost always related to times when the dredger was active and therefore represent the sediment source before any mixing or dispersion had occurred.

16.17.19. The EIAR states that the RPS (2024) model assessed the dispersion and settlement of material released from dumping dredged material at the licensed disposal site, c. 8km south of Roches Point. The model was based on dumping activities lasting for c. 10min in every 4-hour dredging cycle, with a hopper capacity of 8,000m³. The dredged material consisted of 78% silt and 21% sand, with specifications detailed in Table 13-4.

16.17.20. The report states that the highest average total suspended sediment concentrations (TSSC) occurred within the confines of the licensed disposal site itself. The averaged total SSC beyond the vicinity of the licensed disposal site generally did not exceed 3 mg/L, reducing to below 1 mg/L within c. 2km from the disposal site boundary, as shown in Figure 13-19.

16.17.21. During the operation phase, the EIAR states that the existing model bathymetry was modified to reflect the proposed redevelopment at Ringaskiddy East and Ringaskiddy West, as shown in Figure 13-20. Figure 13-23 and Figure 13-24 show the changes in the peak current speeds for ebb and flood tides, respectively

16.17.22. Comparative simulations were conducted against the baseline to determine the change in hydrodynamic conditions. The changes are limited to the vicinity of the redevelopment, with reduced peak currents in the lee of the structures on each tide and localised increases where the flow is redirected further offshore around the structures. The report states that the velocities experienced are within the range

currently observed, but are relocated due to the construction of the proposed development. The report details how six locations were examined in the model on a time-series basis, as shown in Figure 13-25, with the corresponding plots presented in Figures 13-26 to 13-31. Very limited changes were observed.

16.17.23. The EIAR states that there would be very little change in residual current beyond the development, so that sediment transport would remain unchanged. The only localised changes are near the site where maintenance dredging within Ringaskiddy would remain at the current scale and frequency. The report's impact analysis concludes that the proposed development would have no noticeable impact beyond the immediate vicinity of the proposed development in terms of tidal flow and sediment transport regimes. Maintenance dredging would continue to be required at Ringaskiddy, as is currently the case.

16.17.24. **Mitigation Measures**

16.17.25. The EIAR states that the Port of Cork Company has requested a permit for a maximum dredge volume of 375,355m³ and 47,862m³ from sites A and B, respectively. All dredging would be undertaken using a backhoe dredger and/or a Trailing Suction Hopper Dredger (TSHD) with a capacity of not exceeding c. 8,000m³ and a daily load limit of 29,376 dry tonnes. The licensed disposal site is located c.8km south of Roches Point, as detailed in Figure 13-1 of the report.

16.17.26. The EIAR sets out a range of mitigation measures to address impacts on coastal processes during the construction and operation phase, which are summarised as follows:

16.17.26.1. Construction Phase

- Dredging would be conducted with no hopper overspill to minimise sediment dispersion.
- A full record of loading and dumping tracks and material being dumped would be maintained for each trip.
- Over-spilling from dredgers would not be permitted.
- Dumping would occur through the vessel's hull, limited to 29,376 dry tonnes per day, and would not occur in November or February.

- Dumping would not coincide with the Port of Cork's maintenance dredging permit.
- The dumpsite would be divided into subsections to ensure the uniform spread of the dredged sediments.
- A 250m radius exclusion zone would be implemented around an archaeological anomaly at ITM coordinates 188723.5, 54463.1.
- An Archaeologist would witness all work in accordance with the Underwater Archaeology Impact Assessment.
- A Marine Mammal Observer would witness all work in accordance with the Species Risk Assessment.
- Water quality monitoring of loading areas would be undertaken at locations agreed upon with the EPA.
- An Accident Prevention Procedure and Emergency Response Procedure would be put in place before the commencement of development.

16.17.26.2. Operation Phase

16.17.27. The EIAR states that the residual current within the Cork Estuary would remain circulatory, with a general trend for sediment transport being easterly along the stretch between Ringaskiddy and Paddy's Point. Maintenance dredging would be required within the Ringaskiddy Basin.

16.17.28. **Monitoring**

16.17.29. The EIAR states that during the construction phase, suspended sediment concentration would vary significantly during the dredging operations depending on tidal levels, flows and dredging operations. As such, it is proposed that sediment concentrations outside the dredging sites be monitored. Water quality monitoring of loading areas would be carried out at locations agreed upon with the EPA.

16.17.30. During the operation phase, the EIAR states that two tidal gauge locations at Cobh and Ringaskiddy would be monitored continuously, as detailed in Fig. 13-37. The report states that the bed elevation within the Ringaskiddy Basin would also require monitoring because of the circulatory residual current within the Ringaskiddy Basin and the need for some maintenance dredging.

16.17.31. **Residual Effects**

16.17.32. The EIAR states that following dredging, sediment deposition in the Ringaskiddy area would be generally less than 0.016m, as illustrated in Figure 13-38. The report states that at the end of dredging, almost all the sediment dumped at the licensed disposal site would remain within the designated boundary, with changes in bed levels beyond the disposal site not generally exceeding 5mm, as shown in Figure 13-39.

16.17.33. The report states that during the operation phase, sediment transport within the Cork Estuary would remain generally easterly between Ringaskiddy and Paddy's Point, driven by the imbalance between ebb and flood tides. Figure 13-40 illustrates the residual current patterns after the proposed development is completed.

16.17.34. **Potential Interactions & Cumulative Impacts**

16.17.35. The EIAR states that there are only two other relevant non-land-based developments. The Monkstown Marina, comprising floating berths and breakwaters, was modelled by RPS and found not to impact coastal processes. There would be no change in tidal levels, and the effect on tidal currents would be restricted to the project area, with changes of not greater than 0.04 m/s. The report notes that the remedial work at the eastern end of Haulbowline Island is complete and would not give rise to cumulative effects.

16.17.36. **Assessment**

16.17.37. I have examined Chapter 13 of the EIAR, all associated documentation, the submissions received regarding coastal processes, and the applicant's response to the issues raised. It is my view that the hydrodynamic and plume modelling using MIKE FM, calibrated to tide gauges and current meter readings, follows accepted practice and is adequate to characterise baseline currents, residual flow, and suspended sediment behaviour for this site.

16.17.38. I consider that while direct effects from capital dredging and disposal would occur, they would be short-term and spatially constrained. The worst-case dredging assumptions in the EIAR are conservative. Predicted suspended sediment concentrations would attenuate rapidly outside the active head dredging area and

within the licensed disposal ground. Far field concentrations would decline with distance due to tidal mixing. I therefore consider that significant process effects on the wider estuary would not occur.

16.17.39. Having reviewed the documentation submitted, I do not consider that the proposed development, when completed, would materially alter tidal levels, residual current patterns, or the estuary's sediment transport regime beyond the immediate downstream influence of the works. Local tidal velocity shifts would be within the existing envelope and would be displaced rather than amplified. Maintenance dredging demand would remain at the current scale. On this basis, I consider that effects on coastal processes during the operation phase would not be significant.

16.17.40. I note the submission concerns regarding turbidity, sedimentation effects, and habitat loss in or near designated sites. From a coastal processes perspective, the modelling in the EIAR shows that dispersion would be limited and settle rapidly outside the work area and within the disposal area. Any impacts on ecology are addressed below under the heading 'Biodiversity - Marine Ecology'. I consider that the driver of processes would be weak beyond the immediate footprint of the development. Given that there would be no overspill from the hopper during dredging, and that there would be tracking and recording of loading and dumping, tonnage limits on daily dumping, and restrictions on the timing of dumping, I consider that the risk of persistent plume effects would be low. The applicant has confirmed that the sanctioned turbidity monitoring buoys will be redeployed for the duration of the dredging and that statutory consent will be sought from the Commissioners of Irish Lights prior to their redeployment, thereby ensuring oversight and real-time plume control.

16.17.41. I have considered the indirect and cumulative effects of the proposed development, alongside other permitted marine projects in the area, and the routine maintenance dredging of the port. It is my view that the proposed development would not introduce any changes to the tidal regime or large-scale bathymetry in the area. The proposed development would not result in any significant cumulative changes to coastal processes in Cork Harbour.

16.17.42. I note the requests and recommendations in the submissions for the provision of archaeological exclusion zones, marine mammal observation, and monitoring of turbidity and sedimentation. I consider that these issues can be dealt with by way of

conditions in the event of a grant of permission. Appropriate conditions should be imposed requiring a Dredging and Disposal Management Plan and a programme for real-time turbidity and suspended sediment monitoring, and bathymetric and hydrographic surveys, to be submitted for the written agreement of the Planning Authority. These would control sediment mobilisation and disposal activities and protect coastal processes within Cork Harbour. In addition, it is considered reasonable that a Benthic Habitat Reinstatement and Recovery Plan be prepared, in accordance with mitigation measure ME_55 of the EIAR (pg.369), to ensure the natural recovery of any disturbed mussel beds or benthic habitats within the dredge and disposal areas.

16.17.43. Conclusion

16.17.44. In consideration of the above, I conclude that, subject to the implementation of the proposed mitigation and appropriate conditions, the proposed development would not result in significant adverse effects on coastal processes during the construction or operation phases. Any effects would be local, short-lived, and mitigated through the proposed mitigation measures, monitoring, and conditions of permission.

16.18. Water Environment

16.18.1. Issues Raised

16.18.2. The Irish Whale and Dolphin Group raised concerns regarding the lack of underwater noise modelling for piling and blasting, as well as the potential impact of underwater noise and acoustic deterrent devices on bottlenose dolphins, harbour porpoises, and harbour seals, all of which are protected under the Habitats Directive. These concerns are addressed further below under 'Biodiversity - Marine Ecology'.

16.18.3. An Taisce highlighted the need to assess the proposal against the Marine Strategy Framework Directive and the Water Framework Directive, to determine whether the proposed development may cause a deterioration of the status of a surface or groundwater body or jeopardise the attainment of good surface or groundwater status or of good ecological potential and good surface or groundwater chemical status. An Taisce note the moderate status of the Lough Mahon water body and its risk of failing to achieve good status by 2027. An Taisce submit that a robust cumulative impact assessment is required for the application due to a sewage

discharge point, waste facility and wastewater treatment catchment area all being immediately visible on the Marine Atlas mapping tool and its implications for potential contamination of the seabed material to be dredged in combination with potential agricultural runoff upstream in the wider catchment area and the nutrient enrichment this may entail.

16.18.4. The Maritime Area Regulatory Authority (MARA) note the importance of adaptive monitoring during the construction and operation phases to allow for mitigation of issues identified during monitoring. MARA recommends that a 'Mitigation Schedule' and 'Monitoring Programme' be agreed upon by An Coimisiún Pleanála in the event of a grant of permission, and that all monitoring data be publicly available to support and inform future plans and projects. Furthermore, a detailed Rehabilitation Plan should be submitted for agreement.

16.18.5. The submission from Cork County Council raised no specific concerns regarding the water environment. The Council's Area Engineer found that the proposed storm water management measures, including using interceptors, upsizing the outfall in Berth 2 and installing oil separators and flap valves, would be acceptable. Extending outfalls through the quay wall in Ringaskiddy West and the allowance for increased rainfall intensities due to climate change were also considered appropriate. The Cork NRDO recommended remediation and extension of an existing stormwater drainage line into the sea, including elevating the outfall above the seabed and installing a non-return valve at the outfall to reduce tidal siltation and prevent seawater backflow during high tides, thereby reducing the risk of flooding in Ringaskiddy village.

16.18.6. The applicant responded to the issues raised in the submissions received regarding the water environment. Regarding stormwater management, the applicant confirms that all stormwater drainage of the proposed development will include interceptors prior to discharge through outfalls as consented. The applicant states that the stormwater drainage would be segregated from and not impact the stormwater drainage line in the ownership of Cork County Council, which has a wayleave through the applicant's lands, but is not within the site of the proposed development. Addressing An Taisce's concerns regarding the WFD assessment, the applicant refers to the WFD assessment included in Vol. IVa-2, Appendix 7.1 of the EIAR. The applicant states that the potential for cumulative impacts from the sewage discharge point, waste facility, and wastewater treatment plant was considered and ruled out on

the basis that emission limit values are specified in their consent licence, ensuring no significant impact on the receiving waters. The applicant notes that Dissolved Inorganic Nitrogen (DIN) pressures in the Harbour are mainly due to wastewater discharges and urban run-off. The applicant submits that contamination levels in dredge material are assessed in Appendix 7.3 Sediment Analysis and on page 206 of the EIAR, and that TBT levels are compliant with the guideline values for sediment quality. Regarding monitoring and management commitments, the applicant cites the existing Operational Environmental Management Plan (OEMP) previously agreed upon with Cork County Council on 9th December 2021 and agrees to submit an updated OEMP/EMS following a grant of permission. The applicant also notes that the turbidity monitoring buoys will be redeployed for the dredging associated with the development, with statutory consent from the Commissioners of Irish Lights prior to redeployment.

16.18.7. Methodology

16.18.8. The study area of the proposed development is located within Cork Harbour coastal water body (IE_SW_060_000) in the South-Western River Basin District (SWRBD). The EIAR states that Cork Harbour is considered to be of extremely high importance based on the NRA's evaluation of significance set out in the "Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes" (NRA, 2008). The water body is considered to be of extremely high importance as sections of it are Natura 2000 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).

16.18.9. The assessment methodology addresses attributes including (i) water quality, (ii) flooding and (iii) sewage/stormwater infrastructure, taking into account the likely significant impacts of the proposed development during the construction and operation phases. The likely significant effects are assessed by classifying the importance of these attributes and quantifying the magnitude of any likely significant effects, using criteria from the NRA (2008) and EPA (2022) Guidelines. Table 14-1 of the EIAR details the criteria for rating impact significance, with the Magnitude of Impacts ranging from Negligible to Large Adverse. Criteria and typical examples for each impact are

outlined. The report details relevant EU and national legislation, guidance, and data sources that inform the methodology and assessment. Data sources include, *inter alia*, the EPA's latest water quality monitoring data, Port of Cork Interceptor Sampling and Testing (May and June 2023, and May 2024), and data from Catchments.ie. and The Water Action Plan (DHLGH, 2024).

16.18.10. The EIAR's Chapter 14 on the Water Environment is supported by several appendices, including, *inter alia*, a Water Framework Directive Assessment (Appendix 7.1) and Appropriate Assessment Screening Report and Natura Impact Statement (Appendix 9.1), a Beam Trawl Survey (Appendix 9.8), MMO Survey (Appx.9.9), Marine Benthic Report (Appx. 9.10), Dropdown Video Survey (Appx. 9.11), Fisheries Report (Appx.9.12), CCT Operational Environmental Management Plan (Appx.11.2) and an Outline CEMP (Appx.11.3).

16.18.11. **Baseline Conditions**

16.18.12. The baseline environment is assessed in the context of the EU Water Framework Directive (WFD) (Directive 2000/60/EC). The report states that the Water Action Plan 2024 (DHLGH, 2024) identifies Cork Harbour (IE_SW_060_0000) as a Heavily Modified Waterbody (HMWB) under Article 4(3) of the WFD, due to substantial changes in its physical character resulting from human activity for use as a Harbour. The report notes how the hydromorphological or physical character of an HMWB cannot be restored sufficiently to support Ecological Status, without impacting the specified use. As a result, the environmental objective of such water bodies is to achieve 'Good Ecological Potential'.

16.18.13. The report details how Cork Harbour is under pressure from urban run-off and urban wastewater pressures and has been classified by the EPA as having 'moderate ecological potential'. The WFD Status of the Cork Harbour coastal water body is rated as moderate status, i.e., less than good ecological status due to nutrient and organic conditions and 'at risk' of not achieving good status. Analysis from 2012-2022 shows that there has been significant increase in winter median phosphate concentrations in Cork Harbour (EPA, 2023) and Cork Harbour failed the environmental quality standard for dissolved oxygen (EPA, 2021).

16.18.14. The EIAR details how a 2010 report by the Marine Institute found that Cork Harbour failed to meet chemical status requirements due to the presence of Tributyltin

(TBT), a priority hazardous substance, and lead compounds. However, monitoring undertaken in Ringaskiddy East in 2009 showed that ecological quality objectives for TBT were met, and the samples passed, demonstrating a recovery situation. The report notes how the results of the baseline surveys of the sediment at the application site, undertaken as part of the original EIS, showed TBT levels in the sediment as compliant with guidance values for sediment quality guidelines from the “Guidelines for the Assessment of Dredge Material for Disposal in Irish Waters” (Marine Institute 2006). However, the report states that TBT has not been tested in the most recent surface water sampling. The report notes how the 2001 AFS Convention banned the application of TBT-based antifouling paints for use on ship hulls.

16.18.15. The report states that a significant proportion of waters connected with the Port of Cork are protected under EU legislation requiring special protection due to their sensitivity to pollution or their particular economic, social or environmental importance. These include SACs, SPAs, drinking water areas, economically significant waters, recreational waters, and nutritionally sensitive areas. The Cork Harbour coastal water body contains three designated shellfish waters: Rostellan North, Rostellan South and Rostellan West. Pollution Reduction Programmes (PRPs) are in place for these areas in compliance with EC (Quality of Shellfish Waters) Regulations 2006. The report states that the most recent water quality monitoring available for the shellfish areas shows that there are no water quality issues in any of the Rostellan designations. Therefore, the report states that Cork Harbour's water body is achieving its objective of protecting the area of Shellfish waters (DHLGH 2012).

16.18.16. The EIAR states that the Port of Cork conducts regular interceptor sampling and testing, with 14 sampling points within the Port of Cork Container Terminal. Testing results in May 2023 showed that all results were below the limits of detection, except for suspended solids, which were elevated in a total of 5 sampling points. Additionally, elevated levels of unfiltered zinc were detected at two locations, as well as TOC and TPH levels at additional sampling sites. Testing in June 2023 revealed that all parameters were below the limits of detection, except for unfiltered Zinc, total suspended solids, TOC, and TPH, which were elevated. Testing in May 2024 found all results similar to previous testing, except for a slight peak of Total EPH at one sampling point.

16.18.17. Regarding flood risk, the report states that CFRAM coastal flood extents were examined, and the modelled extent of land that the sea might flood in a very extreme flood event was shown. The report states that modelling showed no flood risk to the infrastructure at Ringaskiddy port (OPW, 2024). The report describes how MIKE 21 flexible mesh coastal modelling was used to generate a range of extreme tidal water levels, where the point in the model located closest to Ringaskiddy Basin is C_2. Modelling showed that the estimated extreme tidal water levels for a range of return period events at Point C_2 indicate that Flood Zone A (highest at 0.5% AEP) would experience water levels at 2.73 OD, Flood Zone B (moderate) between 2.73 and 2.88m OD, and Flood Zone C (low) levels above 2.88m OD. The report states that the site, except for a small strip around the quay, is above the 0.1% AEP level and, subsequently, under the Planning System and Flood Risk Management Guidelines (2009), is classified as Flood Zone C (low probability of flooding). The report states that, as the proposed development would be considered water-compatible (as defined by Table 3.1 of the Planning and Flood Risk Management System Guidelines), a Justification Test would not be required, and the application site would be deemed suitable for all types of development. The report confirms that the proposed development would not have any impact on flood risk and is therefore compliant with the Planning System and Flood Risk Management Planning Guidelines (2009).

16.18.18. The report details how Ringaskiddy is serviced by the Cork City and Harbour Water Supply Scheme, which has a daily capacity of 30 million gallons of water. This would supply water for the maintenance building and portacabin offices, as well as meet the water requirements for ships at CB/MPB and DWB for refilling their internal drinking water supplies and firefighting purposes. The report states that a new wastewater treatment plant (WwTP) has been constructed to serve the surrounding area, including Ringaskiddy, Shanbally & Coolmore. The discharge point is through a long sea outfall. An existing stormwater management system serves the port.

16.18.19. **Potential Effects**

16.18.20. The EIAR states that the key potential impacts of the proposed development on the water environment would arise from physical disturbance in the marine environment and adjacent lands from construction and dredging activities. Potential impacts would include sediment, concrete or fuel/chemicals entering Cork Harbour.

During the operation phase, potential impacts may arise from pressures associated with sewage, stormwater drainage, and accidental spillages.

16.18.21. The report states that as the proposed redevelopment does not alter the existing levels of the application site, it would not increase the existing flood risk. The report identifies that the predominant source of flooding to the application site is extreme coastal water levels. To address this, the report recommends that development in Ringaskiddy Basin should mitigate for this by providing a 2100 0.5% AEP flood event tidal level of 3.23m OD.

16.18.22. The report describes Cork Harbour's failure to achieve its water quality objective of 'good ecological potential' due to dissolved inorganic nitrogen levels, chemical pollution and the conservation status of the Cork Harbour SPA. The report states that dissolved inorganic nitrogen (DIN) levels result from significant nutrient input, most likely from upstream sources, and wastewater treatment plant discharges. However, the report notes that the existing port activities are not identified as a source of DIN pressures. As the Port activities do not represent a source of the nutrient levels, the report states that there is no requirement for the existing Port operations to address the nutrient pressures in Cork Harbour. The report concludes that in the 'do nothing' scenario, the existing port facilities in Ringaskiddy East would not have a significant impact on the achievement of 'good ecological potential' and 'good chemical status' under Article 4(3) of the WFD, as the activities are not a source of the pressures causing a failure of the environmental quality objectives.

16.18.23. The report details how, during the construction phase, the proposed development includes new quay walls, road improvement works, temporary working areas and access to the intertidal area by heavy plant and machinery. Works would also include impact piling, infilling, and physical disturbance to an area within the intertidal zone, temporarily increasing suspended sediment levels and potentially damaging the marine environment regarding water quality impacts.

16.18.24. The construction of the new CCT2 and the extension to the existing DWB would also require dredging works to varying levels to facilitate navigational access, resulting in a temporary increase in suspended sediment levels. The report states that while rock material recovered from the dredging works at Ringaskiddy East CCT2 will be reused as much as possible for the construction works, there will be a need to source

locally imported fill material to complete the infilling within the port redevelopment. The importation of fill material containing fine sediment would have the potential to increase the number of suspended solids near the works. The report states that dredging activities would not release contaminated sediments into the water column.

16.18.25. The EIAR states that the elevated suspended solids could potentially significantly impact designated Shellfish Areas in Cork Harbour. However, the report submits that the sediment dispersion in the vicinity of the works would not affect the shellfish designations in Cork Harbour, with concentrations in the vicinity of the shellfish areas at acceptable levels above background concentrations. Water quality monitoring would be undertaken in real time to ensure the concentrations of suspended sediment in the shellfish areas do not cause the suspended solid content of the waters to exceed the content in unaffected waters by more than 30% as required by the Quality of Shellfish Waters Regulations, 2006 (S.I. No. 268 of 2006).

16.18.26. The report states that there is potential for accidental spillage or release of construction materials (e.g., diesel, oil, chemicals) directly into Cork Harbour, and that residual contaminants post-construction may be mobilised by surface runoff and washed into the harbour. The report acknowledges that, given that the Cork Harbour coastal water body is considered extremely important, the impact would be potentially significant to profound in the absence of mitigation. However, with the implementation of the proposed mitigation measures, the risk of accidental oil and chemical spillage would be acceptable, and the potential impact would be imperceptible.

16.18.27. The EIAR states that constructing the new quay wall involves installing a combi-wall system, which requires drilling or grouting tubular piles into the bedrock. Steel sheet piles would be installed between these piles, and a reinforced concrete capping beam would be required for the berthing face of the quay wall structures. The report indicates how concrete and cement are highly alkaline and could affect water quality if washed into Cork Harbour. The report states that the extent of the impact would be localised, given the sheltered nature of the Ringaskiddy Basin, where the residual current is circulatory. It is submitted that the magnitude of the potential impacts would be moderately adverse with regard to water quality, and potentially significant to profound in the absence of mitigation measures. However, with the implementation of the proposed mitigation measures, including the use of chemical admixtures and pre-

cast concrete units for underwater elements, the impact would be moderately adverse over the short term.

16.18.28. Regarding road improvement works, the EIAR states that upgrading the local access routes for the terminal would improve traffic flow and, as a result, increase safety. Other road improvement works would include an alternative access point to Ringaskiddy East, as well as improvements to existing external access routes and internal road networks to facilitate future access to the M28. The report states that the magnitude of the impact of road improvement works would be imperceptible. The report states that no impacts are expected on the flood risk or sewage and stormwater infrastructure during construction.

16.18.29. **Mitigation Measures and Monitoring**

16.18.30. The EIAR sets out a range of mitigation measures to address impacts on the Water Environment during the construction and operation phase, which are summarised as follows:

16.19. Construction Phase:

- Water quality monitoring would be carried out before works commence to establish a baseline for water quality and during dredging activities to ensure an effective response to any incidents that may impact water quality at sensitive sites.
- The location of water quality monitoring stations and the monitoring programme would be agreed upon with the relevant agencies based on the results of the coastal process modelling.
- Communications, management, and auditing procedures would be implemented to ensure that any work with the potential to impact the aquatic environment is carried out in accordance with the required permits, licences, certificates, and planning permissions.
- The environmental manager would be notified of all incidents involving a breach of agreed environmental management procedures.
- Development works would adhere to the 'Working at Demolition & Construction Sites - Pollution Prevention Guidelines' (Environment Agency, 2012) with regard to safety, storage, wheel washing, placement of concrete, and managing silty water.

- The use of wet concrete and cement in or close to any water body would be carefully controlled to minimise the risk of any material entering the water.
- Pre-cast units would be used to construct underwater concrete sections. However, in situ stitching would be required for these.
- Where pre-cast units are not possible or in situ stitching is required, a fast-setting mix is necessary to minimise segregation and washout of fine material/cement.
- Fuel, oil, and chemical storage would be secured and sited on an impervious base within a bund.
- The storage of oils and chemicals would adhere to GPP26: Safe Storage - Drums and Intermediate Bulk Containers (Environment Agency, 2011a).
- The safe operation of refuelling activities would adhere to PPG 7: Safe Storage - The safe operation of refuelling facilities (Environment Agency, 2011b).
- Dredgers would carry an emergency spill kit and oil spill containment equipment.
- The development would adhere to the Port of Cork's Oil Spill Contingency Plan during the construction and operation phases.
- A contingency plan for the construction works would be prepared in accordance with PPG 21 Pollution Incident Response Planning (Environment Agency, 2009). This would detail the procedures to be followed in the event of a breach of any licence conditions or non-compliance.

16.20. Operation Phase:

- Adequate bunding for any fuel, oils or chemicals stored on land in accordance with relevant PPGs.
- Regular inspection and routine maintenance of chemical and fuel storage facilities to minimise the risk of leaks.
- Bilge water would be treated in accordance with MARPOL standards.
- De-ballasting would be undertaken offshore in accordance with the International Maritime Organisation (IMO) guidelines.
- Vessels would be equipped with oil-water separation systems in accordance with MARPOL requirements.

- Spills on deck would be contained and controlled using absorbing materials.
- Vessels without sewage treatment systems would have suitable holding tanks and bring waste onshore for treatment by licensed contractors.
- Site levels would be designed to guide water away from sensitive areas such as buildings.
- Stormwater runoff from the site would be collected in a dedicated stormwater drainage system for discharge to the harbour waters.
- All surface drainage waters, including road drainage, will be routed through highway-quality oil interceptors and sediment traps prior to discharge into the sea.
- Vessels would be prohibited from discharging wastewater into the harbour waters.

16.20.1. **Residual Effects**

16.20.2. The EIAR states that the potential impact of the proposed redevelopment on the Cork Harbour coastal water body would range from imperceptible to profound. However, the report states that the residual impacts affecting water quality would be negligible with the implementation of the proposed mitigation measures. Therefore, the report deems that the significance of the impact on the Cork Harbour water body would be imperceptible. The report states that the WFD Assessment (Appendix 7.2) concluded that the proposed development would not compromise the achievement of the four main objectives of the WFD.

16.20.3. The report states that any development adjacent to the sea always has a residual flood risk. However, the freeboard afforded to the proposed redevelopment above the 0.5% AER levels would reduce the likelihood of such an occurrence, and any residual flood risk would be minor.

16.20.4. **Potential Interactions & Cumulative Impacts**

16.20.5. The EIAR considers other developments in the Cork Harbour area in the context of cumulative impacts on Water Quality. It notes other approved extension developments at Novartis and Pfizer, where the potential for impact is considered low. Therefore, the cumulative impact is considered negligible. In its review of existing licensed discharges to Cork harbour, the report states that there are eight Integrated

Pollution Prevention Control Consents near Ringaskiddy and two licensed surface water discharges under the Water Pollution Acts into the harbour. These discharges are regulated by the EPA or Cork County Council and have emission limit values specified in their consent license to ensure no significant impact on the receiving water. As such, the report states that there would be no significant, cumulative adverse impacts on the water environment.

16.20.6. Regarding nutrient inputs, the report notes that Cork Harbour's dissolved inorganic nitrogen (DIN) levels are above EQS, preventing the water body from achieving good ecological potential. The report states that the proposed Cork Lower Harbour Main Drainage Scheme would serve the proposed development (now complete). As such, the report states that the proposed redevelopment would not have any cumulative adverse impacts on nutrient conditions in the Harbour.

16.20.7. The report states that coastal process modelling concludes that the redevelopment of the Port would not change the existing maintenance dredging requirements in Cork Harbour. Additionally, the report states that the AA Screening Statement prepared for the latest maintenance dredging application concludes that the current maintenance dredging regime would not significantly impact water quality. Therefore, no cumulative impacts are predicted.

16.20.8. **Assessment**

16.20.9. I have examined Chapter 14 of the EIAR, associated appendices and documentation, the submissions received with regard to the water environment, and the applicant's response to the issues raised in the submission. It is my view that the report's assessment accords with the EPA EIAR 2022 Guidelines and applies the WFD framework correctly to a Heavily Modified Water Body that must achieve Good Ecological Potential without causing deterioration.

16.20.10. I consider that the direct risks during the construction phase would be suspended solids from dredging and infilling, washout of fine material/cement during works to the quay wall, and accidental releases of fuel or chemicals. While these effects could occur, they would be short-term and spatially confined. I consider that with the implementation of the proposed mitigation measures, including no overspill from the hopper during dredging, continuous in-situ water quality monitoring in advance of works against water quality trigger levels, controlled underwater concreting

using precast or fast-set mixes, bunded storage, and an incident response plan, that exceedances at sensitive locations would be prevented. On this basis, I consider that the proposed development would not result in status deterioration under the WFD and that it would not have significant environmental effects.

16.20.11. During the operation phase, I have considered stormwater, foul water, and marine operational practices. The proposed development would incorporate oil interceptors, upsized outfalls with non-return flap valves as detailed in the Planning Stage Engineering Report, and engineered drainage to hardstanding areas, which would effectively break source-pathway links. Marine operations would remain subject to MARPOL standards, including the treatment of bilge water, offshore de-ballasting, and a prohibition on discharges to harbour waters. Sampling of interceptor discharges has occasionally indicated elevated suspended solids or metals. However, I consider that these instances can be addressed through routine maintenance and audit procedures. In my view, these measures are sufficient to maintain concentrations within statutory standards at receptors and to prevent any material impact on the ecological or chemical status of the receiving waters.

16.20.12. The existing sanctioned turbidity monitoring buoys would be redeployed for the dredging works, subject to statutory consent from the Commissioners of Irish Lights. This would ensure ongoing oversight of real-time plume monitoring during capital works, facilitate adaptive management in accordance with agreed trigger levels and provide verifiable data to demonstrate compliance with WFD objectives.

16.20.13. Regarding flood risk, I note that the site is effectively water-compatible and largely within Flood Zone C, with only a narrow marginal strip within the extreme tide extents. The deck levels for the redevelopment have been designed to a 6m CD, which is equivalent to a 3.43m OD, and would exceed the 2100 0.5% AEP level of 3.23m OD. I am satisfied that the design allowances for the 2100 0.5% AEP tidal level and non-return valves on outfalls would ensure that the proposed development does not increase flood risk on or off the site. Indirect hydrogeological effects would be negligible, given that no groundwater would be abstracted and most of the site would be covered by hard surfaces, thereby limiting infiltration and subsurface interaction.

16.20.14. I have considered the cumulative effects of the proposed development, including licensed discharges, existing port activity, maintenance dredging, and other

permitted projects in the surrounding area. The proposed development would not introduce new nutrient sources or be a driver of dissolved inorganic nitrogen (DIN) pressures that could compromise the harbour's moderate potential. Sediment disposal would be undertaken at a licensed offshore disposal site, and modelling indicates that sediment plumes generated from the dumping activity would be quickly dispersed to less than 1 mg/L, approximately 2km from the disposal site boundary. I therefore consider cumulative deterioration under the WFD to be unlikely.

16.20.15. I have had regard to the submissions received seeking assessment against the WFD and Marine Strategy Framework Directive, and to MARA's request for adaptive monitoring and public reporting. The EIAR includes a Water Framework Directive (WFD) assessment in Vol IVa-2 Appendix 7.1 of the report. My assessment of the proposed development in relation to the WFD is detailed further in Section 18.0 below. In my view, a WFD compliance pathway is demonstrated, adaptive turbidity control with agreed-upon trigger levels is necessary, and the publication of monitoring data would strengthen transparency and enforcement. Underwater noise matters raised by IWDG are addressed under the following section, 'Biodiversity – Marine Ecology', and do not alter my findings on water quality.

16.20.16. **Conclusion**

16.20.17. Having reviewed the EIAR, the modelling undertaking, the baseline status, and the proposed mitigation measures, I conclude that the proposed development would not result in significant adverse effects on the water environment during the construction or operation phases. Any effects would be local and temporary during construction and manageable through the implementation of the proposed mitigation and monitoring measures. The proposed development would not cause deterioration in the status of the Cork Harbour water body and would not prevent the achievement of Good Ecological Potential.

16.21. Biodiversity – Marine Ecology

16.21.1. Issues Raised

16.21.2. The Irish Whale and Dolphin Group (IWDG) highlights the EIAR's omission of the resident Bottlenose Dolphin population in Cork Harbour, where there were regular sightings of bottlenose dolphins and harbour porpoises within the vicinity of the proposed development. This exposes these Annex IV and Annex II species to construction and blasting noise. Concerns are raised about the proposed use of an Acoustic Deterrent Device (ADD), which is contrary to DAHG 2014 guidelines. The IWDG highlights the ambiguous application of passive acoustic monitoring (PAM), contrary to the DAHG Guidelines (2014). The IWDG also highlights the absence of underwater noise modelling for piling, blasting, or the use of ADDs in the EIAR and the failure to consider noise abatement systems, such as bubble curtains. The submission recommends robust acoustic modelling and the integration of effective noise abatement systems to minimise unnecessary noise propagation and reduce risks to marine mammals.

16.21.3. An Taisce highlight the need to assess the proposal against the Marine Strategy Framework Directive and the Water Framework Directive, citing risks to marine biodiversity, submarine fauna, macro-invertebrates within mud sediments either close to or overlaying the subject site area, mussel beds throughout or near the site area, the potential presence of seagrass and the need to prevent the spread of invasive species. The submission notes data from the National Biodiversity Data Centre (NBDC) on sightings of a sizable number of marine mammals, including Harbour Porpoise, Bottlenose Dolphin, Common Dolphin, Harbour Seal, and Grey Seal, since 2020. It also records sightings of otters in the area, a protected species under the Wildlife Act. Concerns are raised about the adequacy of marine mammal surveys and the potential for injury or disturbance (including permanent and temporary threshold shifts) to marine mammals from underwater noise associated with piling, dredging, and blasting. An Taisce notes that TTS is considered an injury under the 2014 Irish Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters. An Taisce emphasises the need for effective noise abatement systems, such as Acoustic Deterrent Devices (ADDs), soft-starts for piling, the use of a Marine

Mammal Observer (MMO), Passive Acoustic Monitoring (PAM), and air bubble curtains.

- 16.21.4. Inland Fisheries Ireland (IFI) identifies the permanent loss of mussel beds, intertidal areas, and fish and crustacean nursery grounds (c. 3 ha) and the disruption of local fishing activities. IFI seek counter-balancing measures to address these losses. MARA recommend the need for ongoing monitoring and adaptive management throughout the construction and operation phases to allow for mitigation of issues identified during monitoring. MARA also recommends the public availability of monitoring data, and that a Mitigation Schedule, Monitoring Programme and detailed Rehabilitation Schedule for impacted marine areas be submitted.
- 16.21.5. Cork County Council's Ecology Section raise concerns regarding deficiencies in the biodiversity assessment, particularly the lack of alignment of the chapters in the EIAR. The Ecology Section recommended the need for a more comprehensive impact assessment of dredging, piling, and other construction activities on intertidal and subtidal habitats, including impacts on marine mammals, fish, and protected bird species within the Cork Harbour SPA. The Council's Ecology Section also express concern about the limited assessment of updated habitat and species surveys, the insufficient consideration of cumulative impacts in the EIAR and NIS and the lack of detailed mitigation measures to address the identified ecological impacts.
- 16.21.6. The applicant responded to the issues raised in the submissions received regarding marine ecology. Regarding underwater noise, the applicant confirms that the Marine Ecology chapter of the EIAR provides a comprehensive assessment of the potential impacts of underwater noise on marine species, particularly in relation to pile driving activities. The applicant notes that established thresholds for Temporary Threshold Shift (TTS) and Permanent Threshold Shift (PTS) based on the criteria outlined by Southall et al., 2019 were used and that consideration was given to the hearing sensitivities of relevant marine mammal groups, including high-frequency cetaceans (e.g., bottlenose and common dolphins), very high-frequency cetaceans (e.g., harbour porpoise), and phocid pinnipeds (e.g., grey and harbour seals). The applicant references marine-specific mitigation measures, including soft-start procedures, designed to minimise the risk of injury or disturbance to marine mammals during activities such as pile driving, dredging, and seismic surveys. These measures include monitoring by Marine Mammal Observers, Acoustic Deterrent Devices

(ADDs), and adaptive working hours. The applicant states that these measures offer a more practical and effective solution for minimising the impact of underwater noise in port development contexts rather than bubble curtains. The applicant submits that the use of bubble curtains for the proposed development presents several challenges that may limit their suitability. The applicant states that factors compromising the stability and effectiveness of bubble curtains include shallow or high-flow water conditions, as well as the complex infrastructure within ports, including docks, piers, and other submerged structures, which can obstruct the uniform deployment of bubble curtains. The applicant notes that these physical barriers may create gaps in the bubble barrier, thereby reducing their efficacy in reducing underwater noise. Furthermore, installing and operating bubble curtain systems requires substantial logistical support, including the deployment of compressors and air supply lines, which can disrupt port operations.

- 16.21.7. Responding to concerns regarding the adequacy and seasonal timing of the survey, the applicant confirms that a five-day Marine Mammal Observer (MMO) survey was conducted in the Ringaskiddy area during July and August 2024, which are the peak months for marine mammal activity in Irish waters, where species such as bottlenose dolphins, harbour porpoises, and minke whales are more frequently observed. The applicant notes that the survey data were supplemented with existing records of marine mammal presence in the area to provide a more comprehensive assessment over a longer temporal scale.
- 16.21.8. Addressing concerns regarding benthic habitats, mussel beds and subtidal ecology, the applicant states that a risk assessment for intertidal and subtidal biotopes is detailed in Table 15.3 of Chapter 15 (Marine Ecology) of the EIAR. The applicant states that seabed habitat loss is shown as a potential impact in Table 15.5, and sensitivity to the dredging is detailed on page 158 of the EIAR. The applicant submits that intertidal and subtidal impacts are likely to be felt locally and not within the Cork Harbour SPA. The applicant states that seagrass is absent in the area, as confirmed by the dropdown video assessment in Chapter 15 of the EIAR.
- 16.21.9. Regarding monitoring and adaptive management, the applicant states that turbidity monitoring buoys would be redeployed during dredging, with statutory consent from the Commissioners of Irish Lights prior to deployment. Furthermore, the applicant commits to an updated Environmental Management System (EMS) /

Construction Environmental Management Plan (CEMP) in the event of a grant of permission.

16.21.10. Methodology

16.21.11. Section 15.2 of the EIAR details the methodology for describing the likely significant effects of the proposed development on marine ecology and biodiversity, including flora, fauna, and habitats. The methodology identifies and assesses significant effects on aquatic ecology associated with the proposed development during the construction, operational, and decommissioning phases.

16.21.12. The EIAR states that a desktop study review was conducted using existing data and records on fish, protected aquatic species, habitats, and invasive species, sourced from the National Biodiversity Data Centre (NBDC) and the National Parks and Wildlife Service. The EIAR describes field studies conducted in the summer of 2024 across intertidal, subtidal, marine mammal, and fisheries components to assess biodiversity and ecosystem health. This updates the biological elements of the 2012 survey data and assesses the proposed development's impacts on both the intertidal and subtidal benthic habitats at Ringaskiddy Port. Surveys included a subtidal benthic grab survey on the 23rd July 2024, an Intertidal Survey on the 24th July and 12th September 2024, a Drop-Down Video (DDV) Survey at 27 locations on the 24th July 2024, a Beam Trawl Survey on the 27th June and 22nd July 2024 and Marine Mammal Observations over five days between the 22nd July 2024 and the 1st August 2024. The EIAR notes that the DDV surveys adhered to NMBAQC and JNCC guidelines.

16.21.13. The EIAR states that the study area comprises the Port of Cork at Ringaskiddy, which includes the Ringaskiddy Deepwater Berth West (spanning 485 meters), a 180-meter-long berth, and a 42.1-meter linkspan at the RoRo terminal, as well as the newly established Cork Container Terminal (CCT) in Ringaskiddy East.

16.21.14. Section 15.2.5 of the EIAR details a list of European and Irish legislation, International Conventions, and guidance documents, which inform the methodology. Details are provided of AQUAFACT environmental consultancy and the qualified experts who wrote the marine ecology chapter of the EIAR.

16.21.15. The EIAR's Chapter 15 on Biodiversity - Marine Ecology is supported by several appendices including, *inter alia*, an AA Screening Report and Natura Impact Statement

(Appendix 9.1), Breeding Bird Survey (Appx.9.2), Report on the Winter 2011-2012 Bird Surveys (A. 9.3), Report on 2011 Breeding Season Bird Survey (Appx. 9.4), Night-roosting Cormorant Survey (Appx. 9.5), Wintering and Breeding Wetland Bird Survey Report (Appx. 9.6), Beam Trawl Survey (Appx. 9.8), MMO Survey (Appx. 9.9), Marine Benthic Report (Appx. 9.10), Dropdown Video Survey (Appx. 9.11), and a Fisheries Report (Appx. 9.12).

16.21.16. Baseline Conditions

16.21.17. The EIAR describes the Port of Cork as a “Core Port” under the Trans-European Transport Network and a port of national significance (Tier 1) in Ireland. The report notes how the "Port of Cork Masterplan 2050" provides for relocating operations from the city docks to the lower harbour to accommodate increasing vessel sizes and meet global industry needs.

16.21.18. The EIAR describes the locations and overlaps of the Cork Harbour SPA (004030) and Great Island Channel SAC (001058) within Cork Harbour. The Cork Harbour SPA covers 27 km², of which 91% is marine, and protects 35 species under the Nature Directives. Within the SPA, the salt marshes provide high-tide roosts which support over 20,000 wintering waterbirds and 22 nationally important wintering populations of bird species. The Great Island Channel SAC covers an area of 14 km² and protects 20 species under the Nature Directives, as well as four habitat types under the Habitats Directive. The EIAR notes how Cork Harbour is a wetland of international importance, characterised by extensive intertidal flats and salt marshes. The Great Island Channel SAC includes three key areas for wintering waterbirds. The report notes how the predominant land use within the SAC is aquaculture, specifically oyster farming. The EIAR identifies major threats to the SAC’s conservation value, including roadworks, land infilling, sewage discharges, and potential marina developments.

16.21.19. The EIAR details how intertidal and subtidal surveys were undertaken near the proposed development in 2024, including benthic sampling at 14 stations. The subtidal benthic infauna survey at 13 subtidal stations recorded 99 taxa and 1,918 individuals across eight phyla, with 64 taxa identified at the species level. The survey found four taxa accounted for over 55% of the faunal abundance. A Similarity Profile Analysis (SIMPROF) identified four distinct station groupings with a clear divide (79.95%

dissimilarity) between Group A within the inner Ringaskiddy harbour area and those outside (Groups B, C, and D). Group A within the inner harbour basin contained 29 taxa comprising 670 individuals that are generally tolerant or indifferent to organic enrichment and disturbance. Group B contained 37 taxa comprising 141 individuals, Group C contained 60 taxa comprising 668 individuals, and Group D contained 59 taxa comprising 439 individuals. Groups B, C and D were classified as belonging to the JNCC biotope (EUNIS code A5.334).

16.21.20. The Subtidal Survey found that sediment types ranged from muddy sand to gravelly muddy sand, with varying organic content, including higher-value finer sediments. Subtidal sampling and analysis were undertaken using PRIMER software and adherence to NMBAQC standards for benthic sampling.

16.21.21. Preliminary intertidal walkover surveys were carried out in the upper shore areas of two transects (T1 and T2) on the 24th July 2024, where three stations were sampled along each transect using a Van Veen grab. The EIAR notes that T1, south of the training wall and north of the ADM jetty, had previously been surveyed in 2012. The updated survey found that beneath the ADM jetty, there is an extensive area of mussel beds (classified as *Mytilus edulis* beds on littoral mud) that were previously recorded in 2008 and 2014 surveys and remain relatively unchanged since the last surveys. The EIAR notes that T2, which is located along the quay wall to the east of the proposed 160m quay wall extension and west of the bridge at Paddy's Point, was not surveyed in 2012 due to access issues. The survey describes the intertidal habitats as including communities of yellow and grey lichens in the supralittoral, *Pelvetia canaliculata* and *Fucus spiralis* on sheltered upper eulittoral rock, and *Ascophyllum nodosum* and *Vertebrata lanosa* on full-salinity mid-eulittoral rock.

16.21.22. SIMPROF analysis revealed two statistically significant groupings between the six stations in the two transects. Group A contained 49 taxa comprising 1,129 individuals, where six taxa accounted for over 70% of the faunal abundance, including *Tubificoides benedii*, *Melinna palmata* and *Nephtys hombergii*. Group B contained 44 taxa comprising 535 individuals, of which six taxa accounted for over 76% of the faunal abundance.

16.21.23. The intertidal walkover survey found that sediment types ranged from muddy sand to gravelly muddy sand, with varying organic content, including higher-value finer

sediments. The EIAR describes the intertidal biotopes as including yellow and grey lichens on supralittoral rock, *Fucus spiralis* on sheltered upper eulittoral rock and *Ascophyllum nodosum* on full salinity mid eulittoral rock. It also identified an area of mussel beds previously identified in the previous surveys in the vicinity of the ADM jetty.

16.21.24. The EIAR details how a Drop-Down Video (DDV) survey was conducted on 27th June 2024 at each station along the transects in Ringaskiddy. Observations revealed that the predominant habitat types consisted of homogeneous, featureless muddy sand habitats, where fish and crabs were observed on the sediment surface. The survey found *Mytilus edulis* (blue mussel) beds on sublittoral sediment at ST04, ST22, and ST24, indicating biogenic reefs where mussels play a prominent role. Shell/Mussel-bed complexes were reported at ST20 and ST21, representing areas with a dominance of shells or mussel beds.

16.21.25. The EIAR notes that Beam Trawl Surveys were conducted in June and July 2024, across seven transects, which revealed a diverse array of finfish, including Plaice, Sand Goby and Dover Sole. The survey recorded 965 individual invertebrates, with the most common species including the Harbour Crab, Green Crab, and Brown Shrimp.

16.21.26. The desktop baseline study of the EIAR identifies 563 marine fish found around Ireland. Migratory marine fish species designated under Annex II of the Habitats Directive, which occur around Ireland, include Sea lamprey, River lamprey and Twaite shad. The EIAR notes the 2010 Inland Fisheries Ireland survey of the greater Cork Harbour area, where seven water bodies were studied and 32 fish species were recorded. The flounder and sand goby were the most common species in all seven water bodies. The North Channel Great Island, and Lough Mahon waterbodies exhibited the highest species diversity, with their proximity to the open sea and higher salinity levels favouring marine species.

16.21.27. Regarding aquaculture, the EIAR identifies two licensed aquaculture sites, including one for mussels (T05-522B) and another for Pacific oysters and brown seaweed (T05-294). The report notes that there are two Fishery Orders in place, one for blue mussels (Rostellan T05-002OFO) and the other for European flat oysters (T05-017OFO) (refer to Figure 15.13). Furthermore, there are four protected sites,

designated under the Shellfish Water Directive, which include the Cork Great Island North Channel (T05-294A), and Rostellan West, South, and North (T05-522B, T05_522 B, T05-522B).

16.21.28. The EIAR identifies several sources of risks to water quality in the study area, including discharges during construction and operation phases, dredging, and stormwater discharges. The report notes that storm drainage systems will be installed within the site, where rainwater will be collected for discharge to the harbour waters via a series of silt traps and oil interceptors. The report states that modelling indicates anticipated discharges would be within the regulatory limits.

16.21.29. Regarding Marine Mammals, a desktop study and Marine Mammal Observer surveys were carried out for the assessment. The desktop study accessed the National Biodiversity Data Centre (NBDC) on 01/10/2024 and found seven individuals of 'Dolphin species possibly harbour porpoise' were recorded in W86 on 06/12/2020. A record of seventeen identified 'Bottlenose dolphin' (*Tursiops truncatus*) individuals was recorded on 02/05/2020 in W86, and a record of two 'Dolphin species' was recorded on 14/09/2020. The EIAR states that Harbour Porpoises and bottlenose dolphins were not observed during the Marine Mammal Observer survey. The NBDC recorded two separate recordings of common dolphins (*Delphinus delphis*) within the five years preceding the 2024 data search. Twenty-two common dolphins were recorded on 27/11/2020 in W86, while a record of 6 was documented on 10/10/2020 in W76. No common dolphins were observed during the Marine Mammal Observer survey.

16.21.30. The EIAR details that no records of Risso's dolphins, Minke whales, or any other whale species were found within the vicinity of the proposed development on the NBDC database during the five-year period preceding the 2024 data search, or during the Marine Mammal Observer survey.

16.21.31. The harbour seal (*Phoca vitulina*), listed under Annexe II of the Habitats Directive as a species of Community Interest, was the most recorded marine mammal during the Marine Mammal Observer surveys. The survey found that the harbour seal had established a haul-out site on the eastern edge of the intertidal area adjacent to the jetty. The NBDC recorded four 'common seal' individuals on 01/05/2023 in W86 and two separate Phocidae recordings. Thirteen individuals of 'Phocidae' were

recorded on 09/05/2024 within W86, with one 'Phocidae' individual recorded on 10/10/2020 within W76.

16.21.32. The Marine Mammal Observer survey on 23/07/2024 recorded one grey seal (*Halichoerus grypus*) listed under Annexe II of the Habitats Directive as a species of Community Interest. The NBDC recorded sixteen individuals of Grey seal on 05/12/2023, and thirteen individuals of 'Phocidae' on 09/05/2024 within W86.

16.21.33. Regarding Otter, the EIAR notes that the NBDC accessed on 01/10/2024 recorded multiple records of Otter within the five-year period preceding the 2024 data search, within 10km grid squares of W86 & W76. Surveys carried out in 2012 and 2024 found otter activity was widespread at the base of the ADM jetty. During the Marine Mammal Observer surveys carried out in 2024, one otter was observed on 22/07/2024.

16.21.34. The EIAR concludes from the Marine Mammal Observer surveys that a greater number of harbour seals are recorded within the area than previously noted in the 2014 EIS, with the most significant number of species found in one haul-out location adjacent to the port jetty. Grey seals (*Halichoerus grypus*) and otters (*Lutra lutra*) were also recorded during the 2024 surveys, and their presence was confirmed at the site of the proposed development. Notably, a range of seabirds were recorded as incidental species, indicating that the area is used for foraging and commuting purposes by these species.

16.21.35. Using the Marine Life Information Network and MarESA framework, the EIAR identifies relevant receptors, including Habitats, Marine Mammals, and Fish. The report identifies how the proposed dredging activities have the most potential to impact the biotopes identified.

16.21.36. The EIAR details how subtidal biotopes, including *Cerastoderma edule* with *Abra nitida* and *Spisula subtruncata* with *Nephtys hombergii*, exhibit low sensitivity to light siltation (<5cm) but medium sensitivity to heavy siltation (>30cm) and substrate removal. *Melinna palmata* with *Magelona* and *Thyasira* is not sensitive to light siltation but shows medium sensitivity to extraction. The EIAR details how subtidal *Mytilus edulis* beds on sublittoral sediment are highly sensitive to substrate extraction. In contrast, *Saccharina latissima* and red seaweed on infralittoral sediments are not sensitive to light siltation and have medium sensitivity to substrate removal. Intertidal

Fucus spiralis is identified as having low to medium sensitivity to light/heavy siltation, respectively, and *Ascophyllum nodosum* has medium to high sensitivity to light/heavy siltation. *Mytilus edulis* beds on littoral mud are identified as being highly sensitive to substrate extraction, and *Cirratulids* and *Cerastoderma edule* in mixed sediments have medium sensitivity to heavy siltation and extraction.

16.21.37. Regarding fish, the EIAR describes their sensitivity to environmental pressures, including biological sensitivity (e.g., lifespan), reproductive vulnerability, and habitat dependency (e.g., seagrass, coral reefs) for breeding and feeding. Environmental pressures include physical disturbance, changes to water quality and noise pollution. Recovery potential includes reproductive capacity, mobility and population dynamics of fish. Sensitivity Indicators are rated as low, medium, or highly sensitive. Relevant appendices include *inter alia*, Appendix 9.8 Beam Trawl Survey, Appendix 9.9 MMO Survey, Appendix 9.10 Marine Benthic Report, Appendix 9.11 Dropdown Video Survey, and Appendix 9.12 Fisheries Report.

16.21.38. The EIAR concludes that there are five sensitive receptors in the baseline environment, which include Bottlenose dolphin (*Tursiops truncatus*), Common dolphin (*Delphinus delphis*), Harbour seal (*Phoca vitulina*), Grey seal (*Halichoerus grypus*) and Harbour porpoise (*Phocoena phocoena*). All are classified as 'International importance' and at risk of significant impact. They are scoped into the marine ecology assessment of the EIAR. Otter (*Lutra lutra*) is addressed in Chapter 16 of the EIAR - Terrestrial Ecology.

16.21.39. **Potential Effects**

16.21.40. Table 15-5 of the EIAR details the four potential impact mechanisms of the proposed development on marine environment receptors, including (i) underwater noise, (ii) seabed habitat loss, (iii) release of pollutants during construction and (iv) wastewater discharge and effluent.

16.21.41. The EIAR describes the "Do Nothing" scenario as one where the existing environmental conditions would not be altered, as no construction or dredging activities would occur. Existing biotopes, sediment profiles, noise levels, and water quality would remain unchanged. Potential risks to water quality would be avoided, and local hydrodynamic conditions would remain stable. Marine mammal levels within

the area would remain similar, and the population of harbour seals would grow due to their adaptation to port disturbances.

16.21.42. During the construction phase, the EIAR states that the proposed development has the potential to cause direct and indirect effects on biotopes, fish, cetaceans and pinnipeds within the area.

16.21.43. Addressing noise disturbance to fish, the EIAR states that anthropogenic noise from shipping, construction, and sonar could disturb fish behaviour, particularly for species that use sound for communication, mating, or navigation. During construction, noise impacts could arise from pile driving, blasting, drilling and dredging. The report acknowledges that all fish species, including elasmobranchs (such as sharks and rays), are sensitive to sound. The report notes that most fish can hear sounds from as low as 10-30 Hz up to around 300-500 Hz, with some species detecting sounds between 3000 and 4000 Hz. The report concludes that although there is potential for temporary behavioural changes in fish species due to the influence of underwater noise, such changes in behaviour would unlikely result in significant impacts on species composition in the area.

16.21.44. Addressing noise and mammals, the EIAR states that the construction phase could potentially result in elevated levels of noise detectable by marine mammals above background levels, which could lead to injurious or behavioural effects. The report acknowledges that Temporary Threshold Shifts (TTS) can result in behavioural response (disturbance) in mammals, whereby they would likely actively avoid hearing damage by moving away from the area. The EIAR describes injury thresholds for mammals based on both linear (i.e. unweighted) peak sound pressure levels (SPL_{pk}) and marine mammal hearing-weighted cumulative Sound Exposure Levels (SEL_{cum}). The EIAR describes marine mammal hearing groups likely to be affected, as recorded in the area, including high-frequency (HF) cetaceans (Bottlenose and Common Dolphins) and very high-frequency (VHF) cetaceans (Harbour Porpoise). No low-frequency (LF) cetaceans were recorded in the area.

16.21.45. Tables 15-7 and 15-8 detail TTS and PTS onset thresholds for marine mammals exposed to non-impulsive noise (e.g. dredging) and impulsive noise (e.g. pile driving and blasting), respectively. The report acknowledges that there is no measurement of the underwater sound of this site due to the proposed development.

However, on a precautionary basis, the report considers that the proposed activities may exceed the thresholds in Tables 15-7 and 15-8 of the report, which relate to TTS and PTS onset thresholds for marine mammals exposed to non-impulsive and impulsive noise, respectively. The EIAR concludes that any effects from the construction activities would be minor, temporary, and confined to the immediate area surrounding the proposed development, with no long-term impacts on marine mammal or fish populations.

16.21.46. Regarding pile driving associated with the proposed development, the EIAR acknowledges that it could potentially be detrimental to marine mammals due to the high source level and broad bandwidth of the sound produced. Low-frequency sounds dominate pile driving. However, the report concludes that while piling would create short-term noise and cause some loss of biotope area, the effects would be minor, temporary, and localised to the area around the proposed development, with no long-term impact on marine mammals or fish, and no significant reduction in the overall biotope area.

16.21.47. Regarding blasting, the EIAR acknowledges that explosive activities pose one of the highest risks to marine mammals from human-made sound sources, with energy levels sufficient to cause immediate permanent threshold shift (PTS) in exposed individuals. Furthermore, explosions produce a physical shock wave at close range, which can result in traumatic or even lethal injury to marine mammals. However, the EIAR concludes that blasting, like pile driving, generates short-term noise, which may cause minor localised disturbance to biotope areas. Section 15.5.2.1.2 of the EIAR details the potential impacts of blasting on biotope/ habitat (localised, habitat disturbance), fish (impulsive noise and pressure waves affecting fish mortality, acoustic/physical injury, and behavioural disruption) and marine mammals (multidirectional, producing high-intensity sound with a broad bandwidth that may exceed marine mammal hearing thresholds). The EIAR concludes that, subject to the implementation of mitigation measures such as seasonal restrictions, exclusion zones, and acoustic deterrents, the effects would be temporary and localised around the blasting area. The report states that there will be no long-term impacts on marine mammals or fish, and no significant reduction in the overall biotope area is expected to occur.

- 16.21.48. Regarding drilling, the EIAR states that such activities may produce underwater sound at sound pressure levels up to 190 dB. This could potentially create continuous sounds at levels that may impact marine mammal individuals and/or populations, the degree of which would depend on operational features such as location, water depth, and time scale.
- 16.21.49. Regarding dredging, the EIAR acknowledges that this activity involves removing substrate from the seabed and depositing it at a new location. The EIAR details how intertidal and subtidal biotopes such as *Mytilus edulis* beds are highly sensitive to substrate removal. The report states that nearly all biotopes have high sensitivity to heavy siltation (smothering), as thick sediment layers can smother benthic organisms and significantly alter the biotope. The EIAR states that dredging may affect fish by disrupting the seabed and its associated fauna and infauna. Mobile species affected by dredging may include shrimp (*Crangon species*) and harbour/green crabs. Entrainment may affect sand gobies, black gobies, dragonets, and poggies. However, the EIAR concludes that the overall impact would be moderate and have short-term consequences. The risk to salmon is considered minimal due to their migration routes and the location of dredging activity. The report states that the temporary increase in suspended solids would not significantly affect fish populations, and the localised nature of the activities would unlikely affect the broader ecosystem of Ringaskiddy.
- 16.21.50. Regarding marine mammals, the report states that dredging produces continuous, broadband, low-frequency sound below 1kHz, with sound pressure levels between 168dB and 186dB re 1µPa at 1m. Dredging could displace many species of invertebrates and fish, subsequently affecting the food chain and marine predators. Other stated impacts include physical injury or death of individuals resulting from collisions with operator vessels and displacement through noise disturbance.
- 16.21.51. The EIAR identifies potential pollution effects during the construction phase, including the release of hydrocarbons from machinery and/or increased sedimentation in the water due to the proposed dredging and piling within the site. Addressing Biotopes, the report states that sediment biotopes can be highly sensitive to contaminants such as heavy metals, oils, and other chemicals, which impact filter feeders like *Mytilus edulis* and *Cerastoderma edule*, reducing their feeding efficiency, growth, and survival. Toxic substances could kill or stunt the growth of seaweed. The

EIAR details the effects of concrete release, oxygen depletion, sedimentation, salinity, nutrient enrichment and increased turbidity on local intertidal and subtidal biotopes and photosynthetic aquatic species.

16.21.52. Regarding fish, the EIAR identifies how elevated pH levels from concrete and the release of heavy metals and hydrocarbons could be harmful to aquatic species and fish larvae, which are highly sensitive to contaminants.

16.21.53. The EIAR states that without mitigation measures, the proposed development has the potential to have a minor, temporary, adverse, and significant impact on marine mammals of International and National importance through disturbance and displacement.

16.21.54. During the operation phase, the EIAR describes how the proposed development would operate in three primary modes, including (1) Lift-On Lift-Off (LOLO) operations, involving the use of gantry cranes to load and unload containers, which are then stacked up to five units high, (2) General Cargo Operations, where break-bulk and project cargoes are handled using mobile cranes and stored in open areas, with materials stacked up to 5.5m high and (3) Roll-On Roll-Off (RORO) operations, using a ramp for direct freight access to vessels, with unaccompanied freight stored and accompanied freight driving directly onto public roads. CCT 1 is already operational, and Paddy's Point Amenity Area has been completed.

16.21.55. The report states that due to the present high activity levels of the port and container terminal and the large volume of vessel traffic within the Ringaskiddy basin, the proposed development is unlikely to have any significant effect on marine mammals in the area, as the species are habituated to high levels of activity. As a result, this impact is deemed insignificant in the report and does not require further mitigation.

16.21.56. The report states that maintenance dredging is already undertaken in the Ringaskiddy basin as part of the Port of Cork's ongoing maintenance dredging licence. The report states that in the absence of mitigation measures, dredging has the potential to cause a minor, local, adverse, and significant effect on marine mammals of International and National Importance through temporary displacement and noise disturbance at the site. However, a range of mitigation measures is proposed.

16.21.57. The EIAR concludes that the Greater Cork Harbour is an active area for maritime activities, including commercial cargo, tourist cruise ships, commercial and recreational fisheries, pleasure vessels, and Ireland's national naval base. Therefore, the operational impacts of the proposed development would be minor and temporary for marine mammals and fish. Similarly, maintenance dredging would have localised, short-term effects on the surrounding biotopes.

16.21.58. **Mitigation Measures**

16.21.58.1. Construction Phase

16.21.59. The EIAR sets out a range of mitigation measures to address impacts on marine ecology during the construction phase, which are summarised as follows:

16.21.60. ***Underwater Noise Mitigation Measures:***

- Implement a series of equipment soft starts to allow fish and mammals to react and move away from the sound source before it reaches full power.
- Adherence to DAHG (2014) Guidance to Manage the Risk of Marine Mammals from Man-made Sources in Irish Waters, and ACCOBAMS (2022) Guidance on Underwater Noise Mitigation Measures.

16.21.61. ***Pile Driving Mitigation Measures:***

- Two Marine Mammal Observers (MMOs) would be appointed, instead of the mandatory one as per the DAHG 2014 guidelines.
- The MMOs would monitor for marine mammals within a 1,000 m radius exclusion zone, complete a 180-degree arc view of the study area, and log all relevant events. Figure 15.15 of the EIAR shows the MMO locations and associated exclusion zones for each noise-producing activity.
- Pile driving activities would only commence in daylight hours where effective visual monitoring can be achieved.
- A communication signal procedure would be used between the MMO and the Works Superintendent, where activity would only proceed on positive confirmation from the MMO.

- An Acoustic Deterrent Device (ADD) would be used prior to the soft-start procedure.
- The ADD would transmit loud (170-200dB), mid-frequency sound from the site to the surrounding waters, deterring seals in the area away from the vicinity of the works area, as the seals would find the frequency and volume of the sound aversive. The ADD would be activated 30 minutes before the soft-start procedure.
- The MMO would conduct a pre-start-up constant effort monitoring at least 30 minutes before and after the sound-producing activity (including blasting), with no marine mammals detected within the Monitored Zone.
- The underwater acoustic energy output would commence from a lower energy start-up (i.e., a peak sound pressure level not exceeding 170 dB re: 1µPa @1m) and gradually increase to the necessary maximum output over 20-40 minutes.
- In all cases where a Ramp-Up procedure is used, the delay between the end of ramp-up and the full output would be minimised to prevent unnecessarily high-level sound introduction into the environment.
- As recommended by ACCOBAMS (2022), a suitable qualified Passive Acoustic Monitoring (PAM) technician should be employed for the duration of the pile driving works, if the work is to be carried out during a time of year where weather conditions are likely to be unfavourable for MMO visibility (i.e. November to January) or if the pile driving work is to occur at nighttime.

16.21.62. ***Blasting Mitigation Measures:***

- Using only the minimum quantities of explosives necessary and using a series of smaller explosions rather than fewer larger explosions.
- Two MMOs would monitor for marine mammals (as above).
- Blasting events would be scheduled to occur early in the day to allow a buffer for delays caused by marine mammals in the immediate area of operations.
- Individual explosive charges would be placed within a borehole drilled into the substratum or an excavated depression and covered or packed with stemming material (e.g., loose gravels, clean angular crushed rock and/or overburden).

- Blasting would not commence if marine mammals are detected within a 1,000m radial distance of the sound source, i.e., within the Monitored Zone.
- Blasting would only commence during daylight hours, provided effective visual monitoring by the MMOs has been achieved.
- Where effective visual monitoring is not possible by MMOs, the blasting would be postponed until effective visual monitoring is possible.
- Ramp-Up procedures would include a progressive series of small blasts and sequential detonations using a short interchange time delay (milliseconds in duration) and minimising the delay between the end of ramp-up and the necessary full output.
- A risk assessment would inform the ramp-up procedure.
- Full reporting on MMO operations and mitigation undertaken would be provided to the Regulatory Authority.

16.21.63. ***Drilling Operations Mitigation Measures:***

- Drilling activity would not commence if marine mammals are detected within a 500m radial distance of the drilling sound source, unless otherwise agreed with the Regulatory Authority.
- Drilling would only occur in daylight hours following visual monitoring and determination by the MMO.
- An agreed-upon communication signal would be used between the MMO and the Works Superintendent before any activity proceeds.
- The MMO would conduct pre-start-up constant effort monitoring at least 30 minutes before the sound-producing activity in waters up to 200m deep and at least 60 minutes in waters greater than 200m deep.
- Drilling would not commence until at least 60 minutes have elapsed, during when no marine mammals have been detected within the monitored zone by the MMO.
- Drilling would commence immediately after pre-start monitoring to minimise delays.

- Once drilling commences, it would not be required to halt or discontinue at night-time, if weather or visibility deteriorates, or if marine mammals occur within a 500m radial distance of the sound source, i.e. within the Monitored Zone.
- If a break in drilling exceeds 30 minutes, all Pre-Start Monitoring procedures would be undertaken.

16.21.64. ***Dredging Activities Mitigation Measures:***

- Selective dredging would be adopted to minimise turbidity generated by dredging.
- Use dredging techniques that minimise the spread of sediment, as well as silt curtains or other barriers, to limit the drift of suspended sediments during dredging operations.
- Minimise the dredging footprint and use targeted dredging to avoid habitat loss.
- Restore affected habitats post-dredging by reintroducing species, such as reseedling mussel beds or transplanting seaweed species.
- The implementation of pre-start monitoring procedures by MMOs.
- Use an Acoustic Deterrent Device (ADD), which would transmit loud (170- 200dB), mid-frequency sound from the site to the surrounding waters to deter seals away from the vicinity of the works area.
- Dredging would not commence until at least 30 minutes had elapsed, and no marine mammals were detected within the monitored zone by the MMOs.
- Dredging operations would occur immediately following pre-start monitoring to minimise dredging output.
- If a break in dredging exceeds 30 minutes, all pre-start monitoring procedures would be undertaken.

16.21.65. ***Mitigation for the Potential Release of Pollutants:***

- Prior to commencement, all work areas would be clearly marked, and no work would be undertaken outside of these areas. The site compound would be fenced off.
- All hazardous materials would be stored and handled in bunded areas at least 50m from the water.

- Site clearance would not be undertaken during wet conditions.
- Refuelling of construction equipment would not occur within 50m of the water.
- Overflow of the dredger would not be permitted during dredging.

16.21.65.1. Operation Phase

16.21.66. The EIAR details how Ringaskiddy East operates in three primary modes. CCT1 is already operational, where Lift-On Lift-Off (LOLO) operations involve gantry cranes to load and unload containers, which are stacked up to five units high. General Cargo Operations occur where break-bulk and project cargoes are handled using mobile cranes and stored in open areas, with materials stacked up to 5.5m high. Roll-On Roll-Off (RORO) operations use a ramp for direct freight access to vessels, with unaccompanied freight stored and accompanied freight driving directly onto public roads. Paddy's Point Amenity Area has been completed, providing a public pier, slipway, and landscaped areas.

16.21.67. The EIAR states that minimal maintenance for quays and revetments would be required, with any siltation addressed by the Port of Cork's regular dredging programme. Pollution control measures include a drainage system with interceptors and managed sewage disposal. Waste from berthed vessels would be handled through the Port's Environmental Management System. The report states that operational management will ensure periodic maintenance, dredging, and pollution control in accordance with the Port of Cork's strategy.

16.21.68. To minimise the impacts of dredging on sensitive biotopes and fish, the following measures would be implemented:

- Conduct dredging operations outside of breeding or spawning seasons.
- Use dredging methods that reduce the spread of sediment and use silt curtains or other barriers to limit the drift of suspended sediments during dredging.
- Minimise the dredging footprint and use targeted dredging to avoid habitat loss.
- Restore affected habitats post-dredging by reintroducing species, such as reseedling mussel beds or transplanting seaweed species.

- All maintenance dredging would be carried out as part of the Port of Cork's regular maintenance dredging programme.
- The material generated would be disposed of at sea at a licensed disposal site as agreed in accordance with the Port of Cork's maintenance dredging licence.
- The conditions of the maintenance dredging licence would be adhered to regarding marine mammals during the operational phase.
- All mitigation prescribed for dredging during the construction period would be replicated for the maintenance dredging of the site.

16.21.69. **Monitoring**

16.21.70. The EIAR states that during the construction phase, physicochemical monitoring will be used at strategic locations inside and outside the Ringaskiddy basin to assess potential impacts on water quality, biotopes, and fish. Parameters monitored would include temperature, conductivity (salinity), pH, turbidity, and dissolved oxygen levels. Monitoring of turbidity could detect increased sediment suspension, while monitoring oxygen levels helps assess the health of the aquatic environment for species sensitive to hypoxia. Tracking salinity and pH levels would identify any deviations from natural freshwater inputs. The EIAR states that continuous monitoring of these indicators would help ensure early detection of environmental changes and guide mitigation measures

16.21.71. **Residual Effects**

16.21.72. During the construction phase, the EIAR states that there will be a loss of biotope area due to the new construction area and a probable temporary adverse effect resulting from the displacement of fish caused by construction activities, dredging, and piling. However, the report states that marine mammals and fish would likely return to the site following the cessation of activities due to the high degree of habituation and high activity levels at the site. As such, the report states there would be no lasting significant adverse residual effect on marine mammals at this site.

16.21.73. During the operation phase, the report states that there would be a temporary, minor adverse effect due to the displacement of fish from the site during maintenance dredging. However, the report states that fish would likely return once the activities

cease, given their high level of habituation to the existing area. The report states that implementing the proposed mitigation measures would ensure no significant adverse residual effects on marine mammals within the area of the proposed development. The report submits that marine mammals near the site are accustomed to the high activity levels within the site. As such, the operational phase of the development would not significantly impact marine mammal species.

16.21.74. Potential Interactions & Cumulative Impacts

16.21.75. The EIAR details the cumulative impacts of the proposed development and other nearby permitted and proposed projects within the last 5 years. These include maintenance dredging of the port berth, basins and approach channels into Port of Cork (Ref. FS007126), residential development of 31 dwellings (Ref. 315058), a grain storage and distribution facility (PA Ref. 244044 / ACP Ref PL04.321763 - refused on appeal on 05/06/2025), Passage Railway Greenway Improvement Scheme (Ref. 315622), Relocation and erection of a small micro generation wind turbine at the UCC Beaufort Building (Ref. 236365), rock armour revetment protection and foreshore reclamation at Cork Harbour Marina, Monkstown (Ref. 235147 and currently on appeal under ACP Ref PL04), extension of permission for two waste facilities (Ref. 195607) and containment basin works at Whitegate Refinery, Midleton (22/05173).

16.21.76. The EIAR submits that these projects were identified as having the potential to have an adverse, significant impact in combination with the proposed project due to their potential to increase sedimentation and/or noise disturbance in the waters of Ringaskiddy. However, following a review, where available, of the associated documentation for the above projects and the proposed mitigation involved in each, the EIAR concludes that there would be no adverse significant effect on marine ecology within the Ringaskiddy area in combination with the proposed project.

16.21.77. Assessment

16.21.78. I have examined Chapter 15 of the EIAR, all associated documentation, the issues raised in the submissions received regarding marine ecology, and the applicant's response to the issues raised in the submission. In my view, the principal direct risks to marine ecology are underwater noise from piling or blasting, temporary increases in suspended sediments from dredging and infilling, and the permanent loss

of local habitat within an already modified basin. Indirect risks would include the displacement of fish and marine mammals from the footprint of the proposed development, as well as short-lived turbidity plumes within the harbour. I consider that while these effects are likely to occur during the construction phase, they would be short-term in duration and spatially confined when controlled by the proposed mitigation measures and real-time monitoring.

16.21.79. Regarding underwater noise, I acknowledge the concerns of the IWDG, IFI, the Planning Authority and other submissions. Having evaluated the EIAR, it is my view that while the report does describe the proposed use of an Acoustic Deterrent Device (ADD) emitting loud (170-200dB), mid-frequency sound from the site to the surrounding waters for approximately 30 minutes prior to the soft-start procedure to deter harbour seals, it does not identify the specific device model type, sound propagation radius or area of deterrence required, as per JNCC 'Guidelines for minimising the risk of injury to marine mammals from explosive use in the marine environment' (2025). With this regard, I note that the NPWS (2014) Guidance to Manage the Risk to Marine Mammals from Man-Made Sound Sources in Irish Waters details how high-energy sound sources within the range of 170-200dB have the potential to induce auditory injury or behavioural disturbance where received levels overlap sensitive hearing thresholds, particularly in confined coastal environments. Appendix 3 of the guidelines identifies that received sound levels within the 170-200dB range fall within the zone where TTS and, at higher exposures, PTS may be triggered in mid-frequency cetaceans and pinnipeds, depending on proximity and duration to exposure. The EIAR does not include any acoustic modelling or impact assessment of the ADD on non-target species such as dolphins or porpoises, which are designated Annex II and IV species under the EU Habitats Directive and protected species under the Wildlife Act 1976 (as amended). Consequently, on the basis of the information presented, the potential for both Temporary Threshold Shift (TTS) and Permanent Threshold Shift (PTS) in sensitive species cannot be excluded. Given that cetaceans are strictly protected Annex IV species, any risk of injury to these marine mammals may trigger the requirement for a Regulation 54 derogation licence in advance of development consent, where such risk cannot be excluded.

16.21.80. I consider that this limitation should be addressed through a pre-construction underwater acoustic model, which should apply recognised source levels for the

proposed piling, blasting and dredging methods, taking into account local bathymetry, sound-propagation characteristics, and cumulative noise exposure from concurrent activities. The modelling should also assess the predicted effectiveness of the proposed mitigation measures, including soft-start procedures, ADD activation sequences, and, as may be required, any noise abatement systems such as bubble curtains or equivalent technologies, to ensure that modelled sound exposure levels remain below recognised injury and disturbance thresholds. Injury and disturbance thresholds applied in the modelling should reflect current NPWS guidance and internationally recognised criteria for marine mammal functioning hearing groups, appropriate to the proposed sound sources.

16.21.81. The result of this modelling should inform a detailed Marine Mammal Mitigation Plan prepared having regard to the guidance of, and following engagement with, the National Parks and Wildlife Service (NPWS), incorporating recognised best-practice measures such as soft-start piling procedures consistent with ACCOBAMS (2022), the deployment of Marine Mammal Observers (MMOs), Passive Acoustic Monitoring (PAM) with proven detection range, and, as may be required, effective noise-abatement methods (for example, bubble curtains or equivalent technologies suited to site conditions). The Marine Mammal Mitigation Plan should provide a clearly defined adaptive management protocol providing for the immediate cessation of works in the event of non-compliance or observation of sensitive species within defined exclusion zones. In addition, the Plan should ensure that the use of ADDs is limited to cases where justified by the site-specific modelling, and that the device characteristics are selected to avoid adverse effects on protected species. This would accord with best practice, including JNCC (2025) 'Guidelines for Minimising the Risk of Injury to Marine Mammals from Explosive Use in the Marine Environment', which recommends that ADDs should not be used as a standalone mitigation. Subject to these requirements being secured by way of condition, I am satisfied that underwater noise can be managed so that the likelihood of PTS or TTS within the zone of influence is very low, and that significant effects on marine mammals would not occur.

16.21.82. Regarding seabed and intertidal habitats, including mussel beds, I consider that permanent loss would be small in extent, confined to a heavily modified water body, and can be minimised by confining works to the footprint of the proposed development, restricting the timing of dredging and piling outside periods of peak ecological

sensitivity such as the migration of salmon and spawning of shellfish, and a Habitat Reinstatement and Management Plan for the translocation or reinstatement of mussel beds or other ecologically valuable substrates where practicable. While temporary siltation from dredging is likely to occur, I consider that it can be kept within acceptable limits through the proposed mitigation measures, including, *inter alia*, no-overspill from hoppers during dredging, defined periods for dredging and piling, plume forecasting, and real-time turbidity thresholds linked to pause and modify protocols where exceedances are detected. In my view, these mitigation measures would prevent significant adverse effects on designated shellfish areas and the supporting habitats of SPA/SACs.

16.21.83. Regarding fish and fisheries, I consider that while short-term behavioural disturbance and local entrainment risk would occur, they would not be significant where dredging is selective, plumes are managed, and timing avoids peak shellfish spawning or salmon migration periods. Sanctioned turbidity monitoring buoys would be redeployed for the dredging associated with the development, subject to statutory consent from Commissioners of Irish Lights. I consider that the IFI request for the prohibition of dredging during the draft net salmon season can be met by way of a Condition without undermining the viability of the proposed development.

16.21.84. I have considered stormwater, foul water, and marine operational practices for the operation phase. The surface water drainage system includes oil interceptors and sediment traps, as well as the upsizing of the outfall at Ringaskiddy East Berth 2, and engineered drainage to hardstanding, which would interrupt pollutant pathways. Marine operations are subject to MARPOL, so that bilge water would be treated to MARPOL standards, de-ballasting would be undertaken offshore in accordance with IMO guidelines, and discharges to harbour waters are prohibited. While interceptor sampling shows occasional elevated suspended solids or metals, I consider these can be addressed through routine maintenance, inspections, and corrective actions, by way of Condition. In my view, these measures would keep concentrations within statutory standards at receptors and prevent any material impact on ecological or chemical status.

16.21.85. I have considered cumulative effects with permitted maintenance dredging and other projects in Cork Harbour. The modelling in the EIAR shows very limited hydrodynamic change and a contained plume footprint. With the implementation of the

proposed mitigation measures, including seasonal timing restrictions of dredging and piling, and a monitoring programme for underwater noise, turbidity, and water quality, I consider that in-combination risks to marine fauna and habitats would not be significant. Subject to the implementation of the proposed mitigation measures and appropriate conditions in the event of a grant of permission, I am satisfied that the proposal accords with the NPWS Guidance to Manage the Risk to Marine Mammals (2014), ACCOBAMS Guidance On Underwater Noise Mitigation (2022), the Marine Strategy Framework Directive on underwater noise, and the Water Framework Directive objectives for a Heavily Modified Water Body.

16.21.86. Conclusion

16.21.87. I conclude that, subject to the implementation of the proposed mitigation measures and conditions securing pre-construction acoustic modelling and a mitigation plan, a turbidity monitoring plan, seasonal timing restrictions for dredging and piling, a Habitat Reinstatement and Management Plan, and control of invasive species, the proposed development would not give rise to likely significant adverse effects on marine ecology during the construction or operation phases. Residual effects would not be significant and limited to small areas of permanent loss within a modified harbour.

16.22. Biodiversity – Terrestrial Ecology and Ornithology

16.22.1. Issues Raised

16.22.2. A third-party submission expressed concerns regarding continuous light pollution from port and ship lighting, with reflections off the harbour water exacerbating this issue. It is submitted that the proposed development would worsen these impacts. Concerns were also raised regarding noise from ship engines, generators, and equipment and the absence of noise monitoring and protocols in place.

16.22.3. An Taisce highlights the site's proximity to the Cork Harbour SPA, which supports over 20,000 wintering waterfowl and stresses the potential impacts of dredging and construction activity on bird roosting, nesting and foraging behaviour. An Taisce also note potential cumulative impacts on habitats and species within nearby proposed NHAs, including Monkstown Creek pNHA, Lough Beg pNHA, and Whitegate

Bay pNHA. An Taisce emphasise the need for robust mitigation measures to protect the ecological integrity of these designated areas. Concerns are also raised regarding the adequacy of the proposed lighting, with recommendations to provide environmentally sensitive lighting to prevent disruption to nocturnal species and insect life.

16.22.4. Cork County Council's Ecology Office raised concerns about deficiencies in the detailed assessment of potential impacts within the Terrestrial Ecology Chapter of the EIAR and the AA Screening and Natura Impact Statement. It was noted that the assessment of noise, air, water environment, and coastal processes was not adequately integrated to inform the assessments of the Terrestrial Ecology and Ornithology Chapter of the EIAR and the AA Screening and Natura Impact Statement. The submission notes the limited analysis of updated habitat and species surveys, as well as the inadequate linkage between these survey results and the impact assessment or proposed mitigation measures. The Council's Ecology Section report states that the EIAR and NIS should include a detailed assessment of the predicted noise and vibration impact on relevant ecological receptors, including known roosting and foraging locations of species of conservation interest in the Cork Harbour SPA, breeding birds, and land mammals, such as otters. Furthermore, an assessment should be provided of the potential impact of the proposed development on the colony of terns, which are present within the port area. The assessment should include all predicted sources of impact, including those associated with habitat loss, disturbance (including impacts associated with noise, lighting and visual disturbance), water pollution risks, and impacts associated with the installation of additional perch opportunities for predators arising from the construction of tall structures (quayside cranes and lighting columns) within the port area.

16.22.5. The applicant responded to the issues raised in the submissions received regarding terrestrial ecology and ornithology. Regarding lighting, visual disturbance, and predator perching, the applicant confirms their commitment to providing high-quality, modern lighting, which minimises the impacts of light pollution, as detailed on page 486 of the EIAR. The applicant acknowledges the port facility's operational and navigational safety requirements, as well as the operational restrictions required by the proposed high mast lighting. The applicant commits to installing predator

deterrents for gulls and herons on new lighting columns and agrees to provide additional mitigation measures to limit perching opportunities.

16.22.6. Regarding concerns for the Cork Harbour SPA and nearby pNHAs, the applicant states that general mammal and bird mitigation measures are referenced in the NIS and Terrestrial Biodiversity chapter 16, page 426. The applicant submits that the pNHAs are referenced in the EIAR Biodiversity chapter and that the protective measures applicable to Cork Harbour SPA also apply to these habitats, as they are within the 15 km Zone of Influence for potential impacts. However, the applicant notes that these areas (e.g., Monkstown Creek and the Pfizer shoreline) were not surveyed due to access and safety concerns.

16.22.7. Regarding terns, the applicant indicates that possible impacts to the common tern are included in the NIS and mitigated for, as they are an SCI species of the Cork Harbour SPA. However, information on this species at an individual level, regarding the location of the colony within the port, is not presented, as the mitigation measures are deemed adequate to manage at the population level. The applicant notes that improvements to Common Tern nesting habitat and associated mitigation measures are not currently proposed. However, no disturbance to existing Tern nesting areas is anticipated. The applicant states that predator deterrents for gulls and herons will be installed on any new lighting columns.

16.22.8. Responding to requests for further noise analysis, the applicant states that consideration of 2014 noise data/modelling is appropriate and justified, given the data validation in 2024 by an updated attended noise survey (refer to Chapter 9, p. 198). The applicant notes that terrestrial and marine ecology are dealt with as two distinct, separate themes within the EIAR. Marine Noise is addressed in Section 15.5, and marine-specific mitigation measures are detailed on Page 361 of the EIAR. The applicant notes that operational noise thresholds were conditioned under ABP Ref. PA04.PA0035.

16.22.9. Addressing the assessment of cumulative effects, the applicant states that cumulative impacts are addressed, where relevant, at the end of each chapter of the EIAR, along with associated mitigation measures. The applicant confirms that no significant cumulative impacts have been identified.

16.22.10. **Methodology**

16.22.11. The EIAR desk study was undertaken, drawing on sources including Article 17 Reports (NPWS, 2019) and associated geospatial data, as well as NBDC species reports within 1km and 2km, and databases from the Botanical Society of the British Isles, Invasive Species Ireland, Bat Conservation Ireland, CIEEM, and BirdWatch Ireland. Given the nature and location of the proposed development and the proposed works, which include dredging, importation of fill material, piling, concrete works, stormwater management, and maintenance dredging, the Zone of Influence is defined as 15km. The report states that a study area was established to include a 100-metre buffer zone around the site, to cover terrestrial and ornithological surveys.

16.22.12. Regarding flora and habitat surveys, the EIAR states that previous site visits occurred in May 2012, September 2013 and January 2014, adhering to the Heritage Council's Best Practice Guidance for Habitat Survey and Mapping. A follow-up terrestrial ecology survey was conducted in August 2024, during which habitats were classified to level 3 of the Fossitt (2000) classification system, and inspection for invasive species was undertaken. The report states that the presence or absence of Annex I habitats was determined with reference to the habitat descriptions provided in the most recent NPWS Article 17 Reports.

16.22.13. Regarding mammals, the EIAR notes how mammal fauna studies were undertaken within the site in 2012 and updated in late winter 2014. The surveys identified the presence and importance of the proposed development to Bats, Otters, Badgers, and other terrestrial mammal species.

16.22.14. Updated bat surveys were undertaken, which are included in Appendix 9.7 of the EIAR. The EIAR states that the bat survey included a desk study that applied a precautionary 10km radius to cover core sustenance zones of different bat species and any potential zone of influence exceeding the 2km range. The desk-based study included a review of Natura 2000 sites designated for bats, aerial imagery, and historic and biodiversity maps for the 10km squares covering the Site [grid square W76 and W86], including species recorded and known roosting sites.

16.22.15. Filed surveys for bats included an external daylight inspection of potential roost features (PRF) and an endoscope inspection (under license) on the 08th August 2024. An emergence survey was conducted at the Ringaskiddy Ferry Terminal on the 08th

August 2024 using full-spectrum bat detectors. A Transect Activity Survey was also conducted to identify key features or areas within the site that may be used as foraging/commuting corridors, or to locate potential roost sites if present. A static bat detector was carried out on the 08th August 2024 to record the types of bat species present and to provide an overview of how bat activity is broadly distributed over the site. At the same time, a Wildlife Acoustics Song Meter 4 (SM4) was deployed for 12 days within the site.

16.22.16. Regarding Ornithology, the EIAR states that breeding bird surveys were undertaken in 2012 and 2013, using a scaled-down version of the British Trust for Ornithology's (BTO) Common Bird Census (CBC) technique. All bird species encountered during the survey were mapped and coded using standard BTO codes and categorisation. The report states that surveys were undertaken shortly after dawn and completed before midday to coincide with periods of peak bird activity. Visits were not made during adverse weather conditions, and a route was chosen to ensure that all parts of the survey area were passed within c. 100m.

16.22.17. Regarding Wintering Wetland Birds, the EIAR states that the intertidal and marine areas, adjacent to the site, were subject to a wintering wetland bird survey between the overwintering months of September and April, in 2011/12 and 2013/14. The surveys were conducted from vantage points at Monkstown, Ringaskiddy and Rocky Island, using high and low tide waterbird counts to record waterbird distribution, numbers and behaviours within the survey area.

16.22.18. Regarding Breeding Season Wetland Birds, the EIAR states that a breeding summer season wetland bird survey was undertaken within the intertidal and marine areas adjacent to the site in 2011, 2012 and 2013, with full details provided in Appendix 9.4. The surveys identified key foraging areas for Common Terns during the breeding seasons, and all wetland bird species were recorded. The surveys were conducted from vantage points at Monkstown, Ringaskiddy and Rocky Island, and were conducted monthly from May 2024 to August 2024. The survey recorded the distribution, numbers and behaviours of waterbirds within the area during low and high tide conditions.

16.22.19. The report states that the ecological evaluation and impact assessment methodology followed Chapter 3 of Guidelines for Assessment of Ecological Impacts

of National Roads Schemes (TII, 2009) and used best practice in the ecological assessment of similar developments. The EIAR describes how the evaluation of ecological resources follows the criteria set out in Section 3.3 of TII Guidance (2009), assigning receptors a rating of geographical importance ranging from International Importance to Local Importance (Lower Value). All terrestrial flora and fauna within the Zone of Influence and Study area were assigned a level of significance, and Key Ecological Receptors were established and classified on this basis.

16.22.20. Ecological Impacts were characterised according to EPA Guidelines using parameters including Magnitude, Extent, Duration, Reversibility, and Timing, with the duration of impacts applied according to EPA guidance, ranging from Momentary to Permanent. The assessment took into account the construction and operational phases, as well as the direct, indirect, and cumulative impacts, including temporary, reversible, and irreversible impacts. The Significance of Effects was determined in accordance with Section 6.2.20 of the TII Guidelines (2009), ranging from No Change to Profound, and the Criteria for assessing quality, following EPA guidance (2017), which include Positive, Neutral, and Negative.

16.22.21. The EIAR states that the proposed development was designed to specifically avoid, reduce and/or minimise impacts on all key ecological receptors. Where potential significant impacts on key ecological receptors are predicted, mitigation has been prescribed to ameliorate such impacts. The report states that compensation and/or enhancement measures were also considered. The EIAR acknowledges the limitations and difficulties encountered, including how the flora and fauna surveys do not produce a complete botanical species list but instead provide an understanding of the site's ecology, including its nature conservation value and determine whether any additional specific ecological surveys are required. The survey notes how seasonality is a key issue and how it is impossible to survey for all flora species in one survey visit due to the staggered nature of the life histories of different species.

16.22.22. The EIAR's Chapter 16 on Biodiversity-Terrestrial Ecology and Ornithology is supported by several appendices, including an AA Screening Report and Natura Impact Statement (Appendix 9.1), Breeding Bird Survey (Appx. 9.2), Report on the Winter 2011-2012 Bird Surveys (Appx. 9.3), Report on 2011 Breeding Season Bird Survey (Appx. 9.4), Night-roosting Cormorant Survey (Appx. 9.5), Wintering and Breeding Wetland Bird Survey Report (Appx. 9.6), Bat Survey Report (Appx. 9.7), CCT

Operational Environmental Management Plan (Appx. 11.2) and an Outline CEMP (Appx. 11.3).

16.22.23. Baseline Conditions

16.22.24. The EIAR states that within 15km of the site, there is one Special Protection Area, Cork Harbour SPA (Site Code 004030) and one Special Area of Conservation, Great Island Channel SAC (Site Code 001058), as detailed in Table 16.3 and Figure 16.1. The EIAR states that aqueous pathways exist between the proposed development and both Natura 2000 Sites, where there is a possibility of significant adverse effects to these SACs and SPAs via hydrocarbon and sediment transportation. The report states that these are considered in detail in the NIS submitted.

16.22.25. The EIAR states that there are no Natural Heritage Areas (NHA) within the 15km Zone of Influence of the site. However, there are ten pNHAs within 15km of the site, some of which have a hydrological connection, as detailed in Table 16-4 of the report. Table 16-5 provides a site synopsis from available NPMW data, including Rockfarm Quarry (001074), Cuskinny Marsh (001987), and Fountainstown Swamp (000371). Rockfarm Quarry pNHA is noted for its diversity of flora, with the presence of 'rarities' in the region, such as dense-flowered Orchid and Portland Spurge. Cuskinny Marsh pNHA comprises a brackish lake supporting wildfowl, including Dabbling Ducks and Mute Swans. Fountainstown Swamp supports high numbers of birds, including Mallard, Heron, Reed Bunting and Sedge Warbler.

16.22.26. The EIAR details wildfowl sanctuaries in County Cork, including Ballynamona-Shannagarry (WFS-08), Kilcolman Bog (WFS-09), Lough Aderry (WFS-10), The Lee Reservoir (WFS-11) and The Lough, Cork City (WFS-12), which provide resting and foraging grounds for game birds.

16.22.27. The EIAR notes that the proposed redevelopment works are located in and adjacent to an operational Port, where the ecological baseline currently co-exists alongside the port's operations, including daily human and shipping presence on the quayside, periodic maintenance dredging, and the amenity and commercial use of the shoreline, basin, and channel.

- 16.22.28. The EIAR details habitats in the study area, which include Spoil and Bare Ground (Habitat Code ED2), Recolonising Bare Ground (ED3), Buildings and Artificial Surfaces (BL3), Sea Walls, Piers and Jetties (CC1), Scrub (WS1), and Treelines (WL2), classified according to Fossitt (2000). Spoil and bare ground are found along the port's boundary and are heavily trampled or driven over regularly. Recolonising bare ground includes artificial surfaces such as tarmac, concrete, or hardcore, which have been invaded or recolonised by herbaceous plants. The report states that buildings and artificial surfaces dominate the site's landscape, including roads, terminals, buildings, shipment containers, footpaths, etc. Coastal constructions subject to tidal sea water include sea walls, piers, and jetties. The report notes a limited area of Scrub habitat running adjacent to the rock armour on the site's boundary. Treelines extend along sections of the site boundary, including Alder, Sycamore, Butterfly-bush and Grey willow.
- 16.22.29. The EIAR states that there are no listed Annex I habitats within the site boundary. Furthermore, no flora species of conservation interest were observed. The report notes that no alien invasive plant species listed in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (S.I. No. 477/2011) were recorded in the vicinity of the project works. However, small to moderate stands of invasive Butterfly Bush (*Buddleja davidii*) were observed throughout the survey area.
- 16.22.30. Regarding fauna, the EIAR states that the NBDC database was searched for records within a 1km square (W7765, W7764, W7864, and W7964) encompassing the study area. The report states that there are no NBDC records of Otter for the 1km squares. The walkover survey found that while there were no records of prints, holts, couches, or slides on the site, potential otter spraint was recorded adjacent to the rock armour on the boundary site.
- 16.22.31. The EIAR states that there are no records of Badger available from the NBDC for the 1km squares W7765, W7764, W7864, and W7964. The walkover survey found no signs of badger activity or setts on the site.
- 16.22.32. Regarding Bats, the desk study found five species of bats recorded within 10km grid squares, which included Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Leisler's Bat (*Nyctalus leisleri*), Brown Long-eared Bat (*Plecotus auritus*) and Daubenton's Bat (*Myotis daubentonii*). The report states

that the landscape suitability index, as generated by Lundy et al. (2011), rates the soprano pipistrelles and Leisler's bats as the highest for the site. The overall rating for all bats was 29.33 (high) out of a maximum of 100. The report states that no potential roost features (PRFs) were located within the buildings on the site. Using strong floodlights at night creates unfavourable conditions and deters any light-sensitive bats from these areas.

16.22.33. The EIAR states that an emergence survey conducted on 08th August 2024 at the ferry terminal, originally classed as having "low" potential for roosting bats, recorded three passes of Leisler's bats. A transect activity survey conducted after the emergence survey recorded 16 passes of Leisler's bats, 32 passes of common pipistrelles and four bat passes of soprano pipistrelles during the survey. The Static Bat Detector Surveys, deployed on the 08th August 2024 for 12 nights, recorded 2,122 bat passes in total, which included 1,141 by soprano pipistrelles, 756 by Leisler's bats, 223 by common pipistrelles, and two *Pipistrellus* passes.

16.22.34. The survey found no records of West European Hedgehog (*Erinaceus europaeus*), Pine Marten (*Martes martes*), Pygmy Shrew (*Sorex minutus*), Red Squirrel (*Sciurus vulgaris*), or Red Fox (*Vulpes vulpes*) within the 1 km square W7765, W7764, W7864, and W7964. The NBDC recorded one count of the Irish Stoat on 02/03/2011.

16.22.35. Regarding Birds, the EIAR states that records available from the NBDC within the 1km squares W7764, W7864, and W7964 recorded species including Common Starling, Common Tern, Northern Gannet, Rook, Sandwich Tern, Glossy Ibis, Great Spotted Cuckoo, Lesser Yellowlegs, Long-billed Dowitcher, Pied Avocet, Little Egret and Mediterranean Gull. There were no bird records available within the 1km grid square W7765. The report states that of the species recorded, there are five amber-listed species under Birds of Conservation Concern in Ireland (BoCCI), and four are listed under Annex I of the EU Birds Directive.

16.22.36. The report states that various bird species were recorded during the wintering and breeding season between October 2023 and August 2024, with results shown in Appendix 9.6 of the EIAR.

16.22.37. The winter bird surveys recorded species including the Black-headed Gull, Cormorant, Curlew, Dunlin, Redshank, Black-tailed Godwit, Brent Goose,

Oystercatcher, Mallard, Teal and Shelduck, with notable high numbers for species like Black-headed Gull (e.g. up to 322 roosting in January 2024 as per Table 16-15) and Cormorant (e.g. 407 roosting as per Table 16-16).

16.22.38. The EIAR states that breeding season surveys conducted from May to August 2024 recorded species, including Common Tern, Cormorant, Oystercatcher, Grey Heron, Mallard, Mute Swan, Ringed Plover, and Sandwich Tern, in the wider port area and adjacent sites. Common Terns were regularly recorded roosting and foraging across all vantage points, with counts up to 26 recorded roosting at Ringaskiddy Port in July 2024 (Table 16-20).

16.22.39. Table 16-22 of the EIAR evaluates the ecological receptors potentially affected by the proposed development, identifying their importance and rationale behind each rating. European Sites are rated as of international importance, pNHAs are rated as of national importance, habitats are rated as of local importance, mammals of regional/county importance and birds of local importance.

16.22.40. **Potential Effects**

16.22.41. Section 16.8 of the EIAR identifies potential sources of impact that could result in adverse effects on biodiversity and protected habitats and species within the zone of influence of the proposed development. These include physical damage and degradation of protected habitats, noise and visual disturbances, changes in water quality, ground and air pollution, and the spread of invasive species. Impacts assessed during the construction phase include habitat loss/disturbance, loss of flora species, disturbance to fauna, and reduction in water quality.

16.22.42. The EIAR states that the proposed development is hydrologically connected to two Natura 2000 European sites, so significant effects could not be excluded at the screening stage. Therefore, a Natura Impact Statement (NIS) has been submitted. The report states that the NIS addresses all of the predicted effects of the proposed development on these sites.

16.22.43. Addressing general impacts on key ecological receptors, the EIAR states that the proposed development would result in some habitat loss to facilitate the construction of the quay wall, mostly affecting bare ground/recolonising bare ground. The report notes a small risk to scrub and treelines, which are small in scale and not

located in the direct footprint of the proposed development. However, the report notes that any loss of linear woodland would fragment habitats, leading to the displacement of wildlife and the fracture of ecological corridors. The report also notes how the construction and operation of the proposed development could lead to habitat degradation.

16.22.44. Potential impacts include the pollution of Cork Harbour and the conversion of wooded habitats to built land. The report states that the construction and operation of the proposed development could impact water quality, directly and indirectly affecting habitats and species. Incidents of increased stormwater overflow and accidental pollution events could result in sediment and pollutants entering Cork Harbour. Construction activities would result in temporary noise, vibration, lighting and visual disturbance, affecting species within and adjacent to the site. Direct mortality could occur due to site clearance, tree felling and the removal of vegetation. Birds would be vulnerable during the nesting season when construction work could lead to the loss of nests. The report notes indirect mortality risks to birds and otters due to the ingestion of contaminated fish.

16.22.45. Table 16-23 of the EIAR provides a characterisation and evaluation of likely impacts on key ecological receptors, following EPA (2017) and TII (2009) guidance. It identifies how the permanent loss of linear woodland would constitute a Permanent Slight Negative Impact at the Local Level. Habitat degradation due to increased artificial structures and hardstands during the operational phase would create Permanent Slight Negative Impacts at the Local Level. For birds, permanent habitat loss and degradation would constitute a permanent moderate negative impact at the local level. During construction, disturbance would constitute a Short-term Moderate Negative Impact at the County Level. For Non-Volant Mammals, site activity during the construction phase may deter terrestrial mammals from the site during daylight hours, resulting in a Short-term Significant Negative Impact at the local level. The report states that pollutants entering Cork Harbour could lead to short-term and Permanent Moderate Impacts at the National Level on European and Nationally Designated Sites downstream of the site.

16.22.46. **Mitigation Measures**

16.22.47. The EIAR sets out a range of mitigation measures to address impacts on terrestrial ecology and ornithology during the construction and operation phases, which are summarised as follows:

16.22.47.1. Construction Phase

16.22.48. Design Mitigation Measures:

- All site construction would adhere to CIRIA (2015) Environmental Good Practice on Site (Charles and Edwards 2015).
- There would be no water abstraction from or discharges to Cork Harbour.
- A site-specific CEMP would be prepared before the commencement of development, incorporating the mitigation measures listed in the EIAR.
- The site compound would be located within the site boundary, located over 50m from any watercourse, with storage restricted to plant and materials necessary for the construction of the proposed development.

16.22.49. Specific Mitigation Measures:

- Monitoring of water quality during operational phases, including sampling and testing to demonstrate compliance with any issued authorisation.
- Removing vegetation, soil, existing concrete, and/or general construction work would be considered under prevailing weather conditions and the time of year.
- Fuels, lubricants, hydraulic fluids, and any solvents and oils would be carefully handled to avoid spillage, secured adequately against unauthorised access or vandalism, provided with spill containment, and stored at least 10m from watercourses.
- Fuelling and lubrication of equipment would not be carried out within 10m of watercourses and only in designated bunded areas.
- Any spillage of pollutants would be immediately contained, and the contaminated soil would be removed from the site and dispatched to a suitably authorised waste facility.
- Refuelling would use double-bunded mobile bowzers, operated by trained personnel, and appropriate spill containment equipment would be used.

- Only mechanically sound vehicles and machinery would be allowed onto the site.

16.22.50. Noise and Vibration Mitigation Measures:

- Adherence to best practice noise reduction measures, including BS 5228-12009+A1:2009, Code of Practice for Noise and Vibration Control on Construction and Open Sites.
- Switching off machinery when not in use or outside the agreed operation hours and using exhaust silencer systems on diesel engines.
- Erecting appropriate acoustic screens (2.4m high) in certain locations where required.
- Cordoning off hazardous machinery with temporary fencing at the end of the working day and restricting work to daylight hours.
- Erection of signed barriers (2.3m high) and/or ground protection around all trees being retained on site.
- Excavation works within Root Protection Areas (RPA) would be undertaken with extreme care and due diligence.
- Exposed roots and trunks would be protected with hessian sacking and timber strips as appropriate.
- Ground alteration in excess of 75mm would be avoided, and new impermeable surfaces would not cover more than 20% of the RPA.
- An increase in ground level up to a maximum of 1m would be tolerable for certain species using specific techniques, including the construction of a dry well around tree trunks, allowing for future growth and the incorporation of coarse aggregates to provide sufficient drainage and allow for gaseous diffusion in the raised ground.
- Restricting the removal of woody vegetation to the non-breeding season.
- If work has to be undertaken during the breeding season, an ecologist would undertake a breeding bird check immediately before the vegetation is cleared. This would require a license from the NPWS.
- Sudden loud or impulsive noises would be avoided during the construction phase.
- Treelines and areas of scrub providing nesting habitats for birds would be protected and remain untouched during construction.

- Construction machinery would be visually inspected and power-washed prior to arrival on site to prevent the importation of invasive species.
- All excavation/access areas would be pre-checked for invasive species, and no machinery would enter these fenced-off locations without authorisation and management measures.

16.22.50.1. Operation Phase

- The project would be subject to the Port of Cork Environmental Management System (EMS), which requires monitoring of surface water, groundwater, noise, and dust emissions from the site to comply with EPA standards.

16.22.51. **Monitoring**

16.22.52. The EIAR states that a professional ecologist would design a Species Protection Plan to consider any protected bird species on or near the site. An Ecological Clerk of Works (ECoW) would be employed to monitor the works under license and inform the team through Ecological Toolbox Talks during construction and tree felling activities. The report states that the ECoW and Site Manager / Site Engineer would undertake a pre-construction survey of the scheme to identify locations where environmental mitigation is required before construction works commence. During construction, the ECoW would visit the site weekly to ensure the necessary mitigation measures are implemented and to demarcate exclusion zones appropriately. During the operation phase, post-construction monitoring would continue for at least one year after construction work ceases.

16.22.53. **Residual Effects**

16.22.54. The report states that with the implementation of the proposed mitigation measures, residual effects on sensitive ecological receptors would not be significant during the construction and operation phases.

16.22.55. **Assessment**

16.22.56. I have examined Chapter 16 of the EIAR, all associated documentation, the issues raised in the submissions received regarding Terrestrial Ecology and Ornithology, and the applicant's response to the issues raised in the submissions. I

have cross-checked the conclusions of Chapter 16 against related chapters in the EIAR addressing Air Quality, Noise, Water, Coastal Processes and Marine Ecology as well as the NIS. It is my view that the description of the baseline environment and impact assessment adhere to the requirements of the EPA EIAR Guidelines 2022, and that the dataset is adequate for assessment and decision-making.

16.22.57. I consider direct effects to terrestrial ecology would be limited to a small area of recolonising hardstanding and marginal scrub within an active port. While these losses would occur, they are of low ecological value and not significant. The main indirect risks include disturbance to SPA waterbirds and local tern use of the port, lighting effects on bats and birds, and pollution pathway risks that could indirectly affect ornithology. While these effects are possible during the construction and operation phases, it is my view that they can be controlled through specific provisions in a CEMP, oversight by an ecologist, timing restrictions, and a lighting strategy that limits light spill to intertidal roosting and flight corridors and uses warm colour temperature, as well as full cut-off fittings and dimming or curfew near the waterfront. With the implementation of these mitigation measures, I consider that significant effects on terrestrial ecology and ornithology, including SPA features, would not occur.

16.22.58. I have considered the issue raised in submissions of the inadequate assessment of noise, lighting, and cumulative disruption to SPA species in the EIAR. Having reviewed and cross reference the evidence in each of the EIAR chapters and taking into account the port's operational context, it is my view that construction noise and visual disturbance can be managed to below significance by timing restrictions, exclusion buffers to known high-tide roosts, and that operational noise is already characteristic of the area and would not introduce a new pressure pathway on SPA features. I consider that predator-perch risk from tall structures can be addressed by incorporating anti-perch features on cranes and lighting columns. This would remove the possible increased predation risk to sensitive bird species. I consider the risk of introducing or spreading invasive species to be low and can be contained through implementing an Invasive Species Management Plan.

16.22.59. Regarding protected mammals, I note otter activity in the surrounding area and the absence of confirmed holts within the site. I consider that the primary risks to protected mammals would be temporary disturbance and incidents affecting water quality during construction. However, subject to the proposed mitigation measures,

including pre-construction surveys and oversight by an ecologist monitoring works, best practice construction and noise reduction measures, surface water protective measures, the implementation of the Port of Cork Environmental Management System, and spill prevention and rapid response procedures, I consider that residual effects on otters would not be significant. Regarding bats, I note recorded activity without roost dependency in port structures. I consider that with the implementation of a lighting strategy with appropriate controls, effects on bat foraging and commuting would not be significant.

16.22.60. I note the proximity of the proposed development to the Monkstown pNHA c. 600m to the west of the site (Site Code: 001979), Lough Beg pNHA, c. 1.2km to the south (001066) and Whitegate Bay pNHA, c. 2km to the east (001084). Given the limited scale and duration of construction activities, the rapid dispersion of suspended sediments in tidal waters, and the implementation of water quality controls and turbidity monitoring, I consider the proposed development would not give rise to adverse effects on these pNHAs and/or others within 15km of the site, as detailed in Section 13.5 above.

16.22.61. I have considered cumulative effects with other permitted or existing projects in the harbour. The receptors of concern are SPA waterbirds and the colony of terns, which are present within the port area. I consider that the proposed development would be an increment in construction activity of the original permitted development within a long-established, busy port. Subject to timing restrictions to avoid peak winter roosting and tern breeding periods where practicable, I consider the proposed development would not create a significant cumulative disturbance pressure. The proposed development would not introduce new nutrient or contaminant sources that would interact with catchment pressures. Controls on water quality, as described in relevant chapters in the EIAR, would protect ecological receptors.

16.22.62. **Conclusion**

16.22.63. Having examined the EIAR and NIS (addressed further below), and taking into consideration the issues raised in the submissions by the local authority, third-party and prescribed bodies, and the applicant's response to these submissions, I conclude that, subject to the implementation of the proposed mitigation measures and appropriate enforceable conditions, the proposed development would not result in

significant adverse effects on terrestrial ecology or ornithology during the construction or operation phases, either alone or in combination with other projects. Residual effects would not be significant with the implementation of these measures.

16.23. Material Assets

16.23.1. Issues Raised

16.23.2. As detailed previously, a third-party submission expressed concerns regarding light pollution from existing port operations impacting Monkstown Village and how the proposed development would exacerbate this. The submission requested that appropriate lighting locations and protocols be put in place to prevent the doubling of illumination.

16.23.3. The submission from An Taisce highlights the likely increase in HGV traffic associated with the proposed development and requests that an up-to-date traffic assessment be carried out to address the potential increase in activity from additional cargo movements, including wind turbine components. An Taisce also raise concerns about the adequacy of the proposed lighting specifications and recommends the provision of environmentally sensitive lighting to minimise light pollution. The Commissioners of Irish Lights' submission emphasises the need to ensure that construction and operation lighting does not interfere with existing navigational aids and that statutory consent be obtained for any changes to these systems. The submission from MARA notes the requirement for ongoing monitoring and eventual rehabilitation of affected maritime areas in accordance with the MAC granted, and that monitoring data should be made publicly available. Transport Infrastructure Ireland raises concerns about the proposals' interface with the road network. It highlights the need to manage port throughput until the M28 and Dunkettle upgrades are completed to avoid overloading existing infrastructure. A condition is recommended that, pending the completion of the N28 and Dunkettle road schemes, throughput at the permitted Ringaskiddy port facility should be limited to 322,846 TEU (Twenty-foot Equivalent Unit, the standard measure for container traffic). A condition is also recommended that Phase 3 of the proposed development (provision of linkspan bridge and use of the berth to accommodate roll-on/roll-off freight traffic) should not become operational until the N28 and Dunkettle road upgrade schemes are completed.

16.23.4. The submission from Cork County Council identifies the need for a detailed CEMP to manage traffic during construction, including the scheduling of deliveries and workforce movements, and measures to prevent dust deposition on public roads. This submission also highlights the requirement for TII to review the junction design connecting the extended facility to the M28, along with information on active travel measures to ensure the safety of vulnerable users in Ringaskiddy Village and improve connectivity between facilities. Conditions are recommended to limit port-related HGV movements (322,846 TEU) and to implement a Ringaskiddy Mobility Management Plan until the completion of the M28 upgrade, which would ensure that the local and national road networks are not overloaded by port traffic.

16.23.5. The applicant responded to the issues raised regarding material assets in the submissions received regarding traffic and road network capacity. The applicant acknowledges the continued compliance with the condition of the previous permission, PA04.PA0035, limiting HGV throughput to 322,846 TEU, and that the Phase 3 link span bridge and berth for roll-on/roll-off services should not be operational until the M28 is completed. Regarding interface with the M28, the applicant states that they do not require access to the area of the M28 subject to CPO and confirms intention to integrate the proposed internal road network with the finalised design/built M28 protected road. In response to traffic management during construction, the applicant states that such matters can be addressed by providing a Construction Management Plan before the commencement of development. The applicant notes that a CEMP was previously agreed with the Council under Condition 10 of ABP Ref PA00035. Addressing lighting, the applicant confirms the commitment given in the EIAR to minimise the impacts of light pollution and undertakes to ensure that any construction lighting or shore-based operational lighting will not interfere with existing aids to navigation. The applicant states that statutory consent would be sought from the Commission of Irish Lights for any changes to or removal of existing Aids to Navigation. Additionally, the applicant confirms that sanctioned turbidity monitoring buoys would be redeployed for the dredging associated with the development, subject to statutory consent from Commissioners of Irish Lights prior to redeployment.

16.23.6. **Methodology**

16.23.7. The EIAR states that the methodology focuses on built services and infrastructure (including roads, electricity, telecommunications, gas, water supply infrastructure, sewerage), roads and traffic, and waste management. The report considers the use of natural resources in the context of material assets (water supply, energy and materials), but notes that they are also considered in the context of other environmental factors, such as soil (Chapter 12 of the EIAR), Marine and Terrestrial Ecology (Chapters 15 and 16) and other chapters of the report. Impacts on Traffic and Transport are addressed in Chapter 8 of the EIAR.

16.23.8. The methodology included a desk study of the existing material assets associated with the application site. The primary source of data used is the Port of Cork Masterplan 2050, which outlines the key port infrastructure, both existing and proposed. The report details the relevant legislation and guidance documents, including the EC 2017 Guidance on the preparation of EIA reports for Projects, Guidelines for Planning Authorities and An Bord Pleanála on carrying out EIA (2018), and the EPA's 2022 EIAR Guidelines. It also notes relevant national circular PL 1/2017 implementing Directive 2014/52/EU.

16.23.9. **Baseline Conditions**

16.23.10. The EIAR describes the existing road network serving the Port lands at Ringaskiddy, where the site is served by the L2545 road, which is a continuation of the N28 National Primary Route through Ringaskiddy village. TII's proposed "M28 Cork to Ringaskiddy Project" will run from the Bloomfield Interchange, near Douglas, to a new roundabout on the eastern side of Ringaskiddy, where permission was granted by An Bord Pleanála in 2018. The proposed M28 road will run in a north-south alignment to the south of the proposed development.

16.23.11. The report states that utility providers with services within or adjacent to the site, including a stormwater sewer, are Uisce Éireann and Cork County Council. The report states that the existing Cork Container Terminal (CCT) was officially opened in 2022, where large Panamax vessels can be accommodated along its 360m long quay, where two Ship-to-Shore (STS) gantry cranes are installed. The linkspan in Ringaskiddy East discharges trade vehicles and houses the Ferry Terminal, where ferry services are provided by Brittany Ferries to Roscoff.

- 16.23.12. The Ringaskiddy Deepwater Berth (DWB) (West) has a total berth length of 485m and a minimum berth draft of 13.4m, where it currently handles fully laden Panamax-size vessels (60,000 tonnes deadweight), primarily for the discharge of animal feed. The DWB also handles other bulk cargoes, including molasses, cement, steel scrap, timber, and other project cargoes.
- 16.23.13. The EIAR states that the current port infrastructure has sufficient operational capacity up to 2029. However, the report notes that a planning condition limits throughput at the Ringaskiddy Port facility to 322,846 TEU (Twenty-foot Equivalent Unit) until the M28 and Dunkettle road scheme is complete. The report details how the proposed land reclamation of c. 6.4 hectares allows for the construction of a second berth to meet future container-related demand and infrastructure upgrades by 2036. The report details that the current total storage area (land occupied) is 18ha at Ringaskiddy East and 9.6ha at Ringaskiddy West.
- 16.23.14. Regarding resource & waste management, the EIAR states that the Port Company owns and operates the waste facilities within the port, including a 23 m³ garbage compactor at Ringaskiddy. All other private and public facilities use mobile bins and skips that are either emptied at landfill sites when full or transferred to port compactors and emptied as required. The report states that all skips and wheelie bins are marked and labelled, the system is publicised, and all parties have access to a Contact Directory and update procedures. 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 and justified. Failure to do so results in detention in the port until the waste is discharged.
- 16.23.15. The report states that it is the responsibility of both the ship and the stevedore/cargo receiver to collect and dispose of all waste accumulated during the loading/discharge of cargo, ensuring that the berths are left in the same condition as they were prior to discharge/loading. The report states that the discharge of oily and hazardous wastes is arranged through specialist companies and requires notification to the Port Company.

16.23.16. **Potential Effects**

- 16.23.17. The EIAR states that in the 'do nothing' scenario, the site would continue its current use in the short term. In the long term, the site is likely to be developed for

industrial port-related use, based on its value within the 2050 Port of Cork Masterplan Framework and the construction of the M28.

16.23.18. The report states that the proposed works would upgrade the built assets at Ringaskiddy CCT2 Quay Structures and the Deepwater Berth (DWB) extension at Ringaskiddy West. At the CCT2 Quay, the Berth 2 wall would comprise a combi-wall involving the installation of tubular and traditional steel piles infilling between the main piles with open-piled and closed structures, possibly used. The container terminal area would be surfaced using concrete slabs and fitted with piled concrete runway beams along the edges of each southern container stack to provide lanes for RTG cranes to operate. The general cargo / RoRo storage area would be surfaced with bituminous surfacing.

16.23.19. The report states that there would be a temporary negative impact during the construction of the CCT2 quay structure as a result of noise from piling, impacts on benthic communities from the dredging of the dredge pocket adjacent to the quay structure and the disposal of dredge material under a Dumping at Sea Permit at an established offshore dump site.

16.23.20. The report states that c. 0.8ha of new land would be created at DWB Ringaskiddy West, and that most of the material from the dredging works would be unsuitable for use in the reclamation works. As such, the report anticipates that suitable fill material would need to be imported from local quarried sources for the required reclamation works.

16.23.21. The report states that storm drainage systems installed within the development areas of CCT2, DWB and the associated road network would collect runoff for discharge into a dedicated storm water drainage system, which would discharge into the harbour waters via a series of silt traps and oil interceptors.

16.23.22. The EIAR states that the proposed lighting for the general working areas would comprise high mast lighting (subject to detailed design), and roadway lighting would comprise standard road lighting columns and lights. Lighting would provide an average lighting level of 20 Lux for roadways, 50-100 Lux for quayside areas and 30-50 Lux for storage and circulation areas. The lighting would be designed to prevent direct glare into surrounding properties and illumination of the night sky. Power supply would connect to the local grid, and water supply would connect to the local mains system.

16.23.23. Palisade fencing would be provided around the entire landward perimeter of the Container Terminal in compliance with the International Ship and Port Facility Security Code (ISPS). Security gates would be provided at the entrance and exit of the main CB/MPB terminal, and CCTV cameras would be installed. All quayside areas would be provided with mooring bollards, ladders and safety chains in accordance with BS6349 Code of Practice for Maritime Structures.

16.23.24. The EIAR states that navigation simulations undertaken by the Port of Cork confirm that the proposed quay can be accessed in a safe and efficient manner. Construction and operational traffic entering and exiting the CCT2 and DWB Extension site would use the N28 and L2545, and the M28 when complete. Traffic management measures would be put in place during the construction phase. The report confirms that the existing N28 has the capacity for the proposed development during the construction phase. The report states that the proposed changes to infrastructure would have a slight negative impact on material assets during the construction phase, due to:

- The disposal and recovery of surplus waste from dredging,
- Piles arising from pile bores,
- Stockpiling and temporary waste storage,
- Increased vehicular traffic within CCT1 and DWB due to construction and dredging works,
- Minor percussive impacts from piling activities,
- Minor, temporary and transient impacts from air, dust and noise.
- Potential minor oil spills during the refuelling of construction vehicles
- Increased water consumption during construction

16.23.25. The report states that typical waste generated by the construction works would include waste oils collected by a waste recycling contractor, other waste collected in skips for disposal by a licensed waste contractor, and sewage emptied under contract for disposal at an appropriate facility. The report states that the construction works for the CCT2 and DWB extension will have a negligible long-term impact on the port's

built assets and utilities, and a significant long-term positive impact on the port's built environment post-construction.

16.23.26. Regarding resource and waste management, the EIAR states that c. 423,217m³ of surplus material would be removed from the site (including material from the road upgrade works and dredging). Off-site disposal options include Dumping at Sea Permits for surplus dredge materials, reuse as a by-product on other sites if appropriate, recovery at suitable waste permit facilities or licensed soil recovery facilities and disposal at suitable authorised waste facilities.

16.23.27. The report states that reusing surplus material on other sites (subject to Article 27 of the Waste Directive Regulations 2011) would have a slight, positive effect on material assets (waste resources) as it diverts surplus clean material from permitted waste facilities. Recovery and disposal of surplus material would have a slight negative effect on waste resources. The report describes how the reuse of a by-product is governed by Article 27, which requires the contractor to notify the EPA of any by-product decisions, accompanied by full documentation, before the commencement of development. The report notes how licensed soil recovery facilities are required to operate under a Waste Licence granted by the EPA under Part V of the Waste Management Act 1996, as amended, and the environmental impact assessment of accepting uncontaminated natural soil and stone would have been assessed as part of any proposed licencing and consent, which required an EIA. The report states that where rock material exported from the site is unsuitable for reuse under Article 27 or recovery, disposal of the material at a landfill may be an option, subject to the material fulfilling specific criteria.

16.23.28. For the operation phase, the report states that the proposed development would intensify activity at the CCT. Any maintenance dredging would be carried out as part of the Port of Cork's regular maintenance dredging programme. The report also notes that the addition of berths and increased container traffic during the operation phase would result in additional waste at the port. The report concludes that the CCT2 and DWB extension would have a negligible impact on the port's built assets and utilities, but a significant positive impact on the port's built environment post-construction.

16.23.29. **Mitigation Measures**

16.23.30. The EIAR sets out a range of mitigation measures to address impacts on Material Assets during the construction and operation phase, which are summarised as follows:

16.23.30.1. Construction Phase

- Stockpiles in the temporary storage area would be minimised, both spatially and temporally.
- Increased vehicular traffic within CCT1 and DWB due to construction/dredging and quay wall construction works would be managed by the implementation of a Traffic Management Plan.
- Dust impacts would be mitigated by dampening as required.
- Spill kits would be made available.
- Imported material would be assessed to prevent contamination from being introduced to the site. Topsoil would be chemically analysed and screened to protect human health.
- Ground penetrating radar (GPR) and test trenching would be used to locate existing utility services.
- Excavated material would be reused where possible, and any off-site transfer would be to authorised facilities only.
- Waste hauliers would be authorised by a waste collection permit, unless exempt from this requirement.
- Waste would only be treated at authorised facilities, and records of all waste movements and associated documentation would be maintained on-site.
- Non-reusable or non-dumpable at-sea waste would be tested to determine whether it is an inert, non-hazardous, or hazardous material, and then sent to suitable authorised waste facilities.
- All waste storage, handling and transport would adhere to best practice guidelines and the Waste Management Act 1996 (as amended).

16.23.30.2. Operation Phase

- A periodic survey/condition assessment of the Port of Cork's assets would be undertaken to assist in managing and maintaining these assets during port operations.
- The Port of Cork's Oil/HNS Spill Contingency Plan, which outlines the measures to be undertaken in the event of an oil spill or spillage of Hazardous Noxious Substances, would effectively deal with any operational incidents.
- The Port of Cork's Waste Management Plan outlines measures necessary to manage waste generated by shipping, which are reviewed on an ongoing basis.

16.23.31. **Monitoring**

16.23.32. The report states that during construction, the Contractor would record any damage or dereliction observed to existing port material assets due to construction activities. A survey/condition assessment of material assets would be undertaken at the start of the project to assist in the management of assets during construction. It would be maintained for the duration of the programme. The Contractor would maintain a record of all movement, treatment, and transfer of C&D waste, subject to a documented tracking system that can be verified and validated. During operations, the Port of Cork Company would adhere to the requirements of the Ringaskiddy Port Waste Management Plan.

16.23.33. **Residual and Cumulative Impacts**

16.23.34. The EIAR states that the residual impacts associated with built assets, utilities and waste, subject to the implementation of the mitigation measures, would be imperceptible during both the construction and operation phases.

16.23.35. The report states that there would be no cumulative impacts on built assets or utilities during the construction and operation phases. The report notes the potential for a cumulative impact due to dredging material being placed at the Dumping at Sea site, which could conflict with the Dumping at Sea permit for the Ballycotton Harbour Dredging. However, the report states that the dredging campaign for Ringaskiddy would be carefully managed and monitored to ensure the potential for cumulative impacts is minimised in accordance with the Dumping at Sea permit.

16.23.36. **Assessment**

16.23.37. I have examined and evaluated Chapter 17 of the EIAR and all associated documentation, including the issues raised in the submissions received regarding Material Assets and the applicants' response to these issues. It is my view that the scope and methodology employed in the EIAR accords with the EPA EIAR Guidelines 2022 and the DHPLG EIA Guidelines 2018, and that the evidence is sufficient to assess effects on material assets.

16.23.38. I consider that the main direct effect would be the additional traffic on the N28 and local roads during the construction and operation phases. While this effect is likely to occur, I consider that it can be controlled and managed through a Construction Traffic Management Plan, which includes provisions for delivery scheduling, workforce travel plans, and strict adherence to the existing throughput cap of 322,846 TEU, pending the completion of the M28. I consider that roll-on roll-off operations should remain contingent on the M28 being operational. The implementation of the Ringaskiddy Mobility Management Plan until the completion of the M28 would ensure that the local and national road networks are not overloaded by port traffic. With the implementation of these control and mitigation measures, the risk of material congestion or network overload would be significantly reduced.

16.23.39. I have considered the impact of lighting, as raised in submissions, and the need to avoid interference with aids to navigation. I consider that this issue can be addressed by imposing a condition that requires full-cut-off luminaires, adaptive dimming, and directional control, along with measures to minimise blue-light emissions, which would prevent glare and sky glow at Monkstown and along the shoreline. Consent and agreement with the Commissioners of Irish Lights would be required for any changes to navigational aids. It is my view that with the implementation of a Lighting Management Plan, agreed with by the Planning Authority, significant effects on amenity or navigation would not occur.

16.23.40. Having reviewed the documentation on file, I consider the capacity of utilities and drainage adequate. Stormwater would be collected in a dedicated stormwater drainage system and discharged to Cork Harbour waters via a series of oil interceptors. As such, there would be no impact on the local wastewater infrastructure

from the stormwater drainage. Residual effects on built services would not be significant.

16.23.41. Regarding resource use and waste, the construction of the proposed development would generate dredged and construction and demolition (C&D) waste. The disposal of dredge material would be undertaken at an established offshore dump site, subject to a Dumping at Sea Permit. Other off-site disposal options for surplus clean and inert excavated material would include recovery at suitable licensed waste permit facilities or licensed soil recovery facilities. Implementing the existing Port of Cork Waste Management Plan would ensure the management of sustainable waste and environmental protection in accordance with national and EU regulations. Port waste systems for vessels are already in place and would be scaled accordingly. On this basis, I consider that the effects of waste and resource use would not be significant.

16.23.42. **Conclusion**

16.23.43. I have considered the cumulative effects of the proposed development with existing port operations and permitted projects in the surrounding area. It is my view that, subject to the implementation of the proposed mitigation measures and conditions, maintaining the throughput cap and implementing the Mobility Management Plan, significant adverse effects on materials assets would not occur during the construction and operation phases of the proposed development.

16.24. **Interactions and Cumulative Effects**

16.24.1. **Issues Raised**

16.24.2. As detailed above, a third-party submission expressed concerns regarding the impact of light and noise pollution from current activities at the Port at Monkstown Village, and that the proposed development would exacerbate these issues. Pfizer Pharmaceuticals raised concerns regarding repeated incidents of dust deposition from existing operations in their adjacent facility, and that the cumulative impact of these existing practices and the proposed development would further increase risks, operating costs, and nuisance.

- 16.24.3. An Taisce submit that a cumulative impact assessment is required for the application due to a sewage discharge point, waste facility and wastewater treatment catchment area in the vicinity of the proposed development and the implications for potential contamination of the seabed material to be dredged in combination with potential agricultural runoff upstream in the wider catchment area and the nutrient enrichment this may entail.
- 16.24.4. The submission from Cork County Council raised the lack of alignment between the various chapters of the EIAR, which should be reflected and cross-referenced in each chapter. In particular, the findings of the Noise, Air, Water Environment, and Coastal Processes Chapters of the EIAR should be used to inform the assessments of the Terrestrial Ecology and Ornithology Chapter of the EIAR, as well as the AA Screening and NIS. The submission also states that Chapter 18 of the EIAR - Interactions & Cumulative Effects would benefit from a dedicated section on mitigation measures and a conclusion, as it is difficult to follow the assessment results.
- 16.24.5. The applicant responded to the issues raised in the submissions received regarding interactions and cumulative effects. The applicant states that cumulative impacts are considered in Chapter 18 of the EIAR, pages 450-466, and that the assessment has been carried out in accordance with EU Guidance on Article 6(3) and (4) of the Habitats Directive (2021/C 437/01). The applicant states that cumulative impacts are addressed, where relevant, at the end of each chapter of the EIAR, along with the associated proposed mitigation measures. The applicant submits that no significant cumulative impacts have been identified.
- 16.24.6. Regarding cumulative impact on water quality, the applicant states that the potential for cumulative impacts from the sewage discharge point, waste facility, and wastewater treatment plant was considered but ruled out on the basis that emission limit values are specified in their consent licence, ensuring no significant impact on the receiving waters. The applicant notes that Cork Harbour is currently failing to achieve its water quality objective of good ecological potential due to dissolved inorganic nitrogen levels (DIN), chemical pollution and the conservation status of Cork Harbour SPA. However, the applicant states that port activities are not identified as a source of DIN pressures, with DIN pressures in the Harbour mainly due to wastewater discharges and urban run-off.

16.24.7. Addressing Cork County Council's observations on cross-chapter consistency, the applicant submits that all EIAR chapters have a common format. However, as they are prepared by separate specialists, they may vary slightly in approach.

16.24.8. **Interactions between Environmental Aspects**

16.24.9. Chapter 18 of the EIAR addresses the interactions between environmental factors as required by the EIA Directive (2014/52/EU). The report assesses the interactions as positive, negative, or neutral and indicates that the design of the proposed development was adjusted during its design to mitigate potential adverse interactions.

16.24.10. Table 18-1 of the chapter identifies interactions between environmental aspects and marks these with a 'Y'. The report states that interactions between population and human health, as well as other elements such as landscape and visual impact, traffic and transportation, noise and vibration, and air quality, are either minimised through design (e.g., landscape design) or are considered neutral and imperceptible, with the probability of effects being unlikely. The report states that noise and vibration impacts could potentially affect the local population during the construction and operation phases. However, given the urban/industrial nature of the site and the proposed mitigation measures, the impacts would be similar to the current baseline environment. Similarly, the report considers the increase in traffic volumes unlikely to result in perceptible changes in noise or air quality levels or significant effects on human health.

16.24.11. The report indicates that coastal processes could interact with cultural heritage, e.g. dredging and marine archaeology in Cork Harbour. However, the report states that the assessment concluded that there would be no likely impacts as a result of the proposed works. The report further notes that interactions between traffic and noise, air quality, and material assets would be neutral and imperceptible, with the probability of effects unlikely or mitigated effectively.

16.24.12. The EIAR states that increases in noise and vibration during the construction phase have the potential to impact fauna, in particular birds, in the vicinity of the proposed works. However, subject to the implementation of the proposed mitigation measures, no significant impacts would occur. The report notes that possible interactions between air quality and soils, particularly the spread of dust and mud onto surrounding land uses and public roads. However, the air quality assessment found

that there would be no significant impact. Potential interactions between climate and coastal processes, such as rising water levels due to increased frequency of 1:1000 AEP events, are considered low in likelihood.

16.24.13. The EIAR notes that soils and hydrogeology may interact with the water and marine environments due to significant earthworks. However, the report considers that no significant impacts are predicted, subject to the implementation of the proposed mitigation measures. Similarly, the report finds that coastal processes would not significantly impact water quality, marine ecology, or flood risk. Predicted flood levels have been incorporated into the design, and implementing appropriate mitigation measures would prevent a significant impact on the factors.

16.24.14. The report acknowledges possible interactions between water quality and marine ecology, terrestrial ecology, and ornithology due to disruptions in water chemistry or sediment levels and changes/reductions in water quality. However, subject to the implementation of the proposed mitigation measures, no significant impacts would occur.

16.24.15. **Cumulative Effects**

16.24.16. The EIAR assesses cumulative effects by considering past, present, and reasonably foreseeable developments within 1km of the site. The report states that cumulative impacts were examined, taking into consideration granted planning permissions, development objectives in the Cork County Development Plan 2022–2028, and data sources, including the Cork County Council ePlan database. Details are provided in Table 18-2 of the cumulative effects of the known plans/projects, including their planning reference number, overview of the development, date of approval, potential effects, predicted significance of effect, and a summary of potential in-combination effects. The report determines that there is no potential for cumulative effects with the proposed development for each development.

16.24.17. The EIAR details that eight Integrated Pollution Prevention Control (IPPC) licences are near the port and two licensed surface water discharges into the harbour. All are regulated by the EPA or Cork County Council, with emission limits specified in their consent license to protect water quality. The report predicts that there would be no significant cumulative adverse effects on the water environment.

- 16.24.18. Regarding nutrient inputs, the report notes that Cork Harbour has elevated dissolved inorganic nitrogen (DIN) levels above environmental quality standards (EQS) from diffuse and wastewater sources. However, the proposed development would be serviced by the Cork Lower Harbour Main Drainage Scheme or, in the event that it is not complete, a dedicated wastewater treatment system, preventing any cumulative adverse impacts on nutrient conditions in the Harbour.
- 16.24.19. Regarding road drainage, the report details how drainage from new and upgraded road infrastructure would discharge into the harbour, but would incorporate highway-grade petrol/oil interceptors before discharging into the harbour waters. The report states that this would represent an improvement over the existing situation and, therefore, have a positive impact on water quality.
- 16.24.20. Regarding port maintenance dredging, the EIAR states that the proposed development would not change Cork Harbour's existing maintenance dredging requirements. The report notes that the Habitats Directive Screening Statement for maintenance dredging concluded that the current maintenance dredging regime would not have a significant impact on water quality. Therefore, the report determines that no significant cumulative water quality impacts are predicted from maintenance dredging.
- 16.24.21. The EIAR identifies potential construction phase overlap between the proposed development and the following projects: the construction of the Premier Molasses tank farm on a neighbouring property and the dredging and disposal of Ballycotton Harbour at the offshore dump site. No significant cumulative effects are identified from these overlaps.
- 16.24.22. The EIAR also considers interactions with known strategic plans, including the M28 Cork to Ringaskiddy Project and Ringaskiddy Urban Realm & Active Travel Scheme. The report describes how the M28 Cork to Ringaskiddy Project, approved by An Bord Pleanála in June 2018, upgrades c. 12.5km of the N28 National Primary Route from the N40 South Ring Road, at Bloomfield Interchange, to Ringaskiddy, Co. Cork. The report determines that the project is likely to interact with the port redevelopment, resulting in slight negative short-term effects during construction. However, the report considers that the implementation of the project would have

significant, long-term positive impacts locally and nationally. A Traffic Management Plan would be put in place to mitigate impacts.

16.24.23. The report describes how the Ringaskiddy Urban Realm & Active Travel Scheme would enhance the village of Ringaskiddy and provide an active travel route along the existing N28, from the existing Port of Cork entrance to the car park at Gobby Beach. The report determines that the project may have slight short-term cumulative effects during construction. However, the project would have significant, long-term positive impacts locally. The implementation of a Traffic Management Plan would mitigate impacts.

16.24.24. **Assessment**

16.24.25. I have evaluated Chapter 18 of the EIAR, all associated documentation, the issues raised in the submissions received regarding Interactions and Cumulative Effects, and the applicant's response to the issues raised. I have also cross-checked the linkages in the EIAR topic chapters and the proposed mitigation measures. It is my view that the EIAR has adequately addressed the interaction and cumulative effects of the proposed development with other existing permitted projects in accordance with the requirements of the EIA Directive 2014/52/EU and the EPA EIAR Guidelines 2022. Chapter 20 of the EIAR provides a comprehensive schedule of environmental commitments for each of the environmental topics in the EIAR.

16.24.26. For the construction phase, I consider the principal interactions arising from the proposed development would be between dredging and water quality, underwater noise and marine mammals, construction noise and birds, and traffic-related dust and human health. While these effects would likely occur, I consider that they would be short-term and spatially confined, subject to the implementation of a CEMP that ensures no overspill from hoppers dredging, real-time turbidity triggers, compliance with BS 5228 standards, restricted hours, haul-route management, low-emission plant, and an agreed-upon lighting plan. With the implementation of these controls, I consider there would be no exceedance at sensitive receptors and no deterioration in WFD status, as addressed in detail further in the WFD assessment below.

16.24.27. Regarding underwater noise, I consider that the proposed mitigation measures, including a pre-construction acoustic assessment, soft-start piling, MMO and PAM oversight, and effective noise-reduction measures such as bubble curtains or

equivalent technologies, would reduce the risk of PTS or TTS to a very low probability and prevent significant adverse effects on Annex II and Annex IV species.

16.24.28. Regarding concrete works and fuel, I consider that controlled underwater concreting, bunded storage, interceptors, and a pollution incident response plan would break source-pathway-receptor linkages. Such measures would prevent significant effects on water quality.

16.24.29. During the operation phase, I consider that the combined effects of traffic, operational plant, and shipping on air and noise would be within statutory standards at the nearest receptors based on the modelled outcomes and the operational noise limits imposed by Condition. A shielded and dimmable lighting strategy with curfew and spill control would prevent interaction risks to roosting and foraging birds, and address concerns regarding light pollution. Interactions between stormwater and water quality are addressed by engineered drainage to hardstanding, three-stage oil interception, upgraded outfalls, and a water quality sampling and maintenance programme. According to Uisce Éireann, the Cork Lower Harbour Main Drainage Project is now complete, and wastewater from the agglomerations of Ringaskiddy, Crosshaven, Carrigaline, Ringaskiddy village, Passage, Monkstown, and Cobh town no longer discharges untreated into Cork Harbour. Accordingly, the proposed development would be fully treated by this wastewater drainage scheme, thereby avoiding any cumulative adverse effects on nutrient conditions within the harbour. Marine operations adhere to MARPOL standards with bilge treatment, offshore de-ballasting, and prohibition of discharges to harbour waters. I consider these measures sufficient to prevent any significant effect on the Port of Cork's ecological or chemical water status.

16.24.30. I have considered the cumulative effects of the proposed development with existing and approved projects in the area. During the construction overlap with other works, I consider there is potential for a combined, overlapping effect of construction traffic and increased turbidity in the water, potentially compounding the effects on receptors such as residents who may experience noise, vibration, or dust from heavy construction traffic, and marine receptors exposed to suspended sediments from dredging. While such overlapping effects could occur, I consider them to be temporary and not significant, subject to mitigation measures, including real-time plume control, scheduling, and traffic management. During the operation phase, the throughput cap,

pending completion of the M28 and implementation of a Mobility Management Plan, would prevent overloading of the local and national networks. I note that discharges by other EPA-licensed industrial facilities near the port are regulated with emission limit values, and the existing maintenance dredging in the port is regulated through its own permit. In my view, the proposed development would not significantly increase nutrient loading or pollution, and therefore, no significant additive or combined effects with other discharges would occur. I note the issue raised in the submission from Pfizer Pharmaceuticals regarding bulk-related dust and consider that this issue can be dealt with by way of an enforceable condition requiring bulk handling controls, monitored deposition, and a complaints response, which would prevent cumulative effects.

16.24.31. Conclusion

16.24.32. Having examined the EIAR, associated documentation and taken into consideration the issues raised in the submissions, and the proposed mitigation measures for each environmental topic, I conclude that the proposed development would not give rise to likely significant adverse interaction effects or cumulative effects on the environment. Subject to the implementation of the proposed mitigation measure, residual effects would not be significant in extent or duration.

16.25. Major Accidents and Disasters

16.25.1. Issues Raised

16.25.2. No specific issues or concerns relating to major accidents and disasters regarding the proposed development were raised in the submissions and observations received.

16.25.3. Methodology

16.25.4. The EIAR assessment methodology for major accidents and disasters references and details relevant legislation, including Articles 3, 4, 8 and Annex IV of the EIA Directive, Directive 2012/18/EU, the EPA Guidelines (2022) and the Seveso Regulations. The report also references relevant local policy and guideline documents, including the Cork Major Emergency Management and Major Emergency Plan, which outlines coordinated responses to emergencies such as fires, explosions, gas

releases, transportation accidents, spillages of dangerous substances and severe weather events.

16.25.5. The EIAR provides details of the Port of Cork Company's Emergency Plan, which addresses marine and land-based emergencies. Marine emergencies could include vessel collisions, fires, grounding of vehicles, or major oil spills. Land-based emergencies could include major fires, hazardous material spills, or emergencies at Seveso sites. The report states that the plan aligns with the national Framework for Major Emergency Management (2006) and contains action checklists. Incident site coordination is initially handled by the Terminal Operations Manager or Terminal Supervisor until emergency services arrive, at which point they take control.

16.25.6. The EIAR states that the risk of major accidents and/or disasters takes into consideration all factors defined in the EIA Directive that have been considered in the EIAR, including human health, biodiversity, water, soil, air, climate, material assets, cultural heritage and the landscape. The report notes that risks such as potential contamination of soils, groundwater, and surface water, as well as flooding events, have already been addressed in the relevant environmental topic chapters (e.g., Water, Soils, Biodiversity). The methodology used is risk analysis-based, which covers the identification, likelihood and consequence of major accidents and/or disasters. The report references the DoEHLG Guidance Document on Risk Assessment in Major Emergency Management (2010), which provides guidance on the assessment methodology.

16.25.7. The risk assessment methodology follows the four-stage process outlined in the DoEHLG 2010 Guidelines. This includes (i) establishing the context by describing the characteristics of the area, (ii) identifying potential hazards, (iii) assessing each hazard for potential consequences and likelihood, and (iv) plotting each hazard on a risk matrix (evaluating risk). Table 19-1 details how Risk Likelihood is ranked, ranging from extremely unlikely (once every 500 years or more) to very likely (more than once per year). Table 19-2 details how Risk Consequence levels range from minor (e.g., minor injuries, localised effects < €0.5M) to catastrophic (e.g., >50 fatalities, very heavy contamination, widespread effects > €25M).

16.25.8. The report details how Stage 4 involves plotting hazards on a risk matrix, using the likelihood and consequence scores to establish a risk score. The risk matrix is

colour-coded, with red representing high-risk scenarios, amber indicating medium-risk scenarios, and green representing low-risk scenarios.

16.25.9. Baseline Conditions

16.25.10. The EIAR describes the baseline environment as including the Cork Container Terminal (CCT), which opened in September 2022, and the Deepwater Berth (DWB) at Ringaskiddy West. The CCT accommodates large Panamax vessels at its 360m quay, which is equipped with two Ship-to-Shore (STS) gantry cranes. The linkspan at Ringaskiddy East discharges trade vehicles where the ferry terminal for Brittany Ferries to Roscoff is located. The report states that the existing infrastructure provides the port with sufficient operational capacity until 2029.

16.25.11. The EIAR states that the DWB currently facilitates the importation of wind turbine components, which include some of the longest blades imported into Ireland. The ADM jetty is used to import green liquid bulks, such as hydrotreated vegetable oil (HVO). The report indicates that the DWB can facilitate vessels associated with the offshore renewable energy (ORE) sector, and the ADM jetty at Ringaskiddy West could be widened to provide an additional hammerhead berth to accommodate future ORE project cargoes.

16.25.12. Tables 19.3 and 19.4 present a risk register for the construction and operation phases, respectively, identifying potential risks, their possible causes, potential impacts, and mitigation measures. Table 19.3 identifies potential construction phase risks, including flooding, vehicle collisions, falls from height, and structural collapse. Table 19.4 identifies operation phase risks, including flooding, vehicle collisions, crushing incidents by containers/machinery, and chemical explosion or contamination of soils. Table 19-5: identifies Risk Scores with ratings for likelihood and consequence. Table 19-6 details the Risk Matrix applied with Likelihood Rating ranging from Very likely (5) to Extremely Unlikely (1) and Consequence Ratings ranging from Minor (1) to Catastrophic (5). 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. The risk scores assigned in Table 19-5 include:
Construction Phase: Flooding (3), Vehicle Collision (10), Fall from Height (8)

Operation Phase: Flooding (3), Vehicle Collision (10), Crushing by container/machinery (10), Chemical Explosion/Fire (12), Environmental Incidents (12).

The report submits that these scores reflect the potential severity and likelihood of residual major accidents and disasters associated with the proposed development.

16.25.13. The EIAR notes that the design of the proposed development has evolved through design iterations to avoid or reduce environmental impacts where practicable while still ensuring the project's objectives are achieved. The report states that the design of the proposed scheme has been developed in compliance with relevant design standards, which include provisions to reduce the likelihood of risk events occurring (e.g., structural collapse, adverse weather events).

16.25.14. **Mitigation Measures and Monitoring**

16.25.15. As detailed in Section 19.6 of the report and Table 20-2: Schedule of Environmental Commitments – Mitigation Measures (Construction and Operational Phases), the proposed mitigation and monitoring measures include:

- Safety in design criteria are applied to design and build.
- Implementing the Emergency Response Plan, which contains detailed plans for responding to emergencies, including fires and severe weather events.
- The site operations would be designed and operated in accordance with the best international current practice and with appropriate health and safety checks in place.
- Updated Fire Risk Assessment (FRA) to be carried out, and monitoring put in place.
- Existing flood defences and stormwater drainage would be maintained.
- Adherence to international best practice in design and operation
- Staff training and risk controls would be put in place.

16.25.16. Table 19.7 in the report lists six Seveso III Upper Tier and Lower Tier sites in the vicinity of Ringaskiddy Port. These include Marinochem Ltd at Marino Pont, Cobh, Co. Cork (upper tier), Novartis Ringaskiddy Ltd. at Ringaskiddy, Co. Cork (upper tier), Pfizer Ireland Pharmaceuticals at Ringaskiddy, Co. Cork (upper tier),

SmithKlineBeecham Cork Ltd at Currabinny, Carrigaline, Co. Cork (upper tier), Hovione Ltd at Loughbeg, Ringaskiddy, Co. Cork (lower tier) and Carbon Chemical Group at Raheens Industrial Estate, Ringaskiddy, Co. Cork (lower tier). The report submits that Ringaskiddy Port is not a Seveso III site and is sufficiently distant from the listed sites to rule out the likelihood of cumulative impact.

16.25.17. Residual Effects

16.25.18. The EIAR states that no incidents, major accidents, or disaster risk events have been identified that present a sufficient combination of risk and consequence to result in significant residual environmental impacts. The report confirms that no significant residual impacts have been identified during the construction or operation phases of the proposed development.

16.25.19. Cumulative Effects

16.25.20. The EIAR states that no incidents, major accidents, or disaster risk events have been identified that would give rise to significant cumulative environmental impacts.

16.25.21. Assessment

16.25.22. I have examined Chapter 19 of the EIAR, all associated documentation, and the submissions received regarding Major Accidents and Disasters. It is my view that the methodology accords with the EPA 2022 guidelines, and the information provided is adequate for environmental impact assessment.

16.25.23. I consider that the principal hazards during the construction phase would be the risk of flooding, major spills during marine works, incidents during lifting or piling, and traffic collisions. It is my view that while these events are possible, the implementation of the proposed mitigation measures, including a comprehensive CEMP that embeds task risk assessments, exclusion and no-go zones, certified lifting plans, spill prevention and response, and isolation of storm drainage, would prevent risks of major accidents and disasters.

16.25.24. For the operation phase, I consider the principal accident scenarios would be loss of containment of fuels or chemicals to surface water, container or plant crush events, fire in stored materials, vessel collision within the port, and coastal flooding.

The proposed development does not introduce any new hazardous inventory and does not reduce separation distances from Seveso sites, as detailed in Table 19.7. The layout of the proposed development provides bunded storage, three-stage interceptors and sediment traps, and a dedicated storm water drainage system. The Port Emergency Plan outlines clear commands and escalation procedures to address both marine and land-based emergencies. Harbour master controls, pilotage, and validated navigation simulations address vessel risk. In my view, these measures reduce the likelihood to low and limit consequences within the port terminal. I consider that off-site pollution, deterioration of water status, or material effects on European sites would not occur.

16.25.25. I have considered climate-driven hazards. Finished levels, increased drainage capacity, additional outfalls, and flap valves to prevent surcharging of the stormwater network during high tides, along with a commitment to maintain existing flood defences and stormwater drainage, address extreme water levels. I consider that storm or surge conditions do not materially alter the risk profile, subject to the implementation of the proposed mitigation measures.

16.25.26. I have considered cumulative accident risk with adjacent Seveso sites, permitted port operations, and other relevant development in the area. Emergency planning has already been implemented at the port and at the county level. The proposed development would not increase hazardous inventories or create new knock-on pathways.

16.25.27. **Conclusion**

16.25.28. Having examined the EIAR, associated documentation, and the existing emergency plans governing the Port of Cork, I conclude that the proposed development would not result in significant adverse effects on the environment due to major accidents or disasters, subject to the implementation of the proposed mitigation measures.

16.26. **Reasoned Conclusion on the Significant Effects**

16.26.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the

developer, together with the submissions received from the planning authority, prescribed bodies and third parties, it is considered that the main significant direct and indirect effects of the proposed development on the environment, with the implementation of proposed mitigation measures, are:

- **Population and Human Health:** Temporary disruptions during the construction phase, associated with noise, dust, and traffic, would be effectively mitigated through the implementation of the Construction and Environmental Management Plan (CEMP), including noise limits and dust control measures. No significant residual effects on human health or residential amenity would occur. The proposed development would generate c. 849 direct jobs and c. 1,473 FTE direct and indirect multiplier jobs during the construction phase and c. 600 FTE jobs between the Port of Cork and wider service providers during the operation phase.
- **Biodiversity (Marine and Terrestrial):** Potential impacts on marine mammals, fish, and benthic habitats from piling, dredging, and reclamation activities would be mitigated through the implementation of the Underwater Noise and Marine Mammal Mitigation Plan, including timing restrictions outside periods of peak ecological sensitivity, and real-time turbidity and water quality monitoring. Potential impacts on SPA waterbirds, local tern, bats, birds and terrestrial mammals/species using the port from pollution, habitat degradation, lighting, noise, vibration and visual disturbance would be mitigated through the implementation of specific provisions in a CEMP, oversight by an ecologist, timing restrictions, anti-perch features and a lighting strategy with appropriate controls. With the implementation of these mitigation measures, no significant residual effects on ecological receptors would occur.
- **Water Environment:** Risks to surface and marine water quality during the construction phase, including sediment mobilisation and accidental releases of fuel or chemicals, would be controlled through best-practice sediment and pollution control measures, bunded storage, and a Dredging and Disposal Management Plan. With the implementation of the proposed mitigation measures, the residual effects on water quality would be negligible.
- **Air Quality and Climate:** Dust and Emissions generated during the construction and operation phases would be minimised through an approved Dust and

Emissions Management Plan and continuous air quality monitoring. The operation phase of the proposed development would have no material increase in greenhouse gas emissions compared to the existing permitted use. The proposal would facilitate the importation of ORE components and other project cargoes associated with the land-based wind energy sector, significantly reducing greenhouse gas emissions and contributing to Ireland's renewable energy targets under the current CAP 2025.

- **Noise and Vibration:** Temporary noise and vibration during the construction phase would be controlled through restricted working hours, real-time monitoring and noise abatement measures. Noise during the operation phase would remain within specified noise limits. No significant residual noise or vibration effects would occur.
- **Landscape and Visual Impact:** The proposed development would occur within an established port setting where port infrastructure, tall cranes, operative machinery, and extensive surfaces used for storing stacked containers are established components of the landscape. The visual impact of the proposed development would be limited and consistent with the existing context. No significant residual impacts on the landscape or visual amenities would occur.
- **Cultural Heritage:** Archaeological monitoring, combined with the implementation of an approved Underwater Archaeological Impact Assessment and Method Statement, would ensure that any finds are properly recorded and preserved. No residual impacts on cultural heritage would occur.
- **Material Assets, Traffic and Transportation:** Traffic impacts would be mitigated through the implementation of the approved Construction Traffic and Logistics Management Plan and the Ringaskiddy Mobility Management Plan. No residual transport impacts would occur.

16.26.2. Having regard to the above, I am satisfied that the proposed development, subject to the implementation of the proposed mitigation measures set out in the Environmental Impact Assessment Report, and subject to compliance with the conditions set out below, would not result in any unacceptable direct or indirect effects on the environment, either by itself or in-combination with other plans and projects in the vicinity.

17.0 Appropriate Assessment

17.1. Introduction

17.1.1. The EU Habitats Directive (92/43/EEC) provides legal protection for habitats and species of European importance by establishing a network of designated conservation areas collectively referred to as Natura 2000 (or 'European') sites. Matters relating to the likely significant effects on a European site are considered in this section of the report under the following headings:

- Compliance with Article 6(3) of the EU Habitats Directive.
- The Natura Impact Statement.
- Screening the need for Appropriate Assessment.
- Appropriate Assessment.

17.1.2. Compliance with Articles 6(3) of the EU Habitats Directive:

17.1.3. The Habitats Directive deals with the Conservation of Natural Habitats, Wild Fauna, and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

17.1.4. The proposed development is not directly connected with or necessary to the management of a European site. The Commission will note that a Natura Impact Statement (NIS) was submitted as part of the documentation for permission for the proposed development to assess the likely or possible significant effects, if any, arising from the proposed development on any European site.

17.1.5. In accordance with these requirements, the Commission, as the competent authority, prior to granting consent, must be satisfied that the proposal, individually or in combination with other plans or projects, is either not likely to have a significant effect

on any European Site or adversely affect the integrity of such a site, in view of the site(s) conservation objectives.

17.1.6. Guidance on Appropriate Assessment is provided by the EU and the NPWS in the following documents:

- Assessment of plans and projects significantly affecting Natura 2000 sites – methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC, 2001).
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DoEHLG), 2009.

17.1.7. Both documents provide guidance on Screening for Appropriate Assessment and the process of Appropriate Assessment itself.

17.1.8. **Natura Impact Statement**

17.1.9. The application is accompanied by an Appropriate Assessment Screening Report and Natura Impact Statement (NIS, dated 29th January 2025), which examined the potential impacts of the proposed development on the following European Sites:

- Cork Harbour SPA (Site Code: 004030)
- Great Island Channel (Site Code: 001058)

17.1.10. The NIS identifies and describes the potential impacts of the proposed development on these European sites in view of their conservation objectives and provides information to enable the Commission to carry out an Appropriate Assessment. The report considers both direct and indirect effects during the construction and operation phases, particularly in relation to noise, disturbance, sedimentation, and potential deterioration of water quality.

17.1.11. The NIS outlines the proposed development activities, including the completion of the remaining phases of a 200m container berth at Ringaskiddy East, a 182m extension to the existing Deepwater Berth at Ringaskiddy West, dredging of the seabed to -13.0 m CD, installation of a link-span and container handling cranes, lighting and associated ancillary works.

17.1.12. The NIS details the assessment methodology used to determine potential impacts on the qualifying interests of the designated sites and includes an assessment

of cumulative and in-combination effects with other relevant plans and projects within Cork Harbour.

17.1.13. The NIS includes a range of mitigation measures designed to avoid or reduce the risk of significant effects on the European sites, particularly during the construction phase. These include general mitigation measures and specific mitigation measures relating to surface water protection, noise and vibration, bird protection, and the spread of alien species.

17.1.14. Having reviewed the NIS and accompanying documentation, I am satisfied that it provides sufficient detail regarding the receiving environment, identifies the potential for significant effects on qualifying interests, and sets out appropriate mitigation measures. While I note an erroneous reference in s. 12.2.1 of the NIS to prevent discharges to the River Shannon and Abbey River, neither of which is located near the site, I consider that this does not undermine the overall adequacy of the NIS. I am generally satisfied that the NIS is based on the best scientific knowledge and is adequate to inform the Commission's Appropriate Assessment of the proposed development.

17.2. Consultations and Observations

17.2.1. In the course of the assessment of the proposed development, the following consultations and third-party submissions were considered as they relate to Appropriate Assessment:

17.2.2. Planning Authority

17.2.3. The submission from Cork County Council, as the coastal authority, includes internal reports from its Ecology Section, Area Engineer, Sustainable Travel Unit, Environment Section, Archaeology Unit, Coastal Management Unit (CMU), Waste Regulations Section, and the Cork National Roads Design Office (NRDO). The Council acknowledges that the proposed development would be located adjacent to and hydrologically connected with designated European sites, notably the Cork Harbour SPA and Great Island Channel SAC. While general mitigation measures proposed in the EIAR and NIS are welcomed, concerns are raised in relation to deficiencies in the impact assessment of the proposed development on Natura 2000 sites.

17.2.4. Regarding the Natura Impact Statement (NIS) submitted, the Planning Authority report refers to the Council's Ecology Section report, which considers that the Natura Impact Statement's assessment of impacts on terrestrial and marine ecology, including breeding birds and protected habitats and species, is limited in extent. As summarised in Section 11.1 above, the Ecology Section considers that the NIS does not adequately consider all potential effects on the qualifying interests of the relevant European sites and recommends that An Coimisiún Pleanála seek further information regarding the NIS and EIAR to make an informed decision. The report recommends a further detailed assessment of dredging and piling impacts on intertidal and subtidal habitats, including:

- The direct loss of intertidal and subtidal habitats within the footprint of the site and potential impacts on the feeding success of wintering waterbirds caused by the direct loss of intertidal habitats.
- Significant water pollution risks, with the consequent potential for impacts on habitats and species, caused by construction-related activities and dredging.
- Noise-related disturbance to marine mammals and fish.
- Disturbance to birds at high-tide roosting areas and intertidal areas adjacent to dredge sites and proposed development, with particular regard to a Common Tern breeding site within the development zone and a Cormorant nighttime roost in fringing woodland adjacent to the development site.

17.2.5. The Ecology Report also recommends that consideration should be given to:

- Potential impacts associated with the disposal of dredged material on the environment and European Sites, as appropriate.
- The EIAR and NIS should include a detailed assessment of the predicted noise and vibration impact on relevant ecological receptors, including known roosting and foraging locations of species of conservation interest within the Cork Harbour SPA, breeding birds, and land mammals, such as the otter.
- Noting the proximity of the site to important roosting and feeding sites, primarily to the west in the areas of the ADM jetty, the training wall at the entrance to Monkstown Creek and within the creek itself, the Applicant should submit details of all important roosting and feeding locations and an updated assessment of the

predicted impacts of the proposed development on these sites and associated relevant species.

- The applicant should submit an assessment of the potential impact of the proposed development on the colony of terns present within the port area. This should include the results of implementing the Common Tern Nesting Habitat Improvements, as well as any necessary mitigation measures required to protect Common Terns from disturbance and other impacts associated with the proposed development.
- The impact assessment on wetland birds and terns should take account of all predicted sources of impact, including those associated with habitat loss, disturbance (including impacts associated with noise, lighting and visual disturbance cues), impacts associated with water pollution risks, and impacts associated with the installation of additional perch opportunities for predators arising from the construction of tall structures (quayside cranes and lighting columns) within the port area.
- A review and completion of the cumulative impacts in the Natura Impact Statement.
- Submit details of the location of the contractor's compound.
- Alignment between the EIAR and NIS chapters, with a need for greater cross-referencing, particularly between ecology, air, noise, water, and coastal processes.

17.2.6. The Ecology Section concludes that the proposed mitigation measures are not sufficiently tailored to the impact assessments and that the NIS does not adequately consider all potential effects on the qualifying interests of the relevant European sites. As such, the Ecology Section recommends that An Coimisiún Pleanála seek further information in respect of Appropriate Assessment.

17.2.7. Prescribed Bodies

17.2.8. As summarised in Section 11.2.1 above, An Taisce notes how the proposed development lies adjacent to the Cork Harbour SPA and raises concerns regarding potential impacts on designated Natura 2000 sites. Specific reference is made to the risk of disturbance to roosting, nesting, and foraging for the abundant bird species at Cork Harbour SPA due to dredging and construction activity. The submission notes the potential adverse effects on subtidal fauna, mussel beds, and macro-invertebrate

species at or near the Cork Harbour SPA, which may serve as food sources for Special Conservation Interest (SCI) bird species and other marine ecosystem services. An Taisce also identifies the risk of underwater noise impacts on Annex IV species (e.g., cetaceans), including Permanent and Temporary Threshold Shifts, and recommends mitigation measures such as the use of Acoustic Deterrent Devices, Marine Mammal Observers, Air Bubble Curtains, and Passive Acoustic Monitoring. Concerns are also raised regarding biosecurity risks from locally sourced infill material, the sufficiency of the timeframe of the marine mammal observer survey, and the need to confirm the absence of seagrass habitats before dredging commences. Additionally, a more comprehensive cumulative impact assessment is recommended, with particular regard to the identified sewage discharge point, waste facility, and nearby wastewater treatment catchment area.

17.2.9. Inland Fisheries Ireland raises concerns about the removal of an existing mussel bed and the permanent loss of c. 3 hectares of shellfish habitat, fish nursery areas, and intertidal zones, which serve as feeding grounds. While these concerns are not framed in the context of potential impacts on Natura 2000, they relate to ecological receptors potentially relevant to the conservation objectives of Cork Harbour SPA. IFI recommends that counterbalancing measures be agreed upon to offset habitat loss and that dredging activities be prohibited during the draft net salmon season.

17.2.10. The Development Applications Unit (DHLGG) does not raise any specific concerns regarding Appropriate Assessment. The Commissioners of Irish Light advise that any Appropriate Assessment should consider the potential impact of deploying surface marking buoys and associated moorings, where required, as part of the development.

17.2.11. Third-Party Submissions

17.2.12. The Irish Whale and Dolphin Group (IWDG) submission raises concerns regarding the absence of reference in the EIAR to the resident bottlenose dolphin population in Cork Harbour, as identified by the NPWS in 2025, and the potential for adverse effects on Annex II and Annex IV marine mammal species, including bottlenose dolphin, harbour porpoise and harbour seal, arising from underwater noise during piling and dredging. The use of Acoustic Deterrent Devices (ADDs) is considered contrary to current DAHG (2014) guidance, and the proposed application

of Passive Acoustic Monitoring (PAM) is inadequate. The IWDG notes the lack of underwater noise modelling for piling and blasting, as well as the assessment of noise abatement systems (e.g., bubble curtains), and recommends that acoustic modelling be undertaken to inform mitigation measures that avoid disturbance or injury to marine mammals, in accordance with the Habitats Directive.

17.3. Screening for Appropriate Assessment – Stage 1:

- 17.3.1. I have carried out a screening exercise for Appropriate Assessment (AA) in accordance with the requirements of Section 177U of the Planning and Development Act 2000 (as amended). This screening is provided in Appendix 1 of this report and is based on the application documentation, including the Screening for Appropriate Assessment and Natura Impact Statement Report submitted by the Applicant, and relevant submissions received.
- 17.3.2. Having regard to the characteristics of the proposed development, the nature of the receiving environment, and the site's proximity and connectivity to Natura 2000 European Sites, I am satisfied that sufficient information is available to enable a screening determination to be made.
- 17.3.3. In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of the information considered in this AA screening, I conclude that it is not possible to exclude that the proposed development alone will give rise to significant effects on Cork Harbour SPA (Site Code 004030) and Great Island Channel SAC (001058) in view of the sites' conservation objectives. On this basis, I determine that Appropriate Assessment is required. This determination is based on:
- The proximity of the development site to Cork Harbour SPA (c. 0.4km to the northwest) and Great Island Channel SAC (c. 4.8km to the north), both of which are located within the potential zone of influence of the project.
 - The hydrological and ecological connectivity between the site of the proposed development and these designated Natura 200 European sites.
 - The potential for construction phase-related impacts, including noise, lighting, vibration, disturbance, and sediment mobilisation from dredging and piling works.

- The risk of surface water pollution or accidental spillage during construction could affect water quality within the European sites.
- The potential for indirect impacts on intertidal and estuarine habitats supporting qualifying interests.
- The likelihood of impacts during the operation phase, including increased vessel activity, underwater noise, sediment disturbance, and human presence, leading to disturbance or displacement of waterbird species.
- The absence of mitigation measures at the screening stage which prevents ruling out likely significant effects on the basis of best scientific knowledge.
- The need to assess the effects of the proposed development alone, in view of the conservation objectives of the relevant European sites.

17.4. Appropriate Assessment - Stage 2:

17.4.1. The Conservation Objectives and Qualifying Interests, including any relevant attributes and targets for the relevant European Sites, are set out below.

17.4.1.1. **Table 1: European Sites and their connectivity to the site.**

European sites	Qualifying Interests	Direct line distance to the site	Links
Cork Harbour SPA Site Code: 004030	[A004] Little Grebe [A005] Great Crested Grebe [A017] Cormorant [A028] Grey Heron [A048] Shelduck [A050] Wigeon [A052] Teal [A054] Pintail	c. 0.4 km to the northwest	Hydrological and Ecological.

	[A056] Shoveler [A069] Red-breasted Merganser [A130] Oystercatcher [A140] Golden Plover [A141] Grey Plover [A142] Lapwing [A149] Dunlin [A156] Black-tailed Godwit [A157] Bar-tailed Godwit [A160] Curlew [A162] Redshank [A179] Black-headed Gull [A182] Common Gull [A183] Lesser Black-backed Gull [A193] Common Tern [A999] Wetlands		
Great Island Channel SAC Site Code: 001058	[1140] Mudflats and sandflats not covered by seawater at low tide [1330] Atlantic salt meadows	c. 4.8km to the north	Hydrological and Ecological

17.4.2. Description of European Sites

17.4.3. A description of these Natura 2000 European sites likely to be affected, the species and habitats significantly present on the site (designating features) and their conservation objectives is provided below.

17.4.3.1. **Cork Harbour SPA (Site Code: 004030)**

17.4.4. The NPWS site synopsis for the SPA (dated 21.1.2015) describes Cork Harbour as a large, sheltered bay system, with several river estuaries including the Rivers Lee, Douglas, Owenboy, and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek, and the Rostellan and Poul nabibe inlets.

17.4.5. Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macroinvertebrates. Green algae species occur on the flats, especially *Ulva* spp. Cordgrass has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered throughout the site, providing high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also contains some marginal wet grassland areas used by feeding and roosting birds.

17.4.6. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the species as listed in Table 1 above. The SPA Site Synopsis describes how Cork Harbour is of major ornithological significance, being of international importance due to its total numbers of wintering birds (i.e., > 20,000) and for its Black-tailed Godwit and Redshank populations. In addition, it supports nationally important wintering populations of 22 species and a nationally important breeding colony of Common Tern. Several species that occur regularly are listed on Annex I of the E.U. Birds Directive, i.e., Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull, and Common Tern. The site provides feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site, and part of Cork Harbour SPA is a Wildfowl Sanctuary.

17.4.6.1. **Great Island Channel SAC (Site Code: 001058)**

17.4.7. The NPWS site synopsis for the SAC (dated 24.09.2013) describes how the Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour, which contains several other sites of conservation interest. Geologically, Cork Harbour consists of two large areas of open water in a limestone basin, separated from each other and the

open sea by ridges of Old Red Sandstone. Within this system, Great Island Channel forms the eastern stretch of the river basin and, compared to the rest of Cork Harbour, is relatively undisturbed. Within the site is the estuary of the Owennacurra and Dungourney Rivers. These rivers, which flow through Middleton, provide the main source of freshwater to the North Channel.

- 17.4.8. The site is a Special Area of Conservation (SAC) selected for the habitats and/or species listed on Annex I / II of the E.U. Habitats Directive, as listed in Table 1 above, i.e. Tidal Mudflats and Sandflats and Atlantic Salt Meadows. The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. These muds support a range of macroinvertebrates. Green algal species occur on the flats, especially *Ulva lactuca* and *Enteromorpha* spp. Cordgrass has colonised the intertidal flats in places, especially at Rossleague and Belvelly. The salt marshes are scattered through the site and are all of the estuarine type on mud substrate. Species present include Sea Purslane, Sea Aster, Thrift, Common Saltmarsh-grass, Sea Plantain, Greater Sea-spurrey, Lax-flowered Sea-lavender, Sea Arrowgrass, Sea Mayweed and Red Fescue.
- 17.4.9. The Site Synopsis describes how the site is extremely important for wintering waterfowl and is considered to contain three of the top five areas within Cork Harbour, namely North Channel, Harper's Island and Belvelly-Marino Point. Shelduck is the most frequent duck species with 800-1,000 birds centred on the Fota/Marino Point area. There are also large flocks of Teal and Wigeon, especially at the eastern end. Waders occur in the greatest density north of Rosslare, with Dunlin, Godwit, Curlew and Golden Plover the commonest species. A population of about 80 Grey Plover is a notable feature of the area. All the mudflats support feeding birds; the main roost sites are at Weir Island and Brown Island, and to the north of Fota at Killacloyne and Harper's Island. Ahanesck supports a roost also but is subject to disturbance. The numbers of Grey Plover and Shelduck, as given above, are of national importance.
- 17.4.10. The site is an integral part of Cork Harbour, which is a wetland of international importance for the birds it supports. Overall, Cork Harbour regularly holds over 20,000 waterfowl and contains internationally important numbers of Black-tailed Godwit (1,181) and Redshank (1,896), along with nationally important numbers of nineteen other species. Furthermore, it contains large Dunlin (12,019) and Lapwing (12,528)

flocks. All counts are average peaks, 1994/95 – 1996/97. Much of the site falls within Cork Harbour Special Protection Area, an important bird area designated under the E.U. Birds Directive. While the main land use within the site is aquaculture (oyster farming), the greatest threats to its conservation significance come from road works, infilling, sewage outflows and possible marina developments. The site is of major importance for the two habitats listed on Annex I of the E.U. Habitats Directive, as well as for its important numbers of wintering waders and wildfowl. It also supports a good invertebrate fauna.

17.4.11. **Conservation Objectives**

17.4.12. The Conservation Objectives for the Cork Harbour SPA and the Great Island Channel SAC note that the overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. The favourable conservation status of a habitat is achieved when:

- Its natural range, and the area it covers within that range, are stable on increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable.

17.4.13. The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

17.4.13.1. ***Conservation Objectives for the Cork Harbour SPA (004030)***

17.4.14. Detailed Conservation Objectives for the Cork Harbour SPA (004030) are included in the NPWS Conservation Objectives Series for the site, dated 16th December 2014. The overarching Conservation Objective for Cork Harbour SPA is to

ensure that waterbird populations and their wetland habitats are maintained at, or restored to, favourable conservation condition. This includes, as an integral part, the need to avoid habitat deterioration and significant disturbance, thereby ensuring the persistence of site integrity. The site should contribute to the maintenance and improvement, where necessary, of the overall favourable status of the national resource of waterbird species, and to the continuation of their long-term survival across their natural range. Specific Conservation Objectives include the following:

Objective 1: To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest species listed for Cork Harbour SPA.

Objective 2: To maintain the favourable conservation condition of the wetland habitat at Cork Harbour SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

17.4.14.1. *Conservation Objectives for the Great Island Channel SAC (001058)*

17.4.15. Conservation Objectives for the Great Island Channel SAC (001058) are included in the NPWS Conservation Objectives Series for the site, dated 06th June 2014, with the overall objective being to maintain or restore the favourable conservation status of habitats and species of community interest. Specific Conservation Objectives include the following:

- To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in the Great Island Channel SAC.
- To restore the favourable conservation condition of Atlantic salt meadows in the Great Island Channel SAC.

17.4.16. Tables 2 and 3 below detail the qualifying interests, conservation objectives, and the attributes and targets of these designated Natura 2000 European Sites.

17.4.17. **Table 2: Cork Harbour SPA (004030) - Summary of Qualifying Interests, Conservation Objectives, Attributes and Targets.**

Species Code	Species Name	Conservation Objective	Attributes and Targets
A005, A017, A028, A048, A050, A052, A054, A056, A069, A130, A140, A141, A142, A149, A156, A157, A160, A162, A164, A179, A182, A183	Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank, Black-headed Gull, Common Gull, Lesser Black-backed Gull	Maintain the favourable conservation condition	Maintain stable or increasing populations. Ensure no significant reduction in the range, timing or intensity of use of areas by the species, other than that occurring from natural patterns of variation.
A193	Common Tern	Maintain the favourable conservation condition	Maintain breeding population. Maintain Prey biomass. Prevent barriers to connectivity and disturbance to breeding sites.
A999	Wetlands	Maintain the favourable conservation condition	Maintain extent and quality of wetland habitats.

17.4.18. **Table 3: Great Island Channel SAC (001058) - Summary of Qualifying Interests, Conservation Objectives, Attributes and Targets.**

Species Code	Species Name	Conservation Objective	Attributes and Targets
1140	Mudflats and sandflats not covered by seawater at low tide	Maintain favourable conservation condition.	Maintain the habitat area as stable/increasing. Conserve mixed sediment to sandy mud with polychaetes and oligochaetes community complex.
1330	Atlantic salt meadows	Restore favourable conservation condition	Maintain the habitat area as stable/increasing. Maintain the range of coastal habitats, including transitional zones. Maintain more than 90% area outside creeks vegetated. Maintain range of sub-communities. No significant expansion of common cordgrass with an annual spread of less than 1% where it is known to occur,

17.4.19. **Description of the proposed development**

17.4.20. As detailed in Section 3.0 above, the Port of Cork Company is seeking a ten-year planning permission to complete the redevelopment of existing port facilities at Ringaskiddy, Co. Cork, previously permitted under ABP Ref PA04.PA0035, as modified by PM04.PM0010, P.A. Ref. 304437-19, and P.A. Ref. 310847-21. The proposed works are located within the operational Ringaskiddy Port, which includes the Cork Container Terminal (CCT1) at Ringaskiddy East and the existing Deepwater Berth (DWB) at Ringaskiddy West, as well as an extension of the existing CCT yard, improvements to the internal road networks and ancillary works including lighting and fencing.

17.4.21. At Ringaskiddy East, the proposed development comprises the construction of an additional 200m Container Berth (CCT2), involving a combi-quay wall with tubular steel piles and concrete casting. Works would include dredging the seabed to a level of -13.0 m Chart Datum (CD), installing a link span comprising a floating pontoon and access bridge, installing container-handling cranes, and the erection of lighting and fencing.

17.4.22. At Ringaskiddy West, the proposal comprises a 182m extension to the existing Deepwater Berth (DWB), forming a filled quay structure of c. 231m in length, extending no further seaward than the existing DWB. Dredging would be undertaken to varying depths to facilitate navigational access and the installation of lighting. Ancillary works include improvements to the internal road network at Ringaskiddy East to facilitate access to the future N28, with associated drainage, lighting, and fencing. Fill material would be imported as required, and there would be temporary areas for the storage of construction materials, oils and fuels.

17.4.23. Key construction activities would include dredging by trailing hopper suction dredger/backhoe dredging, combi-wall piling, in-situ concrete casting, and stormwater management measures. Operational activities would comprise maintenance dredging of navigational areas, road drainage (management of stormwater), discharge of waste and bilge water from vessels, and the movement of vehicles and gantry cranes.

17.4.24. The proposed works are located in an industrialised area with an existing baseline of port-related noise and activity. As detailed in Table 4.1 of the NIS, the development footprint includes habitats such as spoil and bare ground, recolonising bare ground, buildings and artificial surfaces, sea walls/piers/jetties, scrub, and treelines, with no Annex I habitats recorded in the Ringaskiddy Port Redevelopment area. Butterfly-Bush was the only Alien Invasive Species recorded on site.

17.4.25. Given the site location directly adjacent to Cork Harbour, the proposed works have hydrological and potential ecological connectivity to the Cork Harbour SPA (004030) and the Great Island Channel SAC(001058). Potential impact pathways during construction and operation include the release of sediment, hydrocarbon or contaminant runoff, noise, vibration and disturbance, which may affect the qualifying interests and special conservation interests of these Natura 2000 sites.

17.4.26. **Potential Significant Effects**

17.4.27. The NIS identifies potential impacts on the Qualifying Interests (QIs) / Special Conservation Interests (SCIs) and Conservation Objectives of European Sites hydrologically and potentially ecologically connected to the proposed development, specifically the Cork Harbour SPA (004030) and the Great Island Channel SAC(001058), as detailed in Sections 5, 9, and 10 of the NIS. For the Great Island Channel SAC, these qualifying interests include intertidal mudflats and sandflats not covered by seawater at low tide and Atlantic salt meadows. For the Cork Harbour SPA, these interests include a range of waterbird species and wetland habitats, as detailed in Tables 1 and 2 above.

17.4.28. The potential effects on the integrity of these European Sites alone are considered in terms of hydrological connectivity for the Great Island Channel SAC, as well as hydrological connectivity and species disturbance for the Cork Harbour SPA. The NIS identifies the potential impacts which could occur to habitats and species as a result of the proposed works, including:

- Loss of qualifying habitat or species within the SPA or SAC due to the release of sediments into watercourses within the proposed development site during the works.
- Loss of qualifying habitat or species within the SPA or SAC due to the release of other pollutants, such as oils and petrochemicals, into watercourses within the proposed development site during the works.

17.4.29. The potential effects on the Cork Harbour SPA and Great Island Channel SAC are identified in further detail in the NIS and are summarised as follows:

17.4.29.1. ***Cork Harbour SPA (Site Code: 004030) - Potential Impacts***

- There is the potential for the transport of sediment from the site of the proposed development to Cork Harbour via surface water run-off, which may alter the structural conditions of supporting habitats of the SCI species. Increased sedimentation in Cork Harbour would negatively alter the conditions of SCI habitats, potentially causing significant effects on the SCI species.
- The potential for the release of suspended solids and contaminants (e.g., oils, petrochemicals) to Cork Harbour during construction activities could lead to the

deterioration of water quality and have potential impacts on aquatic habitats and species.

- The potential release of contaminants (e.g., oils, petrochemicals) could lead to the accumulation of toxic compounds in prey items (e.g., fish, invertebrates, molluscs, and aquatic plants), reducing prey availability. The ingestion of contaminated prey items may cause the morbidity or death of SCI species.
- There is a risk of disturbance to bird species listed as Special Conservation Interests (SCIs) for Cork Harbour SPA from increased noise, visual disturbance, and human activity during the construction and operation phases.
- The potential significant effects could affect the range, timing, or intensity of use of areas by SCI species, contrary to their conservation objectives.
- There is the potential for loss or degradation of habitats that support Qualifying Interests (QIs) and SCIs through accidental pollution incidents, sedimentation, or other indirect effects.
- There is the potential for the spread of invasive alien species due to the movement of construction vessels, equipment, and materials, which may introduce or facilitate the spread of non-native organisms (e.g., *Spartina*) to the SAC or SPA.
- There is the potential for cumulative effects when considered in combination with other ongoing or planned projects in the Cork Harbour area, leading to impacts on the designated sites.

17.4.29.2. *Great Island Channel SAC (Site Code: 001058) - Potential Impacts*

- An influx of sediment from the project site could negatively alter the condition of the mudflats and sandflats.
- The consumption of prey items contaminated with petrochemicals could lead to morbidity or mortality of qualifying interest species.
- Contamination by oils or petrochemicals could lead to plant morbidity or death, and thus the vegetation structure and composition may be negatively affected.
- Increased sediment deposition could lead to an increase in the area available for colonisation by saltmarsh vegetation.

- The NIS notes how in salt marshes, vegetation is most often exposed at low tide but submerged at high tide. A pathway, therefore, exists for these plants to come into direct contact with contaminated water.
- Sediment loading from the proposed development would not be considered as 'natural' circulation and could affect the physical structure of the habitat, including creek and pan morphology.
- Contamination by oils or petrochemicals could lead to plant morbidity or death, potentially affecting vegetation structure, zonation, height, cover, and species composition.
- Increased sedimentation could lead to increased opportunity for the spread of *Spartina anglica*, an invasive non-native species.

17.4.30. The NIS also identifies the following potential sources of impact that could give rise to adverse effects on biodiversity, protected habitats, and species within the zone of influence of the proposed scheme during both the construction and operational phases, subject to the presence of a complete source–pathway–receptor link:

- Physical damage - Degradation to and modification of protected habitats, which could occur in working areas and along access routes where construction works are undertaken. This could be temporary or permanent and may encroach on habitats such as scrub, treelines, and embankments that could facilitate otter activity.
- Disturbance (noise/visual) - Noise and visual disturbance from construction activities, and to a lesser extent during the operation phase (e.g., maintenance, public access), could cause sensitive species such as birds to deviate from normal behaviour, resulting in stress, increased energy expenditure, or species mortality.
- Changes in water quality - Activities such as inundating contaminated or nutrient-enriched land and sediment mobilisation could impact water quality, adversely affecting habitats and species such as macroinvertebrate communities.
- Pollution - The release of pollutants (to water, air, or ground) during construction works could directly impact habitats and the species they support.

- Invasive species - There is the potential for the rapid spread of invasive species, including within wetlands across Cork Harbour, with associated legal implications if not treated.

17.4.31. The NIS also outlines the predicted impacts of the proposed development, identifying key risks during the construction phase which, if left unmitigated, could adversely affect habitats, species, and the ecological integrity of connected Natura 2000 sites. General Impacts of key ecological receptors include:

- Habitat loss - Some habitat loss would occur to facilitate the construction of flood defences. This would consist of mostly bare/recolonising bare ground, with limited loss of surrounding scrub and treelines.
- Habitat fragmentation - Any loss of treelines and/or scrub would result in habitat fragmentation, leading to the displacement of wildlife and fracture of ecological corridors, which would inhibit the movement of species through the area.
- Habitat degradation - Potential impacts include the risk of pollution of Cork Harbour and the conversion of wooded habitat to built land. Water quality impacts arising during the construction and operation phases have the potential to affect habitats and species directly and indirectly. Water quality deterioration could arise from accidental pollution events or increased stormwater overflow incidents.
- Disturbance - Temporary noise, vibration, lighting, and visual disturbance during construction may affect species within and beyond the construction site footprint.
- Direct mortality - Possible mortality as a result of site clearance, tree felling, and vegetation removal, particularly affecting nesting birds during March-August.
- Indirect mortality - Hydrocarbon contamination may cause physiological harm to fish (e.g., delayed maturation, embryo malformation, and suppressed gene expression), with subsequent risks to SCI bird species dependent on fish prey, potentially leading to ill-health or death.

17.4.32. **Cumulative and In Combination effects**

17.4.33. The NIS identifies potential cumulative and in-combination effects of the proposed development with other plans, projects, and activities. The assessment drew on the Cork County Development Plan 2022–2028, Cork County Council Planning

Search Database, DHPLG EIA Portal, National Planning Application Database (DoHPLG, Feb 2024), and general web searches for major infrastructure projects within 2 km of the site over the past three years. The NIS reviewed plans and projects that are completed, approved but incomplete, or proposed (but not yet approved). The findings are detailed in Table 6-3 of the NIS, which are summarised as follows:

- Cork County Development Plan 2022-2028 - No potential for in-combination effects is identified. The Plan was subject to Stage 1 and Stage 2 Appropriate Assessment, where it concluded that, subject to implementing mitigation measures, the Plan would not give rise to any significant effects on designated European sites, alone or in-combination with other plans or projects.
- Port of Cork Masterplan 2050 - Individual emerging projects would be subject to their own environmental assessment, planning, and marine consent requirements. No in-combination effects would occur if no projects are delivered in the same timeframe as the proposed development.
- Indaver Resource Recovery Centre (Ref . PA0045 / 318802) - No potential for in-combination effects is identified. The NIS for the development concluded that there would be no likely significant effects on Natura 2000 sites.
- Other smaller-scale developments within 2 km pf the site e.g., an enclosure for a test rig (PA Ref. 217291), port-related cargo storage (Ref. 224356), replacement conveyor system (Ref. 224577), research container unit (Ref. 235531), and a micro-generation wind turbine (Ref. 236365) - All were screened for AA and found unlikely to cause significant negative effects. On this basis, the NIS concludes that there is no potential for in-combination effects.

17.4.34. **Mitigation Measures**

17.4.35. Section 12 of the NIS sets out the proposed general and specific mitigation measures to avoid the potential for any direct or indirect impacts to the QIs/SCIs habitats and species identified as being at risk. The proposed mitigation measures are summarised as follows:

17.4.35.1. General Mitigation Measures

- All site construction would be undertaken in accordance with CIRIA (2015) Environmental Good Practice on Site.
- The contractor would prepare a site-specific CEMP before work commences, incorporating all listed mitigation measures implemented during the construction and operational phases.
- The site compound would be within the site boundary and >50m from watercourses, with only construction plant and materials stored there.

17.4.36. I note that the NIS states that “there shall be no water abstraction from or discharges to Shannon River or Abbey River from the construction activities on the site”. This is not location correct for the subject site and should correctly refer to Cork Harbour/site drains as appropriate. In the absence of reference elsewhere in the NIS, it is reasonable to assume that this is a typographical error.

17.4.36.1. Surface Water Protection

17.4.37. The NIS details a range of controls to prevent deterioration of water quality pathways to Cork Harbour SPA and Great Island Channel SAC, as follows:

- Monitoring of water quality during the operation phase in accordance with an EPA licence needed to undertake the proposed works, including sampling and testing to demonstrate compliance.
- The site development manager would consider prevailing weather conditions and time of year when planning the removal of vegetation, soil, existing concrete, and/or general construction works to minimise adverse effects.
- Fuelling and lubrication of equipment would not be carried out within 10m of watercourses and would only be undertaken in designated bunded areas.
- Refuelling would be carried out using 110% capacity double-bunded mobile bowzers operated by trained staff. Spill containment equipment would be used for bowzers.
- Plant nappies/absorbent mats would be placed under the refuelling point during all refuelling to absorb drips.
- Mobile bowzers, tanks, and drums would be stored in a secure, impermeable storage area, away from drains and open water.

- Only mechanically sound vehicles/machinery with up-to-date service records would be permitted on-site.
- Any oil leaks/spills would be immediately contained. Oil-absorbent booms would block dirty-water drains. All contaminated material would be disposed of at a licensed facility.
- An oil spill kit containing absorbing pads and socks would be kept at the site compound and in site vehicles and machinery.
- The Site Environmental Representative would be immediately informed of any oil leak/spill and assess the cause and the management of the clean-up of the leak or spill. They would inspect nearby drains for the presence of oil and initiate the cleanup if necessary.

17.4.37.1. Noise and Vibration

- Incorporate BS 5228-1:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) within the CEMP.
- Keep enclosure panels closed on mobile cranes, HGVs, excavators and loaders.
- Switch off mobile plant when not in use and fit more effective exhaust silencers where appropriate.
- Erect acoustic screens (no gaps, minimum 7 kg/m² surface mass and minimum 2.4 m high) in specified locations for the duration of works.
- No machinery would be left running outside agreed operation hours. Late evening/early morning noise would be limited when otters and other mammals are more active.

17.4.37.2. Birds

- Restrict the removal of woody vegetation from September to February (non-breeding season). If works must occur from 1st March to 31st August, an ecologist would undertake a breeding bird check immediately prior to vegetation clearance. Where nests are present, an NPWS licence would be required for any nest destruction/ disturbance, under Section 40 of the Wildlife Acts.

- Adhere to the surface-water protective mitigation measures to protect watercourses used by waterbirds and avoid contamination of mudflats, sandflats, and water bodies where birds forage in the harbour.
- When piling, avoid sudden loud noises where practicable to reduce startling/displacement of resident and breeding birds.
- Protect treelines and scrub as suitable nesting habitats. Remove only what is necessary and mark root protection areas for trees to be retained. No machinery shall enter these areas.

17.4.37.3. *Alien Invasive Species*

- Construction machinery would be visually inspected and power-washed prior to arrival at the site to avoid the importation of invasive species.
- Pre-check all excavation/access areas for invasive species and fence off affected locations. No machinery shall enter unless instructed, and appropriate management measures are put in place.

17.4.37.4. *Operation Phase Mitigation Measures*

- The NIS states that as part of the Port of Cork Environmental Management System (EMS), the Port is required to monitor surface water, groundwater, noise and dust to ensure compliance with EPA standards, thereby protecting surrounding receptors during the operation phase.

17.4.37.5. *Monitoring*

The NIS details proposed monitoring arrangements during the construction/pre-construction and operation phases, to verify the effectiveness of mitigation and compliance with consent/licence requirements. These include, *inter alia*, the following;

- A professional ecologist would design a Species Protection Plan to ensure that proposed works consider any protected bird species on site and the nearby surroundings.

- An Ecological Clerk of Works (ECoW) would be employed to monitor the works under license and inform the team through Ecological Toolbox Talks during the proposed works and tree felling activities.
- The ECoW would conduct a pre-construction survey of the scheme to highlight locations where environmental mitigation is required before construction works commence on the site.
- A minimum of 1 no. ECoW visits would be conducted each week during the course of the construction work. The ECoW would be present on-site during the commencement of works.
- Once planning permission has been secured, pre-construction ecology surveys would be carried out within the proposed scheme area well in advance (ideally 3-4 months before construction works) to ensure that sufficient updated information is available to inform derogation licence applications as required.
- Upon completion of construction, monitoring would be carried out to determine the success of the measures employed. Monitoring would be continued for at least one year after construction work ceases. Any remedial works would be undertaken by the qualified Ecologist.

17.4.38. **Assessment of Potential Effects and Mitigation Measures**

17.4.39. Having reviewed and considered the Natura Impact Statement, the EIAR and their associated appendices, as well as the submissions received, I have undertaken my own assessment of the potential impacts of the proposed development in view of the conservation objectives and qualifying interests of the relevant Natura 2000 European sites. My assessment and conclusions are set out under the headings below.

17.4.39.1. ***Cork Harbour SPA (Site Code: 004030)***

17.4.40. Regarding sediment release and deterioration in water quality, it is my view that dredging and construction activities could adversely affect the structural conditions of supporting habitats of the SCI bird species. However, having reviewed the NIS, I am satisfied on the basis of the proposed mitigation measures, including the implementation of the CEMP, use of silt curtains, bunded storage/refuelling areas,

strict refuelling protocols, and supervision by an ecologist, that direct and indirect effects would be effectively prevented in the short and long term during both the construction and operation phases.

17.4.41. Regarding the contamination of prey items, it is my view that there is the risk of contaminants entering the food chain, which could affect the availability of prey for SCI waterbird species. I acknowledge the concerns raised by An Taisce regarding the potential for dredging to affect benthic invertebrates, which provide prey for SCI bird species. However, having reviewed the NIS, I am satisfied that the proposed mitigation measures, including the management of surface water, CEMP, silt curtains, fuel handling controls and monitoring under the Port of Cork's Environmental Management System (EMS), would prevent significant adverse effects on prey biomass and foraging resources for SPA bird species, and thereby prevent adverse impacts on the population of SCI species.

17.4.42. I have considered the potential for noise, vibration, lighting, and human/port activities to disturb SCI bird species, as raised in the submission received by An Taisce. It is my view that the proposed mitigation measures, including seasonal restrictions on the clearance of vegetation, noise and vibration controls in accordance with BS 5228, the erection of acoustic screening, piling noise protocols, and the use of sensitive directional lighting as detailed in the EIAR, are proportionate and reasonable. I am satisfied that these mitigation measures would prevent significant disturbance to SCI bird species and ensure that the SPA conservation objectives of maintaining their stable population and the range and timing of use of habitats are met.

17.4.43. I note the potential for habitat loss or degradation in the SPA from accidental pollution, sedimentation, or other indirect construction impacts. I am satisfied that the presence of a qualified ECoW to oversee the construction of the proposed development would prevent potential adverse impacts on SCI species and their supporting habitats.

17.4.44. Regarding the risk of the spread of the invasive alien species as noted in the submission by An Taisce, I am satisfied that the proposed mitigation measures, including the washing down of machinery, the surveying and fencing off of invasive species, and the implementation of a management plan, are appropriate and would effectively prevent the spread of invasive species that could compromise the

conservation objectives of the SPA. Nonetheless, a condition should be imposed in the event of a grant of permission requiring the implementation of an Invasive Species Management Plan, setting out measures for the prevention, detection, and treatment of invasive alien species during construction and operation.

17.4.45. I have reviewed other plans and projects in the surrounding area of Cork Harbour. Having regard to the conclusions of other relevant assessments and taking into consideration the proposed mitigation measures, I am satisfied that no significant in-combination effects would occur. On this basis, I am satisfied that the proposed development, subject to the implementation of the proposed mitigation measures and appropriate conditions, would not adversely affect the integrity of the Cork Harbour SPA, in view of its conservation objectives, and that no reasonable scientific doubt remains as to the absence of such effects.

17.4.45.1. Great Island Channel SAC (Site Code: 001058)

17.4.46. I have considered whether activities during the construction and operation phases would cause direct loss or degradation of habitats within the Great Island Channel SAC. Given that the proposed works would be confined to the existing port footprint, no Annex 1 habitats would be directly affected. It is my view that, subject to the implementation of the proposed mitigation measures and supervision by an ecologist, there would be no significant adverse effects on the SAC.

17.4.47. I have considered the risk of increased sediment deposition arising from dredging and construction activities. This could negatively alter the physical structure and condition of the mudflats and sand flats and indirectly affect associated invertebrate communities. It is my view that the proposed mitigation measures, including, *inter alia*, the implementation of a site-specific CEMP, use of silt curtains (as stated in Chapter 15 of the EIAR), sediment traps, settlement lagoons, and supervision by an ECoW would prevent adverse direct or indirect effects on the structure and function of the mudflats and sandflats.

17.4.48. I have considered the potential for hydrocarbon or petrochemical contamination of intertidal habitats and associated communities, which could adversely affect the availability of vegetation and prey. I am satisfied that the proposed mitigation measures, including the controls on fuel handling, bunded storage, refuelling

protocols, and emergency spill procedures, would be sufficient to prevent significant adverse effects on the conservation objectives of the SAC and its qualifying interests.

17.4.49. I note the potential for vegetative damage or mortality in the Atlantic salt meadows if they are exposed to contaminated runoff or sedimentation. However, I am satisfied that the proposed surface water protection mitigation measures, site-specific CEMP, construction methods, and proposed monitoring measures would prevent significant adverse effects on the mudflats, sandflats, and Atlantic salt meadows in the SAC.

17.4.50. Given the distance of the SAC from the site of the proposed development (c. 4.8km), I am satisfied that the proposed mitigation measures, including the inspection and washing of machinery, fencing of infested areas, and the implementation of an invasive species management plan, would prevent the spread of invasive species to the SAC.

17.4.51. I have reviewed the potential for in-combination effects with other plans or projects in the surrounding area in Cork Harbour. Having regard to the conclusions of other relevant assessments and taking into consideration the proposed mitigation measures, I am satisfied that no significant adverse cumulative or in combination effects on the qualifying interests of the Great Island SAC would occur. On this basis, I am satisfied that the proposed development, subject to the implementation of the proposed mitigation measures, would not adversely affect the integrity of the Great Island Channel SAC in view of its conservation objectives and that no reasonable scientific doubt remains as to the absence of such effects.

17.4.52. **Integrity Test**

17.4.53. Following my appropriate assessment and having considered the proposed mitigation measures, I am able to ascertain with confidence that the proposed development would not adversely affect the integrity of the Cork Harbour Special Protection Area (SPA) or the Great Island Channel Special Area of Conservation (SAC) in view of the Conservation Objectives of those sites. This conclusion is based on a comprehensive assessment of all project implications, both individually and in combination with other plans and projects. Table 4 below summarises the Appropriate Assessment and Site Integrity Test, which confirms that adverse effects on site integrity can be excluded.

17.4.53.1. **Table 4: Appropriate Assessment Summary: Impacts on European Sites and Conservation Objectives**

European Site and Code	Qualifying Interests	Conservation Objectives	Targets and attributes	Summary of Appropriate Assessment			Can adverse effects on integrity be excluded?
				Potential adverse effects (summarised)	Mitigation measures	In-combination effects	
Cork Harbour SPA (004030)	Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Knot, Dunlin, Black-	Maintain favourable conservation conditions of SCI species and wetland habitats.	Stable or increasing populations. No significant reduction in range, timing, or intensity of use. Maintain the extent and quality of wetland habitats.	Sediment release altering habitat structure. Contamination by hydrocarbons/petrochemicals affecting water quality and prey availability. Disturbance from noise, visual, and human activity. Potential spread of invasive species. Habitat loss or degradation	Site-specific CEMP, as per CIRIA (2015) best practice. Surface water protection (bunded storage, spill kits, silt traps). Refuelling protocols. Noise/vibration control. Seasonal restrictions on vegetation clearance.	No significant in-combination effects identified	Yes, with the implementation of mitigation measures.

	tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank, Black-headed Gull, Common Gull, Lesser Black-backed Gull, Common Tern; Wetlands				Management of invasive species. Ecological monitoring by ECoW. Port of Cork EMS monitoring.		
Great Island Channel SAC (001058)	Mudflats and sandflats not covered by seawater at low tide. Atlantic salt meadows.	Maintain/restore the favourable conservation condition of habitats.	Maintain stable/increasing habitat area. Maintain habitat structure, function, and vegetation composition. Prevent the spread of <i>Spartina anglica</i>	Deposition of Sediment altering mudflat/habitat structure. Contamination affecting vegetation and invertebrate prey. Colonisation by invasive <i>Spartina</i> . Hydrocarbon pollution. Degradation of habitats	Site-specific CEMP in accordance with CIRIA (2015) best practice. Surface water protection (designated fuelling areas, spill containment).	No significant in- combination effects identified	Yes, with the implementation of mitigation measures

					<p>Sediment control (silt curtains, settlement lagoons). Management of invasive species. Ecological monitoring (ECoW)</p>		
		<p>Overall conclusion: Integrity test</p> <p>Following the implementation of the identified mitigation measures, the construction and operation of the proposed Ringaskiddy Port Redevelopment would not adversely affect the integrity of the Cork Harbour SPA or the Great Island Channel SAC, in view of their Conservation Objectives, and no reasonable scientific doubt remains as to the absence of such effects.</p>					

17.4.54. Appropriate Assessment Conclusion

17.4.55. The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000, as amended.

17.4.56. Having screened for Appropriate Assessment, it was concluded that the proposed development may significantly affect the Cork Harbour SPA (Site Code: 004030) and the Great Island Channel SAC (Site Code: 001058). Consequently, an Appropriate Assessment was required to determine the implications of the project on the qualifying features of those sites in light of their conservation objectives.

17.4.57. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of European Site Nos. 004030 and 001058 or any other European site, in view of the sites' Conservation Objectives.

17.4.58. This conclusion is based on a comprehensive and detailed assessment of all aspects of the proposed development, including proposed mitigation measures in relation to the Conservation Objectives of these European sites and an assessment of likely in-combination effects with other plans and projects. No reasonable scientific doubt remains as to the absence of adverse effects on the integrity of these European Sites.

18.0 Water Framework Directive (WFD) Assessment

18.1.1. As identified on the EPA catchments datasets, the proposed development is located in the South-Western River Basin District (SWRBD), within and adjacent to the Cork Harbour Coastal Water Body (Site Code: IE_SW_060_0000), which is designated a Heavily Modified Water Body (HMWB) under the Water Framework Directive. Given the direct hydrological connection and potential for pressures on water quality, hydromorphology, and protected areas, a Water Framework Directive Assessment is required to determine whether the proposed development could cause a deterioration in the status or compromise the achievement of Good Ecological Potential (GEP) or other WFD objectives.

18.2. Stage 1 Screening: Nature of the Project, the Site and Locality

- 18.2.1. The proposed development, as described in detail in Section 3.0 above, comprises the completion and operation of port facilities at Ringaskiddy East and West, as originally permitted under ABP Ref. PA04.PA0035, as amended. Proposed works, in summary, consist of the construction of a 200m container / multi-purpose berth at Ringaskiddy East, a new 182m extension to the existing deepwater berth (DWB) at Ringaskiddy West, improvements to the internal road network at Ringaskiddy East, dredging, infilling, installing a link-span comprising a floating pontoon and an access bridge, and ancillary works, including services, lighting and fencing. The proposed works are located within Cork Harbour, which is a heavily used and highly modified estuary environment.
- 18.2.2. The nature, scale, and location of the proposed development create a clear Source-Pathway-Receptor linkage to the Cork Harbour and to adjacent transitional and coastal water environments. On this basis, the proposed development cannot be screened out and requires progression to Stage 2 - Scoping (more detailed Screening) and Stage 3 - Water Status Impact Assessment.

18.3. Stage 2 - Scoping:

18.3.1. Relevant Water Bodies and Status

- 18.3.2. The relevant water body is the Cork Harbour Coastal Water Body (Code: IE_SW_060_0000), which is designated a heavily Modified Water Body for port and harbour use. Its ecological status is classified as 'Moderate', with an objective to achieve Good Ecological Potential by 2027. Its chemical status is classified as 'failing to achieve good' (SW 2016-2021) and overall is classified as 'At Risk' under the WFD.
- 18.3.3. WFD waterbodies within 2km of the site include Outer Cork Harbour-Coastal (IE_SW_050_0000), which has a WFD Status of 'Moderate', and Lough Mahon - Transitional (IE_SW_060_0750) with a WFD Status of 'Moderate', as well as Nutrient Sensitive Waters and Designated Shellfish Waters at Rostellan. Other WFD waterbodies in the Overall Cork Harbour System include North Channel Great Island (IE_SW_060_0300 / WFD Status - Moderate and At Risk), Owenboy Estuary

(IE_SW_060_1200 / WFD Status - Moderate and At Risk) and Owenacurra Estuary (IE_SW_060_0400 / WFD Status - Moderate and At Risk).

18.3.4. Designated Natura 2000 European Sites within 5km of the site include Cork Harbour SPA and Great Island Channel SAC. There are no groundwater abstractions within or near the site, and the proposed development does not introduce any new significant pathways to groundwater. I consider, therefore, that the risk to groundwater would be negligible.

18.3.5. **Source – Pathway – Receptor Linkages**

18.3.6. The main sources of potential pressure are the release of suspended solids and fine sediments from dredging and reclamation activities, the washout of cement or fine material during the construction of the quay, and fuel or chemicals entering Cork Harbour water during the construction phase. During the operation phase, sources of potential pressure include stormwater carrying hydrocarbons or suspended solids if not effectively managed. Works would also physically alter sections of the shoreline and berth pockets. There is also the risk of the transfer of invasive non-native species from marine plant and vessels.

18.3.7. The primary pathways are direct marine connections to the Cork harbour water body, with tidal dispersion and deposition of suspended solids influencing transport and settlement patterns. Stormwater paths exist via surface water drainage that discharges to the harbour via existing outfalls equipped with interceptors.

18.3.8. Receptors include the ecological quality elements of the coastal water body, benthic habitats such as the local mussel beds near the ADM jetty, features of the SPA that could be indirectly affected via water quality pathways, and designated shellfish waters.

18.3.9. **Scoping Determination**

18.3.10. It is my view that the proposed development presents potential risks to hydromorphology, water quality during construction, local benthic habitats, the spread of invasive non-native species, and the integrity of protected areas through water-quality pathways.

18.4. Stage 3 - Water Status Impact Assessment:

- 18.4.1. I have examined the EIAR, WFD Assessment (Appendix 7.1), and associated documentation submitted with the application. I have also considered the submissions from prescribed bodies, Cork County Council, third parties and the applicant's response to the submissions. It is my view that, during the construction phase, the main risks to the deterioration of the Cork Harbour water body relate to suspended solids and turbidity from dredging and reclamation activities, and the potential for accidental releases of hydrocarbons or chemicals. However, I consider these risks would be short-term and spatially limited. The sediment plume modelling presented in Section 13.5.2 of the EIAR shows that suspended solids concentrations would remain localised to the immediate dredge areas, with average suspended sediment concentrations across the wider harbour area remaining very low. Peak concentrations would be short-lived, occurring only during dredging activity, and dispersing rapidly beyond the dredge head. The modelling shows that sediment plumes from dumped dredged material at the licensed disposal site during the capital dredging operations would remain largely confined to the licensed disposal site, with only minor, short-lived dispersion beyond its boundary. I consider that, with the implementation of the proposed mitigation and continuous monitoring of turbidity, there would be no realistic risk of status deterioration or a failure to achieve water quality standards.
- 18.4.2. During the operation phase, risk pathways would be effectively controlled. Stormwater from hardstanding areas would be routed through three-stage oil interceptors and sediment traps. Bilge water would be treated in accordance with MARPOL standards, and offshore de-ballasting protocols would be undertaken in accordance with International Maritime Organisation (IMO) Guidelines, preventing nutrient or contaminant discharges to the harbour. While sampling of interceptor discharges has occasionally shown elevated levels of suspended solids or metals, as per Section 14.3.1.2 of the EIAR, I consider that these can be managed through routine maintenance and audits. These measures would be sufficient to prevent significant effects on the ecological or chemical status of the Cork Harbour water body.
- 18.4.3. The proposed physical alterations to the harbour basin and adjacent shoreline would be localised and within the extent of existing modifications that determine the water body's Heavily Modified designation. Maintenance dredging demand would remain at

current levels. Modelling in the EIAR shows that there would be no large-scale change to the hydromorphology of the water body at the site. I consider that the proposed physical modifications would not result in a further deterioration of the status of the Cork Harbour water body.

18.4.4. I have considered cumulative effects alongside existing licensed discharges, the routine maintenance dredging of the port, and other permitted developments within Cork Harbour. There would be no additional nutrient inputs from the proposed development, and therefore, it would not contribute to the elevated dissolved inorganic nitrogen levels in the water body. Modelling in the EIAR confirms that sediment plumes from the licensed offshore disposal site would disperse rapidly, with suspended solids levels returning to background within c.2km of the disposal boundary. It is my view that no cumulative deterioration in the water quality of Cork Harbour would occur as a result of the proposed development.

18.4.5. The proposed mitigation measures, combined with enforceable conditions, would prevent significant effects. These include:

- Continuous in-situ water quality monitoring during dredging and reclamation, with agreed trigger levels and adaptive management protocols.
- Controlled use of pre-cast or fast-set concrete to minimise washout.
- Bunded storage for hydrocarbons and chemicals, with strict spill-response procedures.
- Stormwater routing through interceptors and sediment traps, with regular inspection and maintenance.
- Marine operational compliance with MARPOL standards to control bilge water, de-ballasting, and waste.
- Implementation of an invasive non-native species management plan to reduce introduction and spread risk.

18.4.6. I consider these measures proportionate and sufficient to ensure compliance with the WFD objective of preventing status deterioration and supporting progress towards Good Ecological Potential.

18.5. Determination

18.5.1. I conclude that the proposed development would not cause deterioration in the status of the Cork Harbour water body and would not prevent the achievement of Good Ecological Potential by 2027, as required under the River Basin Management Plan 2022 – 2027 and the Water Action Plan 2024. The proposed development complies with the requirements of Article 4 of the Water Framework Directive. Accordingly, there is no requirement for an Article 4(7) derogation under the European Community (Water Policy) Regulations 2003 (S.I. 722 of 2003), as amended.

19.0 Recommendation

19.1. Subject to the conditions below, I recommend that permission be granted.

20.0 Reasons and Considerations

20.1.1. The Commission performed its functions in relation to the making of its decision, in a manner consistent with Section 15(1) of the Climate Action and Low Carbon Act 2015, as amended by Section 17 of the Climate Action and Low Carbon Development (Amendment) Act 2021, (consistent with the most recent approved, Climate Action Plan 2025, national long term climate action strategy, national adaptation framework and approved sectoral adaptation plans, the furtherance of the national climate objective, and the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State).

20.1.2. In coming to its decision, the Commission had regard to the following:

(a) European, national, regional and local planning, energy, climate and other policy of relevance, including in particular the following:

European Policy/Legislation, including:

- Directive 2000/60/EC (Water Framework Directive)
- Directive 2008/56/EC (Marine Strategy Framework Directive)
- Directive 92/43/EEC (Habitats Directive)
- Directive 2009/147/EC (Birds Directive)

- Directive 2011/92/EU, as amended by 2014/52/EU (EIA Directive)
- Directive 2014/89/EU (Maritime Spatial Planning Directive)
- Directive 2008/98/EC (Waste Framework Directive)
- Directive 2006/118/EC (Groundwater Directive)
- Directive 2008/105/EC, as amended by 2013/39/EU (Environmental Quality Standards)
- Regulation (EU) No 1315/2013 (TEN-T Guidelines)
- Regulation (EU) No 1143/2014 (Invasive Alien Species)
- MARPOL 73/78 (International Convention for the Prevention of Pollution from Ships)

National Policy and Guidance, including:

- Project Ireland 2040 - National Planning Framework (2018)
- National Development Plan (2021-203)
- National Marine Planning Framework (2021)
- National Ports Policy (2013)
- Climate Action Plan (2025)
- River Basin Management Plan for Ireland 2022–2027
- Water Action Plan (2024)
- South Coast Designated Maritime Area Plan (DMAP)
- Offshore Renewable Energy Development Plan (ORED II)
- National Adaptation Framework (2018)
- National Biodiversity Action Plan 2023–2030

Regional and Local Policy, including in particular:

- Southern Regional Spatial and Economic Strategy 2020–2032
- Cork Metropolitan Area Strategic Plan (within the Southern RSES)
- Cork Metropolitan Area Transport Strategy 2040 (NTA)

- Cork County Development Plan 2022–2028
- Ballincollig-Carrigaline Municipal District Local Area Plan 2017.
- Cork City Development Plan 2022–2028
- Port of Cork Masterplan 2050

(b) The location, nature, scale and layout of the proposed development,

(c) The range of mitigation measures set out in the Environmental Impact Assessment Report, Natura Impact Statement and WFD Assessment,

(d) The submissions received in relation to the application by all parties.

(e) The Inspector's report and recommendation.

20.2. Proper Planning and Sustainable Development

20.2.1. It is considered that, subject to compliance with the conditions set out below, the proposed development would be in accordance with relevant European, national, and regional policies supporting the completion and sustainable growth of port infrastructure, which would facilitate international trade and the efficient movement of goods at this Tier 1 port. The proposed development is in accordance with the provisions of the Cork County Development Plan 2022-2028, would not seriously injure the visual or residential amenities of the area or otherwise of property in the vicinity, and would not have an unacceptable impact on the character of the landscape, on cultural or archaeological heritage, or on protected ecological features. It would be acceptable in terms of traffic and transport safety, enhance the Port of Cork's operational capacity, and positively contribute to national, regional and local economic development. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

20.3. Environmental Impact Assessment Conclusion

20.3.1. The Commission completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures proposed as set out in the Environmental Impact Assessment Report, and subject to compliance with the conditions set out below, the effects of the

proposed development on the environment, by itself and in combination with other plans and projects in the vicinity, would be acceptable. In doing so, the Commission adopted the report and conclusions of the Inspector.

20.4. Appropriate Assessment Conclusion

- 20.4.1. The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000, as amended.
- 20.4.2. Having screened for Appropriate Assessment, it was concluded that the proposed development may significantly affect the Cork Harbour SPA (Site Code: 004030) and the Great Island Channel SAC (Site Code: 001058). Consequently, an Appropriate Assessment was required to determine the implications of the project on the qualifying features of those sites in light of their conservation objectives.
- 20.4.3. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of the Cork Harbour SPA (Site Code: 004030) and the Great Island Channel SAC (Site Code: 001058), or any other European site, in view of the sites' Conservation Objectives.
- 20.4.4. This conclusion is based on a full and detailed assessment of all aspects of the proposed development, including proposed mitigation measures in relation to the Conservation Objectives of these European sites and an assessment of likely in-combination effects with other plans and projects. No reasonable scientific doubt remains as to the absence of adverse effects on the integrity of these European Sites.

20.5. Water Framework Directive Assessment Determination

- 20.5.1. The proposed development has been considered in light of the assessment requirements of Article 4 of the Water Framework Directive (2000/60/EC) and the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003), as amended.
- 20.5.2. It is concluded that the proposed development would not cause deterioration in the status of the Cork Harbour water body and would not prevent the achievement of Good

Ecological Potential by 2027, as required under the River Basin Management Plan 2022-2027 and the Water Action Plan 2024. The proposed development complies with the requirements of Article 4 of the Water Framework Directive. Accordingly, there is no requirement for an Article 4(7) derogation under the European Community (Water Policy) Regulations 2003 (S.I. 722 of 2003), as amended.

21.0 Conditions

1.	<p>The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed upon with the Planning Authority, the developer shall agree to such details in writing with the Planning Authority prior to the commencement of development, and the development shall be carried out and completed in accordance with the agreed-upon particulars.</p> <p>Reason: In the interest of clarity.</p>
2.	<p>Apart from any departures specifically authorised by this permission, the development shall be completed, operated and maintained in accordance with the conditions of the parent permission ABP Ref. PA04.PA0035, as amended by ABP Ref. PM04.PM0010, P.A. Ref. 304437-19 and P.A. Ref. 310847-21, except where those conditions are expressly modified or superseded by the conditions set out below.</p> <p>Reason: To ensure continuity with the conditions attached to the parent permission while providing for the authorised modifications under this permission.</p>
3.	<p>The period during which the development hereby permitted may be carried out shall be 10 years from the date of this Order.</p> <p>Reason: Having regard to the nature of the development, the Commission considers it appropriate to specify a period of validity of this permission in excess of five years.</p>

4.	<p>The mitigation and monitoring measures contained in the submitted Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS), and Water Framework Directive (WFD) Assessment shall be carried out in full, except where otherwise required by conditions attached to this permission.</p> <p>Reason: In the interests of protecting the environment, the integrity of European Sites, and public health.</p>
5.	<p>The attenuation and disposal of surface water shall comply with the requirements of the Planning Authority for such works and services. Prior to the commencement of development, the developer shall submit details for the disposal of surface water from the site for the written agreement of the planning authority.</p> <p>Only clean, uncontaminated storm water shall be discharged to the surface water drainage system.</p> <p>Reason: To prevent flooding and in the interests of sustainable drainage.</p>
6.	<p>Prior to the commencement of development, the developer shall submit, for the written agreement of the Planning Authority, a comprehensive Construction Environmental Management Plan (CEMP). The CEMP shall incorporate all commitments and mitigation measures set out in the Environmental Impact Assessment Report, the Natura Impact Statement, the WFD Assessment, and the conditions of this permission.</p> <p>The CEMP shall incorporate and be implemented in conjunction with the detailed environmental management plans required under conditions hereunder, including the Dredging and Soil Management Plan, the Water Quality Management Plan, the Groundwater and Soil Management Plan, the Underwater Noise and Marine Mammal Mitigation Plan, and the Dust and Emissions Management Plan.</p> <p>The CEMP shall include, but not be limited to, the following:</p> <p>(a) Noise and Vibration</p> <ul style="list-style-type: none"> • Restricted hours for high-noise activities, including piling, blasting and drilling, to be confined to daytime hours (07:00-19:00). No night-time

	<p>piling shall take place unless otherwise agreed in writing with the Planning Authority following consultation with the National Parks and Wildlife Service and in accordance with the approved Underwater Noise and Marine Mammal Mitigation Plan.</p> <ul style="list-style-type: none"> • A complaints protocol and advance notification procedures for residents. • Real-time noise and vibration monitoring during the construction phase at agreed sensitive receptors, with exceedances triggering immediate mitigation and, where necessary, temporary cessation of works. <p>(b) Dust and Air Quality</p> <ul style="list-style-type: none"> • Real-time or periodic dust and particulate monitoring at agreed boundary locations, commensurate with site activity levels and in accordance with best practice. • Weather-based suspension of bulk handling/earthworks during high-risk periods. • Enclosure or mist suppression at material transfer points. • Haul route management and wheel washing. <p>(c) Water Environment</p> <ul style="list-style-type: none"> • Sediment and pollution control measures. • Bunding of fuel and chemical storage with secondary containment. • Protocols for underwater concreting using precast or fast-set mixes. • Emergency spill and incident response procedures. • Implementation of the approved Dredging and Disposal Management Plan and Water Quality Monitoring Plan, including any agreed real-time turbidity and suspended solids monitoring requirements. <p>(d) Soils and Groundwater</p> <ul style="list-style-type: none"> • A Groundwater and Soil Management Plan detailing handling, temporary storage, reuse, and disposal of excavated materials and dredge arisings. • Monitoring and reporting to detect and respond to leaks or discharges.
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	<p>(e) Biodiversity and Ecology</p> <ul style="list-style-type: none"> • Timing restrictions to avoid sensitive bird breeding or wintering periods where practicable. • Exclusion buffers around known high-tide roosts and other key ecological features. • Lighting controls to limit spill to intertidal areas and flight corridors. • Biosecurity protocols to prevent the introduction or spread of invasive alien species. <p>(f) Coastal Processes</p> <ul style="list-style-type: none"> • Method statements for dredging, piling, and reclamation works. • Emergency response procedures for unplanned releases or breaches. <p>(g) Site Management and Safety</p> <ul style="list-style-type: none"> • Detailed risk assessments and method statements for all major construction activities. • Procedures for lifting operations and exclusion zones. • Emergency contacts and communication protocols. • Arrangements for environmental auditing and reporting during construction. <p>The development shall thereafter be carried out and completed in accordance with the agreed CEMP. Monitoring records and compliance reports shall be submitted to the Planning Authority on a quarterly basis, or as otherwise agreed, and shall be made available for inspection upon request.</p> <p>Reason: To protect human health, amenity, biodiversity, and the receiving environment, and to ensure compliance with national and EU environmental standards during construction.</p>
7.	<p>Prior to the commencement of capital dredging, the developer shall submit, for the written agreement of the Planning Authority, a Dredging and Disposal Management Plan. The Plan shall detail dredging methods, sequencing, and environmental controls. Hopper overspill shall be</p>

	<p>prohibited. The Plan shall specify daily tonnage limits and shall provide for load-tracking and reporting of dredge volumes, locations, and disposal runs. Timing restrictions shall be applied to avoid peak ecological sensitivity periods.</p> <p>Reason: In the interest of controlling sediment mobilisation and disposal activities and protecting coastal processes and the wider estuarine environment.</p>
8.	<p>Prior to the commencement of any dredging, infilling, disposal, or in-water works, the developer shall submit for the written agreement of the Planning Authority a detailed Water Quality Monitoring Plan. The plan shall specify the programme of real-time water quality monitoring (including turbidity and suspended sediment) to be implemented during all dredging, infilling, disposal and in-water works, and shall include the following;</p> <ul style="list-style-type: none"> • Monitoring locations, parameters, and thresholds; • Real-time data reporting arrangements; • Frequency of compliance reporting (monthly during construction and quarterly during operation, or as otherwise agreed in writing). <p>Threshold values shall be agreed in advance with the Planning Authority. Exceedances shall trigger immediate adaptive mitigation measures, including cessation or modification of works, in accordance with the agreed plan.</p> <p>All capital and maintenance dredging shall be undertaken using a no-overspill method, in accordance with the approved monitoring plan.</p> <p>Reason: To ensure early detection and effective management of plume behaviour, and to safeguard water quality, benthic habitats, and marine ecological receptors.</p>
9.	<p>Prior to the commencement of development, the developer shall submit for the written agreement of the Planning Authority a Groundwater and Soil Management Plan. The Plan shall include, <i>inter alia</i>, the following;</p> <ul style="list-style-type: none"> • Procedures for the handling, temporary storage, reuse and disposal of excavated soil and material from terrestrial works and piling.

	<ul style="list-style-type: none"> • Measures to minimise risks to groundwater from construction activities and piling, including containment of fuels and chemicals, sealing of temporary storage areas, and provision of impermeable surfaces in refuelling and batching zones. • Procedures for identifying, testing and managing any contaminated groundwater encountered during excavation or piling, including collection, treatment through a three-stage interceptor, or disposal at a suitable licensed waste facility, in accordance with the requirements of the local authority. • Testing of all imported topsoil and fill materials to ensure compliance with Waste Acceptance Criteria (WAC) in accordance with BS EN 12457/3, and chemical analysis against generic assessment criteria for commercial/industrial use to confirm that imported materials are inert and do not pose a risk to human health or groundwater through leaching. • Monitoring and reporting protocols to detect and respond to leaks, spills or contamination incidents. • Emergency procedures for containment, remediation, and notification of the Planning Authority in the event of accidental release or groundwater contamination. <p>The development shall thereafter be carried out and completed in accordance with the agreed plan.</p> <p>Reason: To protect groundwater and soil quality, prevent pollution and ensure compliance with best environmental practice.</p>
10.	<p>Prior to the commencement of any piling, blasting, or dredging works, the developer shall submit, for the written agreement of the Planning Authority, an Underwater Noise and Marine Mammal Mitigation Plan, prepared having regard to the 2014 Guidelines of, and following engagement with, the National Parks and Wildlife Service (NPWS). The plan shall include:</p>

	<ul style="list-style-type: none"> • Site-specific acoustic modelling of predicted underwater sound propagation and exposure levels, with contours identifying injury and disturbance zones for marine mammals. • Modelling of the predicted effectiveness of the proposed mitigation measures, including soft-start procedures, Acoustic Deterrent Device (ADD), and other noise abatement systems, to confirm that cumulative sound exposure levels remain below recognised injury and disturbance threshold levels. • Injury and disturbance thresholds applied in the modelling shall reflect current NPWS guidance and internationally recognised criteria for marine mammal functioning hearing groups, appropriate to the proposed sound sources. • Noise reduction measures, which may include soft-start procedures and the use of bubble curtains or equivalent technologies appropriate to site conditions. • Marine Mammal Observer (MMO) protocols and Passive Acoustic Monitoring (PAM) in accordance with NPWS (2014) Guidance to Manage the Risk to Marine Mammals from Man-Made Sources in Irish Waters and having regard to international best practice guidance including ACCOBAMS (2022) Guidance on Underwater Noise Mitigation Measures and JNCC (2025) Guidelines for Minimising the Risk of Injury to Marine Mammals from Explosive Use in the Marine Environment. • Procedures for adaptive management and immediate cessation of works in the event of non-compliance or significant risk to protected species. <p>No piling, blasting, or dredging shall commence until the Planning Authority has confirmed in writing its agreement to the plan.</p> <p>Reason: To minimise the risk of injury or disturbance to marine mammals and other protected species in accordance with national and international guidance.</p>
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11.	<p>Prior to commencement of development, the developer shall submit, for the written agreement of the Planning Authority, a site-specific Dust and Emissions Management Plan. The plan shall include:</p> <ul style="list-style-type: none"> • A schedule of high-dust-risk activities with corresponding suppression measures, including water spraying, wheel washing, and covering of stockpiles. • Real-time PM10 monitoring at agreed sensitive receptor locations, with protocols to halt or adjust works if trigger levels are exceeded. • Dust deposition monitoring in accordance with TA Luft guidelines, ensuring that annual average dust deposition levels do not exceed 350mg/m²/day at sensitive receptors, unless otherwise agreed with the Planning Authority. • A complaints and response protocol for nearby residents/occupants. <p>Reason: To protect the residential amenities of the area, human health, and the environment during the construction and operational phases of the development.</p>
12.	<p>Dredging and piling shall not take place during periods of peak ecological sensitivity, including salmonid migration and shellfish spawning, unless otherwise agreed in writing with the Planning Authority in consultation with Inland Fisheries Ireland and NPWS.</p> <p>Reason: To avoid significant disturbance to sensitive species during key ecological periods.</p>
13.	<p>Noise emissions from the operational development shall not exceed the following external noise limits, measured at the nearest noise-sensitive receptor:</p> <ul style="list-style-type: none"> • Daytime (07:00–19:00): 55 dB LAeq,1hr • Evening (19:00–23:00): 50 dB LAeq,1hr • Night-time (23:00–07:00): 45 dB LAeq,15min <p>Where tonal or impulsive characteristics are present, a penalty shall be applied in accordance with BS 4142.</p>

	<p>Reason: To safeguard the amenities of noise-sensitive properties in the vicinity.</p>
14.	<p>Prior to the operation of the development, the developer shall submit, for the written agreement of the Planning Authority, a Noise Management Plan (NMP). The Noise Management Plan shall:</p> <ul style="list-style-type: none"> • Specify noise control measures, including broadband or level-adaptive reversing alarms for site vehicles and mobile equipment. • Set out maintenance schedules for noise barriers and operational plant. • Provide for periodic operational noise audits and corrective actions where exceedances are identified. <p>Reason: To ensure that noise from operations is managed and controlled in the interest of residential and environmental amenity.</p>
15.	<p>The developer shall implement and maintain a Noise and Vibration Compliance Monitoring Programme for the operational phase of the development, consistent with the commitments made in the Environmental Impact Assessment Report. The programme shall:</p> <ul style="list-style-type: none"> • Include periodic noise and vibration monitoring at agreed locations. • Provide quarterly reports to the Planning Authority, identifying any exceedances, investigations, and corrective actions undertaken. • Include a review of operational noise performance within 12 months of the commencement of operations, with recommendations for any additional mitigation where required. <p>Reason: To ensure ongoing compliance with agreed noise and vibration limits and to protect local amenity and the environment.</p>
16.	<p>A long-term monitoring programme for air quality shall be implemented during the operational phase of the development, in agreement with the Planning Authority. The programme shall:</p> <ul style="list-style-type: none"> • Build upon the existing Bergerhoff dust monitoring regime at the Port of Cork, ensuring data continuity.

	<ul style="list-style-type: none"> • Monitor key pollutants, including PM10 and PM2.5, at agreed locations and intervals. • Submit annual air quality reports to the planning authority and make results available to the EPA, where relevant. • Include an adaptive management procedure to review, and where necessary, enhance mitigation measures if monitoring identifies exceedances or risks to sensitive receptors. <p>Reason: To protect human health and amenities.</p>
17.	<p>The annual throughput of the port facility shall not exceed 322,846 TEU until the M28 Cork to Ringaskiddy Motorway Scheme is completed and operational, unless otherwise agreed in writing by the Planning Authority in consultation with Transport Infrastructure Ireland. The developer shall submit annual throughput reports to the Planning Authority for monitoring purposes.</p> <p>Reason: To ensure traffic volumes remain within the existing network's capacity and to prevent significant congestion or safety impacts.</p>
18.	<p>The developer shall implement and maintain the Ringaskiddy Mobility Management Plan in full. The plan shall be submitted to, and agreed in writing, with the Planning Authority prior to the commencement of the permitted development. The plan shall:</p> <ul style="list-style-type: none"> • Schedule HGV entry and exit through a booking and automated gate system. • Extend operating hours to enable off-peak freight movements. • Manage HGV release to prevent peak-hour congestion. • Provide regular communication and guidance to hauliers on scheduling requirements. <p>The plan shall be updated annually, and any amendments shall be submitted to the Planning Authority for written agreement before implementation.</p>

	<p>Reason: To manage the timing and volume of port-related HGV traffic, reduce peak-hour congestion, and protect the efficiency and safety of the strategic road network.</p>
19.	<p>All port-related HGV traffic shall use the strategic road network, including the N28 (or the M28 once operational) and the N40, to access and egress the port. No port-related HGVs shall use local roads through Ringaskiddy village or other unsuitable routes except in exceptional circumstances, such as road closures, with prior agreement from the Planning Authority.</p> <p>Reason: To protect the safety and amenity of local road users and vulnerable pedestrians and cyclists in Ringaskiddy village.</p>
20.	<p>The developer shall ensure that no works associated with this development impede or alter the approved layout and design of the M28 Cork to Ringaskiddy Motorway Scheme. Any interface works required to integrate with the M28 shall be agreed in writing with Transport Infrastructure Ireland and the Planning Authority prior to commencement of such works.</p> <p>Reason: To safeguard the delivery and operational performance of the M28 scheme.</p>
21.	<p>Prior to commencement of development, the developer shall prepare and submit a detailed Construction Traffic and Logistics Management Plan for the written agreement of the Planning Authority. The plan shall include, at a minimum:</p> <ul style="list-style-type: none"> • Construction traffic routes, haul routes, and delivery scheduling, with restrictions to avoid AM and PM peak periods unless otherwise agreed. • Routing of construction traffic via the strategic road network only. • Measures to minimise disruption to local traffic and to protect vulnerable road users in Ringaskiddy village. • Safe arrangements for pedestrian, cyclist, and workforce access. • Procedures for road cleanliness, wheel washing, and dust suppression. • A system for monitoring, reviewing, and updating the plan throughout the construction phase.

	<p>The development shall thereafter be carried out in accordance with the agreed plan.</p> <p>Reason: To safeguard the capacity and safety of the road network, minimise disruption to the local community, and protect road user safety during construction.</p>
22.	<p>The developer shall provide and maintain active travel measures linking the port to the ferry terminal and other key internal facilities, in consultation with Cork County Council. These measures shall include safe pedestrian and cycle routes and appropriate wayfinding signage.</p> <p>Reason: To promote safe and sustainable access for port employees and visitors, in line with national and local transport policies.</p>
23.	<p>The developer shall monitor HGV and overall traffic volumes entering and exiting the port. An annual Traffic Monitoring Report shall be submitted to Cork County Council and Transport Infrastructure Ireland detailing traffic volumes, peak-hour profiles, and compliance with the Ringaskiddy Mobility Management Plan and throughput cap. Any non-compliance identified shall trigger corrective measures to be implemented within an agreed timeframe.</p> <p>Reason: To ensure ongoing compliance with traffic management measures and to protect the safety and efficiency of the surrounding road network.</p>
24.	<p>Any abnormal load movements associated with port operations, including wind energy components, shall be planned and scheduled in consultation with Transport Infrastructure Ireland and Cork County Council. Details of such movements shall be submitted to, and agreed in writing with, Cork County Council prior to the commencement of the movements. Such movements shall avoid peak periods unless otherwise agreed in writing.</p> <p>Reason: To ensure safe and efficient movement of abnormal loads while protecting network performance and public safety.</p>
25.	<p>Operational surface water drainage shall be designed, constructed, and maintained to incorporate sustainable drainage measures, including full retention oil interceptors and non-return valves. All such drainage</p>

	<p>infrastructure shall be installed, monitored, and maintained in accordance with the agreed Operational Environmental Management Plan. Records of inspection, maintenance, and testing shall be retained on site and made available for inspection by the Planning Authority upon request.</p> <p>Marine operations shall comply fully with MARPOL requirements. The discharge of untreated bilge or ballast water to harbour waters shall be prohibited.</p> <p>Reason: To prevent the discharge of contaminated surface water, to protect marine water quality and the wider harbour environment, and to ensure compliance with the Water Framework Directive objectives.</p>
26.	<p>All bunded storage, shut-off valves, and surface water interceptors shall be installed, inspected, and maintained in accordance with the specifications submitted with the application. A maintenance log shall be kept and made available for inspection by the Planning Authority upon request.</p> <p>Reason: To prevent the release of contaminants to the environment in the event of a spill, fire, or other incident.</p>
27.	<p>Pre- and post-dredging hydrographic and bathymetric surveys shall be undertaken and submitted to the Planning Authority. Any significant deviation from the approved disposal ground profile shall be reported without delay, and appropriate remedial measures shall be agreed and implemented to the satisfaction of the Planning Authority.</p> <p>Reason: To ensure compliance with licensed disposal practices and to maintain navigational and process stability within Cork Harbour.</p>
28.	<p>The developer shall employ a suitably qualified and experienced Ecological Clerk of Works (ECoW) for the duration of site clearance and construction. The ECoW shall carry out pre-construction surveys for otter, breeding birds, and bats, provide toolbox talks to site staff, and shall have the authority to halt works where unexpected ecological issues arise. The findings of all pre-construction surveys shall be submitted for the written agreement of the Planning Authority prior to commencement of the relevant works.</p>

	<p>Where pre-construction otter surveys identify holts or resting places within or adjacent to the works' footprint, site-specific protection measures shall be prepared by the ECoW and submitted for the written agreement of the Planning Authority prior to commencement. Shoreline access for otter shall be maintained throughout construction and operation.</p> <p>Reason: In the interest of protecting terrestrial and ornithological ecology.</p>
29.	<p>Prior to the commencement of any dredging or disposal activities, the developer shall prepare and submit for the written agreement of the Planning Authority a Benthic Habitat Reinstatement and Recovery Plan, prepared by a suitably qualified marine ecologist. The plan shall include, <i>inter alia</i>:</p> <ul style="list-style-type: none"> (a) baseline mapping of benthic habitats within the dredge and disposal areas; (b) measures to facilitate natural recolonisation or reinstatement of disturbed mussel beds and associated benthic habitats; (c) a programme of post-dredging monitoring to assess habitat recovery, including performance indicators and reporting intervals; and (d) adaptive management measures to be implemented where recovery targets are not achieved within the specified timeframe. <p>The plan shall be implemented in full as agreed.</p> <p>Reason: In the interest of protecting benthic habitats, ensuring the natural recovery of marine ecological communities, and safeguarding the environmental integrity of Cork Harbour.</p>
30.	<p>Prior to the installation of any permanent lighting, a comprehensive Lighting Strategy and Management Plan shall be prepared by a suitably qualified specialist and submitted to, and agreed in writing with, the Planning Authority. The plan shall include:</p> <ul style="list-style-type: none"> (a) the use of full cut-off luminaires, warm colour temperature lighting, and measures to minimise blue-light emissions;

	<p>(b) directional shielding, adaptive dimming, and curfew controls to minimise light spill to intertidal areas, flight corridors, and nearby sensitive receptors; and</p> <p>(c) confirmation that any navigational aids are designed and agreed with the Commissioners of Irish Lights.</p> <p>All lighting shall thereafter be installed and operated in accordance with the agreed plan.</p> <p>Reason: In the interests of safety, amenity, and the protection of ecological receptors, including birds and bats.</p>
31.	<p>All cranes, gantries, and tall lighting structures shall incorporate anti-perch features, details of which shall be submitted to and agreed in writing with the planning authority prior to installation.</p> <p>Reason: To prevent increased predation risk to sensitive bird species.</p>
32.	<p>An Invasive Species Management Plan shall be submitted for the written agreement of the Planning Authority prior to commencement. The plan shall set out measures for the prevention, detection, and treatment of invasive alien species during construction and operation.</p> <p>Reason: To prevent the introduction or spread of invasive alien species.</p>
33.	<p>The developer shall undertake ecological monitoring of bird activity and lighting effects during the first two wintering and breeding seasons following completion. Monitoring reports shall be submitted to the Planning Authority, together with any recommended adaptive measures, which shall thereafter be implemented in full.</p> <p>Reason: To confirm that effects on birds and bats do not exceed those assessed and to allow for adaptive management if necessary.</p>
34.	<p>All mitigation measures in relation to archaeology and cultural heritage, as set out in the EIAR, shall be implemented in full, except as may otherwise be required to comply with the conditions of this permission. The planning authority and the National Monuments Service shall be furnished with a final archaeological report describing the results of any archaeological investigative work/ excavation required, following the completion of all</p>

	<p>archaeological work on site and any necessary post-excavation specialist analysis. All resulting and associated archaeological costs shall be borne by the developer.</p> <p>Reason: To ensure the continued preservation [either in situ or by record] of places, caves, sites, features or other objects of archaeological interest</p>
35.	<p>Prior to the commencement of any site preparation, geotechnical investigations, dredging, reclamation, or construction works, the developer shall engage a suitably qualified Project Archaeologist (licensed under the National Monuments Acts), to carry out pre-development archaeological testing in areas of proposed underwater ground disturbance and to submit an updated archaeological impact assessment report for the written agreement of the planning authority, following consultation with the National Monuments Service, in advance of any site preparation works or groundworks, including site investigation works/dredging/underwater works and/or construction works. The report shall include an archaeological impact statement and mitigation strategy. Where archaeological material is shown to be present, avoidance, preservation in-situ, preservation by record and/or monitoring may be required. Any further archaeological mitigation requirements specified by the planning authority, following consultation with the National Monuments Service, shall be complied with by the developer. No site preparation and/or construction works shall be carried out on site until the archaeologist's report has been submitted to and approval to proceed is agreed in writing with the planning authority. The planning authority and the National Monuments Service shall be furnished with a final archaeological report describing the results of any subsequent archaeological investigative works and/or monitoring following the completion of all archaeological work on site and the completion of any necessary post-excavation work. All resulting and associated archaeological costs shall be borne by the developer.</p> <p>Reason: To ensure the continued preservation [either in situ or by record] of places, caves, sites, features or other objects of archaeological interest.</p>

36.	<p>The developer shall engage a suitably qualified (licensed eligible) archaeologist to monitor (licensed under the National Monuments Acts) all dredging and/or the implementation of agreed preservation in-situ measures associated with the development, as appropriate, following consultation with the Local Authority Archaeologist or the National Monument Service (NMS). Prior to the commencement of such works, the archaeologist shall consult with and forward to the Local Authority archaeologist or the NMS, as appropriate, a method statement for written agreement. The use of appropriate tools and/or machinery to ensure the preservation and recording of any surviving archaeological remains shall be necessary. Should archaeological remains be identified during the course of archaeological monitoring, all works shall cease in the area of archaeological interest pending a decision of the planning authority, in consultation with the National Monuments Service, regarding appropriate mitigation [preservation in-situ/excavation].</p> <p>The developer shall facilitate the archaeologist in recording any remains identified. Any further archaeological mitigation requirements specified by the planning authority, following consultation with the National Monuments Service, shall be complied with by the developer.</p> <p>Following the completion of all archaeological work on site and any necessary post-excavation specialist analysis, the planning authority and the National Monuments Service shall be furnished with a final archaeological report describing the results of the monitoring and any subsequent required archaeological investigative work/excavation required. All resulting and associated archaeological costs shall be borne by the developer.</p> <p>Reason: To ensure the continued preservation [either in situ or by record] of places, caves, sites, features or other objects of archaeological interest</p>
37.	<p>The developer shall implement the existing Port of Cork Waste Management Plan for the duration of construction and operation of the proposed development. The plan shall be kept under review and updated as necessary to reflect the specific requirements of this project. Any</p>

	<p>updates shall be submitted for the written agreement of the planning authority prior to implementation. An annual waste audit report, demonstrating compliance with the agreed plan and the proper recovery or disposal of construction and demolition waste, shall be submitted to the Planning Authority.</p> <p>Reason: To ensure sustainable waste management and environmental protection.</p>
38.	<p>The developer shall implement and maintain all flood risk mitigation and climate adaptation measures set out in the application and supporting documentation. Any material updates to these measures arising from revised climate projections during the lifetime of the development shall be notified to the planning authority and, where necessary, implemented following agreement.</p> <p>Reason: To ensure the development remains resilient to flood risk and climate-related hazards over its operational life.</p>

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

.Brendan Coyne
Senior Planning Inspector

14th November 2025

22.0 Appendix 1 - Screening for Appropriate Assessment

Screening for Appropriate Assessment Test for likely significant effects	
Step 1: Description of the project and local site characteristics	
Brief description of the project	<p>The Port of Cork Company seeks ten-year planning permission to complete the redevelopment of existing port facilities at Ringaskiddy, Co. Cork, previously permitted under ABP Ref. PA04.PA0035, as amended by PA04.PM0010, P.A. Refs. 304437-19 and 310847-21.</p> <p>At Ringaskiddy East, the proposed development comprises the construction of the remaining phases of a 200m container / multi-purpose berth, which is under construction in 4 phases, including (1) a combi wall quay wall, (2) concrete deck piling, (3) structural slab and (4) upper slab and yard surfacing. Proposed works also include dredging of the seabed to a level of -13 m Chart Datum (CD), the installation of a link-span comprising a floating pontoon and access bridge, the installation of container handling cranes, and ancillary works including services, lighting and fencing.</p>

	<p>At Ringaskiddy West, the proposed development comprises the extension to the existing Deepwater Berth (DWB), which would comprise a filled quay structure extending no further than the edge of the existing DWB, dredging works to varying levels to facilitate navigational access to the new facilities, and ancillary works, including services and lighting.</p> <p>The proposed development also comprises improvements to the internal road network at Ringaskiddy East and ancillary works, including lighting and fencing. Further details are provided in Section 3.0 of this report.</p>
<p>Brief description of development site characteristics and potential impact mechanisms</p>	<p>The site of the proposed development is located within the operational area of the Port of Cork at Ringaskiddy, adjacent to Cork Harbour in a heavily industrialised coastal environment. The site comprises reclaimed and existing port lands that include buildings and artificial surfaces (Habitat Code BL3), spoil and bare ground (ED2), recolonising bare ground (ED3), sea walls, piers and jetties (CC1), and areas of scrub (WS1) and treelines (WL2).</p> <p>The site is connected hydrologically to the Cork Harbour SPA (Site Code: 004030), which is located immediately adjacent, c. 0.4km to the northwest, and the Great Island Channel SAC (Site Code: 001058) via tidal waters,</p>

	<p>located c. 5 km to the north of the site. A detailed description of the site is provided in Section 2.0 of this report.</p> <p>Potential impact mechanisms during the construction and operation phases include the release of sediment, hydrocarbons and other pollutants into adjacent marine waters, noise and vibration emissions from piling and heavy machinery, and disturbance of SCI bird species through visual disturbance, lighting and acoustic impacts. These impacts could give rise to significant effects (direct and indirect) on habitats and species of conservation interest within connected Natura 2000 sites, particularly through deterioration in water quality, loss of habitats and flora, disturbance to faunal species and contamination of prey.</p> <p>The proposed development does not overlap any designated Natura 2000 European site but occurs within a defined 15 km Zone of Influence, with direct hydrological connectivity to sensitive estuarine and coastal ecosystems.</p>
Screening report	Yes
Natura Impact Statement	Yes

Relevant submissions	Cork County Council, An Taisce, DHLGH, Commissioners of Irish Lights, DoT, HSA, Inland Fisheries Ireland, MARA, TII.			
Step 2. Identification of relevant European sites using the Source-pathway-receptor model				
European Site (code)	Qualifying interests ¹ Link to conservation objectives (NPWS, date)	Distance from proposed development (km)	Ecological connections ²	Consider further in screening ³ Y/N
Cork Harbour SPA (004030)	23 SCI bird species, including Great Crested Grebe (A005), Cormorant (A017), Curlew (A160), Black-headed Gull (A179) and others. ConservationObjectives.rdl	Adjacent c. 0.4km to the northwest	Yes - Direct hydrological connection and physical proximity. Risk of disturbance to waterbirds, degradation of	Yes – see Step 3.

			intertidal habitats.	
Great Island Channel SAC (001058)	Atlantic salt Meadows (1330), Mudflats and Sandflats not covered by Seawater at low tide (1140) ConservationObjectives.rdl	c. 5 km north	Yes - hydrological connection via Lough Mahon and inner Cork Harbour tidal waters. Risk of indirect impacts through sediment or contaminant mobilisation.	Yes – see Step 3.

Step 3. Describe the likely effects of the project (if any, alone <u>or</u> in combination) on European Sites AA Screening matrix				
Site name Qualifying interests		Possibility of significant effects (alone) in view of the conservation objectives of the site*		
		Impacts	Effects	
Cork Harbour SPA (004030) <u>Qualifying Interests:</u> Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Teal, Pintail, Red-breasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed		The proposed development is located outside the SPA and involves no works within the designated site. During the Construction phase, potential impacts may arise from: <ul style="list-style-type: none"> Increased sedimentation and turbidity due to dredging and in-water works. 	Potential effects on the European Site during the construction phase may include: <ul style="list-style-type: none"> Disturbance or displacement of wintering and migratory bird species from nearby roosting or foraging areas. Reduction in prey availability due to sediment disturbance. 	

<p>Godwit, Curlew, Redshank, Black-headed Gull, Common Gull, Lesser Black-backed Gull, Common Tern, Wigeon, Shoveler, Wetland and Waterbirds</p>	<ul style="list-style-type: none"> ▪ Deterioration of water quality due to sedimentation disturbance and dispersal, or accidental contaminated spills. ▪ Noise, vibration, and visual disturbance from piling, dredging, and machinery. ▪ Increased human activity and movement on-site and in the water. ▪ Temporary habitat disturbance near intertidal feeding areas. ▪ Noise, lighting and vibration. <p>During the Operation phase, potential impacts may arise from:</p> <ul style="list-style-type: none"> ▪ Increased shipping and port activity, noise and lighting. ▪ Increased human presence and activity associated with port operations. ▪ Changes in sediment dynamics from port activities. 	<ul style="list-style-type: none"> ▪ Temporary decline in water quality potentially affecting bird foraging efficiency. <p>Potential effects on the European Site during the operation phase may include:</p> <ul style="list-style-type: none"> ▪ Disturbance or displacement of sensitive bird species due to increased vessel movements, construction noise, vibration, and human activity. ▪ Reduction in foraging opportunities if prey species are impacted by sediment disturbance, water quality issues. ▪ Reduced foraging efficiency or habitat usage by sensitive
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		<p>species in nearby intertidal areas due to increased visual disturbance or lighting at night.</p> <ul style="list-style-type: none"> ▪ The contamination of aquatic habitats in the SPA could lead to the accumulation of toxic compounds in prey items (e.g., fish, invertebrates, molluscs and aquatic plants) and thereby Bioaccumulation in the bird species of Special Conservation Interest at the SPA. Bioaccumulation of toxic compounds may cause morbidity or mortality in individuals. <p>These effects may have the potential to undermine the foraging success and habitat</p>
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		usage of QI bird species within the Cork Harbour SPA if not properly mitigated.
	Likelihood of significant effects from proposed development (alone): Yes - The possibility of significant effects cannot be ruled out without further analysis and assessment.	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
	Possibility of significant effects (alone) in view of the conservation objectives of the site As above	
	Impacts	Effects
Great Island Channel SAC (001058) <u>Qualifying Interests:</u>	There would be no direct land take or physical works within the SAC. During the Construction phase, potential impacts may arise from: <ul style="list-style-type: none"> ▪ Dredging and piling works in adjacent waters. 	Potential effects on the European Site during the construction phase might include: <ul style="list-style-type: none"> ▪ Indirect disturbance of sediment regimes affecting

<p>Mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows</p>	<ul style="list-style-type: none"> ▪ Increased turbidity and sedimentation. ▪ Potential for accidental spillage or contamination. ▪ Underwater noise and vibration from marine construction. ▪ Marine pollution from pile driving, dredging and the quay wall construction. <p>During the Operation phase, potential impacts may arise from:</p> <ul style="list-style-type: none"> ▪ Increased vessel movements and berthing activity. ▪ Sediment disturbance (e.g. from propeller wash) and changes in sedimentation patterns. ▪ Petrochemical contamination from operating vehicles ▪ Surface water runoff. 	<p>adjacent mudflats and salt meadows.</p> <ul style="list-style-type: none"> ▪ Smothering of benthic organisms and habitat alteration ▪ Degradation of water quality due to contaminated runoff or pollutants. ▪ Temporary disruption of ecological conditions supporting qualifying habitats. <p>Potential effects on the European Site during the operation phase include:</p> <ul style="list-style-type: none"> ▪ Alteration of the hydrodynamic or sedimentary regime, which would potentially alter the habitat composition of the SAC.
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		<ul style="list-style-type: none">▪ Contamination by petrochemicals or heavy sedimentation may cause morbidity or mortality of the SAC's polychaete/oligochaete community complex.▪ Underwater noise affecting benthic communities. <p>These effects may have the potential to undermine the structure and function of the QI mudflats and estuarine habitats if not properly mitigated.</p>
	Likelihood of significant effects from proposed development (alone): Yes	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Step 4 Conclude if the proposed development could result in likely significant effects on a European site		

It is not possible to exclude the possibility that the proposed development alone would result in significant effects on Cork Harbour SPA (004030) and Great Island Channel SAC (001058) from effects associated with disturbance, increased noise and activity, dredging, sedimentation, and potential deterioration in water quality during both the construction and operational phases. An Appropriate Assessment is required based on the possible effects of the project 'alone'. Further assessment in combination with other plans and projects is not required at the screening stage.

Screening Determination

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of the information considered in this AA screening, I conclude that it is not possible to exclude that the proposed development alone will give rise to significant effects on Cork Harbour SPA (004030) and Great Island Channel SAC (001058) in view of the sites' conservation objectives. On this basis, I determine that Appropriate Assessment is required. This determination is based on:

- The proximity of the development site to Cork Harbour SPA (c. 0.4 km) and Great Island Channel SAC (c. 5 km), both of which are located within the potential zone of influence of the project.
- The hydrological connectivity between the proposed development site and the designated European sites via Cork Harbour.
- The potential for construction-related impacts, including noise, lighting, vibration, disturbance, and sediment mobilisation from dredging and piling works.

- The risk of surface water pollution or accidental spillage during construction, which could affect water quality within the European sites.
- The potential for indirect impacts on intertidal and estuarine habitats supporting qualifying interests.
- The likelihood of operational phase impacts, including increased vessel activity, underwater noise, sediment disturbance, and human presence, leading to disturbance or displacement of waterbird species.
- The absence of mitigation measures at the screening stage which prevents ruling out likely significant effects on the basis of best scientific knowledge.
- The need to assess the effects of the proposed development alone, in view of the conservation objectives of the relevant European sites.

23.0 **Appendix 2**

23.1. **Consultation with Prescribed Bodies by the Applicant**

23.1.1. A copy of the application, accompanying documents (including the EIAR and NIS) and a copy of the public notice were sent by the Applicant to the following Prescribed Bodies, as detailed in the Schedule of Consultees submitted:

- The Department of Housing, Local Government and Heritage
- The Department of the Environment, Climate and Communications
- The Department of Transport
- The Department of Defence
- The Department of Agriculture, Food and the Marine
- The Department of Rural and Community Development
- The Environmental Protection Agency
- The Marine Institute
- The Marine Area Regulatory Authority
- An Taisce
- The Health and Safety Authority
- The Commission for Regulation of Utilities
- Inland Fisheries Ireland
- Fáilte Ireland
- Sustainable Energy Authority of Ireland
- EirGrid
- Commissioner of Irish Lights
- National Transport Authority
- Cork City Council
- Southern Regional Assembly
- The Irish Coastguard

24.0 **Appendix 3**

24.1. **Consultations with Prescribed Bodies by An Coimisiún Pleanála**

24.1.1. An Coimisiún Pleanála consulted with the following prescribed bodies, further to receipt of the direct application:

- The Health and Safety Authority
- National Transport Authority
- Uisce Éireann
- Cork County Council